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Introduction to the TPDES Pretreatment Program

2023 Water Quality and Stormwater Seminar
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Presentation Outline

Pretreatment History, Objectives, and Introduction

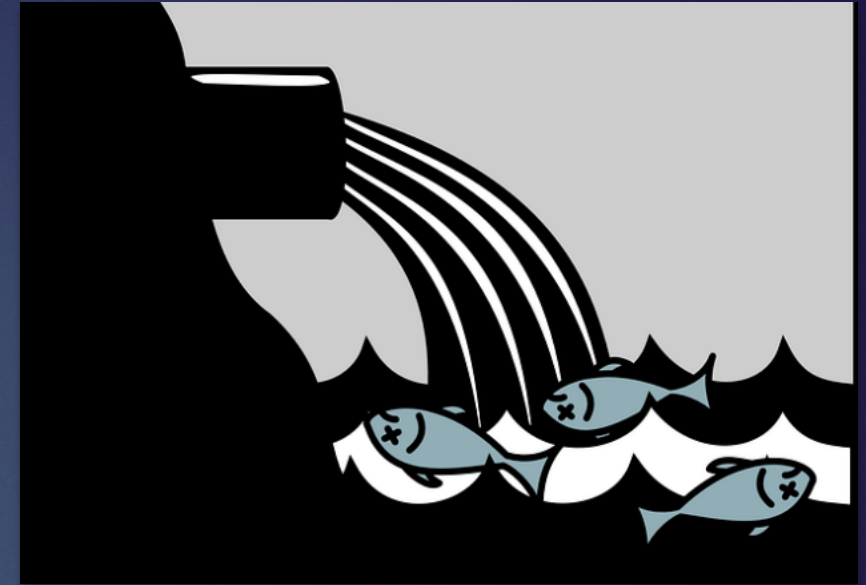
Pretreatment Program Development

TPDES & EPA Rules Updates

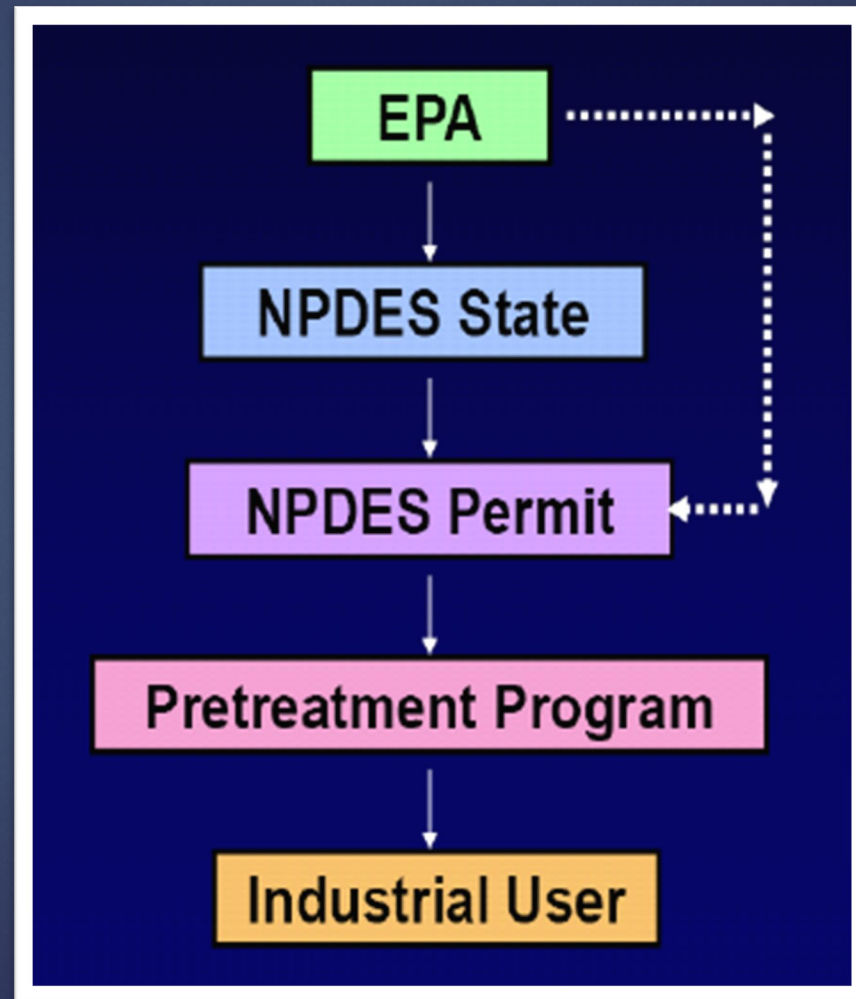
Resources & Contacts

History of Water Protection

- ▶ 1899 – Rivers and Harbors Act
- ▶ 1956 – Federal Water Pollution Control Act
- ▶ 1962 – Rachel Carson's *Silent Spring*
- ▶ 1965 – Water Quality Act
- ▶ 1970 – EPA established
- ▶ 1972 – NPDES Program created
- ▶ 1977 – Clean Water Act
- ▶ 1987 – Water Quality Act



Goals and Objectives of Pretreatment



13 fires were documented on the Cuyahoga River, most notably in 1969.



Cuyahoga River – Cleveland, Ohio

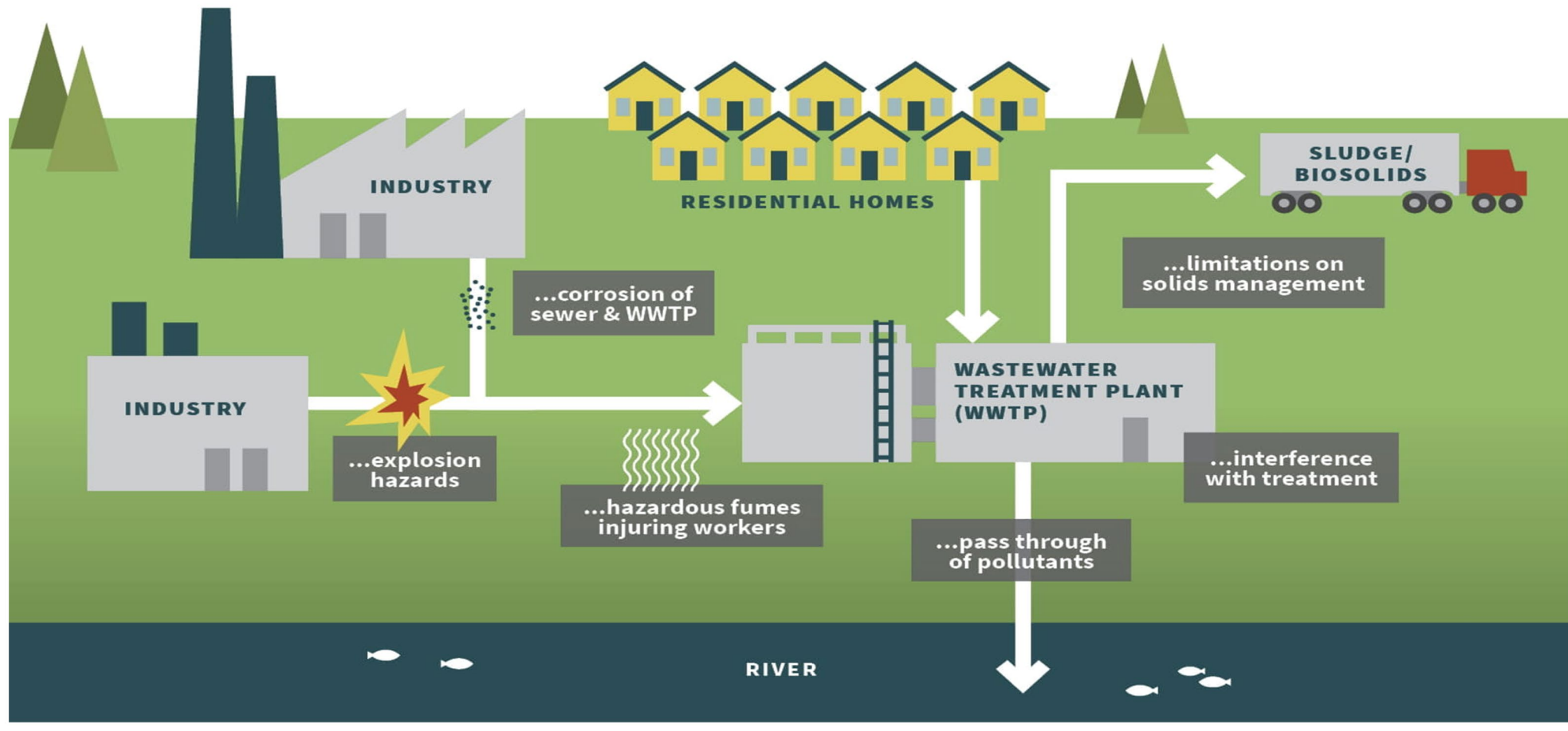
**Extensive damage resulting
from flammable solvent
discharged into the sewer
lines from a soybean
processing facility.**



Louisville, Kentucky - 1981



Industrial Pretreatment Programs Protect Against...



Pretreatment Standards to Achieve Objectives

General Prohibitions



Pretreatment Standards to Achieve Objectives

General Prohibitions



Pretreatment Standards to Achieve Objectives

Specific Prohibitions

Fire or explosion hazard

Corrosive structural damage

Solid or viscous pollutants obstructing flow

Flow rate causing interference

Heat inhibiting biological activity

Oils causing interference/pass through

Toxic gases causing worker health problems

Trucked/hailed pollutants unless designated

Pretreatment Standards to Achieve Objectives

Categorical Standards

- National standards
- Apply to specific industrial categories
- Emphasis on toxic pollutants
- Technology-based
- Apply at the IU's "end-of-process"

Local Limits

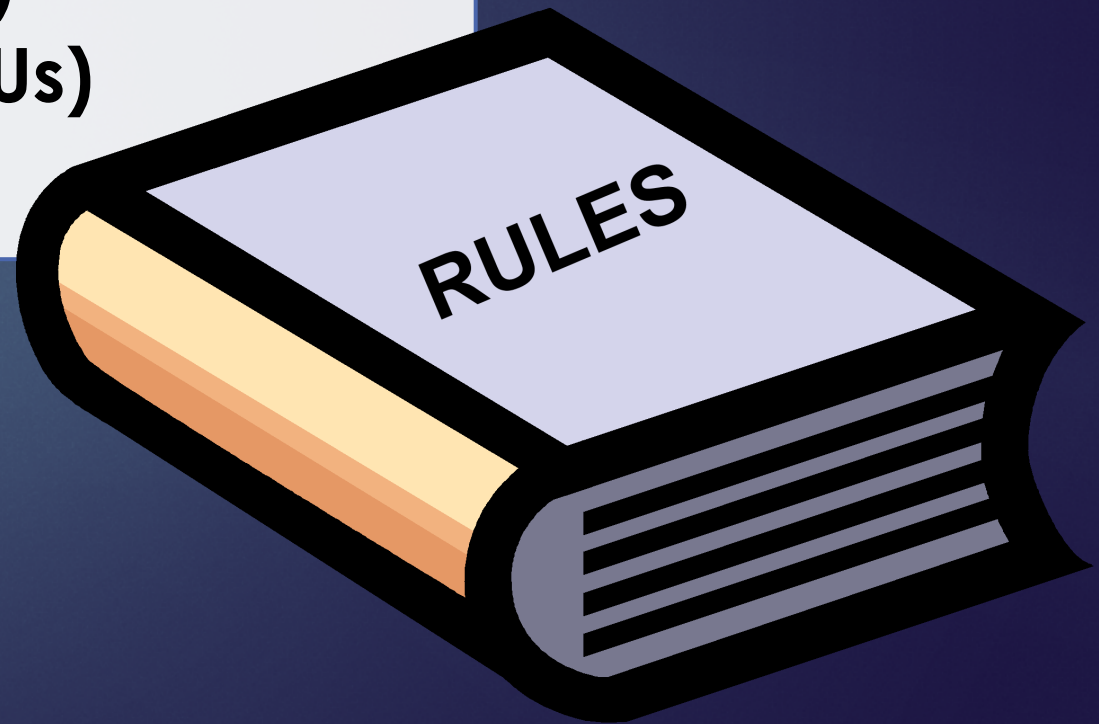
- Developed individually by each POTW
- Based on local, site-specific data
- Protect WWTP, workers, sludge quality and water body
- Apply at the IU's "end-of-pipe"

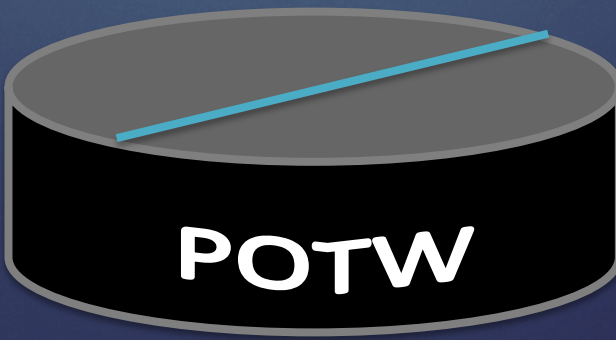
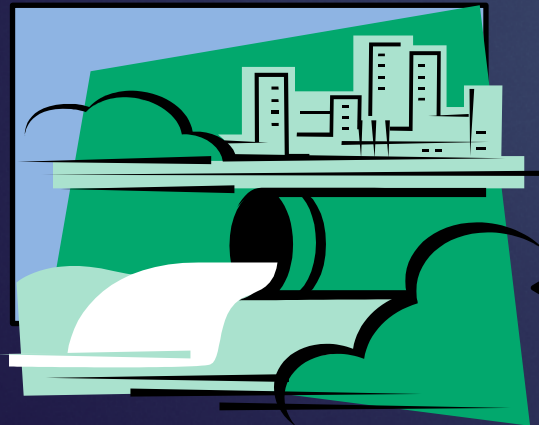
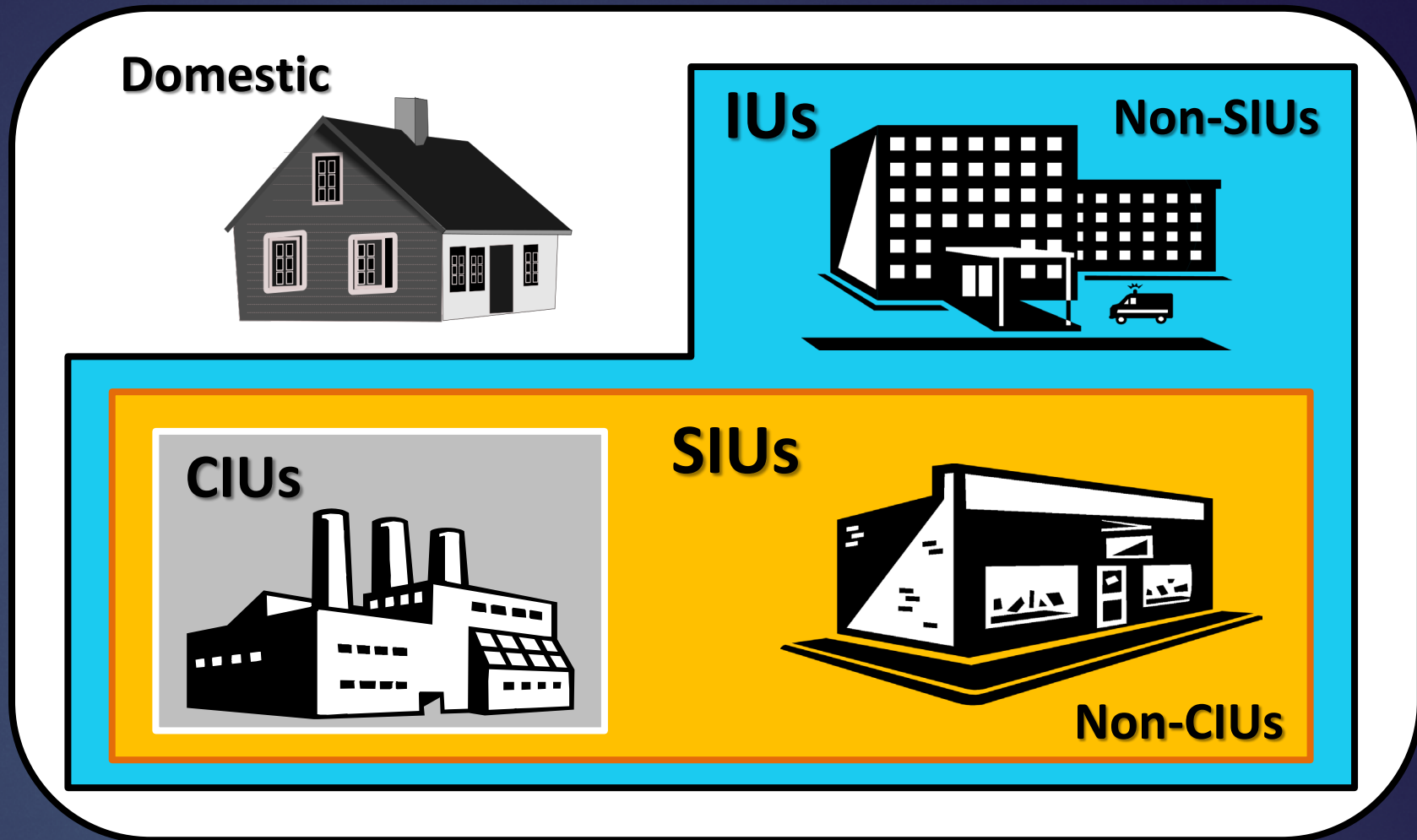
Who is Regulated?

The Pretreatment Program regulates:

- **Significant Industrial Users (SIUs)**
- **Categorical Industrial Users (CIUs)**
- **Other Industrial Users (IUs)**

*Based on character and volume of
wastewater discharged to the POTW*





What is a Significant Industrial User? 40 CFR Part §403.3(v)

- ▶ Discharges 25,000 gallons per day (gpd) or more of process wastewater
- ▶ Contributes 5% or more of the hydraulic or organic capacity of the WWTP
- ▶ Reasonable potential to adversely impact the POTW or for violating any standard
- ▶ Subject to categorical pretreatment standards (CIUs)

What is a Categorical Industrial User?

- Applies to specific industrial categories listed in 40 CFR Parts 405-471
- Existing Source or New Source in 40 CFR §403.3(m)
- National technology-based limits that apply at the CIU's "end-of-process"
- Emphasis on toxic pollutants

Who Must Develop a Pretreatment Program?

40 CFR §403.8

- ▶ POTWs with:
 - ▶ Combined design flow of ≥ 5 MGD, and
 - ▶ Receive wastewater contributions from CIUs
 - ▶ Receive pollutants which cause pass through or interference at the WWTP
 - ▶ Program development may be required by TCEQ due to other reasons



Pretreatment Program Elements

40 CFR §403.8

- ▶ Legal Authority (ordinances)
- ▶ Enforcement response plan and guide
- ▶ Standard operating procedures
- ▶ Adequate funding & resources
- ▶ Local Limits
- ▶ List of IUs, SIUs, CIUs



TPDES & EPA Rules Updates



NPDES Electronic Reporting Rule (e-Reporting Rule)



Final NPDES e-Reporting Rule

Data required to be submitted with Annual Pretreatment Reports:

- ❖ SIU and NSCIU address, city, state, and zip code
- ❖ SIU and NSCIU type of process and non-process wastewater discharged (continuous or intermittent)
- ❖ SIU and NSCIU flow rate (gallons per day) of process and non-process wastewater discharged (Program Report)
- ❖ Notification of Changed Discharge Submission
- ❖ Middle-Tier Significant Industrial User Reduced Reporting Status
- ❖ Non-Significant Categorical Industrial User (NSCIU) Certification Submitted to Control Authority
- ❖ Industrial User POTW Discharge Contamination Indicator (Program Report)
- ❖ Industrial User Biosolids or Sewage Sludge Contamination Indicator (Program Report)

EPA's PFAS Action Plan

- ▶ **June 2020**, EPA issued a final rule under the TSCA adding 172 per and polyfluoroalkyl substances (PFAS) to EPCRA Section 313 list of toxic chemicals, otherwise known as the Toxics Release Inventory (TRI).
- ▶ **December 2022**, EPA released the memorandum “Addressing PFAS Discharges in National Pollutant Discharge Elimination System Permits and Through the Pretreatment Program and Monitoring Programs”
- ▶ **January 2023**, EPA finalized ELG Plan 15, focusing on opportunities to limit PFAS discharges from multiple industrial categories



EPA Recommendations for POTWS

Establish Universe

- Conduct IU inventory of PFAS industries, including non-SIUs
- Collaborate with drinking water to determine downstream intakes
- Consider sludge disposal goals

Develop Sampling Plan

- Use Method 1633 in conjunction with 1621
- Include IUs identified in PFAS inventory
- Select monitoring locations to differentiate industrial vs domestic influent contributions where possible
- Frequency recommendation: quarterly

Implement Solutions

- Incorporate monitoring requirements into IU control mechanisms
- Incorporate local limits into IU control mechanisms
- Local limits can be BMPs
- Ensure IUs are in ICIS and submitting data electronically
- Notify affected public water suppliers

Pretreatment Training & Resources

▶ TCEQ Pretreatment webpages

<https://www.tceq.texas.gov/permitting/wastewater/prereatment>

▶ EPA Pretreatment webcasts and trainings

<https://www.epa.gov/npdes/national-pretreatment-program-events-training-and-publications#pretreat101>

TPDES Pretreatment Program Contacts

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Questions and Discussion?

THANK YOU!