
Bay Area Biosolids Coalition: Meeting

April 13th, 2026


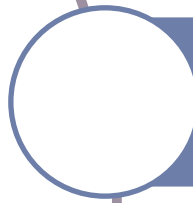
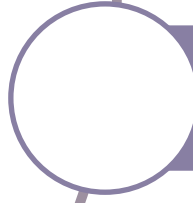

A. Welcome/Introductions



**BAY AREA
BIOSOLIDS
COALITION**

B. Strategic Plan Goals – Progress Updates



-  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



Updates in blue bold.
Key points highlighted.

1. Communicate the Value of Biosolids

News & Events Posts on BABC website*:

- Upcoming posts:
 - “**How Microbes Could Remediate PFAS-Containing Biosolids**” (draft in review)
 - **Biosolids Benefits on Wildlife and Ecosystem Health** (draft in review)
 - Land application site photos
 - Biosolids benefits research summaries:
 - Improve crop productivity
 - Reduce irrigation
 - Agency highlights:
 - San Jose, West County, SFPUC
 - **Let us know if interested!**

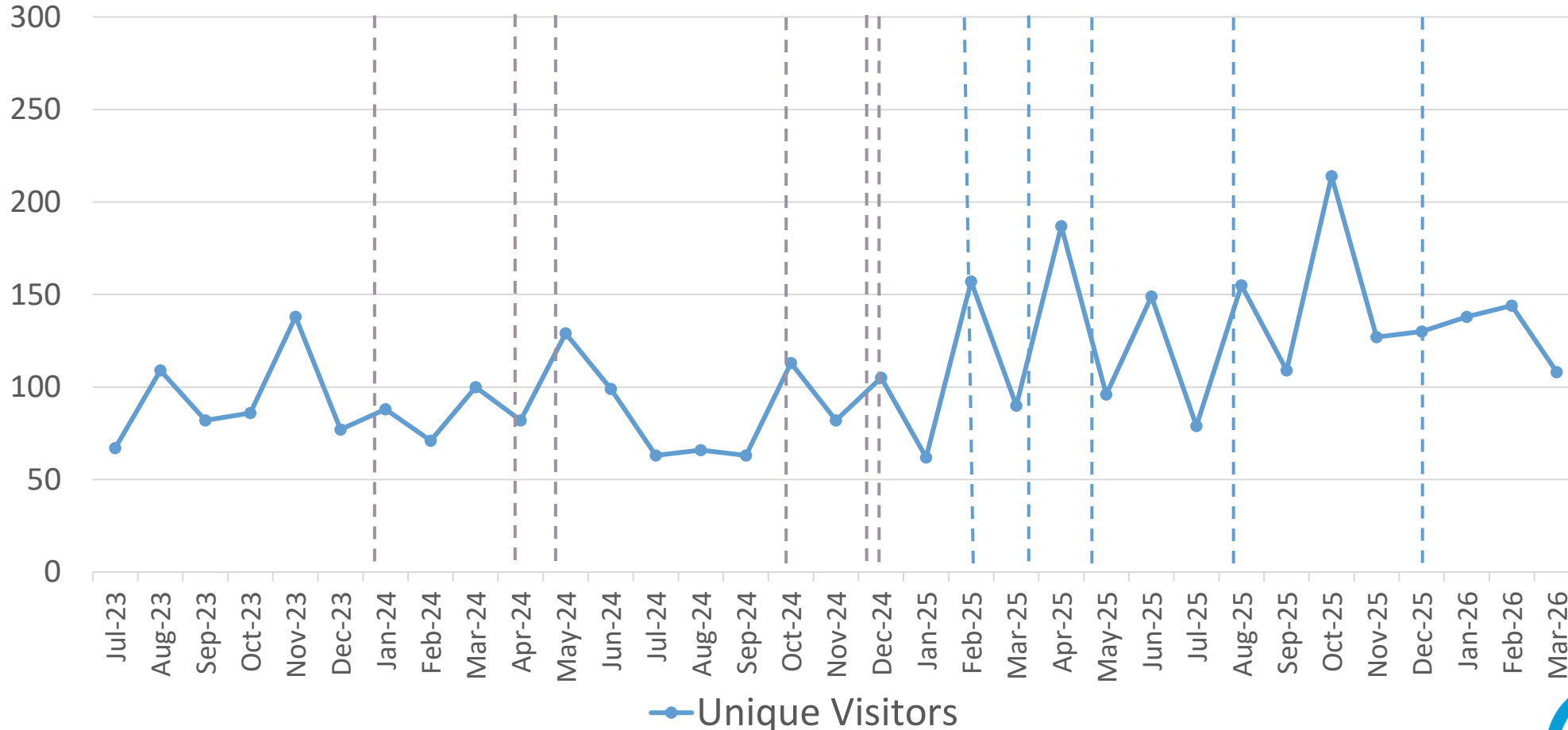
*BABC website: <https://www.bayareabiosolids.com/>



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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

Dec 19: Biosolids benefits: sustainable fertilizer



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1. Communicate the Value of Biosolids

Updates in blue bold.
Key points highlighted.

BACWA/BABC Collaboration

- Purpose: How to best use Baywise and BABC website to educate the public about biosolids benefits and safety.
- Updates:
 - Civic Edge developing biosolids fundamentals webpage for Baywise.
 - Based on BABC website and reviewed by BABC members.
 - **Zach Kay and Jim Dunbar connected with farmers interested in developing videos on biosolids benefits.**
 - **CASA helping find existing farmer videos and image of lab testing. SFEI helping with PFAS graphic.**
 - BABC writing website posts series on biosolids benefits.
 - BACWA will develop an outreach strategy.

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.


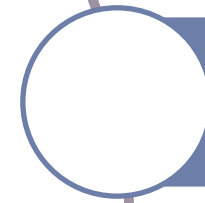
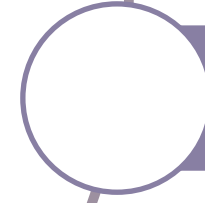
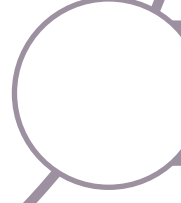
Snippet from Baywise.org, BACWA's public-facing, educational website.



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B. Strategic Plan Goals – Progress Updates



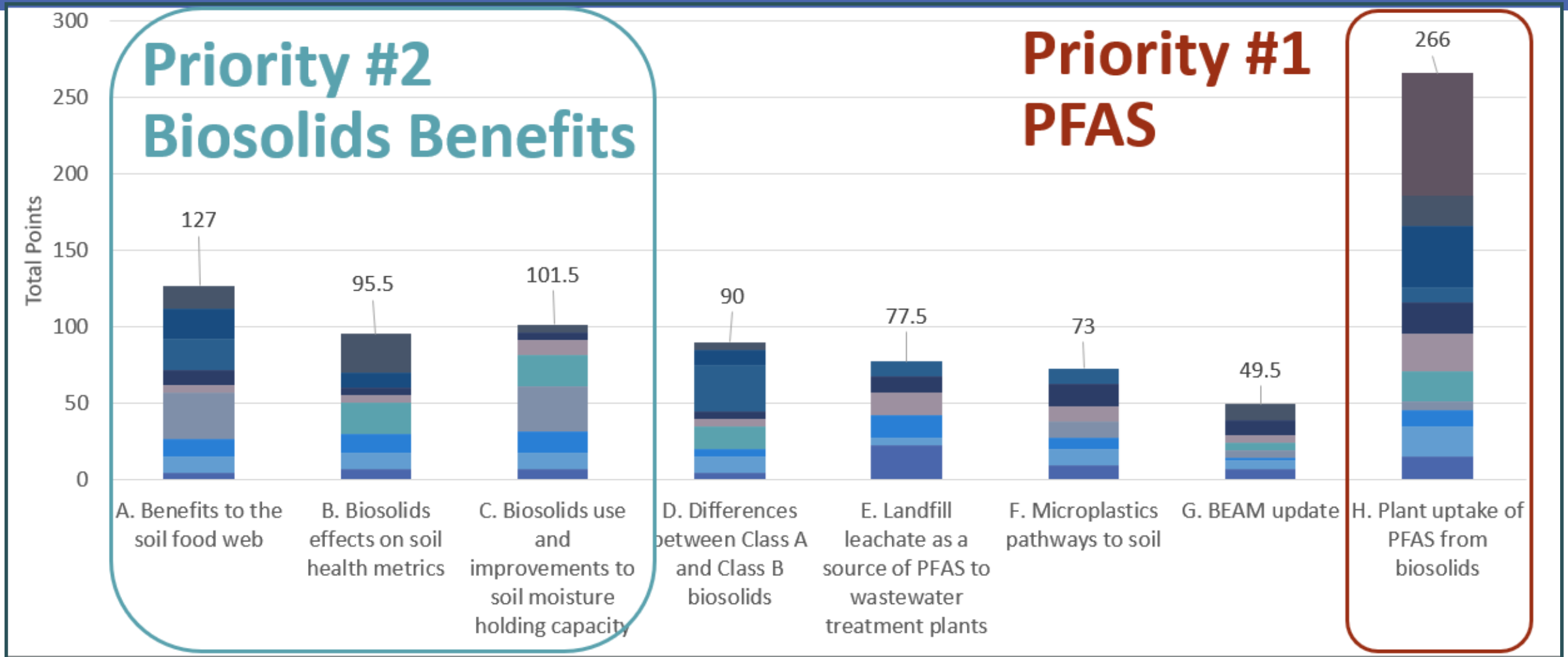
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2. Advance Scientific Research

Research Priorities

Updates in blue bold.
Key points highlighted.



2. Advance Scientific Research

Updates in blue bold.
Key points highlighted.

Research BABC has or is Supporting



SUPPORTED RESEARCH PROJECTS

The BABC is committed to advancing the future of biosolids through meaningful research and innovation.

We actively support and fund projects to stay ahead of evolving regulations and emerging technologies, ensuring high-quality, proactive, and sustainable service for all San Francisco Bay Area residents.

Below is a list of active and completed research projects the BABC has funded over the years.

PFAS Removal Through Thermal Drying

- **Contribution:** BABC contributed \$50,000.
- **Team:** Led by Mary Martis, Parsons Corporation and Dr. Linda Lee, Purdue University.
- **Goal:** Investigate operating conditions that maximize PFAS removal and better understand fate of PFAS in a full-scale thermal dryer.
- **Status:** Active. Conducted in 2025 - 2027.

Data-Driven Defense Against Biosolids Land Application Bans

- **Contribution:** BABC contributed \$10,000.
- **Team:** National collaboration of biosolids agencies including Mid-Atlantic Biosolids Association, Northwest Biosolids, and California Association of Sanitation Agencies.



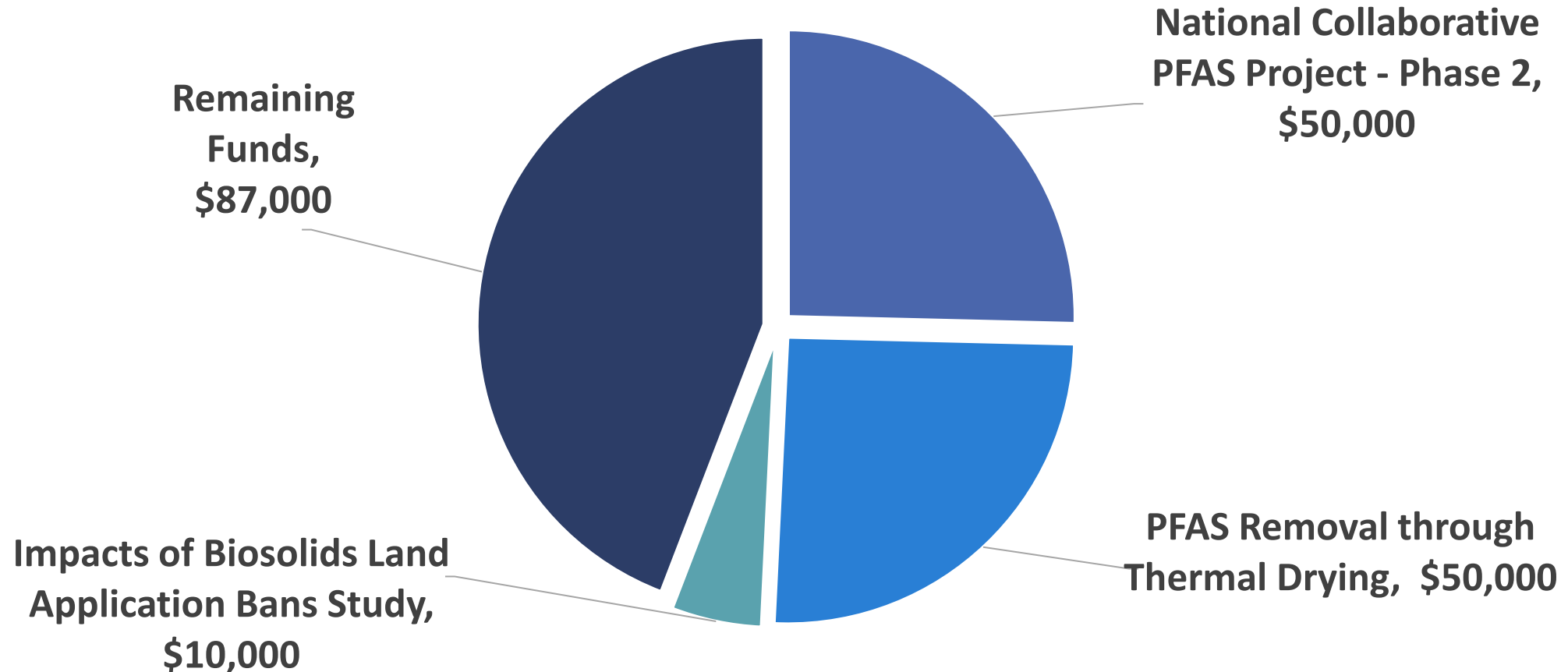
New website section describing all research projects BABC has supported or is supporting!

Thank you, Research Subgroup!

2. Advance Scientific Research

Active Research BABC is Supporting

Updates in blue bold.
Key points highlighted.




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Active Research BABC is Supporting

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Key points highlighted.

Impacts of Biosolids Land
Application Bans Study,
\$10,000

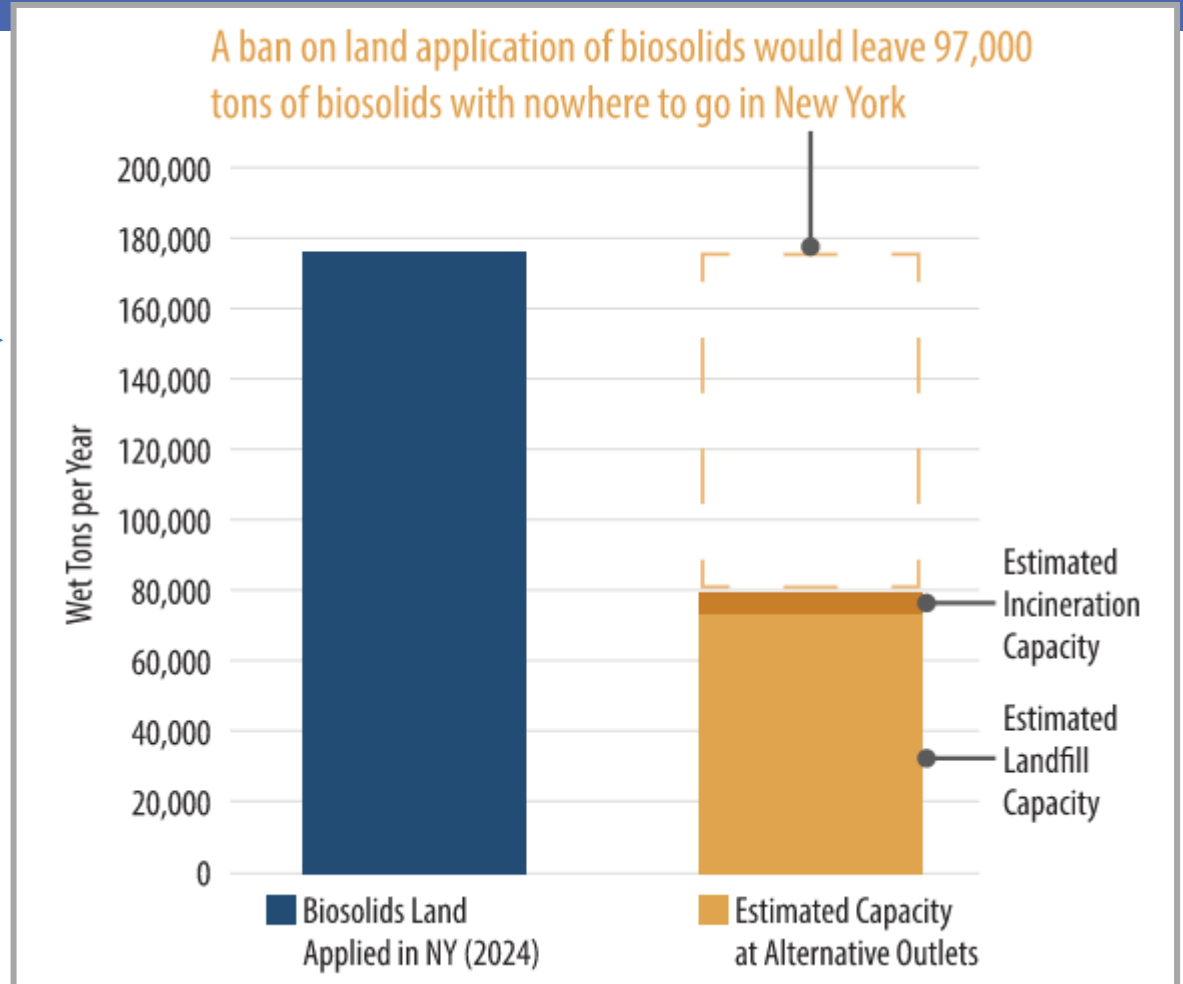


2. Advance Scientific Research

Active Research BABBC is Supporting

Updates in blue bold.
Key points highlighted.

- **NY-focused Cost and Capacity report, slides, and legislative handout published**
 - **Provided with meeting materials.**
 - **>~1/2 of biosolids would have nowhere to go**
 - **Landfill disposal would conflict with state's climate and solid waste goals.**
 - **Presented at USEPA meeting at DC Policy Forum and CASA Biosolids meeting.**
- **Next steps:**
 - **Same analysis for other states, including CA.**

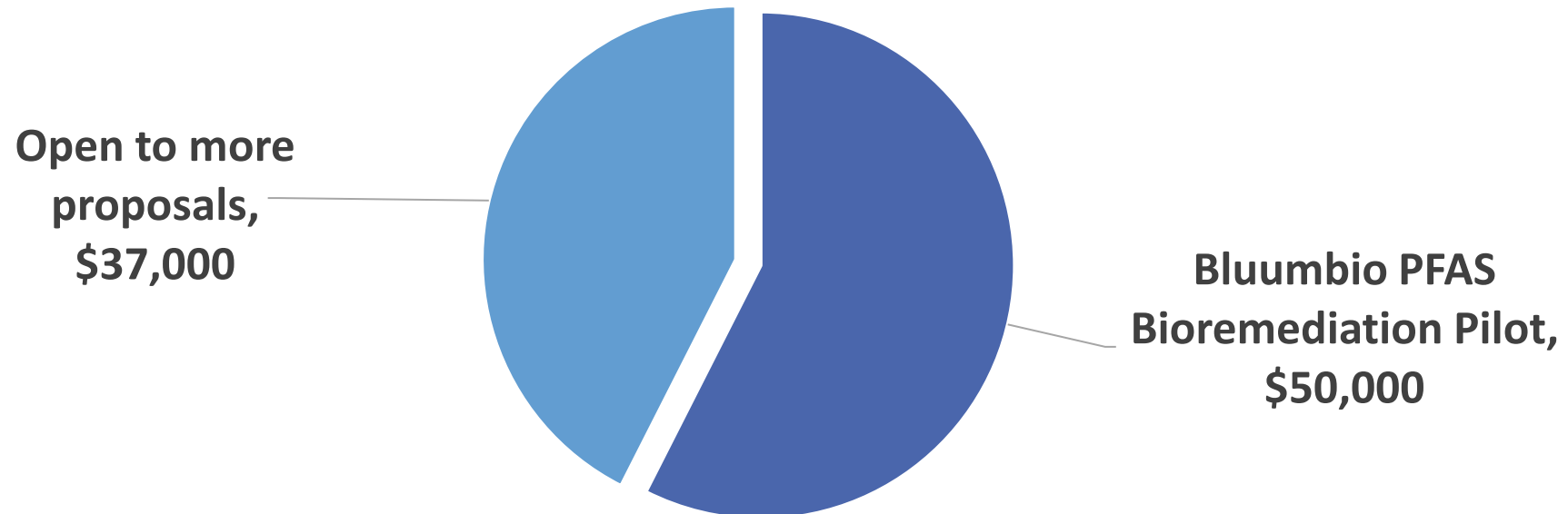


Snippet from legislative handout.

2. Advance Scientific Research

Ideas for Use of Remaining \$87k

Updates in blue bold.
Key points highlighted.



2. Advance Scientific Research

BluumBio Partnership with San Mateo

Updates in blue bold.
Key points highlighted.

Apr 2025 BABC Meeting:

BluumBio technology spotlight.

Aug/Sep 2025:

BluumBio and Vallejo discussed potential field trial.

Not viable due to lack of funds.

Feb/Mar 2026:

Email sent to BABC seeking partner.

Response from San Mateo! Discussed partnership arrangement.

May 2025:

BluumBio provided proposal for \$50k field trial.

Email sent to BABC seeking partner. No responses.

Feb 2026 BABC Meeting:

BluumBio presented again.

BABC switched focus to biosolids trial. BluumBio provided proposal.

This meeting:

Proposal provided with meeting materials.

Discuss whether to fund.

Vote after this meeting.

2. Advance Scientific Research

Other Research We're Tracking

Updates in blue bold.
Key points highlighted.

- Solano County Study on PFAS in Biosolids by Trihydro
 - Final report published Dec 2025, titled *Study of the Fate of PFAS in Biosolids after Land Application*: <https://www.solanocounty.gov/government/resource-management/environmental-health/water-protection-waste-management-technical-services/biosolids-landspreading-program> (see 4th link under “Biosolids Reports”)
 - **Updates on next slide.**
- University of Arizona WEST Center Foam Fractionation Pilot
 - **Research update:** <https://west.arizona.edu/news/pilot-study-evaluates-pfas-treatment-technologies-west-center>
- BACWA/SFEI Phase 3 PFAS Study “PFAS Sources to Solutions”
 - **Test PFAS in wastewater influent and effluent, not biosolids.**
 - **Identify major contributors: residential vs commercial (laundromat, car wash, etc.) to target solutions.**
 - **SFEI to provide a draft sampling plan in May and begin collecting samples this summer.**

2. Advance Scientific Research

Solano County Study by Trihydro

Updates in blue bold.
Key points highlighted.

Dec 2025:

Solano County study on PFAS in biosolids published.

Feb 26:

Several BABC members attended the **meeting** and provided oral comments.

Apr 1:

Draft letter sent to BACWA Board.

Feb BABC Meeting:

BABC members invited to attend the **Solano County Biosolids Stakeholders** meeting.

Decided to submit comment letters “by consensus”

Mar 24:


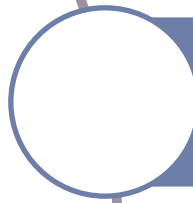
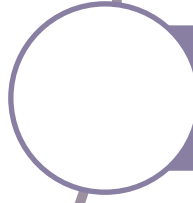

Draft letter sent to BABC.
No comments or objections received.

April 9:

Comment letter submitted to Solano County; provided with meeting materials..

B. Strategic Plan Goals – Progress Updates



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3. Support and Expand Biosolids Land Application



Support and expand biosolids land application in the Bay Area

- Track regulations, funding programs, and media that could impact biosolids beneficial use in the Bay Area
 - Regulations on PFAS and other emerging contaminants that could limit land application
 - SB 1383 and county ordinances that could limit or expand local land application
 - Regulations and funding programs that could impact anaerobic digestion and biogas use (e.g., SB 1383, potential BAAD/CARB methane emission limits, CARB ZEV requirements, CARB LCFS credits and federal RIN credits and IRA funding)
 - Zero waste, healthy soils, and other climate programs that could incentivize use of biosolids
 - Local media on biosolids safety and benefits

3. Support and Expand Biosolids Land Application

- PFAS (EPA/National)
 - Draft Risk Assessment
 - **No updates.**
 - House Appropriations Bill FY26
 - Stipulates no funds to be used for Draft Risk Assessment.
 - **No updates.**
 - Effluent Guidelines & POTW Study
 - **Still on hold.**
 - PFAS CERCLA Liability Exemption for Passive Receivers
 - **Bill submitted to EPW (Senate Committee on Environment and Public Works). Hearings held with EPW and passive receivers.**
 - **Still on hold.**

Updates in blue bold.
Key points highlighted.



3. Support and Expand Biosolids Land Application

Updates in blue bold.
Key points highlighted.

■ PFAS (Other States)

– New York S5759C/A6192

- Would place a **5-year moratorium** on biosolids land application.
- **Opposition letter by NYWEA, MABA, NEBRA:**
<https://maba.memberclicks.net/assets/2025December/Industry%20Biosolids%20Opposition%20Letter%2012-23-25.pdf>

– **Virginia SB 386**

- **Would ban land application of biosolids with **any trace** of PFAS.**
- **Passed the House, on to the Senate.**

– Texas

- 3 anti-biosolids bills.
- Died.

– Arizona HB 2640

- Would ban any fertilizer containing any amount of PFAS. Same as last year's.
- Died.

3. Support and Expand Biosolids Land Application

■ PFAS (California)

– **AB 1603 (2026) PFAS:** **Department of Pesticide Regulation**

- https://www.leginfo.legislature.ca.gov/faces/bilINavClient.xhtml?bill_id=202520260AB1603
- **Introduced on Jan 16th by Assemblymember Shultz (D-Bakersfield).**
- **Would fully ban PFAS use in pesticides by 2035 and require transparency in labeling until then.**
- **Driven by 2025 Environmental Working Group (EWG) analysis.**

Updates in blue bold.
Key points highlighted.

EWG: 2.5 million pounds of PFAS pesticides spread on California farmland annually



By Jared Hayes (EWG), Al Rabine (EWG)

NOVEMBER 18, 2025

Snippet from 2025 EWG report. Full article containing interactive map and link to paper: <https://www.ewg.org/research/ewg-25-million-pounds-toxic-pfas-pesticides-spread-california-farmland-annually>

3. Support and Expand Biosolids Land Application

■ PFAS (Source Control - California)

- SB 682 (broad PFAS ban)
 - Vetoed by governor.
- SB 454 (PFAS mitigation funds)
 - Vetoed by governor.
- **Department of Toxic Substances Control (DTSC) targeting PFAS in floor maintenance products (i.e., polishes, waxes, etc.)**
 - **DTSC's plan to list as priority product could lead to a product ban.**
 - **Feb 2026 meeting to discuss report.**
 - **Mar 2026 virtual, public workshop.**
 - **More info:** <https://dtsc.ca.gov/scp/proposed-priority-product-floor-maintenance-products-containing-pfass/>

Updates in blue bold.
Key points highlighted.

3. Support and Expand Biosolids Land Application

■ PFAS (Resources)

Updates in blue bold.
Key points highlighted.

- NACWA Biosolids PFAS Legislative Guide:
 - <https://nacwa.realmagnet.land/2025-11-04-biosolids-pfas-legislative-guide>
- Databases of state PFAS actions:
 - ECOS: <https://www.ecos.org/documents/ecos-compendium-of-state-pfas-actions/>
 - Safer States: https://www.saferstates.org/bill-tracker/?toxic_chemicals=PFAS&issue_sectors=Biosolids/Sludge&status=Introduced&year=2025:2025
- Maine statement urging states to weigh options before banning land application:
 - <https://insideepa.com/pfas-news/maine-official-urges-states-weigh-biosolids-disposal-options-ban>
- **Western Lake Superior Sanitary 2-min video *PFAS: What Are “Forever Chemicals”*:**
 - <https://www.youtube.com/watch?v=JkA6ZbQoe3k&themeRefresh=1>
- **PNA & MABA *PFAS 101: Putting Together the Puzzle* webinar:**
 - <https://vimeo.com/user45319173/pfas101?share=copy> Password: PFAS101
- **Mar 24-25th Northeast Recycling Council PFAS webinar:**
 - <https://www.nerc.org/the-cycle-of-pfas-and-its-evolving-landscape>

3. Support and Expand Biosolids Land Application

- PFAS (Resources, continued)

- National Academy of Science (NAS) “PFAS in Agricultural Systems: Guidance for Conservation Programs at USDA” report:

- <https://www.nationalacademies.org/news/guidance-for-federal-conservation-programs-on-pfas-on-agricultural-lands-offered-in-new-report>

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Key points highlighted.

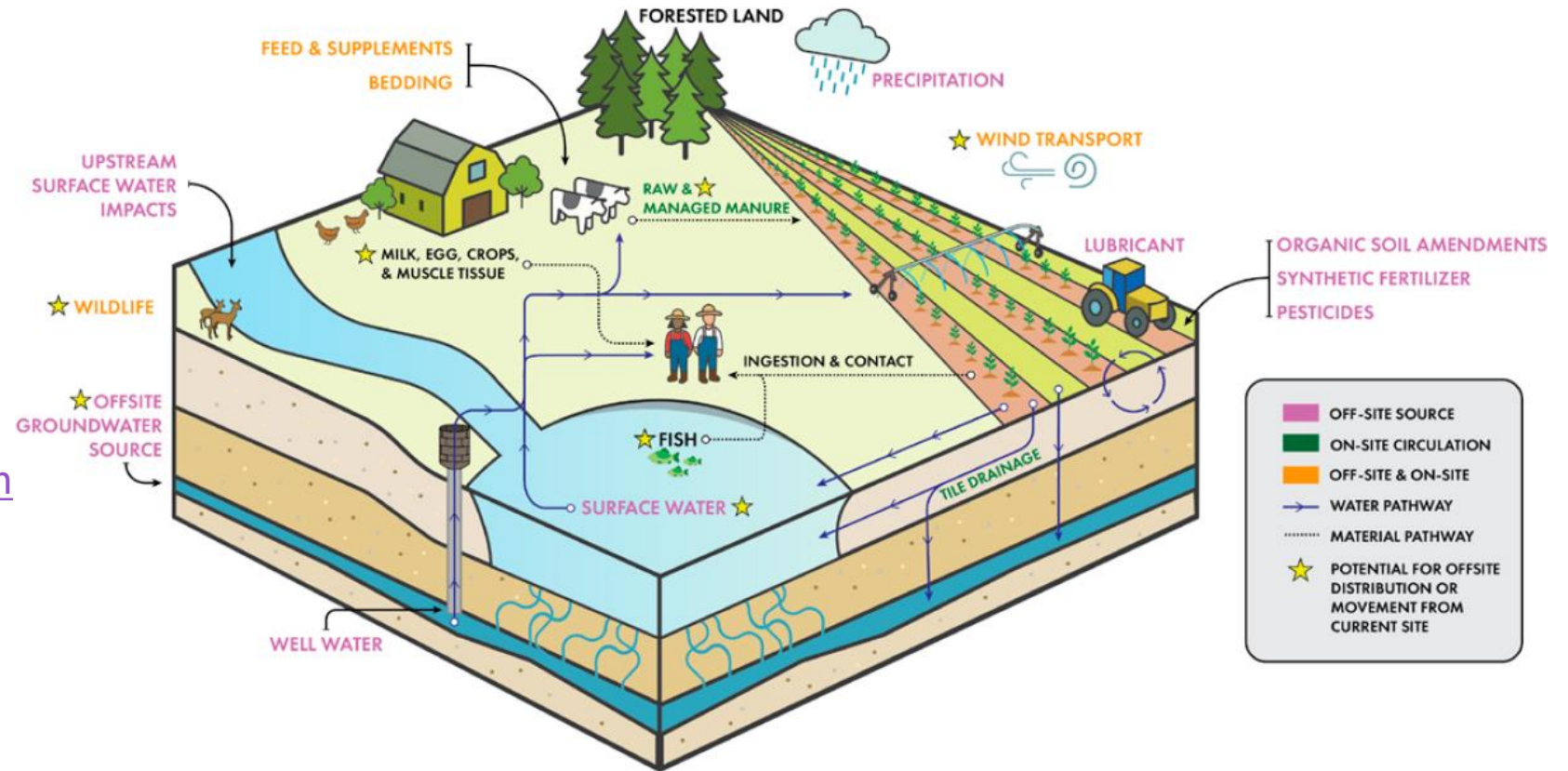


Figure 2-6 Conceptual model of the entry and cycling of PFAS on agricultural land.

3. Support and Expand Biosolids Land Application

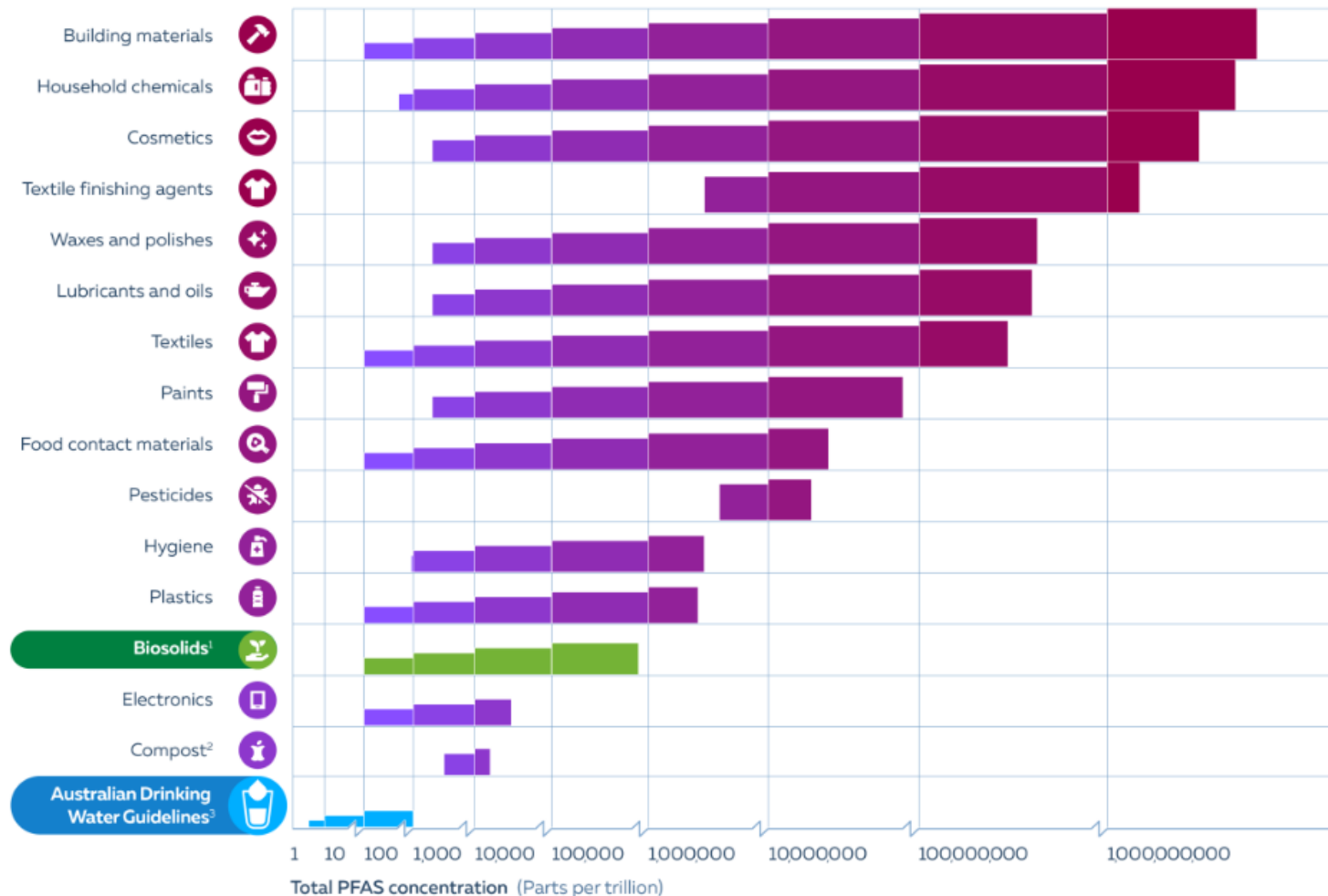
■ PFAS (Resources, continued)

– Water Services Association of Australia PFAS fact sheet:

- <https://www.wsaa.asn.au/Common/Uploaded%20files/library/resource/PFAS%20Resources/WSAA%20Fact%20Sheet%20PFAS%20Drinking%20Water%20Guidelines.pdf>

Relative concentrations of PFAS in consumer products, drinking water guidelines and biosolids

Updates in blue bold.
Key points highlighted.



3. Support and Expand Biosolids Land Application

■ CalRecycle SB 1383

- Advancing slowly. Air district permitting has been a barrier to implementation.
- AB 643 (2026):
 - Procurement requirement currently limited to compost.
 - **AB 643 would broaden to CDFA certified fertilizers.**
 - **Support letters: CASA, Clean Water SoCal.**
 - **Opposition letters: Environmental non-profits, Waste Management.**
 - **BABC considering submitting a support letter** →
 - **Draft sent on April 8th & provided with meeting materials**
 - **Comments/Objections due today at 5 pm.**

Updates in blue bold.
Key points highlighted.

Draft BABC AB 643 Support Letter

RE: AB 643 (Wilson) – Climate Change and Procurement of Diversion Materials
Position: SUPPORT

Dear Chair Wilson,

The Bay Area Biosolids Coalition (BABC) is in support of AB 643 (Wilson). Public agencies across California are responsible for managing the residuals collected and treated through the wastewater treatment process, which are called biosolids. The BABC, a committee of the Bay Area Clean Water Agencies (BACWA), is a collaborative group of public wastewater agencies and industry partners across the San Francisco Bay Area focused on advancing reliable, sustainable, and cost-effective solutions for biosolids management. Our members are committed to maximizing the environmental and agricultural benefits of biosolids while ensuring the availability of diverse, cost-effective, and reliable long-term biosolids reuse and disposal options.

Under SB 1383, biosolids are classified as an organic waste subject to diversion requirements, making reliable and diversified end-use pathways essential for compliance. AB 643 addresses a key need by expanding procurement options for products derived from diverted organic materials. Current procurement limitations constrain market development and reduce long-term reliability for biosolids-derived products. Expanding eligibility would provide our public agencies with additional, viable options to meet procurement requirements while supporting beneficial reuse and locally sourced products.

Supporting AB 643 strengthens biosolids markets, supports agricultural use, and advances California's organic waste diversion and climate goals.

For these reasons, the BABC urges the Assembly Transportation Committee to support AB 643.

Sincerely,

The Executive Committee of the Bay Area Biosolids Coalition

BABCProgramManager@carollo.com

3. Support and Expand Biosolids Land Application

Updates in blue bold.
Key points highlighted.

- CalRecycle Zero Waste Plan
 - Zero Waste Plan: <https://calrecycle.ca.gov/zerowasteplan/>
 - **CASA commented advocating for wastewater sector/biosolids beneficial use as a critical component:** https://casaweb.org/wp-content/uploads/2025/11/FINAL_CASA_Comments_CalRecycle-ZeroWastePlan-2025-10-176.pdf
- CARB Advanced Clean Fleets
 - CASA advocating for fleet vehicles to be fueled by biomethane/RNG for resilience in unstable grid.
 - **April 2nd amendments decrease fleet flexibility: require contracted vehicles comply with ACF and (likely unintentionally) remove access to low NOx vehicles run on RNG.**
 - **Comments due April 17th. CASA is commenting and collaborating with coalitions; the more comments the better.**
- CARB Natural and Working Lands GHG Model
 - Released 250-page document estimating carbon sequestration. CASA drafting response.
 - CARB wants more info on biosolids benefits beyond carbon sequestration.


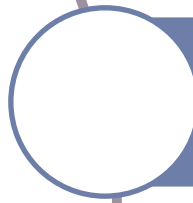
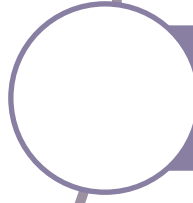

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- **CalEPA and CNRA “Institutionalizing Cutting the Green Tape Improvements” Report**
 - <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Green-Tape/CGT-Secretarial-Memo-20260227.pdf>
- **AB 2447 (2026) Water: Nitrogen Pollution Reduction Act**
 - May lead to nitrogen limits on fertilizers and irrigation water, which may hinder water reuse and biosolids use.
 - Stated focus is on higher nitrogen content fertilizers and not biosolids.
 - https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202520260AB2447
- **San Luis Obispo County biosolids land application ban**
 - Extended until 2029.
 - <https://www.newtimeslo.com/slo-county-ponders-the-future-of-using-treated-sewage-on-land-after-moratorium-extension/>

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4. Support Biosolids Projects

Silicon Valley Clean Water

Updates in blue bold.
Key points highlighted.

Presentation on SVCW Biodryer and Pyrolysis Facilities
by Dario Prezezzi, Bioforcetech

C. Recent Events

Updates in blue bold.
Key points highlighted.

- Feb 10th WEF Federal Policy Wrap-Up webcast
- Feb 11th CASA BACEN (Biosolids, Air, Climate, Energy, and Nutrient) webinar.
 - **Presentations:** <https://casaweb.org/resources/speaker-presentations/>
- Feb 13th National Academy of Science (NAS) “PFAS in Agricultural Systems: Guidance for Conservation Programs at USDA” report release webinar.
 - **Recording:** <https://www.nationalacademies.org/projects/DELS-BANR-24-03/event/46333>
- Feb 24th DC Policy Forum
 - **CASA, many wastewater agencies, and other stakeholders met with EPA.**
 - **Many agreed on need for federal interim guidance or a statement that Part 503 is still protective of public health and the environment.**
- Feb 26th Screening of “Unless Something Goes Terribly Wrong” at UC Berkeley
- Mar 11-12th California Bioresources Alliance Symposium, UC Davis
- Apr 7-10th CWEA Annual Conference and Expo



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C. Upcoming Events

Updates in blue bold.
Key points highlighted.

- BABC Meetings (2nd Monday every other month):
 - Jun 8th at 10 am to 12 pm (virtual)
 - **Aug 10th at 10 am to 12 pm (in-person/virtual hybrid; host TBD)**
- Other Events:
 - April 14-15th NACWA Water Policy Fly-in in DC <https://www.nacwa.org/docs/default-source/conferences-events/2026-conferences---events/national-water-policy-fly-in/26nwpf-published-agenda.pdf>
 - April 16th CWEA SF Bay Section Plant Tour at DSRSD <https://www.cwea.org/all-events/?sec=San%20Francisco%20Bay>
 - May 11-14th WEF Residuals, Biosolids and Treatment Technology Conference in Kansas City, MO <https://www.wef.org/residualsbiosolids/>
 - May 15th BACWA Annual Members Meeting in Berkeley, CA <https://bacwa.org/bacwa-annual-members-meeting-2026/>
 - Jul 14-16th MABA Summer Symposium in Albany, NY https://www.memberleap.com/members/evr/reg_main.php?evid=49070311&orgcode=MABA
 - Aug 4-7th CASA Annual Conference in Napa, CA <https://casaevents.memberclicks.net/annual-conference>
 - BACWA events calendar: <https://bacwa.org/events/month/2025-08/>
 - CASA events calendar: <https://casaweb.org/https-casa-events-meetings/>



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Key points highlighted.

D. February Action Items

- ❑ **Website Subgroup** – update website; coordinate with BACWA on communications strategy
 - ~~❑ Contact farmers to gauge interest in creating videos about biosolids benefits~~ →
- ❑ **Research Subgroup** – support research on biosolids benefits and safety
 - ~~❑ Finalize and post summary of BABC funded/supported research to date~~
 - ❑ Continue coordination with BluumBio about potential research partnership
 - ❑ Explore potential research opportunities, as they arise.
- ❑ **Steering Committee / Program Management (PM) Team** – other efforts
 - ~~❑ Meet and decide on procedure for submission of comment letters and legislative support letters~~
 - ~~❑ Submit comments following the Feb 26th Solano County meeting on Trihydro PFAS research report~~
 - ~~❑ Submit AB 643 support letter~~

Thank you,
Jim and Zach!



**BAY AREA
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D. April Action Items

Updates in blue bold.
Key points highlighted.

- ❑ **Website Subgroup** – update website; coordinate with BACWA on communications strategy
 - ❑ **Continue supporting development of Baywise biosolids fundamentals website**
- ❑ **Research Subgroup** – support research on biosolids benefits and safety
 - ❑ Continue coordination with BluumBio about potential research partnership
 - ❑ Explore potential research opportunities, as they arise.
 - ❑ **Send email requesting voting on funding BluumBio research** (PM Team)
- ❑ **Steering committee / PM Team** – other efforts



**BAY AREA
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D. February Action Items

Updates in blue bold.
Key points highlighted.

☐ Member agencies –

- ☐ Contact PM Team or Christine Polo if interested in:
 - ☐ Serving as co-chair or in the website or research subgroups.
 - ☐ Being featured in agency highlight on the website.
 - ~~☐ Attending the Feb 26th Solano County meeting to discuss biosolids PFAS study~~
 - ☐ ~~Serving as host site for BluumBio’s research on microbial removal of PFAS from biosolids~~**

→ Thank you, Joanne Yee!

→ Thank you, San Mateo!

Contacts:

- PM Team: babcprogrammanager@carollo.com
- Christine Polo: cpolo@carollo.com

D. April Action Items

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Key points highlighted.

☐ Member agencies –

- ☐ Contact PM Team or Christine Polo if interested in:
 - ☐ Serving as co-chair or in the website or research subgroups.
 - ☐ Being featured in agency highlight on the website.
 - ☐ **Hosting the Aug 10th BABC meeting.**
- ☐ **Vote on funding BluumBio research** (original member agencies)

Contacts:

- PM Team: babcprogrammanager@carollo.com
- Christine Polo: cpolo@carollo.com



**BAY AREA
BIOSOLIDS
COALITION**

E. Adjourn for All... Thank You!

12-1 pm: Lunch

Thanks to Brown &
Caldwell!

1-2 pm: Tour

Thanks to Silicon Valley
Clean Water!



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