

CSSAB PFAS Workgroup

October 22, 2025

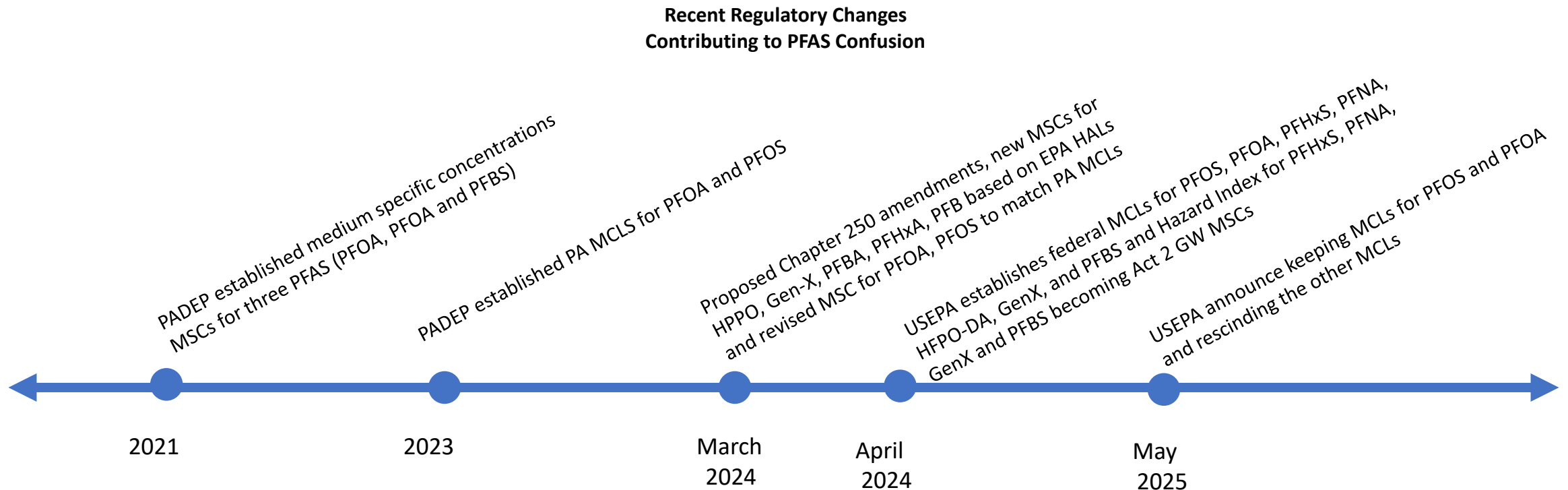
PFAS Workgroup

- PFAS Workgroup to be comprised of members from the CSSAB, PADEP, USEPA, Universities and the general public. Due to the complexities related to PFAS, technical expertise will also be sought from PFAS experts in both the public and private sectors to support the PFAS workgroup, as needed.
- The PFAS Workgroup will provide technical support, as requested by the PADEP, in relation to the Act 2 program in relation to PFAS issues.

Potential Areas of Technical Support

PFAS in Groundwater

- The PFAS regulatory and technical landscape is causing uncertainty about future PFAS Statewide Health Standards (SHS) and use of Site Specific Standard (SSS) for PFAS
- The PFAS Workgroup proposes to support the PADEP in relation to use of SSS for PFAS.



Potential Areas of Technical Support

Generic Soil to Groundwater MSC and Fate and Transport Modeling

- There is no generic soil to groundwater MSCs for PFAS due to the technical complexities with PFAS fate and transport.
- The current PFAS soil to groundwater MSCs are based on the 2021 groundwater MSCs which is a disconnect with the current PFAS groundwater MSCs.
- The PFAS workgroup proposes to provide technical support to the PADEP in the development and/or selection of generic values for the PFAS soil to groundwater MSCs and PFAS fate and transport modeling. These activities may also support development of SSS for PFAS in soil and application of the Management of Fill Policy.

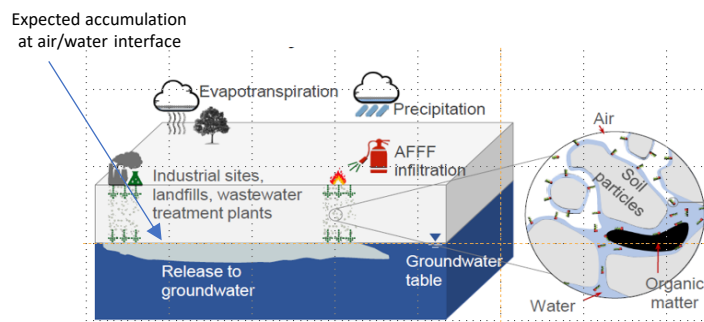


Image source:Guo, Zeng and Brusseau, 2020; Brusseau, 2018

Many factors can influence PFAS leaching from soil to GW

- Groundwater Specific PFAS compound (chain length/ionic state, functional groups, extent of fluorination)
- PFAS concentration, non-linear response
- Sorption through electrostatic interactions and sorption to organics via hydrophobic interactions - wide range of K_d values
- Recharge rate
- Surface tension (air/water interface), K_d , pH, etc.....

Potential Areas of Technical Support

Background Soil Considerations

- Due to the widespread atmospheric deposition of PFAS and its presence as an anthropogenic background condition in soil, background PFAS levels exist in soil and groundwater.
- Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York and New Jersey have completed background soil sampling and evaluated statewide PFAS concentrations in soil. Maine has incorporated these values into regulations and other states allow this information as a line of evidence for background considerations.
- The PFAS workgroup proposes to evaluate the information from work completed in other states in relation to background PFAS levels in soil to assist the PADEP in determining if additional work should be completed in PA to support regional or statewide PFAS background in soil.

Potential Areas of Technical Support PFAS and Management of Fill Policy

- The applicable numeric limit for clean fill is based on the lower of the generic soil to groundwater MSCs or the residential direct contact MSC, with the generic soil to groundwater MSC usually driving the numeric limit for Clean Fill.
- PFAS do not have generic soil to groundwater MSCs which has sometimes resulted in using SPLP to comply with the Management of Fill Policy, which is further complicated by the fact that the current GW MSCs still use the Hazard Index to evaluate SPLP data, even though the Hazard Index approach is proposed to be eliminated by USEPA.
- The PFAS workgroup proposes to support the PADEP in the development of background PFAS concentrations in soil and develop a generic soil to groundwater approach for PFAS, both of which would benefit both Act 2 and Management of Fill projects.

Questions to Kick Off Discussion

- Is the PADEP planning to go forward with the Chapter 250 amendments for HPPO, Gen-X, PFBA, PFHxA, PFBS that were adopted by the EQB on March 12, 2024 when the EPA rescinds the MCLs for everything but PFOA and PFOS?
- How many Act 2 reports have been submitted with PFAS as a COC?
- Has the PADEP approved any SSS Final Reports for PFAS under Act 2 or are they aware of any that are to be submitted in the near future?
- Has the PADEP approved any Background Standard Final reports for PFAS under Act 2 or are they aware of any that are to be submitted in the near future?
- If a remediator is modeling a groundwater to surface water discharge for PFAS, should TMS be used and what water quality standard should be used for the stream concentration?
- Can the PADEP provide information as how to reconcile the PA MCL being different than the Federal MCL/ groundwater MSC for PFOS and PFOA in relation to risk assessment or cleanup plan for PFAS ?
- If a remediator is modeling the fate and transport of PFAS is the PADEP looking for unique models or data collection to support these activities?

The background features a repeating pattern of grey silhouettes of human heads in profile, facing right. Each head contains a large black question mark. The heads are layered, creating a sense of depth. In the center, a lightbulb icon is drawn in blue lines, with several short lines radiating from the top to represent light. The text "Discussion and Feedback" is written in a white, sans-serif font across the middle of the image, positioned over the central lightbulb and the heads behind it.

Discussion and Feedback
