



Joint Principles for Preventing and Managing PFAS in Biosolids

Harmful per- and poly-fluoroalkyl substances (PFAS) are an urgent public health and environmental issue facing communities across the United States. PFAS have been used for decades in a wide range of products and industries, persist in the environment, and pose risks to human health.

PFAS enter wastewater treatment systems through industrial, commercial, and domestic sources. These PFAS can end up in biosolids – the solid matter left at the end of the wastewater treatment process. The presence of PFAS in biosolids is the result of the continued manufacture and use of these compounds throughout society, including by households, as well as industrial discharges of PFAS to wastewater.

The three primary management practices for biosolids use and disposal are land application, incineration, and placement in solid waste landfills. The U.S. Environmental Protection Agency (EPA) estimates that in 2021, large publicly owned treatment works land applied 43% of their biosolids, landfilled 42%, and incinerated 14%. When biosolids are contaminated by PFAS, each management practice may pose potential risks. PFAS in biosolids is an issue that requires enhanced coordination across all levels of government, and across the water, solid waste, and agricultural sectors.

As EPA, states, and others develop policies, regulations, and other tools to address PFAS contamination in biosolids, the following *Principles for Preventing and Managing PFAS in Biosolids* define key areas for regulators and stakeholders to work collaboratively to ensure the fate and transportation of PFAS contaminated biosolids do not result in harm to human health or the environment.

Federal and state agencies, wastewater utilities, community partners, farmers and agribusinesses, engineers, environmental justice leaders, educators, residents, and businesses are all part of the solution. With these shared principles, the parties signed here affirm the importance of working collaboratively and strategically to make progress toward effectively managing biosolids and protecting public health.

Principles for Preventing and Managing PFAS in Biosolids

Protect communities. Continue to research, restrict, and remediate PFAS. Ensure community health is central to the management of biosolids and expand monitoring efforts to identify where and at what levels PFAS may be present in biosolids. Support practices and decision making using the best available data and technologies.

Reduce the discharge of PFAS to prevent the contamination of biosolids. One of the most effective near- and long-term solutions to reducing PFAS in biosolids is to prevent PFAS from entering wastewater treatment facilities in the first place. To prevent PFAS from entering wastewater, deploy all relevant federal and state authorities to address PFAS at the source and prevent or reduce the discharge of PFAS to our water and environment.

Aim to preserve flexibility and availability of options for the use and disposal of biosolids, while prioritizing public health protection. Consistent with the best available science and monitoring information, and following

guidance from federal and state authorities, work with key partners to provide options for effective and safe beneficial use and disposal of biosolids. Understanding that the science and regulatory landscape for biosolids will mature over time, key partners will work to find solutions and approaches that preserve primary biosolids beneficial use and disposal options where it is safe to do so, and look for innovative practices that could provide wastewater systems with additional options to sustainably manage the nation's biosolids.

Ensure continued safety of the food supply and support impacted farmers and ranchers. Ensure continued safety of the food supply and protect farmers, ranchers, and their families from the potential risks of PFAS exposure through biosolids land application. Work with key federal and state partners to identify and support affected farming operations and keep agricultural land productive, including offering support for farmers and ranchers to access relevant federal and state assistance programs. As science continues to evolve, develop strategies in partnership with the agriculture sector to remediate lands contaminated with PFAS.

Educate stakeholders and communicate risk. Commit to working together to provide risk communications tools to support states, wastewater systems, land appliers, and agricultural stakeholders.

Build capacity. Work across federal and state agencies and industries to better understand where staff and laboratory capacity and skillsets, landfill capacity, and other market needs may present challenges to effective management.

Embrace transparency and innovation. Share data and information openly and act with appropriate transparency on policy direction. Work with all stakeholders on innovative solutions to manage biosolids and remediation of affected lands.

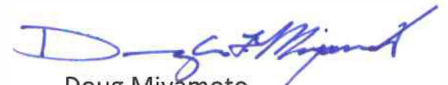
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