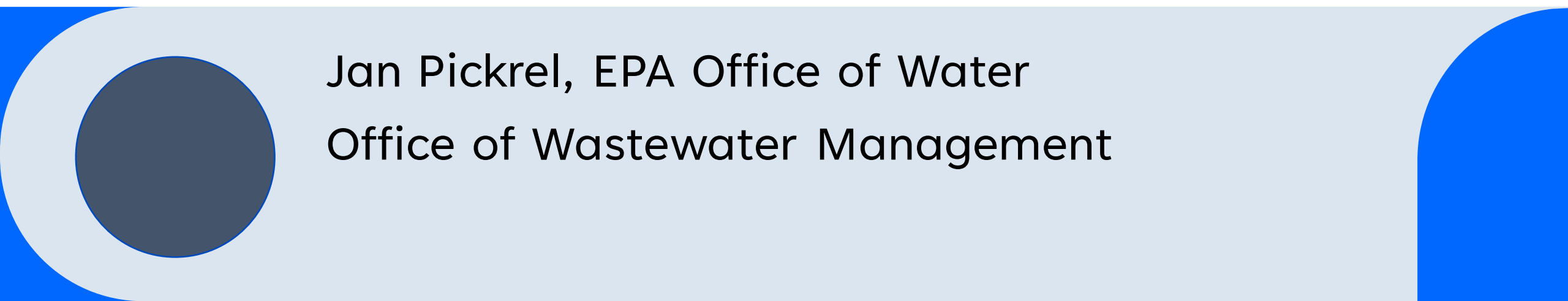




EPA Update – Fall 2021

**North Carolina Pretreatment Consortium Conference
October 27, 2021**



Jan Pickrel, EPA Office of Water
Office of Wastewater Management

Agenda

2

General Office of Wastewater Management Information

- WIFIA/SWIFIA
- Water Reuse Plan “WRAP”
- *A Compendium of U.S. Wastewater Surveillance to Support COVID-19 Public Health Response*
- CROMERR
- NPDES Electronic Reporting Rule

Proposed Effluent Guidelines Plan 15

PFAS Roadmap

Contacts

General OWM Information

WIFIA & SWIFIA

- WIFIA established by Water Resources Reform & Development Act of 2014
- SWIFIA established by America's Water Infrastructure Act (AWIA) of 2018

Loan programs

2021 so far: \$4329.4 Million for 20 projects in California, Florida, Kentucky, Massachusetts, Michigan, North Dakota, Oregon, Virginia, Washington, and District of Columbia

Projects include: Stormwater Diversion Channel, Collection System Replacement, PFAS Treatment Projects, water reuse, expansions of local energy project for conversion of biogas from food waste /compost



National Water Reuse Action Plan

Improving the Security, Sustainability, and Resilience of
Our Nation's Water Resources

Collaborative Implementation (Version 1)



<https://www.epa.gov/waterreuse>

2/27/2020: 1st WRAP announced

Quarterly Updates

Find/learn actions, details, outputs, via:

[WRAP Online Platform](https://www.epa.gov/waterreuse/national-water-reuse-action-plan-online-platform)

<https://www.epa.gov/waterreuse/national-water-reuse-action-plan-online-platform>

51 Actions with >100 partners exploring ideas:

2.4: Enhance Wastewater Source Control through Local Pretreatment Programs to Opportunities for Municipal Wastewater

2.6: Develop Informational Materials to Address How NPDES Permits Can Facilitate Reuse/Capture

2.9: Align Policies /Communication Tools to Promote BMPs of Unused & Expired Pharmaceuticals

9.2: Support/Promote Opportunities for Creating Skilled Workforce for Water Reuse

Stay in the loop. Join the WRAP listserv for periodic updates by emailing waterreuse@epa.gov.

More Water Reuse Projects

Water Research Foundation <https://www.waterrf.org/>

Project #4971: “Leveraging the Role of Pretreatment Programs in **One Water** Initiatives: Synthesis of Best Practices and Path Forward”

Project #4960: “Review of Industrial Contaminants Associated with Water Quality or Adverse Performance Impacts for Potable Reuse Treatment”



A Compendium of U.S. Wastewater Surveillance to Support COVID-19 Public Health Response

132-page report issued September 2021

<https://www.epa.gov/system/files/documents/2021-09/wastewater-surveillance-compendium.pdf>

- Summary of Funding Agencies and programs
- 10 case studies of wastewater surveillance programs across the US:
 - IN, MI, M, OH, WY
 - Hampton Roads San. District, Houston, Tempe, Clemson U., U. of Arizona in Tucson
- Lessons Learned



CROMERR = CROss Media Electronic Reporting Rule

Option for POTWs to RECEIVE reports electronically

40 CFR 403.8(g) A POTW that chooses to receive electronic documents must satisfy the requirements of [40 CFR part 3](#) - (Electronic reporting).

40 CFR 403.12(r) The Control Authority that chooses to receive electronic documents must satisfy the requirements of [40 CFR part 3](#) - (Electronic reporting).

Guidance issued May 2018

https://www.epa.gov/sites/production/files/2018-05/documents/cromerr_potw_1.pdf

- Verify Legal Validity of Electronic Signatures
- Prepare CROMERR System Documentation, If Needed
- Review and Update Pretreatment Program Requirements



Publicly-Owned Pretreatment Works (POTW) Programs and Electronic Reporting

EPA Pretreatment Program

Under the authority of the Clean Water Act (CWA), the Pretreatment Program regulates pollutants from industrial and commercial sources that discharge into locally managed sewer systems.

For General Information:

www.epa.gov/npdes/pretreatment

For e-Reporting Inquiries:

CromerrPOTWrequest@epa.gov

EPA Cross-Media Electronic Reporting Rule (CROMERR)

CROMERR provides the legal framework for electronic reporting under EPA's regulatory programs. The Rule sets performance-based, technology-neutral system standards to ensure the enforceability of regulatory information collected electronically.

For General Information:

www.epa.gov/cromerr

For e-Reporting Inquiries:

cromerr@epa.gov

This document outlines the process that Pretreatment Authorities¹ should follow when seeking to ensure their electronic reporting plans are compliant with Cross-Media Electronic Reporting Rule (CROMERR) standards as well as applicable Pretreatment Program requirements.

Table of Contents

- [Is My Electronic Reporting Subject to CROMERR?](#)
- [Background: CROMERR Application and Approval](#)
- [Overview: CROMERR Electronic Reporting Standards and Pretreatment Program Requirements](#)
- [Steps for POTW Pretreatment Programs to Obtain Approval for CROMERR-Subject Electronic Reporting](#)
- [Roles and Responsibilities: POTW Pretreatment Program](#)
- [Roles and Responsibilities: EPA CROMERR Program](#)
- [Roles and Responsibilities: EPA or Approved State Pretreatment Program Approval Authority](#)
- [Definitions](#)

Is My Electronic Reporting Subject to CROMERR?

CROMERR applies if:

- you receive submissions electronically from regulated facilities,
- those submissions are requirements of an EPA-authorized program, and
- electronic submissions are accepted in lieu of paper submissions.

EPA developed a [chart to help states, tribes, and local governments determine if CROMERR applies to their electronic reporting system](#).

It is also important to note that attaching reports to emails is not considered to be CROMERR-compliant because it fails to meet numerous CROMERR requirements. This is true regardless of how the document is signed. However, CROMERR does not prevent programs from receiving non-CROMERR compliant regulatory data submissions by email as a "courtesy" copy, so long as paper-based records of this data are separately retained as the legal copy of record.

¹ EPA, Approved State Pretreatment Programs, and Approved Publicly Owned Treatment Works (POTW) Pretreatment Programs

NPDES Electronic Reporting Rule: 40 CFR 127

Phase 1 of NPDES Electronic Reporting Rule required:

- DMRs to be e-submitted beginning Dec. 21, 2016
- Biosolids annual reports e-submitted beginning Feb. 19, 2017

Phase 2 compliance date was extended via rulemaking signed Sept. 23, 2020

- Pretreatment Annual Reports e-reporting requirement postponed until **Dec. 21, 2025**

Fact Sheet

https://www.epa.gov/sites/production/files/2020-09/documents/npdesrule-phase2ext-factsheet_final.pdf



Pretreatment Program Annual Reports in one EPA Region (Region 9, 2009)

Preliminary Effluent Guidelines Plan 15

<https://www.govinfo.gov/content/pkg/FR-2021-09-14/pdf/2021-19787.pdf>

9/14/2021: Publication of Proposed ELG Plan 15

10/14/2021: Comments due date

Docket ID No. EPA-HQ-OW-2021-0547

Federal eRulemaking Portal: <http://www.regulations.gov>

To date: 23 comment submissions in the docket

<https://www.regulations.gov/search/comment?filter=epa-hq-ow-2021-0547>

Link to Preliminary ELG Plan:

https://www.epa.gov/system/files/documents/2021-09/ow-prelim-elg-plan-15_508.pdf

Contents of Prelim ELG Plan 15

Results of Preliminary Category Reviews

- Cross-category concentration ranking
- Landfills

Rulemakings

- OCPSF & Metal Finishing to address PFAS discharges
- Meat & Poultry Products
- Steam Electric

Continuing & New Detailed Studies

- Electronics & Electrical Components (E&EC)
- Landfill Leachate PFAS Detailed Study
- Textile and Carpet Manufacturers PFAS Detailed Study

Other Updates and Announcements

Release of Multi-industry Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Report



Preliminary Category Reviews

- Cross-Category Concentration Ranking Sectors
- Landfills (40 CFR 445)
- CROSS-CATEGORY RANKING identified top 5 sectors (existing regulations):
 1. Metal Products and Machinery (40 CFR Part 438)
 2. Explosives Manufacturing (30 CFR Part 457)
 3. Canned and Preserved Seafood (40 CFR 408)
 4. Sugar Processing (40 CFR Part 409)
 5. Soap and Detergent Manufacturing (40 CFR Part 417)
- LANDFILL Preliminary category review conducted based on comments received on Plan 14.
 - Public comments identified landfill leachate as a source of per- and polyfluoroalkyl substances (PFAS).
 - Results identified limited data availability
 - Conclusion: further research needed => ***detailed study.***

Rulemakings or Rule Revisions

ORGANIC CHEMICALS, PLASTICS, AND SYNTHETIC FIBERS (OCPSF) (40 CFR 414)

METAL FINISHING (40 CFR 413 AND 433) – PFAS discharges from chromium plating operations

MEAT AND POULTRY PRODUCTS POINT SOURCE CATEGORY (40 CFR PART 432)

- Study conducted during ELG Plan 14.

STEAM ELECTRIC POWER GENERATING POINT SOURCE CATEGORY (40 CFR 423)

- Rulemakings in 2015, 2020
 - Many legal challenges
- Supplemental Rulemaking announced July 26, 2021
 - Proposed rule expected Fall of 2022

Detailed Studies

Detailed Study of Electrical and Electronic Components Category (40 CFR Part 469)

- Began study as part of 2015 Annual Review
- Identified 100 facilities and conducted 5 site visits to gain information on manufacturing techniques, chemicals used compared to 1983
- Finalizing report
 - => Final report & conclusion to be provided in Effluent Guidelines Program Plan 15

Study of Meat and Poultry Products (40 CFR 432)

- Initiated Detailed study per EPG Program Plan 14 due to high nutrients discharges
- MPP discharges highest phosphorus levels and 2nd highest nitrogen levels of all industrial categories
- Existing ELGs apply to only ~300 of estimated 7000 MPP facilities nationwide
- Review of 200 indirect MPP facilities show receiving POTWs violating permit limits for spectrum of pollutants (nitrogen, phosphorus, TSS, BOS, oil and grease, chloride, TRC, coliform bacteria, metals.) Only 45% of receiving POTWs have nitrogen limits, only 15% have phosphorus limits
- Environmental Justice screening conducted to evaluate impact to communities of concern.
- 120 of 300 NPDES facilities discharge to impaired 303(d) waters, over 40% impaired for algal growth, ammonia, nutrients,
- Also identified 63 unique pollutants and 17 metals

Study of Oil and Gas Extraction Wastewater Management

- Announced in ELG Plan 14 that rulemaking would be initiated on **Centralized Waste Treatment ELG (437)**
- Further study determined that current regulations provide sufficient flexibility for managing produced waters at national level regarding beneficial use of treated produced waters for agricultural reuse;
- Rulemaking action stopped; EPA will continue to monitor state-level activities

PFAS Discharges

Multi-Industry Per-and Polyfluoroalkyl Substances (PFAS) Study 2021 Preliminary Report, September 2021 – EPA-821-R-21-004

https://www.epa.gov/system/files/documents/2021-09/multi-industry-pfas-study_preliminary-2021-report_508_2021.09.08.pdf

PFAS Manufacturers and Formulators: OCPSF

- March 17, 2021: publication of Advanced Notice of Potential RuleMaking - 86 FR 14560
- <https://www.epa.gov/eg/organic-chemicals-plastics-and-synthetic-fibers-effluent-guidelines#pfas>

Metal Finishing – Chromium electroplating and chromium anodizing operations as most significant source of PFAS within the category,

- PFAS used for mist/fume suppressants to control air emissions

Pulp, Paper, and Paperboard – PFAS have been and continue to be used

- Indications that industry phased-out use of PFOA and PFOS, but continue to use FDA-approved PFAS in limited quantities for food contact packaging and specialty paper products
- FDA agreement with chemical manufacturers to phase out use of PFAS that contain or degrade to 6:2 fluorotelomer alcohol (6:2 FTOH) by 2024
- Industry reports dry or closed-loop processes.
- Continue to study and requests public input

PFAS Discharges (continued)

Multi-Industry Per-and Polyfluoroalkyl Substances (PFAS) Study 2021 Preliminary Report, September 2021 – EPA-821-R-21-004

Textile and Carpet Manufacturers (40 CFR 410)

- Have been and continue to be used
- EPA continues to study in a separate detailed study

Commercial Airports

- Federal Aviation Administration Reauthorization Act of 2018 mandates that FAA can no longer require the use of PFAS-based AFFF by Part 139 airports no later than October 4, 2021.
- FAA has approved, encourages use of and in some cases fund 4 different types of AFFF testing equipment that do not require AFFF when airports conduct training and testing
- FAA built a research testing facility to find a new fluorine-free alternative fire extinguishing agent.
- As of July 2021, all formulations that meet MIL-PRF-24385 contain less than 800 ppb of PFAS.
- EPA will continue to study and solicits public input on additional data



Industrial Wastewater Treatment Technology Database (IWTT)

- Available online at www.epa.gov/iwtt
- Provides technology performance data for industrial wastewater treatment from peer-reviewed literature that meets data quality criteria
- Contains data for 35 industries, 240 treatment systems, and 195 pollutant parameters, with plans to increase database size over time

The screenshot displays the 'Guided Technology Search' interface of the Industrial Wastewater Treatment Technology Database (IWTT). At the top, there are three tabs: 'GUIDED TECHNOLOGY SEARCH' (which is selected and highlighted with a blue border), 'ARTICLE SEARCH', and 'DOWNLOAD DATABASE'. To the right of these tabs are links for 'Glossary', 'Help', and 'About IWTT'. Below the tabs, the main heading 'Guided Technology Search' is centered, followed by the subtitle 'Access pilot and full-scale treatment performance data by industry, treatment technology, or pollutant.' The interface features three search categories, each with an icon and a dropdown menu: 'Industry' (represented by a factory icon), 'Treatment Technology' (represented by a funnel icon), and 'Pollutant' (represented by a beaker icon). Each category has a corresponding dropdown menu with the placeholder text 'Search by Industry...', 'Search by Treatment Technology...', and 'Search by Pollutant...' respectively. A blue 'Search' button is positioned below the dropdown menus.

PFAS Strategic Roadmap

<https://www.epa.gov/pfas>

PFAS Council: Established April 2021

EPA's Approach

Partnering for Progress (Outreach & Feedback)

Goals: Research, Restrict, Remediate

Key Actions: (See Roadmap)

EPA's Strategic PFAS Roadmap

EPA's Approach

Consider the full Lifecycle of PFAS – unique properties, ubiquity of their uses, multiple exposure pathways

Get Upstream of the Problem – prevent PFAS from entering the environment in the first place, thus reducing exposure and potential risk of future contamination

Hold Polluters Accountable for actions and remediation efforts

Ensure Science-Based Decision-Making – research to fill gaps in understanding, develop methods to test, measure, remove, and destroy PFAS

Prioritize Protection of Disadvantaged Communities – equitable access to solutions





EPA's Strategic PFAS Roadmap

Partnering for Progress

National webinars

Stakeholder listening sessions

A focus on impacted communities



Goals: 3 R's

1. Research

2. Restrict - *Pretreatment Program!*

Pursue a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment.

3. Remediate

EPA's Strategic PFAS Roadmap

Key Actions: Strategic Roadmap

https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf

26-pages: Actions organized by EPA Offices: OCSPP, OW, OLEM, OAR, ORD, Cross-Program
OFFICE OF WATER

- Nationwide Drinking water monitoring for UCMR 5 – Fall 2021
- Propose national Primary Drinking Water Regulation (limits, monitoring)- PFOA, PFOS – propose fall 2022, final rule fall 2023
- Publish Final Toxicity Assessment (human health & environmental effects): GenX, PFBA, PFHxA, PFNA, PFDA – fall 2021 + ongoing
- Publish Health Advisories for GenX and PFBS – Spring 2022
- Restrict PFAS discharges from industrial sources through a multi-faceted ELG program to proactively establish national technology-based regulatory limits, including progress on 9 industrial categories in the proposed PFAS Action Act of 2021 – 2022 and ongoing



EPA's Strategic PFAS Roadmap

Key Actions: Strategic Roadmap

OFFICE OF WATER (continued)

- Leverage NPDES permitting to reduce PFAS discharges to waterways to reduce discharges of PFAS at the source and obtain more comprehensive information and quantity through monitoring on the sources of PFAS – winter 2022
- Publish improved analytical methods for 40 PFAS in 8 environmental matrices, and update drinking-water methods - fall 2022 and fall 2024
- Publish final recommended ambient water quality criteria for PFAS for aquatic life and human health
- Enhance data availability on PFAS in fish tissue to better assess the impacts of PFAS on the aquatic environment and to inform federal, state, and Tribal efforts to set PFAS fish advisories – summer 2022 and spring 2023
- Finalize risk assessment for PFOA and FOS in biosolids that will serve as the basis for determining whether regulation of FOA and PFOS in biosolids is appropriate – winter 2024



EPA's Strategic PFAS Roadmap

Key Actions: Strategic Roadmap

Excerpt of Actions in other EPA OFFICES

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

- Ensure robust review process for new PFAS under TSCA to ensure substances are safe before they enter commerce – ongoing
- Enhance EPAS reporting under Toxic Release Inventory – expected spring 2022

OFFICE OF LAND AND EMERGENCY MANAGEMENT

- Propose to designate certain PFAS as CERCLA hazardous substances to require reporting of PFOA and PFAS releases, enhance data availability, ensure cleanup cost recovery – proposed rule spring 2022, final rule summer 2023
- Issue ANPRM on rulemaking and seek public input on other PFAS regarding CERCLA designation – spring 2022
- Issue updated guidance on destroying and disposing PFAS to reflect public comments on interim guidance and to reflect newly published research results – fall 2023

EPA's Strategic PFAS Roadmap

Key Actions: Strategic Roadmap

Excerpt of Actions in other EPA OFFICES (continued)

OFFICE OF RESEARCH AND DEVELOPMENT

- Explore “total PFAS” methods to validate, detect, measure PFAS in the environmental – ongoing
- Evaluate and develop technologies for reducing PFAS in the environment - ongoing

CROSS PROGRAM OFFICE ACTIVITIES

- Engage directly with affected communities – fall 2021 and ongoing
- Use enforcement tools to better identify and address PFAS releases at facilities, as appropriate, to require actions by responsible parties, to limit future releases and address existing contamination - ongoing
- Establish PFAS Voluntary Stewardship Program to challenge industry to go above and beyond regulatory or compliance requirement to reduce overall releases of PFAS - spring 2022
- Issue annual public report on progress toward PFAS commitments within the roadmap

EPA's Strategic PFAS Roadmap

PFAS Data and Tools

<https://www.epa.gov/pfas/pfas-resources-data-and-tools>

CompTox Chemicals Dashboard

Drinking Water Treatability Database – includes 26 PFAS Chemicals, bench-, pilot-, and full-scale studies, including peer-reviewed journals and conferences, research, UCMR

Remediation Site information

Toxicity – Toxicity Release Inventory (TRI), Health & Environ. Research Online (HERO)

Waste – links to analytical methods – SW-486 Compendium

Wastewater and Other Environmental Media - links to draft method 1633 for 40 PFAS Compounds (single-lab validated) for use in: wastewater, surface water, groundwater, soil, biosolids, sediment, landfill leachate, fish tissue:

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

EPA Water Permits Division Pretreatment Team



Jan Pickrel

Pickrel.jan@epa.gov

Rebecca Christopher

Christopher.rebecca@epa.gov

Maggie Green

Green.margaret@epa.gov

EPA Region 4 Pretreatment Team

David Phillips

Phillips.david@epa.gov

Enforcement

Carla Dollar

Dollar.Carla@epa.gov

Permits