
Bay Area Biosolids Coalition: Meeting

October 20th, 2025

A. Welcome/Introductions



BAY AREA
BIOSOLIDS
COALITION

B. Status of August Action Items – Program Management Team, Research Subgroup, Website Subgroup

- Ongoing – maintain website (Website Subgroup)
- Ongoing – coordinate with potential research partners (Research Subgroup)
- Ongoing – provide updates on regulations and other drivers impacting biosolids beneficial use (Program Management Team, CASA, etc.)
- ❑ BABC/BACWA meeting to coordinate on PFAS communication strategy (Website Subgroup, BACWA)
- ❑ Provide summary of BABC funded/supported research to date (Research Subgroup)
- ❑ Follow up with BluumBio about potential field research on PFAS biodegradation (Research Subgroup)
- ❑ Follow up with WEST Center/Pima County about potential participation in foam fractionation pilot (Research Subgroup)
- ❑ Meet with EPA grant recipients who lost funding about potential collaboration (Research Subgroup)
- ❑ Follow up with WRF about potential research collaboration opportunities (Research Subgroup)
- ❑ Share Central San slides about solids regionalization evaluation (Program Management Team)

B. Status of August Action Items – Member Agencies

- ☐ Contact Lorien Fono if interested in contributing additional funds to Phase 2 of Dr. Pepper's National PFAS Study
- ☐ Contact Program Management Team if interested in participating in the foam fractionation pilot.
- ☐ Contact Program Management Team if interested in being featured in an agency highlight on the website.
- ☐ Contact Program Management Team if interested in serving as co-chair or in the website or research subgroups.
- ☐ Contact Nitin Goel and Christine Polo if interested in learning more about the potential solids regionalization partnership at Central San.
- ☐ Contact Program Management Team if interested in hosting the December 1st in-person BABC meeting.

Contacts:

- Lorien Fono: lfono@bacwa.com
- Program Management Team: babcprogrammanager@carollo.com
- Nitin Goel: NGoel@centralsan.org
- Christine Polo: cpolo@carollo.com

C. Strategic Plan Goals – Progress Updates

Goals

Communicate the value of biosolids for the purposes of increasing understanding, support, and market demand for biosolids

Advance independent scientific research on the safety and efficacy of biosolids to inform science-based regulations, guidelines and best management practices

Support and expand biosolids land application in the Bay Area

Support the development of diverse, cost-effective, and reliable all-weather biosolids projects for the Bay Area



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1. Communicate the Value of Biosolids

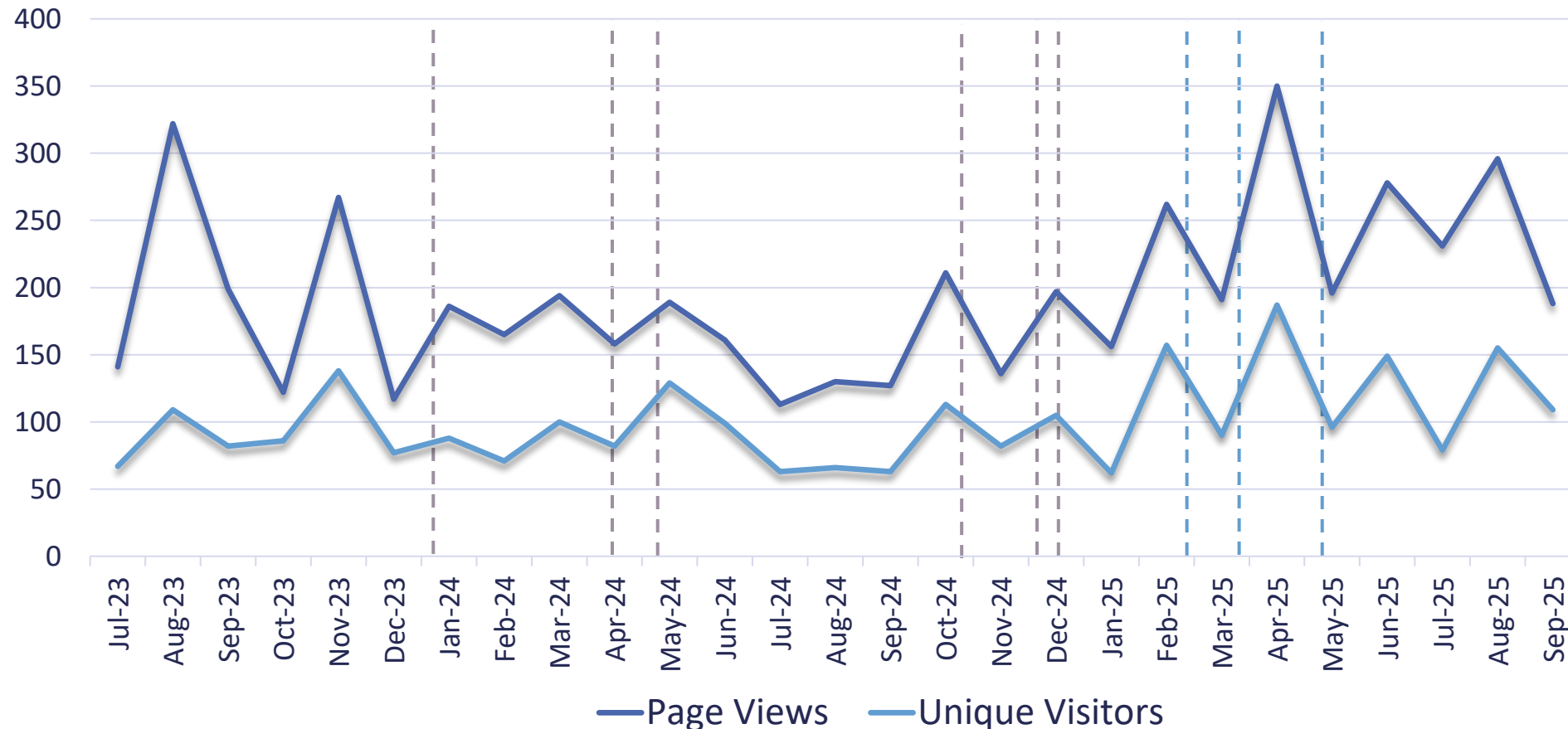
News & Events Posts:

- Upcoming posts:
 - Land application site photos
 - Research on biosolids benefits:
 - **Offset synthetic fertilizer (in progress)**
 - **Improve soil biodiversity and wildlife benefits**
 - **Improve crop productivity**
 - **Reduce irrigation**
 - Agency highlights:
 - San Jose
 - West County Wastewater
 - SFPUC
 - **Let us know if interested!**



1. Communicate the Value of Biosolids

Website Analytics:



Posts:

2024:

- **Jan 9:** Biosolids Product Profile – Dried
- **April 12:** BEAM
- **May 13:** Biosolids Product Profile – Class A
- **Oct 23:** Restoring fire impacted lands
- **Dec 9:** PFAS Resources
- **Dec 18:** BACWA Biosolids Survey

2025:

- **Feb 28:** Mine reclamation
- **Mar 31:** Agency Highlight: Vallejo FWD
- **May 5:** PFAS uptake to oats
- **Aug 12:** National PFAS migration to groundwater



1. Communicate the Value of Biosolids

Updates in blue bold.
Key points highlighted.

BACWA/BABC Collaboration

- How to better use <https://baywise.org/>, and <https://www.bayareabiosolids.com/> to tell our stories.
- **Coordination meeting on September 11:**
 - Participation from 12 member agencies, 4 consultants/vendors, CASA, and SF Bay RWQCB.
 - Overall consensus:
 - Strong need to communicate about biosolids benefits to the public.
 - PFAS risk should be acknowledged, while placed in perspective with other exposure sources. Need to educate the public on the role they play.
 - Communications should be easy to understand.
 - Consider proactively reaching out to reporters.

Toilets Aren't Trash Cans!

Did you know that so-called "flushable" wipes aren't flushable at all? Learn what can and can't be flushed.



What happens after I flush my Toilet?

When you flush a toilet, wash your dishes, or take a shower, that water (called wastewater) flows through sewers to a wastewater treatment facility where it is cleaned before being discharged into the Bay.

Snippet from Baywise.org, BACWA's public-facing, educational website.

1. Communicate the Value of Biosolids

BACWA/BABC Collaboration

- ***Priorities and Next Steps:***

- ***Enhance communications about the value of biosolids***

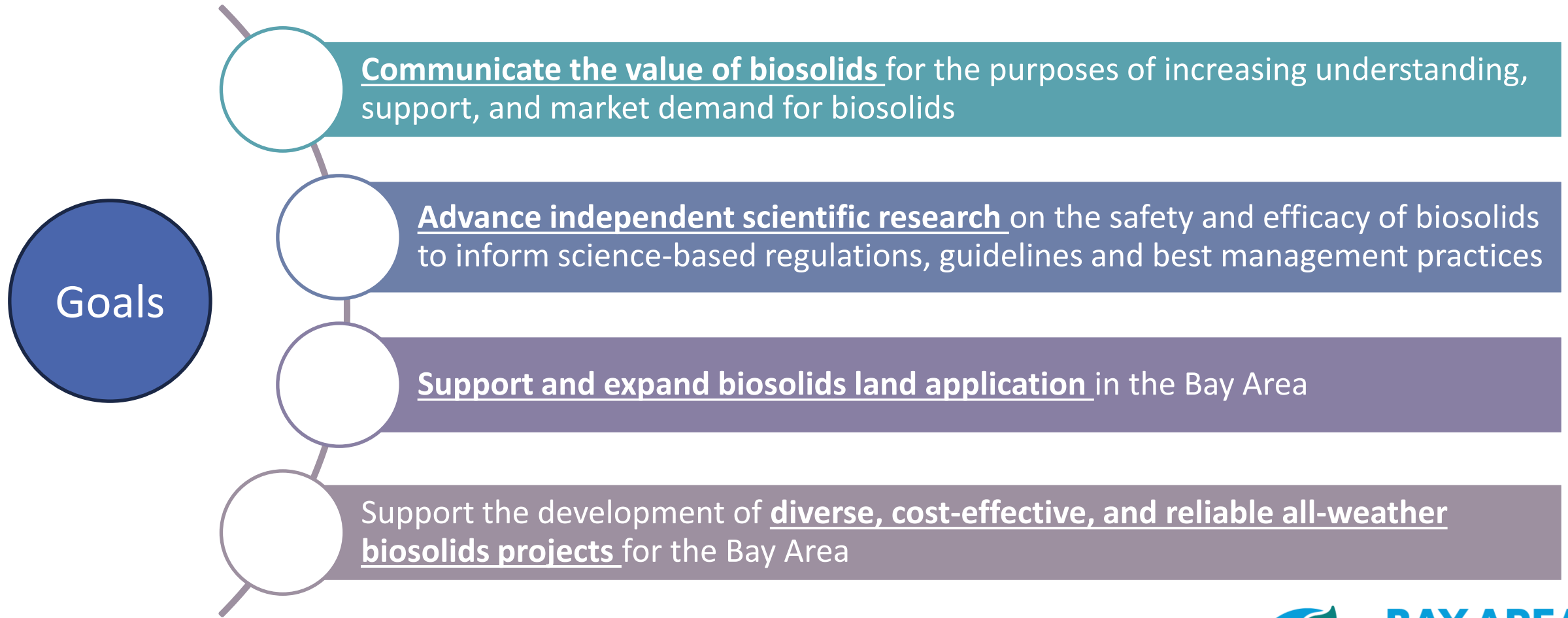
- **Action:** Civic Edge is rewriting info on biosolids benefits from bayareabiosolids.com to post on baywise.org for the general public. May produce social media vignettes for agencies to post.
- **Action:** Engage farmers to discuss the value of biosolids.

- ***Develop messaging and media strategy about PFAS in biosolids***

- **Action:** BACWA will host PFAS forum on Nov 18 to discuss PFAS issues with the wider BACWA community; then will go to the Board in December for direction on next steps.



C. Strategic Plan Goals – Progress Updates



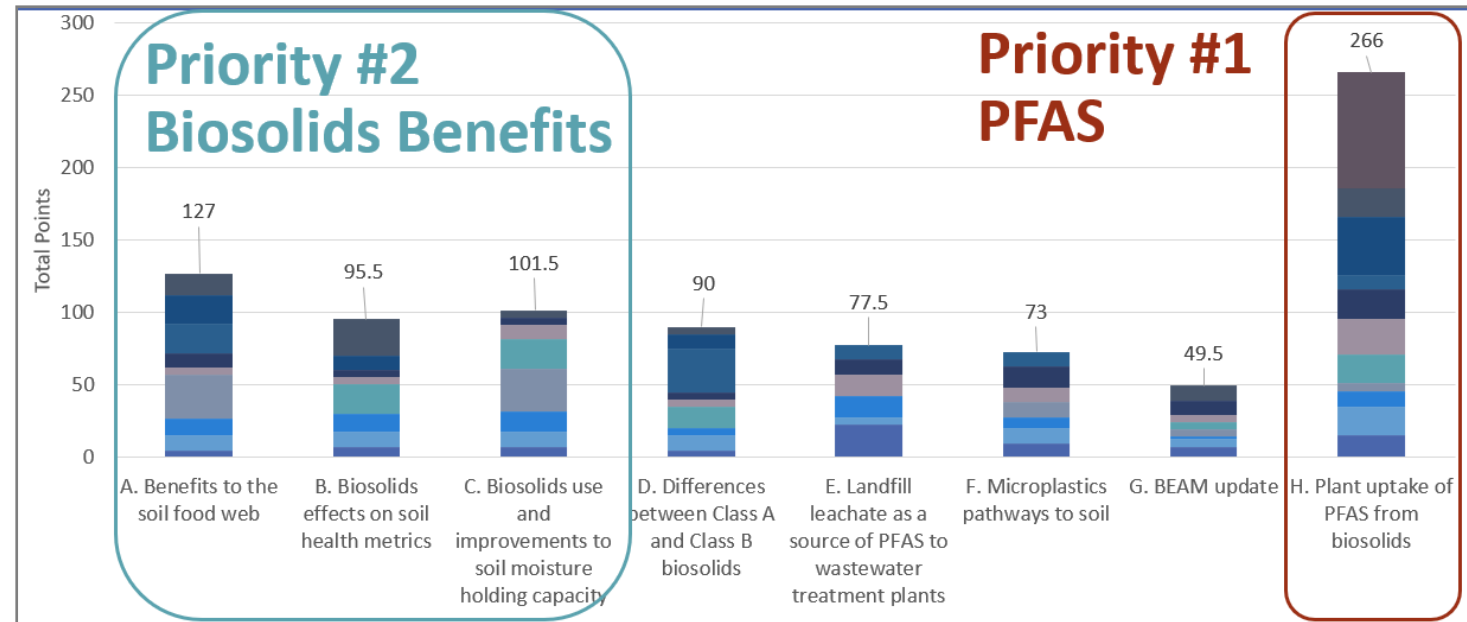
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2. Advance Scientific Research

Research Priorities and Background

■ Background:

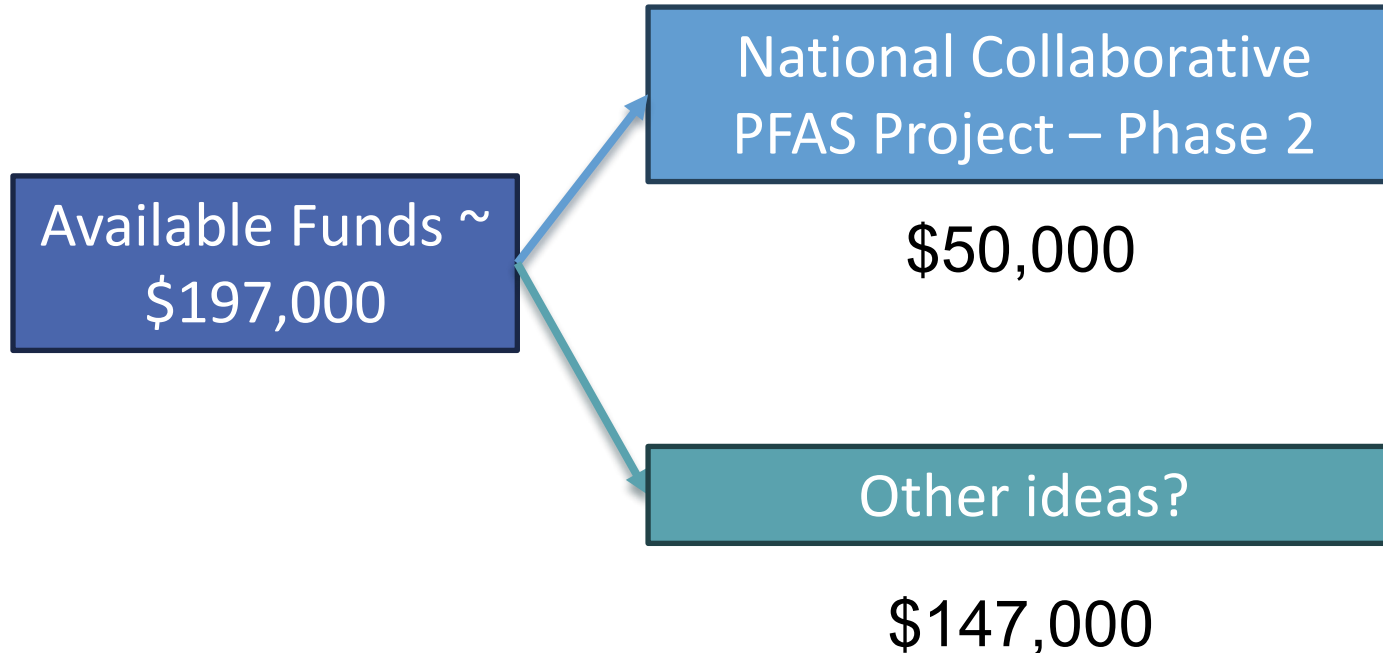
- Survey identified member agency's research priorities →
- BABC donated \$50,000 to National Collaborative PFAS Project - Phase 2, focused on **PFAS plant uptake**.
- Potential collaboration with Prof. Tom Young on **PFAS plant uptake** on hold to avoid duplicating National PFAS Project efforts.
- Potential collaboration with Prof. Becca Ryals on **biosolids benefits** on hold.



2. Advance Scientific Research

Available Funds

Updates in blue bold.
Key points highlighted.



Thank you!

- BABC for donating \$50,000
- Santa Rosa for donating \$10,000
- BACWA for handling the logistics
- **Please let Lorien know if interested in donating!**



2. Advance Scientific Research

Potential Research Opportunities

Updates in blue bold.
Key points highlighted.

- BABC Research Subgroup investigating other opportunities:
 - BluumBio PFAS bioremediation pilot
 - Participate in WEST Center foam fractionation pilot
 - Support projects that lost EPA funding
 - ~~– Potential collaboration with Water Research Foundation (WRF)~~
 - ~~– Potential research project at land adjacent to EBMUD's WWTP~~

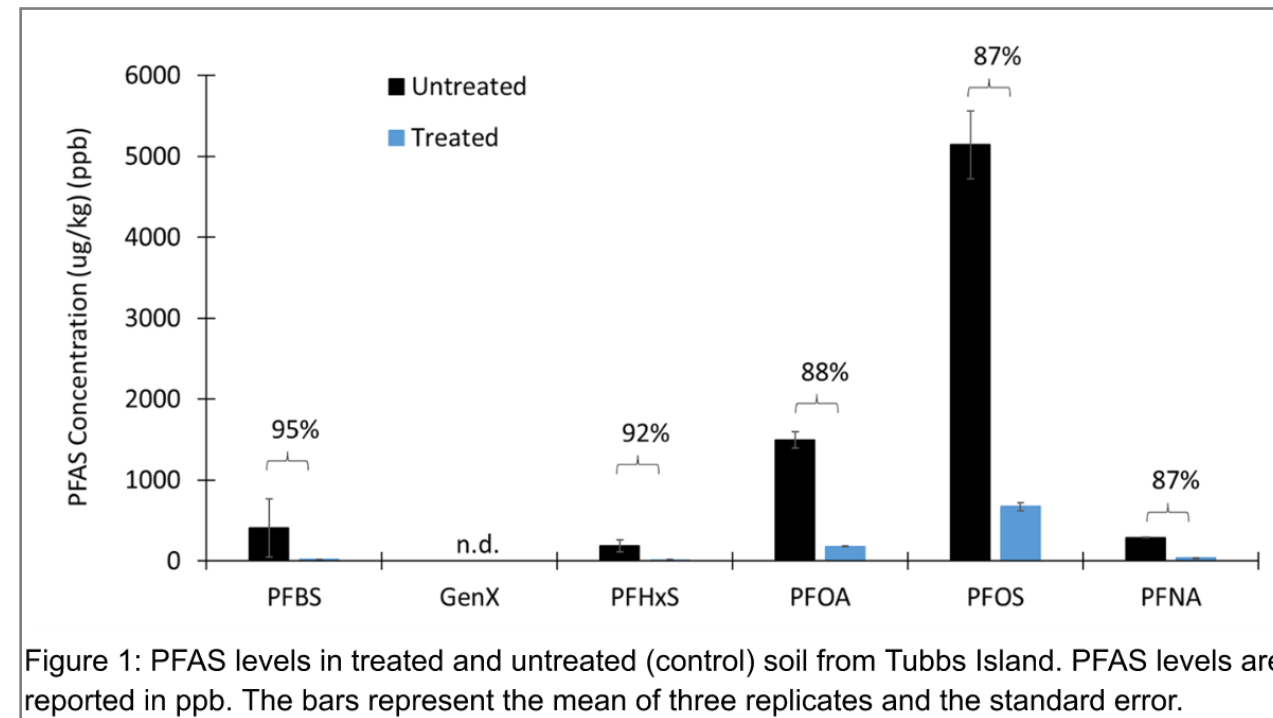


2. Advance Scientific Research

Potential Research Opportunities

Updates in blue bold.
Key points highlighted.

- **BluumBio PFAS bioremediation pilot**
 - Potential location at Vallejo Flood and Wastewater District (VFWD)'s Tubbs Island.
 - BluumBio has shown **promising results in a lab study** of soil from Tubbs Island that has received biosolids. 30-day treatment resulted in 87-95% decrease in PFAS →
 - **Next step is field trial.** BluumBio provided a proposal:
 - 1-year field trial
 - 2 control plots + 2 treatment plots
 - **Budget: \$50k**
 - Consider trial at Solano County fields?



2. Advance Scientific Research

Potential Research Opportunities

Updates in blue bold.
Key points highlighted.

■ WEST Center foam fractionation pilot

- WEST Center at University of Arizona conducting a foam fractionation pilot to measure PFAS removal from dewatering sidestreams (centrate, filtrate, etc.) followed by electro-oxidation for PFAS destruction.
- WEST Center asking participating agencies to cover costs of testing (\$5,400) and transport of **1 tote (1 m³)** of sample.
- (Pending vote) BABC could coordinate transport and cover costs.
- **Let us know if interested in participating!**

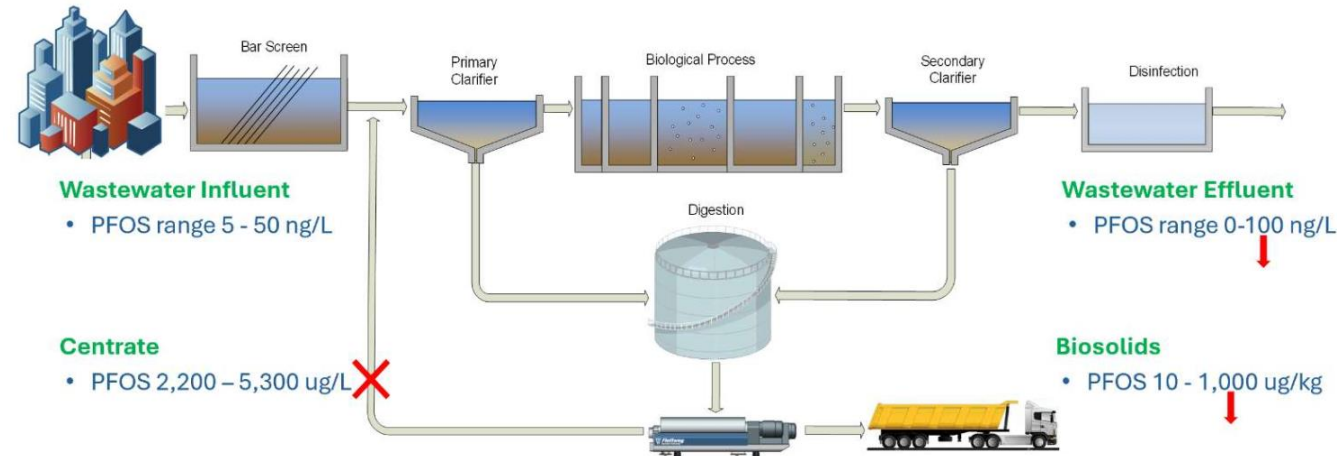


Figure 1. PFAS concentrations throughout typical wastewater treatment processes.

2. Advance Scientific Research

Potential Research Opportunities

Updates in blue bold.
Key points highlighted.

■ Support projects that lost EPA funding

- Evaluation of Pollutants in Biosolids Grants (\$6M to 4 awardees):
<https://www.epa.gov/research-grants/national-priorities-evaluation-pollutants-biosolids-grants>
 - **Met with John Hopkins University team**
- Understanding PFAS Uptake and Bioaccumulation in Plants and Animals (\$15M to 10 awardees): <https://www.epa.gov/research-grants/research-grants-understanding-pfas-uptake-and-bioaccumulation-plants-and-animals>

2. Advance Scientific Research

Potential Research Opportunities

Updates in blue bold.
Key points highlighted.

- **Support projects that lost EPA funding**
 - Meeting on October 1 with Prof. Carsten Prasse, John Hopkins University
 - Project aims to identify previously unknown contaminants in biosolids that may be regulated in the future (the next PFAS!).
 - Project started in 2021 and identified 43 compounds to be evaluated for toxicity potential, soil migration, and plant uptake.
 - Initial research covering identification and prioritization of compounds is published: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11381038/pdf/nihms-2011911.pdf>
 - Research was cut short by ~\$300k and 1-1.5 years.
 - **Next step: Prof. Carsten to develop a description of remaining work and budget for each part.**

2. Advance Scientific Research

Presentation by Dr. Ian Pepper



National Collaborative PFAS Project

3. Support and Expand Biosolids Land Application



Support and expand biosolids land application in the Bay Area

- Track regulations, funding programs, research, and media that could impact biosolids land application in the Bay Area
 - Regulations on PFAS and other emerging contaminants that could limit land application
 - SB 1383 and county ordinances that may limit or expand local land application
 - Clean vehicle regulations as they relate to biosolids hauling
 - Regulations and funding programs that could impact anaerobic digestion and biogas use (methane emissions, LCFS, IRA)
 - Zero waste, soil health, and climate programs that could incentivize use of biosolids
 - Local media on biosolids safety and benefits
 - Research on biosolids safety (PFAS, etc.) and biosolids benefits

3. Support and Expand Biosolids Land Application

■ PFAS (US EPA):

Updates in blue bold.
Key points highlighted.

- **Many EPA actions are on hold.**
- **Jess Kramer – Confirmed as Assistant Administrator for Water** September 18th, 2025.
- 2025 PFAS Action Plan
 - Announced on April 28th, 2025.
- Draft Risk Assessment
 - Comment period ended August 14th, 2025.
 - **July InsideEPA article** indicates that EPA may revisit the science and risk assessment; however, house appropriations bill stipulates no funds shall be used to finalize it.
 - **At WEFTEC, Interim Asst Admin Peggy Brown stated they "want to get the Risk Assessment right."**
- Water Systems PFAS Liability Protection Act (H.R. 1267)
 - Introduced to House on February 12th, 2025. Continues to move through the approval steps.
- POTW Influent PFAS Study
 - On hold and unclear whether it will be implemented.

3. Support and Expand Biosolids Land Application

■ PFAS (California):

Updates in blue bold.
Key points highlighted.

- PFAS product bans
 - SB 682 **passed all the legislative steps but got vetoed by the Governor** due to potential **impact to affordability of cooking products.**
 - Amended to ban intentionally added PFAS in several consumer products, including cleaning products, cookware, juvenile products, food packaging, ski wax, and dental floss by 2028
- SB 454 PFAS Mitigation Program
 - Would establish statewide PFAS mitigation fund to help agencies pay for cleanup in drinking water and wastewater. **Vetoed by the Governor** due to costs.
- No limits restricting biosolids use this year
 - Since other states have set limits at 20 ppb, **CA agencies with concentrations > 20 ppb encouraged to retest using method 1633**
- **BACWA Phase 3 PFAS Study**
 - **Focused on stormwater.**

3. Support and Expand Biosolids Land Application

- PFAS (Other):

Updates in blue bold.
Key points highlighted.

- **CRROPS/Biosolids Associations Meeting at WEFTEC**
 - Peggy Brown (formerly with US farm service, now with EPA) participated with an open and collaborative approach.
- **Other states:**
 - Texas had 3 anti-biosolids land application bills.
 - New York bill that would have placed a 5-year moratorium for biosolids land application did not pass but may come back next year.
- **ECOS Compendium of State PFAS Actions**
 - <https://www.ecos.org/documents/ecos-compendium-of-state-pfas-actions/>

3. Support and Expand Biosolids Land Application

■ Other (non-PFAS):

Updates in blue bold.
Key points highlighted.

- CalRecycle SB 1383
 - SB 1383: Working on overturning overly restrictive county ordinances.
 - Digestion study to inform policy recommendations/changes.
- **CalRecycle Compost GHG Report**
 - **Report released September 5th evaluates life-cycle impacts of compost application on GHGs, including N₂O emissions. Findings suggest little to no increase in N₂O emissions, indicating prior models could be overestimating N₂O emissions. <https://www2.calrecycle.ca.gov/Publications/Details/1754>**
- **CalRecycle Zero Waste Plan**
 - **CASA participated in October 1st workshop, advocating for biosolids to be included in Zero Waste Plan.**
 - **CASA submitted comments on Draft Plan (released Sept 25th) on Oct 17th supporting circular material management.**
- CARB Advanced Clean Fleets
 - **CASA submitted comments Sept 15th and participated in the Sept 25th hearing, raising concerns about feasibility, affordability, and maintaining reliable essential public services; and continued advocacy for including RNG.**
 - **Amendments included delaying date for 100% vehicle replacement with ZEVs from 2027 to 2030.**
 - **CARB Board to work with Staff on additional 15-day changes; CASA advocating to include RNG as NZEV option.**

3. Support and Expand Biosolids Land Application

■ Other (non-PFAS):

Updates in blue bold.
Key points highlighted.

- CA State Water Board’s Climate Change Resolution Focus Group
 - Draft resolution **delayed to early 2026**. **Contact Sarah (sdeslauriers@casaweb.org) if interested in joining the subgroup.**
- IRA Funding
 - Solar and wind funding terminated. Support for hydrogen and biogas continues.
 - Grantees need to reapply without mention of climate change.
- **AB 70 passed**
 - **Defines pyrolysis as thermal decomposition of material at elevated temperatures in the absence or near absence of oxygen.**
- **Waste(d) Water Podcast**
 - **Maile Lono-Bature featured on Sept 11th episode titled “Burden or benefit? Recovering resources from wastewater”**
 - <https://wastedwaterpod.blogspot.com/2025/09/episode-four-show-notes.html>
- **CDFA Draft Climate Resilience Strategy for CA Agriculture:**
 - **Released Oct 7th. Comments due Nov 7th. Acknowledges the wastewater sector, potential for food waste codigestion, biogas use, and biosolids use.**
https://www.cdfa.ca.gov/climate/docs/RSA_PublicCommentDraft.pdf

4. Support Development of Biosolids Projects

Central San's Regionalization Evaluation

Updates in blue bold.
Key points highlighted.

- Central San evaluating regionalization to serve the region by providing a PFAS solution for Bay Area agencies.
- Upgrading from Multiple Hearth Furnaces (MHFs) to Fluidized Bed Incinerators (FBIs).
- FBIs to be operational by 2042.
- Both the existing MHFs and the future FBIs recover energy and use the ash as a soil amendment.
- **Evaluating regionalization opportunities for both the long-term (future FBIs) and the near-term (existing MHFs).**
- **If interested in learning more, please contact Nitin Goel (NGoel@centralsan.org) and Christine Polo (cpolo@carollo.com).**



D. Other Updates

- Recent events/conferences:
 - BACWA Air Committee meeting, August 20th
 - BACWA Executive Board Meeting, September 19th
 - WEFTEC in Chicago, September 27th to October 1st
 - CASA Regulatory Workgroup (RWG) Meeting at SacSewer, October 16th
 - CASA RWG Meeting, virtual, September 18th
- Other updates?



E. Action Items – Program Management Team, Research Subgroup, Website Subgroup

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- ~~❑ Share Central San slides about solids regionalization evaluation (Program Management Team)~~

E. Action Items – Member Agencies

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 - ☐ Contributing additional funds to Phase 2 of Dr. Pepper’s National PFAS Study
- ☐ Contact Program Management Team or Christine Polo if interested in:
 - ☐ Participating in the foam fractionation pilot.
 - ☐ Being featured in an agency highlight on the website.
 - ☐ Serving as co-chair or in the website or research subgroups.
 - ☐ Hosting the December 1st in-person BABC meeting.
- ☐ Contact Nitin Goel and Christine Polo if interested in:
 - ☐ Learning more about the potential solids regionalization partnership at Central San.

Contacts:

- Lorien Fono: lfono@bacwa.com
- Program Management Team: babcprogrammanager@carollo.com
- Nitin Goel: NGoel@centralsan.org
- Christine Polo: cpolo@carollo.com



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F. Upcoming Meetings

- Upcoming BABC meetings:
 - December 1st at 10 am to 12 pm (in person; location TBD)
 - February 9th at 10 am to 12 pm (virtual)
- Other upcoming events/conferences:
 - [CASA Innovative Technology Seminars](#), NorCal and SoCal locations on October 29 and 28
 - CASA Winter Conference, SoCal, January 13th to 16th
 - Full list of CASA meetings: <https://casaweb.org/https-casaevents-memberclicks-net-winter-conference/casa-events-meetings/>
 - Bioenergy Association of California, Oakland, November 19th, featuring presentation on converting biosolids to renewable shipping fuels. If interested, RSVP to Julia Levin jlevin@bioenergyca.org
 - BACWA Air Committee meeting, November 19th
 - Full list of BACWA meetings: <https://bacwa.org/events/month/2025-08/>
 - Other?

G. Adjourn for all but Member Agencies... Thank You!



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H. Member Agencies Discussion



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I. Adjourn for all... Thank You!



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