Federal Update on Biosolids and Other Clean Water Priorities

Emily Remmel, Senior Director Regulatory Affairs

Midwest Biosolids Association
Third Annual Conference

The National Association of Clean Water Agencies
June 9, 2026 – Milwaukee, WI

WHO ARE WE?

- NACWA represents ~360 public utility members of all sizes nationwide
- NACWA is on the front lines, ensuring members' voices are heard and that federal regulatory, legal, and legislative decisions are based on evidence-based science, smart engineering, and rational economic considerations

Disclaimer


PFAS

The Long Game of PFAS

Administrator Zeldin Announces Major EPA Actions to Combat PFAS Contamination

April 28, 2025

Contact Information
EPA Press Office (press@epa.gov)

Source: EPA Press Office, https://www.epa.gov/newsreleases/administrator-zeldin-announces-major-epa-actions-combat-pfas-contamination

The Long Game of PFAS

Administrator Zeldin Announces Major EPA Actions to Combat PFAS Contamination

April 28, 2

Contact

EPA Press

Building Partnerships

- Advance remediation and cleanup efforts where drinking water supplies are impacted by PFAS contamination
- Work with states to assess risks from PFAS contamination and the development of analytical and risk assessment tools
- Finish public comment period for biosolids risk assessment and determine path forward based on comments
- Provide assistance to states and tribes on enforcement efforts
- Review and evaluate any pending state air petitions
- Resource and support investigations into violations to hold polluters accountable

Source: EPA Press Office, https://www.epa.gov/newsreleases/administrator-zeldin-announces-major-epa-actions-combat-pfas-contamination

The Long Game of PFAS - MCLs

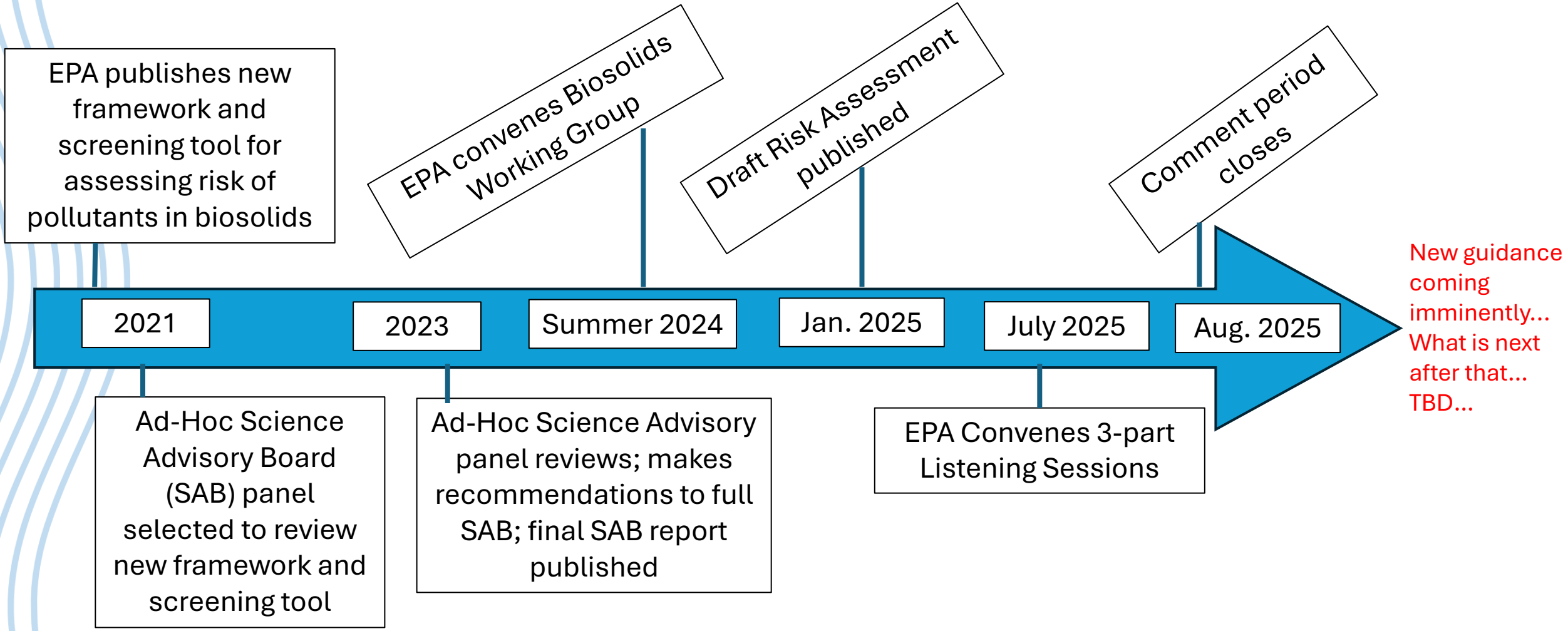
On May 18, 2026 – EPA proposed two new rules related to PFAS in drinking water

1) Upholding the NPDWR for PFOA and PFOS (4 ppt, individually) yet giving drinking water systems an additional 2 years (until 2031) to get into compliance,
2) Rescinding the proposed MCLs for PFHxS, PFNA, HFPO-DA (GenX) as well as the Hazard Index of these compounds plus PFBS.

Comment period open now; closes July 20, 2026.

EPA's actions on the drinking water front have had a direct influence on the clean water side.

The Long Game of Biosolids Advocacy



Draft Biosolids PFOA/PFOS Risk Assessment

- Provided risk levels as numeric values for a variety of potential exposure pathways (e.g., 1 in 10,000)
- Risk levels developed using very conservative/hypothetical assumptions about “typical farm family”
  - Assumed continual application each year for 40 years
  - Assumed 1 ppb PFOA/PFOS starting concentration
- First time a biosolids risk assessment released w/out proposed Part 503 changes or management considerations or cost/treatment considerations
- Assessment did not look at relative risk of other fertilizers like artificial fertilizers or manure or other ways to be exposed to PFAS

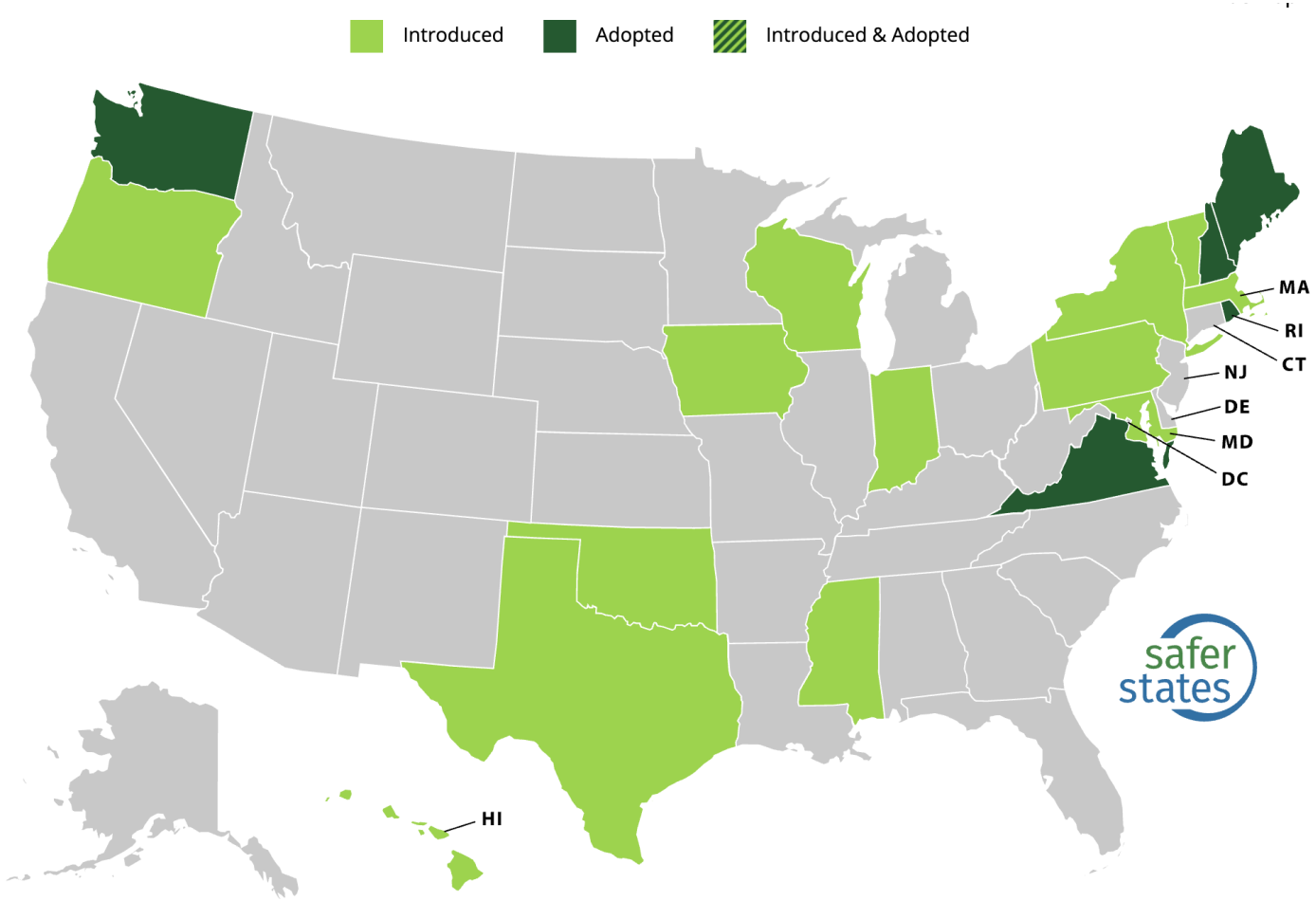
Draft Biosolids PFOA/PFOS Risk Assessment

- New EPA Guidance, expected imminently, on the draft risk assessment
- Hopeful wishes:
  - Continue recognizing that biosolids land application is a valuable resource that municipalities have and farmers need
  - Recognize that the draft risk assessment was based on an impractical family farm scenario that doesn't represent usual agricultural practices
  - Lean into the fact that biosolids land application is a small fraction of what's applied to agricultural farms in the U.S. (<1%)
  - Recognize that there are limited options for biosolids management (land application, incineration, landfilling) and each pose a challenge if another is eliminated
  - Recognize that a tiered system, even if based in concentration data and not risk, is a management path forward for states to consider
- Advocacy Needs:
  - Make America Health Again (MAHA) pushing for regulatory numeric standards under Part 503

NACWA's Advocacy on Biosolids

- We continue to urge the Agency to focus on a dual-track approach to assure clean water utilities can continue to safely land apply their biosolids and bring more certainty to stakeholders and the public
  - First, issue a memo/guidance document encouraging comprehensive monitoring programs and then set up a tiered approach/best management practices for industrially impacted biosolids
    - Draft risk assessment dropped without occurrence data
  - Second, go back to the Science Advisory Board and revise the underlying biosolids risk assessment framework (HRSD's Charles Bott new Chair)
    - Biosolids are unique, requires realistic exposure framework, consider emerging fate and transport data, and avoid compound conservatism
    - Draft risk assessment dropped without occurrence data
    - Ignores complete risk picture; needs relative risk contributions

State Legislative Biosolids Activity – A Response to EPA?



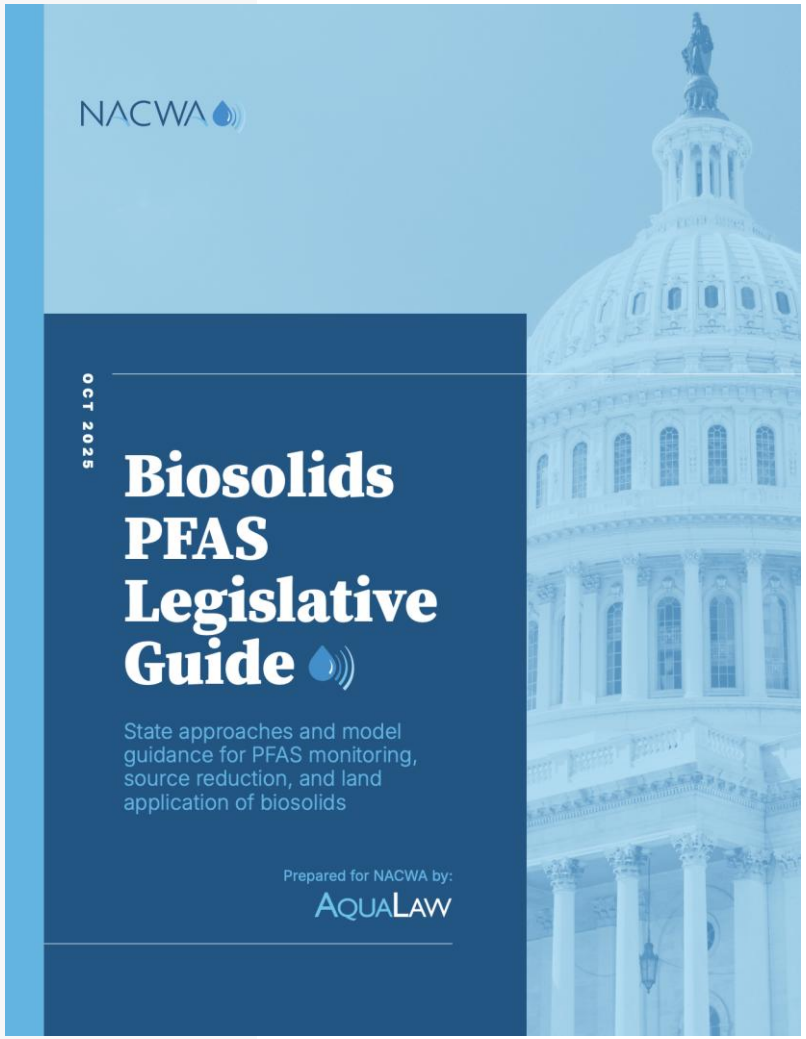
Source: Safer States Bill Tracker (accessed July 3, 2025; refined for biosolids/sludge legislation)
https://www.saferstates.org/bill-tracker/?toxic_chemicals=PFAS&issue_sectors=Biosolids/Sludge

5 states have adopted 8 policies & 13 states have introduced policies

Most states focusing on testing and analysis and establishing programs for management of biosolids or conduct studies of PFAS in biosolids (WA, VA, RI, NH)

Other states following Maine's prohibition or looking directly at EPA's draft risk assessment as a means for establishing a 1ppb limit (AKA a de facto ban on land application) (MA, TX, OK, NY)

Model Guidance for Clean Water Sector



- Help propping up a monitoring approach including sampling locations, frequency, methodology and laboratories, reporting and disclosure along with using monitoring data
- Information on source reduction and understanding land application restrictions and site management practices
- Legislative template to use if/when your community sees a ban, prohibition or unreasonable restrictions on land application
- Available here: https://nacwa.realmagnet.land/2025-11-04-biosolids-pfas-legislative-guide

Biosolids Regulation Litigation

James Farmer et al. v. EPA and NACWA

- Public Employees for Environmental Responsibility (PEER) appeal of October 2025 water sector win in the D.C. District Court
- Issue: Whether, under the CWA Section 405(d), EPA has a non-discretionary duty to, every 2 years, identify and regulate pollutants in biosolids (in this case, certain PFAS) that may have adverse effects on human health or the environment
- PEER's opening brief: perhaps recognizing the strength of DOJ and NACWA's statutory claims, focused on policy (alleged dangers of PFAS and EPA's lack of updates to 503 regulations)
- Amicus support: Biosolids Regional Groups/CASA/Scientists and U.S. Chamber of Commerce
- PEER objecting – arguing the briefs should be consolidated into one filing
- Briefing schedule suspended pending resolution; buys PEER more time to respond to DOJ/NACWA briefs

EPA Draft Human Health Criteria for PFAS

- Concentrations that are not considered to cause adverse human health effects
- For combined water and fish/shellfish consumption:
  - PFOA – 0.0009 ppt
  - PFOS – 0.06 ppt
  - PFBS – 400 ppt
- Current method quantification levels for PFOA and PFOS range from 1 to 4 ppt (Method 1633A – which has not been promulgated into CWA Part 136)
- States may incorporate criteria into their water quality standards
- Precipitation contains ~0.7 – 8 ppt PFAS

What are the Costs?

Minnesota Report, June 2023

- Removing and destroying PFAS from water and biosolids leaving Minnesota's wastewater treatment facilities could cost between $14 billion and $28 billion over 20 years
- PFAS can be bought for $50 - $1,000 per pound (according to MPCA estimates), but costs between $2.7 million and $18 million per pound to remove and destroy from municipal wastewater, depending on facility size
- Small wastewater treatment facilities would face per-pound costs over six times greater than large facilities, due to economies of scale
- New "short-chain" types of PFAS are more difficult and up to 70% more expensive to remove and destroy compared to old "long-chain" PFAS

A more than back of the envelope cost estimate…

Mid-Atlantic Utility – modeled three combinations of treatment based on drinking water MCL standards at three different flow rates

- Treatment:
  - MBBR + GAC
  - MBBR + AIX Vessels
  - MF/UF + RO
- Flow:
  - 330 MGD (permitted flow),
  - 400 MGD (secondary capacity),
  - 720 MGD (maximum anticipated capacity)
- Assumptions: no land acquisition costs, new site facility, pumping costs pipeline costs, or residuals treatment

Estimated life cycle costs are off the charts…

Table 6-1 Life Cycle Cost Estimates

Alternative	CAPEX	OPEX	NPV (10 years, 3.5% Interest)	Approximate Land Required (acres)
Design Flow (330 mgd)				
MBBR + GAC Basins	$2,221,116,000	$75,109,000	$2,845,800,000	271
MBBR + AIX Vessels	$1,541,593,000	$113,397,000	$2,484,700,000	251
MF/UF + RO	$3,769,302,000	$127,250,000	$4,827,600,000	50
Design Flow (400 mgd)				
MBBR + GAC Basins	$2,739,027,000	$77,533,000	$3,383,800,000	330
MBBR + AIX Vessels	$2,662,827,000	$115,719,000	$3,625,200,000	310
MF/UF + RO	$4,711,628,000	$159,062,500	$6,034,500,000	63
Design Flow (720 mgd)				
MBBR + GAC Basins	$5,261,976,000	$88,870,000	$6,001,100,000	604
MBBR + AIX Vessels	$5,149,224,000	$126,603,000	$6,202,100,000	584
MF/UF + RO	$8,480,928,000	$286,312,500	$10,862,100,000	130

Notes:

Comprehensive Environmental Response, Compensation & Liability Act (CERCLA)

Sept. 2022 - EPA proposed designating two PFAS (PFOA and PFOS) as "hazardous substances" under Section 102(a) of CERCLA

April 2023 – Agency took comment on whether to also designate: (1) any of the following 7 PFAS – PFBS, PFHxS, PFNA, HFPO-DA (GenX), PFBA, PFHxA, or PFDA; (2) precursors to PFOA, PFOS, or any of the 7 proposed PFAS; and/or (3) categories of PFAS

April 2024 – EPA finalized PFOA and PFOS designations while publishing corresponding enforcement discretion memo aimed at shielding POTWs, MS4s, community water systems, farmers land-applying biosolids, publicly owned/operated municipal solid waste landfills, publicly owned airports, and local fire departments from PFAS remediation costs

Spring/Summer 2025 – Litigation

September 2025 – EPA announced it would continue to defend designation, but acknowledged that Congress must pass statutory protections to fully protect "passive receivers"

CERCLA Hazardous Substance Designation Effective on July 8, 2024

CERCLA Legislative Efforts

Legislative efforts – Water Coalition Against PFAS continues strong advocacy for "passive receivers" PFAS CERCLA exemption for drinking water, wastewater, and stormwater utilities

Water Systems PFAS Liability Protection Act

- Senate: Sen. Pete Ricketts (R – Neb.) introduced passive receiver protection legislation as an NDAA amendment, which was not made in order, and is expected to lead future legislative efforts
- House: Reps. Marie Gluesenkamp Perez (D – Wash.) and Celeste Maloy (R-Utah)

Continued Advocacy is Key!!!

CERCLA PFAS Litigation

- ***U.S. Chamber of Commerce et. al. v. EPA*** – Challenge to EPA Designations
  - Chamber-led coalition challenge to final PFOA and PFOS designations brought in U.S. Court of Appeals for the D.C. Circuit under CERCLA, Administrative Procedure Act (APA), and U.S. Constitution
  - Jan. 20, 2026 – Oral argument held
- *Central Sanitary Landfill, Inc., et al. v. Wolverine* – Scope of Chemical Manufacturer Liability
  - Federal district court in Michigan considering cost recovery claims for contamination caused by PFAS-containing products
  - Major PFAS manufacturer 3M claiming "useful products" defense shields it from liability for any contamination caused by Scotchguard
  - **Useful Products Doctrine:** outlined in U.S. Supreme Court case of Burlington N. & Santa Fe Ry. Co. v. United States; holds that parties are not liable for CERCLA cleanup costs as "arrangers" or "generators" of hazardous substance releases if they sold a "useful product" containing hazardous substances but did not then take intentional steps to dispose of those products.
- ***Ryan et. al. v. the Newark Group*** – Scope of Utility Liability for Biosolids
  - Federal district court in Massachusetts considering cost recovery claims for PFAS-related groundwater contamination
  - Court held that "useful products" doctrine applies to sale and transport of biosolids for use as a soil amendment
  - However, a word of caution: application of "useful products" defense is highly fact-specific and many key issues remain concerning its scope, including how CERCLA's broad statutory definition of "disposal" may ultimately impact availability of defense for biosolids

PFAS Everywhere

TIME

HEALTH • ENVIRONMENTAL HEALTH

Now We Need to Worry About Harmful 'Forever Chemicals' in Our Toilet Paper Too

In case you're counting, the average American will go through 26 kg (57 lbs) of toilet paper in a single year. Multiply that by the 332 million people in the U.S. and you get more than 19 billion pounds of waste paper being flushed away annually.