

# PFAS in Wastewater Treatment Systems

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# Background of Goal

At the 2023 P2 West Conference we agreed upon a goal to address PFAS going into wastewater treatment systems.

The collaborators and myself are from different states along the west coast and all work in fields adjacent to wastewater treatment. We have been meeting monthly for the past year.



# Original Goals Established in 2023

2.2 - Within one year, develop a pretreatment outreach plan addressing the most significant industrial sources of PFAS to municipal wastewater treatment plants

2.3 - Within two years, implement pretreatment outreach plan

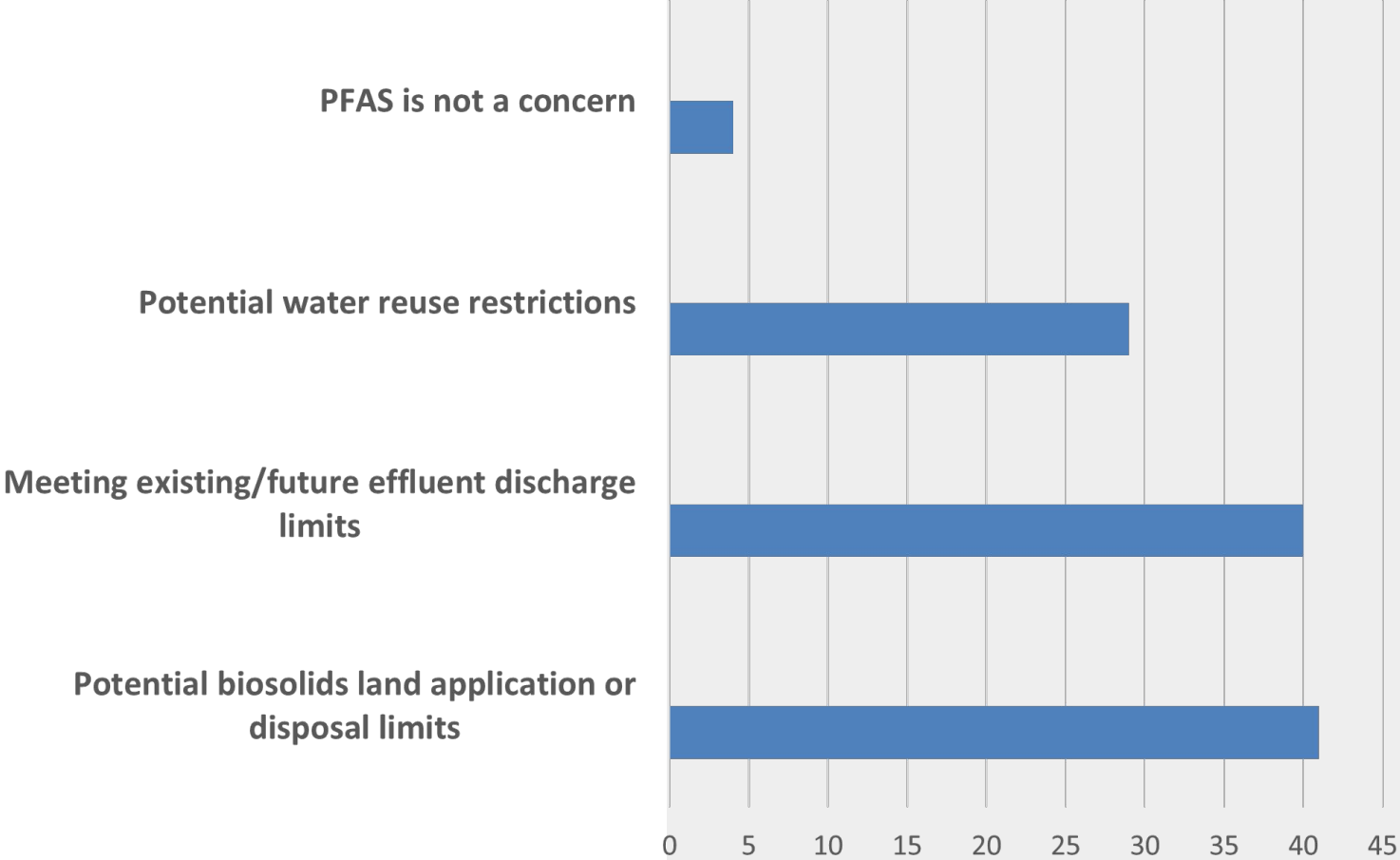
# Goal 2.2 and 2.3 Subtasks

<b>2.2</b>	<b>Within one year, develop a pretreatment outreach plan addressing the most significant industrial sources of PFAS to municipal wastewater treatment plants</b>
Task 1	Recruit wastewater plants to participate in order to gain valuable information about PFAS discharges that are about to be regulated and potential to save money.
Task 2	Develop boilerplate questions that address PFAS for wastewater jurisdictions to include in surveys
Task 3	Survey wastewater treatment systems to identify significant and likely industrial sources of PFAS in effluent
Task 4	Rank industrial source reduction opportunities by their impact on EJ communities and total PFAS discharge in effluent
Task 5	Prioritize based on the likelihood of adoption of a safer alternative or elimination
Task 6	Develop an outreach plan targeting barriers to safer substitutes or elimination of PFAS within ranked opportunities under Task 3
Task 7	Find existing case studies of implementation
Task 8	Get 10-20 jurisdictions to partner and agree to implement pretreatment outreach plan that is inclusive of all communities and stakeholders that are impacted
<b>2.3</b>	<b>Within two years, implement pretreatment outreach plan</b>
Task 1	Have quarterly meeting with jurisdictions that are implementing the plan
Task 2	Jurisdictions have monthly meetings with their partners to achieve implementation.
Task 3	Work with interns (could get from HBCU) to assist specific industries with PFAS reductions and Develop Case Studies of new implementation

# Progress in the Past Year

- Researched different progress other states are making in addressing PFAS at the POTW
- Gathered relevant resources
- Developed and sent out a survey to small and medium sized POTWs (less than 20 MGD)
- We have received 52 survey responses and are using this information to develop an outreach plan for interested utilities

# Primary PFAS Concerns



# Sources of PFAS

## Industrial

Next most cited source of PFAS. Selected by 12 out of 40.



## Commercial

Least common source of PFAS, only selected by 9 out of 40.

## Residential

Most cited source of PFAS. Selected by 19 out of 40.

# Likely Industrial Contributors of PFAS

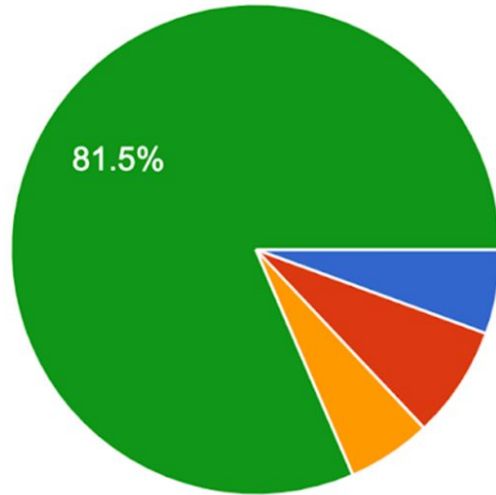
- Fire Department (40)
- Metal Finishing other than Chrome Plating (26)
- Airport and Aerospace Manufacturing (11)
- Chrome Plating (9)
- Landfills (9)
- Coatings, Paint, and Varnish Manufacturing (8)
- Pulp, Paper and Paperboard Manufacturing (5)
- Chemical Manufacturing (4)
- Semiconductor Manufacturing (4)
- Textile Mills (1)
- Facilities Producing Non-stick or Water-resistant Products (1)



# Survey Findings on PFAS Outreach

Has any outreach been done to the contributors of PFAS to the treatment plant?

54 responses



- Residential outreach
- Commercial and/or Industrial outreach
- All of the above
- No outreach has been done at this time

# Challenges

- Facilitating good discussions in a virtual format
- Getting responses and representation from a variety of states in the survey and in group representatives
- Adhering to the original timeline we set up in 2023

# Next Steps

- 31 of Survey Respondents are interested in using outreach materials provided by our group
- Identifying case studies
- Finding a pretreatment program contact with a successful outreach program for peer review
- Developing outreach materials that address the needs of the survey respondents
- We added six months to goal 2.2 so the outreach plan should be completed by May 2025

# We could use your help!

- Developing BMPs for the targeted industries
- Sharing case studies
- Sharing successful outreach
- Connecting us to pretreatment professionals interested in PFAS
- Providing peer review
- Join us at our next meeting on December 4th

# Thank you!

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