

# EPA's Effluent Limitations Guidelines and Standards (ELG) Program Update

PFAS National Compliance Initiative Webinar  
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# Introduction

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  - Effluent Guidelines Program
- Support from my colleagues
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  - Mike Beczek
  - Ryan Novak, ERG (EPA contractor)

# Outline

- Overview of ELG Program & Planning Process
- Effluent Limitation Guidelines (ELG) Program Plan 15
  - Results of annual review
  - Updates on existing rulemaking and studies
  - Announcements of new rulemakings, studies and other initiatives
- Clean Water Act (CWA) Analytical Methods
- Questions

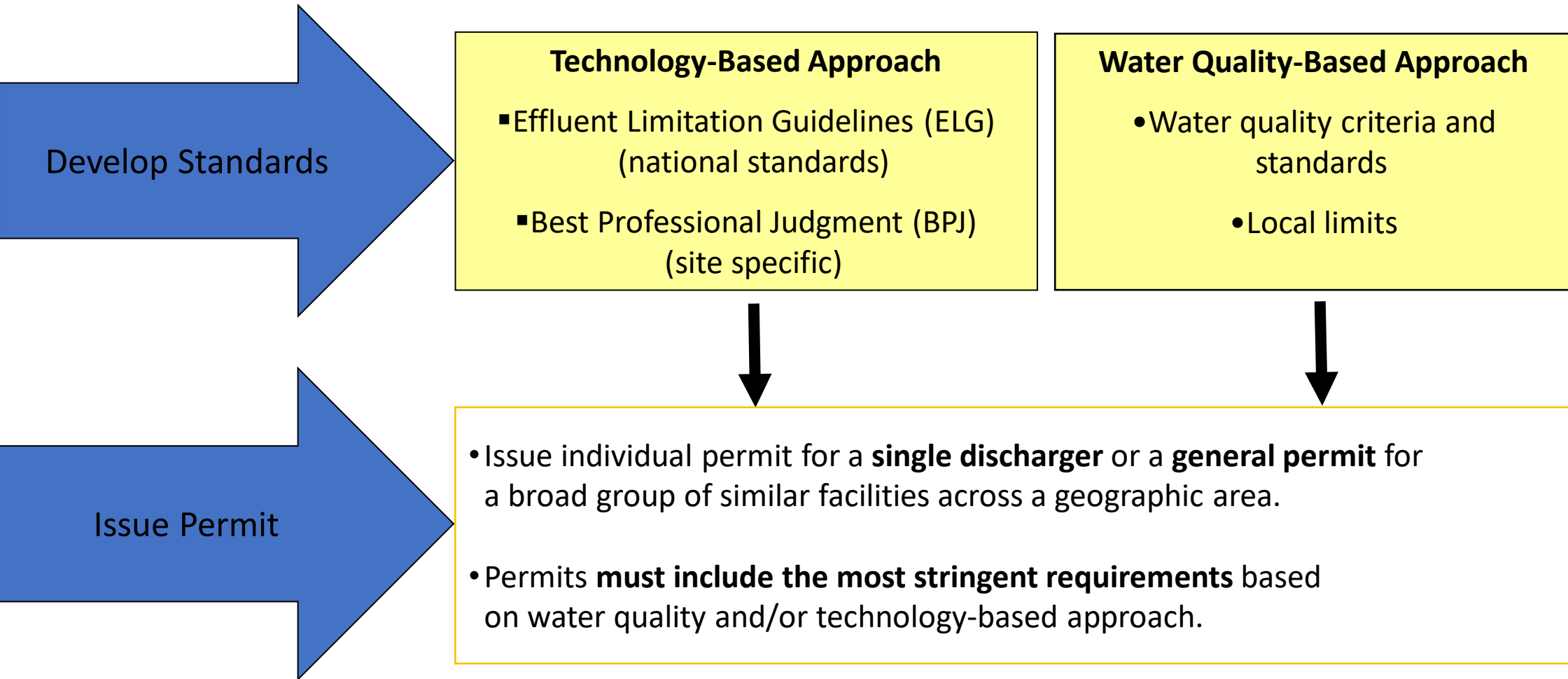
# Objective

1. Learn about the ELG program and the planning process.
2. And what direction EPA is moving towards regulating PFAS under the ELG program?

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# Regulation of Point Source Discharges



# What are Effluent Limitation Guidelines and Standards?

- *Effluent Limitations Guidelines (ELGs)* are national wastewater discharge standards set on an industry-by-industry basis.
  - They are technology-based and are intended to represent the greatest pollutant reductions that are economically achievable for an industry.
  - For sources discharging directly to surface waters and indirectly to publicly owned treatment works (POTWs).
  - EPA has promulgated ELGs for 59 industrial point source categories.

# What are Effluent Limitation Guidelines and Standards?

- The Clean Water Act requires EPA to annually review existing effluent guidelines and pretreatment standards to determine if revisions are warranted.
- The Clean Water Act does not describe what activities must be included in the review and EPA's current process has evolved over the years, incorporating feedback from the public on how best to conduct these reviews.
- EPA publishes the results of these reviews in the

*Effluent Guidelines Program Plan.*



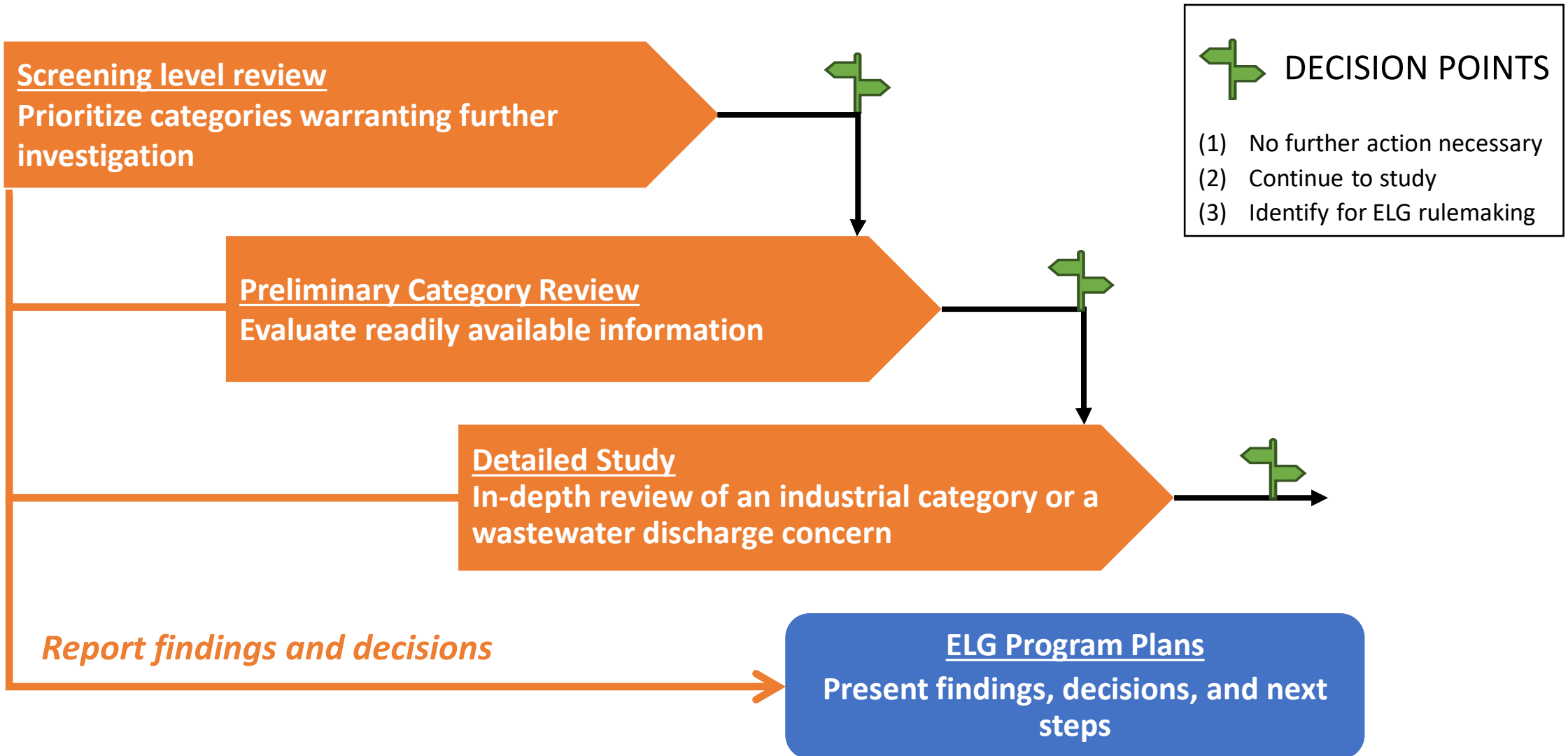
# What is an Effluent Guidelines Program Plan?

- The Effluent Guidelines Program Plan is a communication tool that EPA uses to relay the results of our annual review and decisions on new rulemakings to the public.
- The Clean Water Act directs EPA to publish a plan every two years to share the results of our reviews with the public.
  - Establish a schedule for any effluent guidelines revisions that have been identified.
  - Identify any industries not currently subject to effluent guidelines that discharge nontrivial amounts of toxics and establishes a schedule to take final action.

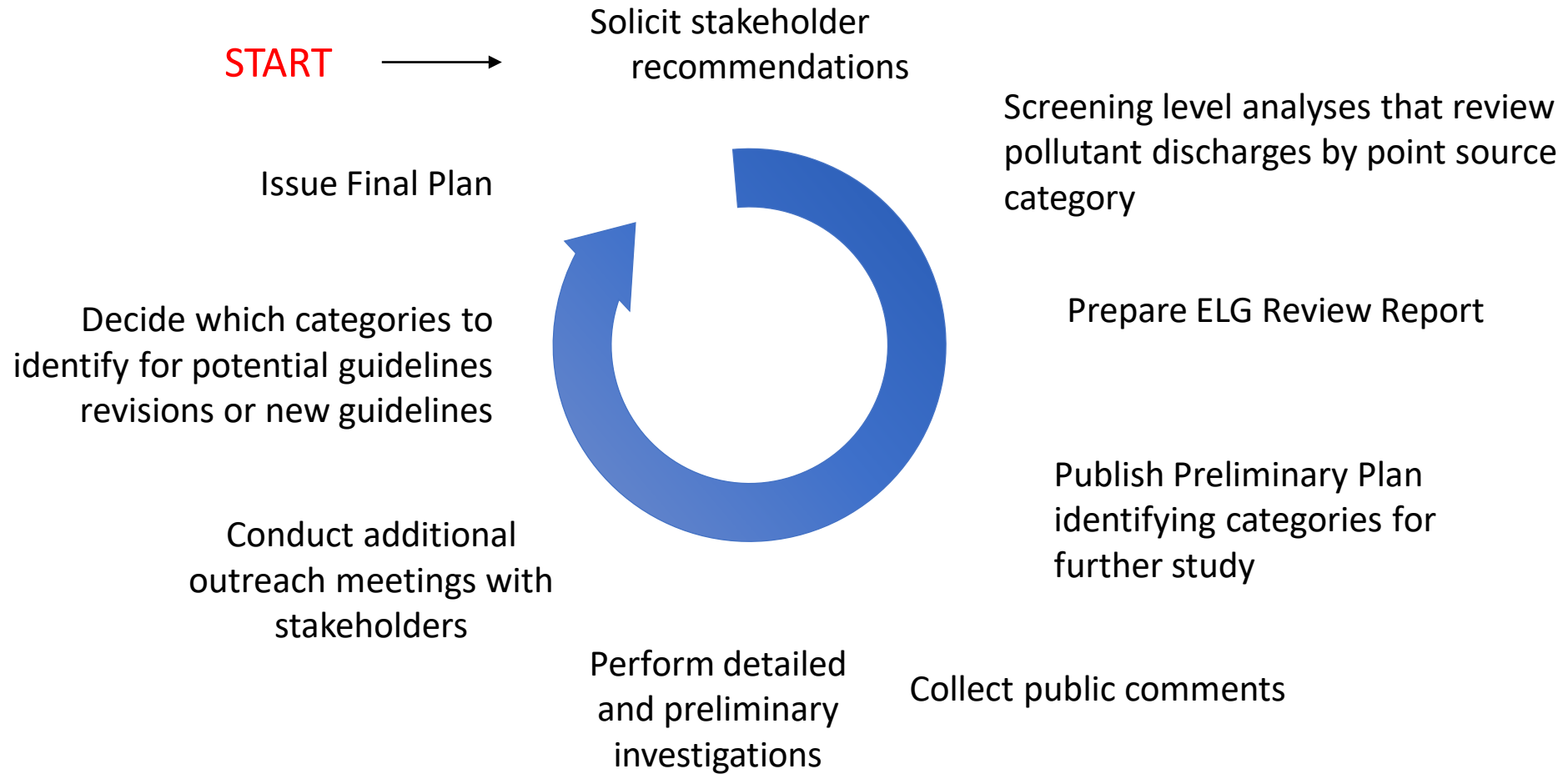
# What is an Effluent Guidelines Program Plan?

- To fulfill this requirement, EPA has implemented a two-year publication cycle for the ELG Program Plan:
  - Year 1: EPA publishes a *Preliminary ELG Program Plan* which includes: the results of the most recent annual review, announcements on new studies or rulemakings, and updates on existing studies and rulemaking. EPA solicits public comment on the contents of this plan.
  - Year 2: EPA publishes the *ELG Program Plan*, which includes: feedback received on the preliminary plan, the results of the most recent annual review, announcements on new studies or rulemakings, and updates on existing studies and rulemaking.

# Overview of ELG Planning Process & Review



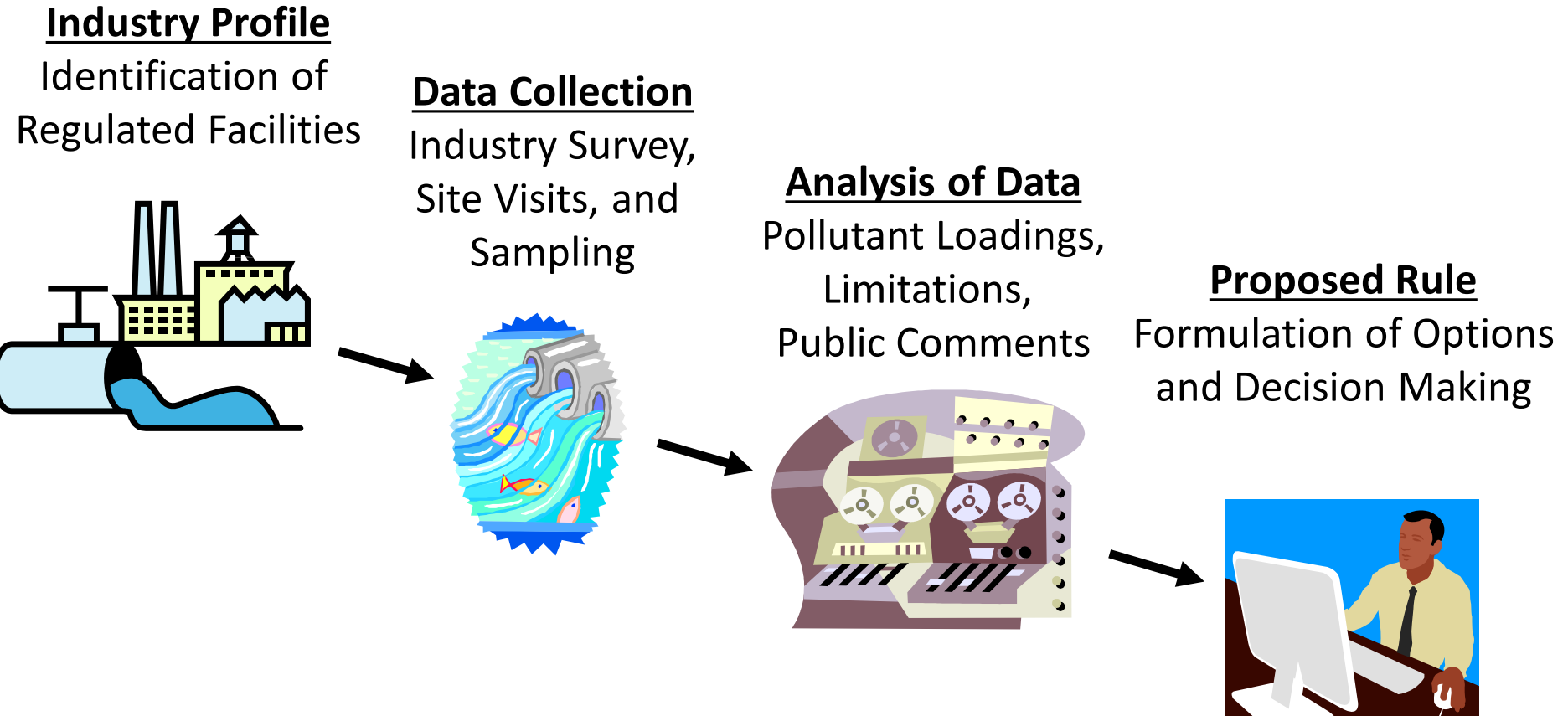
# Cycle of the ELG Planning Process & Review



# Other data & analyses considered in ELG Planning Reviews



# ELG Development Process



# Developing Effluent Guidelines - Major Elements

- Data Collection

- Publicly available information
- Technical & financial surveys
- Inspect production processes & wastewater treatment systems
- Wastewater sampling
- Stakeholders

- Technology Assessment

- Wastewater characterization; technology performance
  - Subcategorizations
  - Regulated Pollutants
- Feasibility
- Costs to install new technologies & process changes
- Pollutant reductions associated

with new technologies and process changes

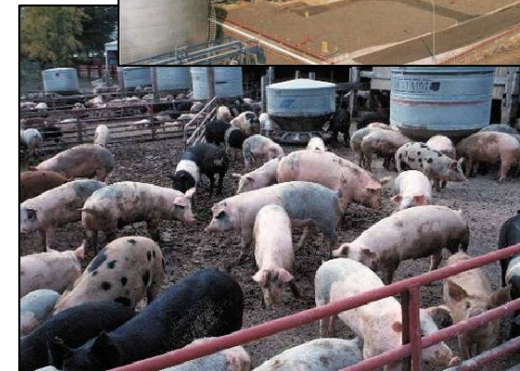
- Statistical analyses to derive effluent limits

- Economic Analysis

- Economic achievability; analysis of market effects; cost-effectiveness
- Value of environmental & human health benefits

- Environmental Assessment

- Pollutant transport & exposure pathways; hazards
- National & local impacts; benefits



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# Preliminary ELG Program Plan 15

- On September 2021, EPA published Preliminary Plan 15 for a 30-day public comment period.
- EPA received over 34,000 public comment letters, the majority of were submitted as part of mass-mail campaigns, and 67 unique public comments.
- The [Preliminary Plan 15](#) discusses:
  - Results of 2021 preliminary category reviews.
  - Concluding, continuing and new detailed studies.
  - New rulemakings.
  - Other updates and announcements of new initiatives.



## Preliminary Effluent Guidelines Program Plan 15

September 2021

# Multi-Industry PFAS Study – 2021 Preliminary Report

- EPA reviewed information and data collected on PFAS manufacture, use, treatment, and discharge to surface water and POTWs focusing on commercial airports, pulp and paper, textile mills, and PFAS manufacturing facilities.
- Based on results from the Multi-Industry PFAS Study and preliminary category reviews:
  - EPA **initiated detailed studies** of PFAS discharges from landfills and textile mills categories.
  - EPA will **continue to monitor** reduction of PFAS use and discharge by pulp and paper facilities and commercial airports through Effluent Guidelines annual review process.
    - Pulp and paperboard facilities and commercial airports are transitioning to nonfluorinated alternatives based on actions by the Food and Drug Administration (food packaging) and Federal Aviation Administration (Aqueous Film Forming Foam).



## Multi-Industry Per- and Polyfluoroalkyl Substances (PFAS) Study – 2021 Preliminary Report

September 2021

# Multi-Industry PFAS Study – 2021 Preliminary Report

- 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.
- Metal Finishing (40 CFR 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.



Multi-Industry Per- and Polyfluoroalkyl  
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# ELG Program Plan 15



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## Effluent Guidelines Program Plan 15

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- Published in January 2023.
- [ELG Program Plan 15](#) presents new findings of our annual review, summary of public comments we received, announces new rulemakings and studies while also providing updates on existing rulemakings and studies.
- Annual Review Activities
  - Pollutant Ranking Analysis: Using publicly available discharge monitoring report (DMR) data, EPA ranked all 59 industrial categories with existing ELGs based on pollutant loadings.
  - Based on a combination of the results of the pollutant ranking analysis, input from the public, and as announced in the [EPA's PFAS Strategic Roadmap](#), EPA conducted category reviews for three industrial categories: Plastics Molding and Forming (40 CFR 463), Paint Formulating (40 CFR 446) & Leather Tanning (40 CFR 425)

# ELG Program Plan 15



Effluent Guidelines  
Program Plan 15

- Annual Review Findings
  - Based on the limited data in the three category reviews, in particular data pertaining to PFAS discharges which was a primary factor in choosing these three categories for review, EPA has elected to:
  - Initiate a *new study of POTW Influent*s, where EPA will direct POTWs to sample their industrial customers in order to better understand the potential for PFAS discharges from these industries and inform development and implementation of local pretreatment programs.

# ELG Program Plan 15: New announcements

- New Rulemaking:
  - **Revisions to the existing Landfill ELG (40 CFR Part 445)**
    - Preliminary ELG Plan 15 announced the initiation of a detailed study of landfills, primarily focused on discharges of PFAS.
    - The results of this study demonstrate that landfills across the US are discharging PFAS in significant quantities and technologies are available to use as a technology basis for an ELG.



# ELG Program Plan 15: New announcements

- New Studies:

- **Detailed Textile Study (40 CFR Part 410)**

- Preliminary ELG Plan 15 announced a limited study of textile manufacturing, primarily focused on discharges of PFAS.
- The results of this limited study demonstrated the lack of available data on PFAS discharges from textile mills and EPA intends to expand the scope of the study to conduct a mandatory survey of this industry.

- **Detailed Concentrated Animal Feeding Operations (CAFOs) Study (40 CFR Part 412)**

- The existing CAFOs ELG impose substantial and detailed requirements on both the production area and land application area; however, EPA needs to better understand discharges from CAFOs and implementation of the existing CAFOs ELG to make an informed decision on whether revisions to the existing CAFOs ELG are warranted.

# ELG Program Plan 15: Update on existing rulemakings

- **Steam Electric ELG (40 CFR Part 423)**

- In 2021, EPA announced it was initiating a new supplementary rulemaking to strengthen certain wastewater pollution from coal fired power plants. This plan provides an update on the progress of the rulemaking, including stating EPA's intent to sign a notice of proposed rulemaking by early 2023.

- **Meat and Poultry Processing (MPP) ELG (40 CFR Part 432)**

- In Preliminary ELG Plan 15, EPA stated it would be initiating a rulemaking to revise the existing MPP ELGS. This plan provides an update on the progress of the rulemaking as well as stating EPA's intent propose this regulation in December 2023.

# ELG Program Plan 15: Update on existing rulemakings

- **PFAS Manufacturers (40 CFR part 414)**

- EPA announced in its PFAS Strategic Roadmap that it will revise the ELGs for the Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) Point Source Categories to address wastewater discharges of PFAS from PFAS manufacturing facilities. In this plan EPA provides a status update on the activities for this rulemaking as well as it's intent to publish a proposal for this rule in the Spring of 2024.

- **Metal Finishing and Electroplating (40 CFR Part 433 & Part 413)**

- EPA announced in its PFAS Strategic Roadmap that it will revise the ELGs for the Metal Finishing and Electroplating Point Source Categories to address discharges of PFAS from metal finishing and electroplating operations. EPA provided a status update on the activities for this rulemaking as well as it's intent to publish a proposal for this rule by the end of 2024.

# ELG Program Plan 15: Update on existing studies

- **Electronic and Electrical Component (E&EC) Manufacturing (40 CFR Part 469)**
  - In 2015, EPA initiated this study based on stakeholder input, after initiating the study concerns surrounding PFAS discharges were raised with regards to this industry.
  - Based on the data collected, EPA has determined that for the most part, this industry has been effective in limiting the discharge of pollutants and EPA is concluding the study and publishing the study report alongside this plan.
    - Additionally, there are extremely limited data on PFAS discharges from these facilities and the previously described POTW Influent Study will help identify any PFAS related issues with this industry.

# ELG Program Plan 15: Update on existing studies

## • PFAS Phase-outs

- In Preliminary ELG Plan 15, EPA identified two industries, airports and pulp & paper manufacturing (40 CFR Part 430), not warranting further action due to self-imposed PFAS phase-outs.
- EPA also indicated that the Agency would continue to monitor those anticipated phase-outs to ensure additional actions do not become warranted in the future.
- This plan presents the current status of the PFAS phase-out in these two industries, both of which appear to be on pace as initially described in Preliminary ELG Program Plan 15.
- EPA will continue to monitor and report on these phase-outs until they are complete.

# Summary of actions and discussion in ELG Program Plan 15

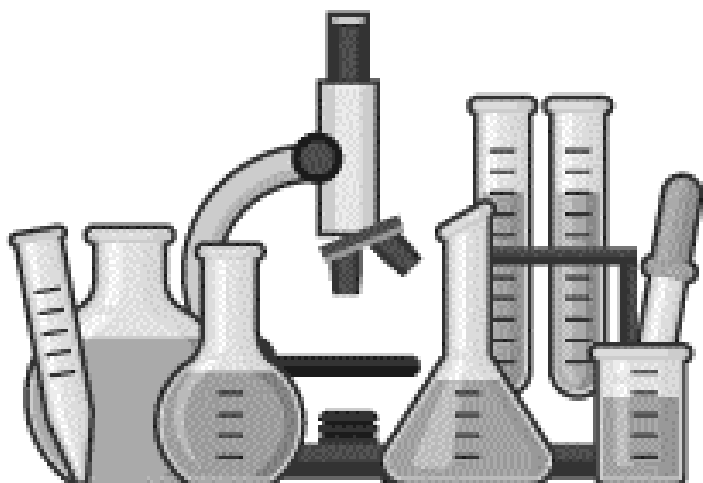
- EPA is initiating a new rulemaking to revise the existing ELG for landfills, primarily to address PFAS in landfill leachate.
- EPA is initiating a new study to gather data on industrial PFAS discharges to POTWs.
- EPA is initiating a new study to gather data on Concentrated Animal Feeding Operations (CAFOs) to better understand the potential discharges and current implementation of the existing rule.
- EPA is expanding the scope of the existing Textile Mills detailed study to include collecting data on PFAS use and discharge through a mandatory survey from this industry.
- Updates to existing rulemakings and studies, including Steam Electric ELG, Meat and Poultry ELG, PFAS Manufacturers ELG, Metal Finishing & Electroplating ELG, the E&EC detailed study, and the PFAS phase-outs for airports and pulp & paper manufacturers.

*The commencement and pace for these activities will be a function of funding in FY23 and beyond.*

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# CWA Analytical Methods

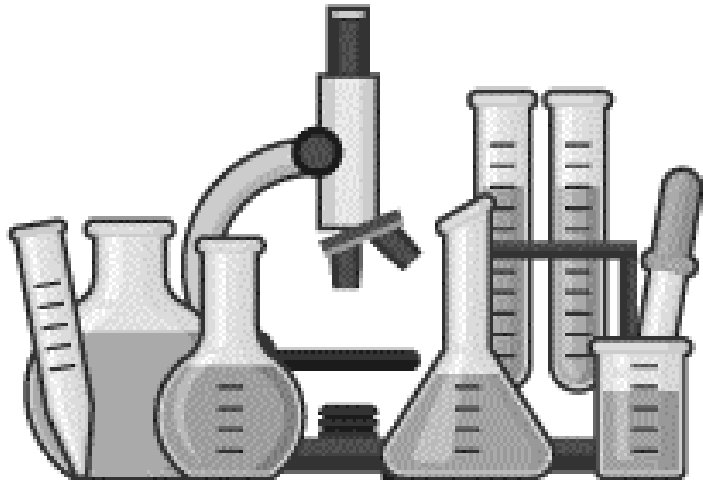


- EPA's [Draft Method 1633](#)

- A method to test for **40 PFAS compounds** in wastewater, surface water, groundwater, soil, biosolids, sediment, landfill leachate, and fish tissue.
- Third revision of Draft Method 1633 (posted on the EPA website in December 2022) contains quality control criteria generated from the multi-laboratory validation study for wastewater.
- This draft method can be used in various applications, including National Pollutant Discharge Elimination System (NPDES) permits.
- The method will support NPDES implementation by providing a consistent PFAS method that has been tested in a wide variety of wastewaters and contains all the required quality control elements in CWA method.
- While the method is not nationally required for CWA compliance monitoring until EPA has promulgated it through rulemaking, ***it is recommended now for use in individual permits.***



# CWA Analytical Methods




- EPA published [Draft Method 1621 for Adsorbable Organic Fluorine \(AOF\)](#)
  - A single-laboratory validated method to screen for organofluorines in wastewaters and surface waters by Combustion Ion Chromatography (CIC).
  - EPA is currently multi-laboratory validating this method.
- [Frequently Asked Questions about PFAS methods for NPDES Permits](#)

# Questions?

## Contact

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