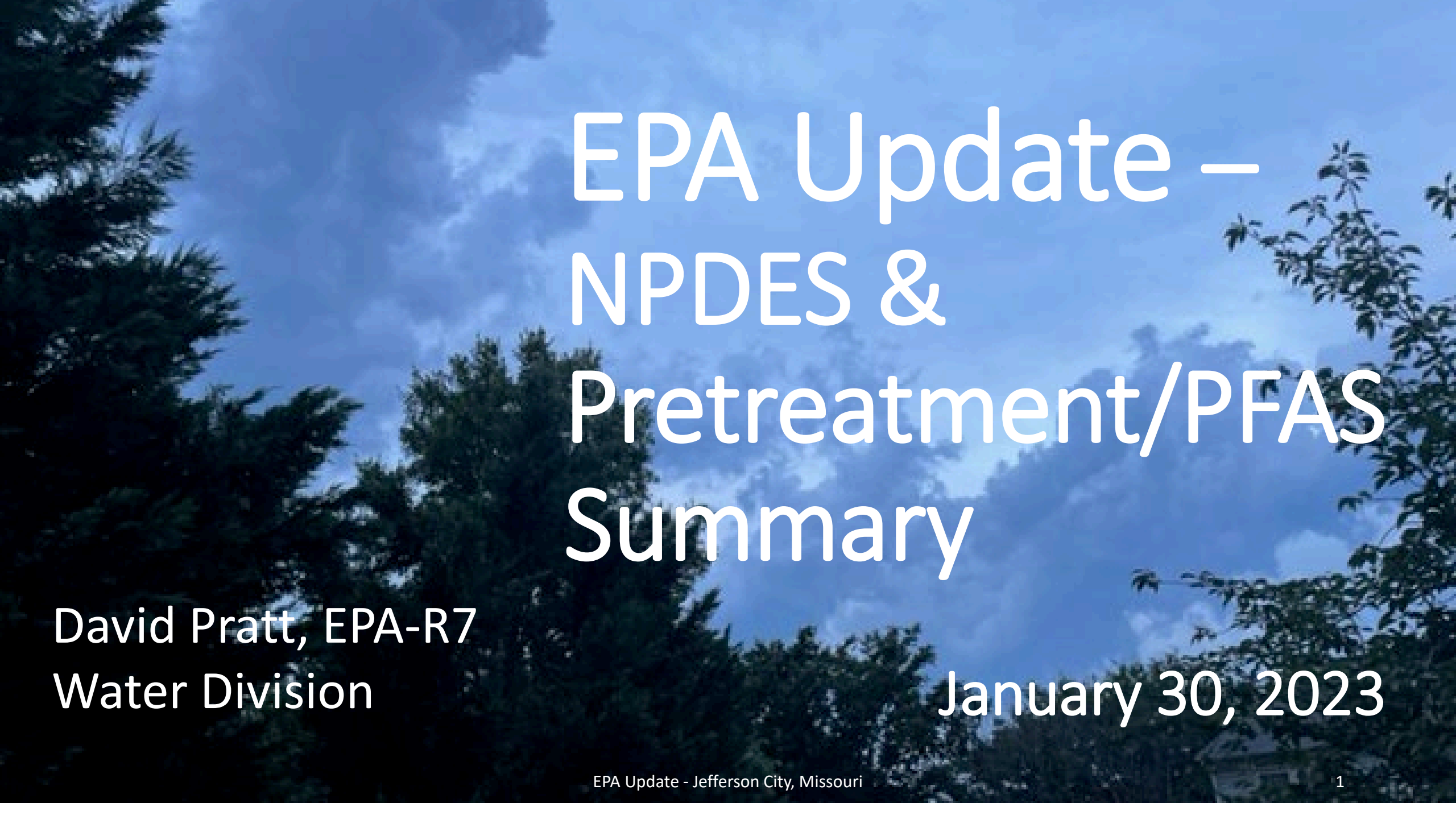

EPA Update – NPDES & Pretreatment/PFAS Summary

David Pratt, EPA-R7
Water Division

January 30, 2023

Topics

- Draft test methods
- PFAS memo to states
- ELG rulemakings

3rd Draft Method 1633
Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS

- December 2022
- A **multi-laboratory validated** method for **wastewater**, **surface water**, **groundwater**, **soil**, **biosolids**, **sediment**, **landfill leachate**, and **fish tissue**.
- 40 PFAS compounds
- Can be used in various applications, including NPDES permits.
- Has been tested in a wide variety of wastewaters and contains all the required quality control elements in CWA method.
- Includes QC criteria
- recommended now for use in individual permits.

https://www.epa.gov/system/files/documents/2022-07/2nd%20Draft%20of%20Method%201633%20June%202022%20508-compliant.pdf

Draft Method 1621 – Adsorbable Organic Fluorine "AOF"

- **Completed single-laboratory validation**
- Screening method –
  - **Detects organofluorines which are rarely naturally occurring**
  - **Does not quantify** all organofluorines with the same accuracy and has some known interferences
  - Tells the user that the organofluorines are ***present***, but does not identify *which* organofluorines
  - Screens for thousands of known PFAS compounds at the part per billion level in **aqueous (water) samples**.

https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas

NPDES & Pretreatment

December 5, 2022, Memorandum: "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs"

Applies specifically to:

- State-issued NPDES permits –
  - Industrial Permits (including stormwater permits),
  - POTW permits
  - Pretreatment Programs
  - Biosolids

https://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Memo_December_2022.pdf

"Issue new guidance to state permitting authorities to address PFAS in NPDES permits… to use method 1633. . . where expected or suspected to be present…"

NPDES & Pretreatment

December 5, 2022, Memorandum: "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs"

Recommendations for Applicable Industrial Direct Discharges

- Applicability
- Effluent and wastewater residuals monitoring
- Best Management Practices for discharges of PFAS, including product substitution, reduction, or elimination of PFAS, as detected by draft method 1633
- BMPs to address PFAS-containing firefighting foams for stormwater permits
- Permit limits

December 5, 2022, NPDES Memo : Applicable Industries to Review

Multi-Industry Per-and Polyfluoroalkyl Substances (PFAS) Final Report, January 2023 – EPA-821-R-22-004

https://www.epa.gov/system/files/documents/2023-01/11143_ELG%20Plan%2015_508.pdf

- Organic chemicals, plastics & synthetic fibers (OCPSF) – 40 CFR 414
- Metal Finishing and Electroplating – 40 CFR 433 and 413
- Electric and electronic components – 40 CFR 469
- Landfills – 40 CFR 445*
- Pulp, paper & paperboard – 40 CFR 430
- Leather tanning & finishing – 40 CFR 425
- Plastics molding & forming – 40 CFR 463*
- Textile mills -- 40 CFR 410*
- Paint formulating – 40 CFR 446*
- Airports – [40 CFR 449]*
- _____[Additional facilities possible]_____
- _____[Additional facilities possible]_____

*<u>*No*</u> Pretreatment Existing or New Source Standards

(<u>*No*</u> PSES or PSNS for these sectors)

December 5, 2022, NPDES Memo PFAS Permitting Conditions for Industrial Direct Dischargers

- Effluent and Wastewater Residuals Monitoring:
  - Effluent-monitoring for NPDES Industry Permits
  - Quarterly monitoring for 40 PFAS using Draft Analytical Method 1633
  - Electronic reporting of data via DMRs

December 5, 2022, NPDES Memo PFAS Permitting Conditions for Industrial Direct Dischargers

- Best Management Practices
  - Product Elimination or substitution
  - Accidental Discharge minimization
  - Equipment decontamination or replacement (legacy)

December 5, 2022, NPDES Memo PFAS Permitting Conditions for Industrial Direct Dischargers

- Example Special Condition Permit Language:
  - *PFAS pollution prevention/source reduction evaluation*: Within six months of the effective date of the permit, the facility shall provide an evaluation of whether the facility uses or has historically used any products containing PFAS, whether use of those products or legacy contamination reasonably can be reduced or eliminated, and a plan to implement those steps.
  - *Reduction or Elimination*: Within 12 months of the effective date of the permit, the facility shall implement the plan in accordance with PFAS pollution prevention/source reduction evaluation.

December 5, 2022, NPDES Memo PFAS Permitting Conditions for Industrial Direct Dischargers

- Example Special Condition Permit Language (continued):
  - *Annual Report*: An annual status report shall be developed which includes a list of potential reduction implementation, source monitoring results, and effluent results for the previous year, and adjustments to the Plan, based on the findings.
  - *Reporting*: EPA's electronic reporting tool for DMRs (called "NetDMR") will include the ability for the permittee to submit the pollution prevention/source reduction evaluation and the annual report.

December 5, 2022, NPDES Memo PFAS Permitting Conditions for Industrial Direct Dischargers

BMP Actions for Firefighting foams for stormwater permits:

- **Prohibit the use of AFFFs** in stormwater permits other than for actual firefighting.
- **Eliminate PFOS and PFOA -containing AFFFs.**
- **Require immediate clean-up** where AFFFs have been used, include diversions, etc. to prevent discharges via storm sewer systems.

December 5, 2022, NPDES Memo
PFAS Permitting Conditions for Industrial Direct Dischargers

Permit Limits

- TBELs developed on BPJ when ELG are absent for the industrial category
- WQBEL

NPDES & Pretreatment

December 5, 2022, Memorandum: "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs"

Recommendations for Publicly Owned Treatment Works

- Applicability
- Effluent, influent and biosolids monitoring
- Pretreatment program activities
- Biosolids assessment

December 5, 2022, NPDES Memo PFAS Permitting Conditions for POTWs

Applicability

- All POTWs
- Categorical industrial users as previously defined

Effluent, influent and biosolids monitoring

- Utilize method 1633 for all 40 analytes
- Quarterly monitoring
- Report e-DMRs

December 5, 2022, NPDES Memo
PFAS Permitting Conditions for POTWs

Pretreatment Program Activities

- Update IU Inventory (state and municipal)
  - PFAS Analytical Tools: https://echo.epa.gov/trends/pfas-tools
- Require BMPs and pollution prevention to address PFAS discharges to POTWs.
- Require quarterly monitoring using draft method 1633
- Where authority exists, develop IU BMPs or local limits.
- In absence of local limits and POTW legal authority, work with POTWs to encourage pollution prevention.

December 5, 2022, NPDES Memo
PFAS Permitting Conditions for POTWs

Biosolids Assessment

- Require BMPs and pollution prevention to address PFAS discharges to POTWs.
- Use draft method 1633
- Where authority exists, develop IU BMPs or local limits.

December 5, 2022, NPDES Memo re PFAS:

Public Notice Recommendations

Regular public notice procedures "PLUS"

- **Notify** potentially affected downstream public water systems (PWS) of draft permits with PFAS-specific monitoring, BMPs, or other conditions

Tools: [Potential Training Available!]

- **DWMAPS**: Collaborate with Drinking Water program counterparts to use
  DWMAPS = EPA's "Drinking Water Mapping Application to Protect Source Waters"
- **Water Pollutant Loading Tool** – ECHO Search via DMR and TRI

https://echo.epa.gov/trends/loading-tool/water-pollution-search

ELG Rulemakings

- Organic Chemicals, Plastics & Synthetics Fibers (OCPSF - 40 CFR Part 414)
  - After completing the Multi-Industry PFAS Study, EPA is ***preparing a rulemaking to revise this regulation*** to address PFAS dischargers from facilities that manufacture PFAS.
  - EPA intends to publish a proposed rule in the summer of 2023.
- Metal Finishing (40 CFR Part 433) & Electroplating (40 CFR Part 413)
  - After completing the Multi-Industry PFAS Study, EPA is ***preparing a rulemaking to revise this regulation*** to address PFAS dischargers from metal finishing and electroplating facilities.
  - EPA intends to publish a proposed rule in the summer of 2024.
- Landfills (40 CFR Part 445)
  - After completing the Multi-Industry PFAS Study, EPA is ***preparing a rulemaking to revise this regulation*** to address PFAS dischargers from landfills.

QUESTIONS/COMMENTS?