



## KEY REGULATORY ISSUE SUMMARY

### Updated September 4, 2024

Action items for member agencies are in **bold**

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New updates in this version are shown in Purple highlighting

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>NUTRIENTS IN SAN FRANCISCO BAY</b>			
<ul style="list-style-type: none"> <li>San Francisco Bay receives some of the highest nitrogen loads among estuaries worldwide, yet has not historically experienced the water quality problems typical of other nutrient-enriched estuaries. It is not known whether this level of nitrogen loading, which will continue to increase in proportion to human population increase, is sustainable over the long term.</li> <li>Because of the complexity of the science behind nutrient impacts in SF Bay, stakeholders in the region are participating in the Nutrient Management Strategy (NMS) steering committee to prioritize scientific studies and ensure that all science to be used for policy decisions is conducted under one umbrella.</li> </ul>	<ul style="list-style-type: none"> <li>For FY25, BACWA is contributing \$2.2M to fund scientific research by the NMS science team, fulfilling a requirement of the 2024 Watershed Permit.</li> <li>The focus of current scientific efforts is improving model representation of biogeochemistry, light attenuation, dissolved oxygen, and harmful algal bloom dynamics.</li> <li>The science team is also developing an Assessment Framework for Open Bay habitats and Lower South Bay sloughs.</li> <li>In summer 2022, a harmful algae bloom in San Francisco Bay brought increased public attention to this topic. A smaller bloom recurred in summer 2023. In both cases, the NMS science team modified the science plan to conduct monitoring and assist with data interpretation.</li> </ul>	<ul style="list-style-type: none"> <li><b>Continue to participate in NMS steering committee, Nutrient Technical Workgroup, and planning subcommittee meetings, and provide funding for scientific studies via the Nutrient Surcharge.</b></li> <li>Continue to work with NMS scientists to obtain summaries of scientific accomplishments for public use.</li> <li>Continue to engage with Nutrient Technical Team and BACWA's Nutrient Management Strategy technical consultant, Mike Connor, to provide review of recent work products and charge questions for the science team.</li> </ul>	<p>BACWA Nutrients Page: <a href="https://bacwa.org/nutrients/">https://bacwa.org/nutrients/</a></p> <p>NMS FY25 Science Program Plan Materials  <a href="https://drive.google.com/file/d/1zqgZiJSPOy9oU4iiNxQeQ0R5ivcgjEsQ">https://drive.google.com/file/d/1zqgZiJSPOy9oU4iiNxQeQ0R5ivcgjEsQ</a></p> <p>Baywise  <a href="https://baywise.org/about-wastewater-infrastructure/understanding-algal-blooms/">https://baywise.org/about-wastewater-infrastructure/understanding-algal-blooms/</a></p> <p>NMS Work Products  <a href="https://sfbaynutrients.sfei.org/books/reports-and-work-products">https://sfbaynutrients.sfei.org/books/reports-and-work-products</a></p> <p>Real-Time Satellite Data on Harmful Algae Blooms  <a href="https://fhab.sfei.org/">https://fhab.sfei.org/</a></p>

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<b>SF BAY NUTRIENT WATERSHED PERMIT</b>			
<ul style="list-style-type: none"> <li>• The Nutrient Watershed Permit was first adopted in 2014. It required effluent monitoring and a regional study on Nutrient Treatment by Optimization and Upgrades, completed in 2018.</li> <li>• The 2019 Nutrient Watershed Permit required continued monitoring and reporting of nutrient loads, significantly increased funding for scientific studies, and completion of a regional assessment of nutrient diversions through nature-based systems and recycled water, completed in 2023.</li> <li>• The Nutrient Watershed Permit was reissued in 2024 and requires: <ul style="list-style-type: none"> <li>○ Continued individual POTW nutrient monitoring and reporting;</li> <li>○ Continued funding for science;</li> <li>○ Effective in the 2025 dry season, interim performance-based effluent limits for Total Inorganic Nitrogen (TIN);</li> <li>○ Effective in the 2035 dry season, final water quality-based effluent limits for TIN;</li> <li>○ Continued group annual reporting for each water year (Oct. 1 – Sep. 30), with additional reporting related to the permit's 10-year compliance schedule;</li> <li>○ Recognition of “early actors” that began implementing nutrient removal projects before the permit's effective date of October 1, 2024;</li> <li>○ Completion of a regional planning study.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Through the nutrient surcharge levied on permittees, BACWA will fund compliance with the following provisions of the 2024 Nutrient Watershed Permit behalf of its members: <ul style="list-style-type: none"> <li>○ Group Annual Reporting, including compliance schedule reporting</li> <li>○ Funding for scientific studies</li> <li>○ Completion of a regional planning study</li> </ul> </li> <li>• The final effluent limits in the 2024 Nutrient Watershed Permit are 40% lower than actual loads from the 2022 dry season, when San Francisco Bay experienced a harmful algae bloom. The Regional Water Board prepared a memo describing the translation of nutrient modeling scenarios of the 2022 algae bloom into numeric water quality-based effluent limits (see link at right).</li> <li>• The permit contains a 10-year compliance schedule for complying with the final effluent limits. Some agencies will have difficulty meeting this deadline due to the magnitude and complexity of implementing nutrient reduction projects.</li> <li>• To address this challenge, the Regional Water Board is working to identify a regulatory mechanism to extend the compliance schedule beyond 10 years where necessary. This commitment is outlined in a Board resolution (see link at right) and likely require a change in the State Water Board compliance schedule policy.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>By early 2024, POTWs must identify their preliminary alternatives for meeting final effluent limits, per Table 5 of the Nutrient Watershed Permit.</b> “Early actors” and plants without final effluent limits are exempt from this requirement.</li> <li>• Work with Regional Water Board staff and other stakeholders to identify a regulatory mechanism for extending compliance schedules beyond 10 years. Preliminary work is focusing on possible edits to the State’s 2008 Compliance Schedule Policy.</li> <li>• Develop and release an RFP for consultant support for Group Annual Reporting and a Regional Planning Study. The RFP is expected to be released in September 2024.</li> <li>• Agencies will continue to report nutrient monitoring data both through CIWQS and directly to BACWA.</li> </ul>	<p>2024 Nutrient Watershed Permit:  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2024/R2-2024-0013.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2024/R2-2024-0013.pdf</a></p> <p>Regional Water Board Resolution on Extending Compliance Schedule:  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2024/R2-2024-0014.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2024/R2-2024-0014.pdf</a></p> <p>Memo on Numeric Translation of Narrative Objective  <a href="https://bacwa.org/document/memo-on-numeric-translation-of-narrative-objective-april-2024/">https://bacwa.org/document/memo-on-numeric-translation-of-narrative-objective-april-2024/</a></p> <p>BACWA Press Release on Nutrient Watershed Permit:  <a href="https://bacwa.org/wp-content/uploads/2024/07/BACWA-Watershed-Permit-Press-Release_07152024.pdf">https://bacwa.org/wp-content/uploads/2024/07/BACWA-Watershed-Permit-Press-Release_07152024.pdf</a></p> <p>Resources from 2024 BACWA Annual Members Meeting  <a href="https://bacwa.org/bacwa-annual-members-meeting-2024/">https://bacwa.org/bacwa-annual-members-meeting-2024/</a></p> <p>BACWA Nutrients Page:  <a href="https://bacwa.org/nutrients/">https://bacwa.org/nutrients/</a></p>

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<b>CHLORINE RESIDUAL COMPLIANCE</b>			
<ul style="list-style-type: none"> <li>• The Basin Plan effluent limit for residual chlorine is 0.0 mg/L. Prior to 2024, residual chlorine was the most frequent parameter for violations for Bay Area POTWs. Because there are 24 hourly reporting events each day, the “opportunities” for violations are enormous. However, the actual violation rates are infinitesimal (~0.001%).</li> <li>• Prior to 2024, agencies were overdosing their effluent with the dechlorination agent, sodium bisulfite, to prevent chlorine violations, a practice which cost the region approximately \$2 million each year.</li> <li>• Regional Water Board staff and BACWA worked together for more than decade to modify the effluent limit for chlorine residual.</li> </ul>	<ul style="list-style-type: none"> <li>• In November 2023, the Regional Water Board adopted an NPDES Permit Amendment that modifies effluent limits for residual chlorine for most dischargers. The revised limits are based on a translation of the Basin Plan’s existing narrative toxicity objective. The NPDES Permit Amendment includes: <ul style="list-style-type: none"> <li>○ Limits calculated based on a 0.013 mg/L water quality objective in marine and estuarine waters, and incorporating dilution for deep water dischargers. The limits are applied as a 1-hour average.</li> <li>○ A Minimum Level of 0.05 mg/L for online continuous monitoring systems.</li> </ul> </li> <li>• The NPDES Permit Amendment required most dischargers to prepare a Chlorine Process Control Plan targeting a chlorine residual of 0.0 mg/L at discharge points. The Chlorine Process Control Plan is part of the Operation and Maintenance Manual; updates are to be summarized with annual self-monitoring reports.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Comply with new effluent limits for residual chlorine, new reporting requirements, and new Chlorine Process Control Plan requirements beginning January 1, 2024.</b></li> <li>• BACWA has prepared a guidance document for agencies to use to meet the new chlorine process control requirement.</li> </ul>	<p>Blanket NPDES Permit Amendment, Effective January 1, 2024:  <a href="http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2023/R2-2023-0023.pdf">www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2023/R2-2023-0023.pdf</a></p> <p>BACWA Guidance on Complying with Amended NPDES Permit Requirements for Residual Chlorine  <a href="http://bacwa.org/document/complying-with-amended-npdes-permit-requirements-for-residual-chlorine-2023-12-20/">bacwa.org/document/complying-with-amended-npdes-permit-requirements-for-residual-chlorine-2023-12-20/</a></p>

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<b>PESTICIDES</b>			
<ul style="list-style-type: none"> <li>• Pesticides are regulated via the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and not the Clean Water Act. POTWs do not have the authority to regulate pesticide use in their service area, but may be responsible for pesticide impacts to their treatment processes or to surface water.</li> <li>• EPA reviews all registered pesticides at least once every 15 years. Each review allows an opportunity for public comment.</li> <li>• Through BAPPG’s Pesticides Committee, BACWA aims to proactively support a scientific and regulatory advocacy program so that pesticides will not impact POTWs’ primary functions of collecting and treating wastewater, recycling water, and managing biosolids, or impact receiving waters via the “down the drain” route.</li> <li>• Based on the current (2023) BAPPG/BACWA Pesticide Watch List, the pesticides of highest concern in wastewater are: <ul style="list-style-type: none"> <li>○ Pyrethroids (21 chemicals)</li> <li>○ Fipronil</li> <li>○ Imidacloprid</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• BACWA continues to fund consultant support to write comment letters advocating for the consideration of POTW and surface water issues by EPA and the California Department of Pesticide Registration (CalDPR). Funding for pesticide regulatory outreach in FY25 is \$72k.</li> <li>• The Regional Water Board leverages BACWA’s efforts to provide their own comment letters.</li> <li>• CalDPR is beginning implementation of its Sustainable Pest Management Roadmap developed in 2023. The Roadmap identifies actions to enhance understanding of pesticide use in urban areas and enhance outreach to urban pesticide users. Recently enacted legislation (AB 2113) authorizes CalDPR to significantly increase the “Mill Fee,” a tax on pesticide sales, to fund activities identified in the Roadmap. Effective June 1, 2024, the “Mill Fee” tax is increasing from \$.021 to \$.0245 per dollar of pesticides sales, including sodium hypochlorite.</li> <li>• Baywise.org has flea and tick control messaging for pet owners and veterinarians. In addition, the BACWA website offers toolkits for conducting outreach to pet owners and veterinary offices.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>BACWA members can conduct public and veterinary office outreach using flea and tick outreach toolkits.</b></li> <li>• Advocate for implementation of specific actions from the Sustainable Pesticide Management Roadmap.</li> <li>• Continue to comment on EPA pesticide re-registrations and CalDPR actions.</li> <li>• Engage with EPA on proposed changes to the regulatory approval process for pesticides.</li> <li>• Work with veterinary associations on messaging with respect to flea and tick control alternatives.</li> <li>• Continue to develop summaries of EPA actions on pesticides.</li> <li>• Look for opportunities to work with CalDPR on pesticides research.</li> <li>• Work with other regional associations, such as CASQA, to collaborate on funding pesticide regulatory outreach.</li> </ul>	<p>BACWA Pesticide Regulatory Support Page:  <a href="http://bacwa.org/bappg-pesticides/">bacwa.org/bappg-pesticides/</a></p> <p>Flea and Tick Outreach Toolkits:  <a href="http://bacwa.org/bappg-pesticides/flea-and-tick-outreach-toolkits/">bacwa.org/bappg-pesticides/flea-and-tick-outreach-toolkits/</a></p> <p>Baywise flea and tick pages:  <a href="http://baywise.org/residential/for_your_pets/">baywise.org/residential/for_your_pets/</a></p> <p>CalDPR Sustainable Pest Management Roadmap  <a href="http://www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/">www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/</a></p> <p>BAPPG/BACWA Pesticides Watch List  <a href="http://bacwa.org/wp-content/uploads/2023/08/FINAL-BACWA-Pesticides-Watch-List-Aug-2023.pdf">bacwa.org/wp-content/uploads/2023/08/FINAL-BACWA-Pesticides-Watch-List-Aug-2023.pdf</a></p> <p>Mill Fee Assessment  <a href="https://www.cdpr.ca.gov/docs/mill/masesmnu.htm">https://www.cdpr.ca.gov/docs/mill/masesmnu.htm</a></p>

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<b>MERCURY AND PCBS</b>			
<ul style="list-style-type: none"> <li>The Mercury &amp; PCBs Watershed Permit is based on Total Maximum Daily Loads (TMDLs) for San Francisco Bay for each of these pollutants.</li> <li>The Mercury &amp; PCBs Watershed Permit was most recently reissued in December 2022, and it continues to require discharger support for risk reduction activities. BACWA is funding risk reduction activities on behalf of its members to comply with this permit provision. For FY25, BACWA has budgeted \$12,500 to support risk reduction activities related to fish consumption.</li> <li>Aggregate mercury and PCBs loads have been well below waste load allocations through 2023, the last year for which data have been compiled.</li> <li>EPA Method 1668C for measuring PCB Congeners has not been promulgated by EPA. Effluent limitations are based on PCB Aroclors quantified using EPA Methods 625.1 or 608.3.</li> <li>In 2017, EPA adopted federal pretreatment program rules requiring dental offices to install dental amalgam separators. The rule is intended to reduce dental office discharge of mercury. The compliance date was in 2020.</li> </ul>	<ul style="list-style-type: none"> <li>The Regional Water Board plans to designate three new beneficial uses for Bay Area water bodies: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB) and Subsistence Fishing (SUB). Water bodies with these beneficial uses could also be assigned lower mercury objectives.</li> <li>For the previous (2017) Mercury &amp; PCBs Watershed Permit, BACWA supported risk reduction programming on safe fish consumption. BACWA provided grants to two community-based organizations for this work.</li> <li>Through 2026, State Water Board and Regional Water Board staff are working on a Bioaccumulation Monitoring Program Realignment effort in the San Francisco Bay region. BACWA intends to support risk reduction activities related to this effort, which may include public outreach related to subsistence fishing. In 2024, SFEI worked with stakeholders to develop a fish consumption survey.</li> <li>In January 2022, monitoring requirements for mercury were reduced for most dischargers by a blanket NPDES Permit amendment (Order R2-2021-0028). Revised monitoring frequencies are also reflected in the reissued permit.</li> <li>Recent consolidations among contract laboratory providers of PCB analysis via EPA Method 1668C has led to difficulties with electronic reporting.</li> </ul>	<ul style="list-style-type: none"> <li>Work with Regional Water Board staff to finalize revised guidelines for electronic reporting of PCB congeners analyzed via EPA Method 1668C. The proposed guidance will supplement the monitoring requirements in the Mercury &amp; PCBs Watershed permit.</li> <li>Continue to coordinate with local community-based organizations and Water Boards staff to develop concepts for risk reduction activities that BACWA could support during the term of the 2022 permit.</li> <li>Continue outreach to dentists BAPPG and BACWA's pretreatment committee. Per federal rules, all dental facilities were required to submit one-time compliance reports by October 2020.</li> <li>Participate in the Regional Water Board's 2024 Triennial Review process. The Triennial Review determines the prioritization of Basin Plan amendments, including designation of new beneficial uses associated with lower mercury objectives. A draft Triennial Review staff report is expected in September 2024.</li> </ul>	<p>2022 Mercury &amp; PCBs Watershed Permit (Effective Feb. 1, 2023)  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0038.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0038.pdf</a></p> <p>Risk Reduction Materials  <a href="https://bacwa.org/mercurypcb-risk-reduction-materials/">https://bacwa.org/mercurypcb-risk-reduction-materials/</a></p> <p>NPDES Permit Amendment for Monitoring and Reporting  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf</a></p> <p>Mercury and PCB Load Trends 2013- 2023 (Updated June 2024)  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2024/June/4_ssr.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2024/June/4_ssr.pdf</a></p> <p>2024 Triennial Review of the Basin Plan  <a href="https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#triennialreview">https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#triennialreview</a></p> <p>Planning for Fish Consumption Survey of Subsistence Fishers  <a href="https://www.sfei.org/projects/consumption-survey-questionnaire">https://www.sfei.org/projects/consumption-survey-questionnaire</a></p>



## STATE WATER BOARD TOXICITY PROVISIONS

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| <ul style="list-style-type: none"> <li>• The State Water Board adopted the Statewide Toxicity Provisions in 2021 as state policy for water quality control for all inland surface waters and estuaries. The Provisions establish:             <ul style="list-style-type: none"> <li>○ Use of Test of Significant Toxicity (TST) as statistical method to determine toxicity, replacing EC25/IC25;</li> <li>○ Numeric limits for chronic toxicity for POTWs &gt;5 MGD and with a pretreatment program; smaller POTWs will receive effluent targets and only receive limits if Reasonable Potential is established;</li> <li>○ Regional Water Board discretion on whether to require RPAs for acute toxicity</li> <li>○ For POTWs with <i>Ceriodaphnia dubia</i> as most sensitive species, numeric targets rather than limits were initially in effect until completion of a statewide quality assurance study in December 2023.</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• EPA approved the Statewide Toxicity Provisions in May 2023, and they became effective in June 2023. Individual NPDES permits reissued in the San Francisco Bay Region are implementing the Toxicity Provisions and requiring use of the TST for chronic toxicity testing. Reissued permits no longer require acute toxicity monitoring.</li> <li>• EPA has not yet approved the Alternate Test Procedure for whole effluent toxicity testing. Until the Alternate Test Procedures are approved, the Regional Water Board has advised that dischargers should use the full five-concentration series for all tests, including routine monitoring and Species Sensitivity Screening Studies.</li> <li>• From 2016 to 2023, agencies had the option to skip sensitive species screening upon permit reissuance and pay the avoided funds to the RMP to be used for CECs studies. Under the Toxicity Provisions, agencies are now required by the provisions to do sensitive species screening once every 15 years.</li> <li>• The State Water Board collaborated with stakeholders on a special study to improve the quality of <i>Ceriodaphnia dubia</i> testing. The multi-laboratory study of toxicity testing was completed and presented to the State Water Board in 2023. The State Water Board has compiled resources related to the study for dischargers that plan to use <i>Ceriodaphnia dubia</i> for chronic toxicity monitoring.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Begin conducting toxicity testing using the Statewide Toxicity Provisions.</b> All member agencies with individual NPDES permits reissued after August 2022 have transitioned to the new toxicity testing requirements.</li> <li>• <b>Plan to conduct a species sensitivity screening</b> to comply with the Toxicity Provisions, which require a study no more than 10 years old be used to determine a “Tier I” species for use in compliance monitoring. The BACWA laboratory committee has compiled some tips related to sensitivity screening studies for member agencies’ use.</li> <li>• Members hiring a contract laboratory to perform testing using <i>Ceriodaphnia dubia</i> should utilize the <i>Ceriodaphnia dubia</i> <i>Quality Assurance Guidance Recommendations</i> from the multi-laboratory study, including the performance metrics listed in Appendix E of the report.</li> </ul> | <p>SWRCB Toxicity Page: <a href="http://www.swrcb.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml">http://www.swrcb.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml</a></p> <p>Regional Water Board presentation on implementation of Statewide Toxicity Provisions from December 2020: <a href="https://bacwa.org/wp-content/uploads/2021/01/Slides-from-RWQCB-Regarding-R2-Tox-Language-in-NPDES-Permits-2020-12-08.pdf">https://bacwa.org/wp-content/uploads/2021/01/Slides-from-RWQCB-Regarding-R2-Tox-Language-in-NPDES-Permits-2020-12-08.pdf</a></p> <p>EPA Approval of Statewide Toxicity Provisions <a href="https://bacwa.org/wp-content/uploads/2023/05/05.01.2023-EPA-CWA-303c-Approval-of-California-Toxicity-Provisions.pdf">https://bacwa.org/wp-content/uploads/2023/05/05.01.2023-EPA-CWA-303c-Approval-of-California-Toxicity-Provisions.pdf</a></p> <p><i>Ceriodaphnia dubia</i> Study Resources, including link to <i>Quality Assurance Guidance Recommendations</i> <a href="https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/docs/ceriodaphnia-dubia-study-resources.pdf">https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/docs/ceriodaphnia-dubia-study-resources.pdf</a></p> <p>CASA Webinar on Lessons from <i>Ceriodaphnia</i> Study <a href="https://casaweb.org/resources/speaker-presentations/">https://casaweb.org/resources/speaker-presentations/</a></p> |
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Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>COMPOUNDS OF EMERGING CONCERN (CECS)</b>			
<ul style="list-style-type: none"> <li>Pharmaceuticals and other trace compounds of emerging concern (CECs) are ubiquitous in wastewater at low concentrations and have unknown effects on aquatic organisms.</li> <li>The State Water Board has formed a Pretreatment and CECs Unit.</li> <li>The San Francisco Bay region's CEC strategy focuses on monitoring/tracking concentrations of constituents with high occurrence and high potential toxicity. Much of what the State Water Board is considering for its monitoring program is already being implemented in the Bay Area through the RMP.</li> <li>The Regional Water Board has stated that voluntary and representative participation in RMP CECs studies is key to avoiding regulatory mandates for CECs monitoring. These studies are informational and not for compliance purposes. BACWA developed a White Paper on representative participation to support facility selection for these studies.</li> </ul>	<ul style="list-style-type: none"> <li>Bay dischargers are continuing to provide supplemental funding for RMP CECs studies through the NPDES Permit Amendment adopted in 2021 by the Regional Water Board (R2-2021-0028).</li> <li>The State Water Board has recently increased its focus on CECs. In April 2023, a State Water Board Science Advisory Panel released a report identifying risk-based and occurrence-based monitoring strategies in aquatic ecosystems. Similar approaches are already in use in the Bay Area by the RMP.</li> <li>In the Bay Area, the RMP has designated organophosphate esters (OPEs) and PFAS as CECs of "high" concern. CECs of "moderate" concern include alkylphenols and alkylphenol ethoxylates, bisphenols, fipronil and its degradates, imidacloprid, and microplastics.</li> <li>Carbendazim, a preservative used in paints and other products, was added to the "moderate" concern tier in 2024.</li> <li>Quaternary Ammonium Compounds (QACs) are categorized as a "potential concern" due to lack of data. Monitoring studies of Bay water and stormwater are planned in coming years. A report on QACs in wastewater was recently prepared by SFEI.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to participate in the RMP Emerging Contaminants Workgroup.</li> <li>Participate in RMP studies by collecting wastewater samples at member facilities. For 2025, the Emerging Contaminants Workgroup plans to support studies of plastic additives in Bay water and sediment (OPEs, bisphenols, and other plastic additives); QACs in Bay water and sediment; synthetic dyes in Bay sediment, water, wastewater, and stormwater; and several other stormwater-related studies.</li> <li>Update the 2020 White Paper created for use by the RMP or others in selecting representative POTWs for participation in CEC studies. The 2020 White Paper will be updated to note recently completed and ongoing studies of CECs in Bay Area wastewater.</li> </ul>	<p>RMP Emerging Contaminant Workgroup:  <a href="https://www.sfei.org/rmp/">https://www.sfei.org/rmp/</a></p> <p>BACWA CECs White Paper:  <a href="https://bacwa.org/document/bacwa-cec-white-paper-updated-june-2020/">https://bacwa.org/document/bacwa-cec-white-paper-updated-june-2020/</a></p> <p>NPDES Permit Amendment for Monitoring and Reporting  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2021/R2-2021-0028.pdf</a></p> <p>State Water Board CECs webpage:  <a href="https://www.waterboards.ca.gov/water_issues/programs/cec/index.html">https://www.waterboards.ca.gov/water_issues/programs/cec/index.html</a></p> <p>SFEI Report on QACs in Wastewater  <a href="https://www.sfei.org/documents/investigation-quaternary-ammonium-compounds-qacs-wastewater-effluent-influent-biosolids">https://www.sfei.org/documents/investigation-quaternary-ammonium-compounds-qacs-wastewater-effluent-influent-biosolids</a></p>

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>MICROPLASTICS</b>			
<ul style="list-style-type: none"> <li>• Microplastic pollution is an environmental threat with the potential to impact wastewater disposal and reuse, as well as biosolids end uses.</li> <li>• Microplastics have been a focus of the RMP in recent years. BACWA has participated in the Workgroup and developed a POTW Fact Sheet. One conclusion of the RMP work is that POTWs contribute much lower microplastic loads than stormwater. As a result, the RMP is focusing future microplastics sampling efforts on stormwater pathways.</li> <li>• In February 2022, the Ocean Protection Council (OPC) adopted a Statewide Microplastics Strategy that calls for increased water recycling, additional monitoring of wastewater, source control in wastewater, and additional scientific research.</li> </ul>	<ul style="list-style-type: none"> <li>• OPC funded a study of microplastic removal through wastewater treatment processes. The study commenced in 2021 with a pilot study involving BACWA member agency participation. Full-scale sampling and analysis of influent, effluent, and biosolids was completed in 2023. The study was completed in August 2024 and found overall removal efficiencies between influent and effluent averaged 95% 99%, and 99.9% for primary, secondary, and tertiary treatment, respectively.</li> <li>• The 2024 California Integrated Report (303(d) List) was adopted by the State Water Board in February 2024 and has been submitted to EPA. The Integrated Report notes that San Francisco Bay is “potentially threatened” by microplastics. Due to data limitations, the Bay was <u>not</u> listed as an impaired water body during this listing cycle.</li> <li>• Additional research to improve scientific understanding of microplastics in aquatic ecosystems will be needed to support a future impairment determination for the Bay. The Water Boards and OPC are supporting allocation of funding towards these research efforts.</li> <li>• Ongoing microplastics investigations by the RMP are focused on tire particles in stormwater.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to participate in the RMP Microplastics Workgroup.</li> <li>• Review and share the final report for the OPC-funded microplastics study, which was completed in August 2024. Three BACWA member agencies participated in the OPC-funded microplastic study. CASA has also funded the study team at the Southern California Coastal Water Research Project (SCCWRP) to complete add-on work comparing results between different sampling methods, including use of an autosampler. The add-work will be completed later in 2024.</li> <li>• Continue tracking State Water Board and Ocean Protection Council actions via the CASA Microplastics Workgroup.</li> </ul>	<p>BACWA Microplastics Fact Sheet:  <a href="https://bacwa.org/wp-content/uploads/2019/09/BACWA-Microplastics-flyer.pdf">https://bacwa.org/wp-content/uploads/2019/09/BACWA-Microplastics-flyer.pdf</a></p> <p>SFEI Microplastics project:  <a href="https://www.sfei.org/projects/microplastics">https://www.sfei.org/projects/microplastics</a></p> <p>Ocean Protection Council Microplastics Strategy:  <a href="https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20220223/Item_6_Exhibit_A_Statewide_Microplastics_Strategy.pdf">https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20220223/Item_6_Exhibit_A_Statewide_Microplastics_Strategy.pdf</a></p> <p>2024 California Integrated Report / 303(d) List  <a href="https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html">https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html</a></p> <p>SCCWRP Report on Microplastics in California Wastewater Treatment Plants  <a href="https://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/1378_MicroplasticsWastewaterPlants.pdf">https://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/1378_MicroplasticsWastewaterPlants.pdf</a></p>



Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)</b>			
<ul style="list-style-type: none"> <li>Per- and polyfluoroalkyl substances (PFAS) are a group of human-made substances that are very resistant to heat, water, and oil. PFAS have been used in surface coating and protectant formulations. Common PFAS-containing products are non-stick cookware, cardboard/paper food packaging, water-resistant clothing, carpets, and fire-fighting foam.</li> <li>Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS no longer manufactured in the US; however, other types of PFAS are still produced and used in the US.</li> <li>All PFAS are persistent in the environment, can accumulate within the human body, and have demonstrated toxicity at relatively low concentrations.</li> <li>Potential regulatory efforts to address PFAS focus on drinking water in order to minimize human ingestion of these chemicals, although regulators have also expressed concern about uptake into food from biosolids.</li> <li>In 2020, the SWRCB issued an investigative order for POTWs. At that time, BACWA obtained SWRCB approval to fund and conduct a Regional PFAS Study in lieu of the investigative order.</li> <li>In 2021, EPA formed a Council on PFAS, then released a PFAS Strategic Roadmap.</li> </ul>	<ul style="list-style-type: none"> <li>In April 2024, EPA finalized Maximum Contaminant Levels for PFOA, PFOS, PFHxS, PFNA, and HFPO-DA (commonly referred to as GenX Chemicals), and mixtures containing two or more specific PFAS compounds. The MCLs are very close to the current limits of quantification.</li> <li>California has not yet adopted the EPA's drinking water limits. Drinking water limits will not be applicable to wastewater discharges to the Bay, but they could be used in NPDES permits for inland dischargers.</li> <li>In April 2024, EPA designated PFOA and PFOS as hazardous substances under CERCLA (the Superfund law). EPA simultaneously released a memo stating that it intends to focus enforcement on PFAS manufacturers, not on public agencies.</li> <li>EPA is conducting pretreatment standards rulemaking for three types of industrial users: Metal Finishing, Organic Chemicals, Plastics and Synthetic Fibers, and landfills.</li> <li>EPA is planning a POTW Influent PFAS Study to collect nationwide data on industrial and domestic sources of PFAS. The first step will be a survey.</li> <li>Proposed legislation restricting the sale of PFAS-containing products in California (SB 903) did not pass in 2024.</li> <li>Based on a study recently completed by UC Irvine, the top three household activities contributing to PFAS in residential wastewater were laundries (28%), showers (23%), and urine (23%).</li> </ul>	<ul style="list-style-type: none"> <li><b>Members should use Clean Water Act methods (EPA Method 1633 or 1621) for monitoring effluent, biosolids, or industrial wastewater.</b></li> <li>Develop a proposal for the next phase of BACWA's regional PFAS study to support the "PFAS Sources to Solutions" project being funded by USEPA and led by SFEI and the California Department of Toxic Substances Control. The first two phases of the study were conducted by SFEI in 2020 and 2022. The study found that residential areas and industrial laundries are potential sources of PFAS.</li> <li>Review the draft risk-based values for PFOA and PFOS in biosolids, which will be released by USEPA by early November 2024 (see Biosolids page).</li> <li>Continue tracking developments at the federal, state and regional level, in particular to understand the impact of the CERCLA designation on biosolids reporting.</li> <li>Continue to support PFAS source control efforts by participating in monitoring studies, and by supporting regulatory and legislative efforts to limit the use of PFAS.</li> </ul>	<p>BACWA PFAS Study Summary  <a href="https://bacwa.org/wp-content/uploads/2024/02/BACWA-PFAS-Study-Summary-2024-02-07.pdf">bacwa.org/wp-content/uploads/2024/02/BACWA-PFAS-Study-Summary-2024-02-07.pdf</a></p> <p>SWRCB PFAS Resources:  <a href="http://www.waterboards.ca.gov/pfas/">www.waterboards.ca.gov/pfas/</a></p> <p>EPA PFAS Resources  <a href="http://www.epa.gov/pfas">www.epa.gov/pfas</a></p> <p>EPA Drinking Water Limits  <a href="https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas">https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas</a></p> <p>EPA POTW Influent Study  <a href="https://www.epa.gov/eg/study-pfas-influent-potws">https://www.epa.gov/eg/study-pfas-influent-potws</a></p> <p>EPA NPDES Permitting Guidance (Dec. 2022)  <a href="http://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Memo_December_2022.pdf">www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Memo_December_2022.pdf</a></p> <p>Presentation on BACWA's Regional PFAS Study at RMP 2023 Annual Meeting  <a href="http://www.sfei.org/projects/rmp-annual-meeting">www.sfei.org/projects/rmp-annual-meeting</a></p> <p>UC Irvine Report on PFAS in Residential Wastewater  <a href="https://water.uci.edu/files/2024/08/Final-PFAS-report-exec.summary.pdf">https://water.uci.edu/files/2024/08/Final-PFAS-report-exec.summary.pdf</a></p> <p>"PFAS Sources to Solutions" Project Overview  <a href="https://bacwa.org/document/pfas-sources-to-solutions/">https://bacwa.org/document/pfas-sources-to-solutions/</a></p>

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<b>SANITARY SEWER SYSTEMS GENERAL ORDER</b>			
<ul style="list-style-type: none"> <li>• In 2022, the State Water Board reissued the statewide Sanitary Sewer Systems General Order (SSS-WDR). The reissued order replaced the 2006 Order and the 2013 Monitoring and Reporting Program.</li> <li>• The 2022 SSS-WDR became effective in June 2023 and contains numerous new and modified requirements, such as: <ul style="list-style-type: none"> <li>○ A prohibition on discharges to groundwater</li> <li>○ Reduced spill reporting requirements for small spills (spills from laterals or &lt;50 gallons)</li> <li>○ New spill monitoring requirements such as photo documentation and faster water quality sampling</li> <li>○ New requirements for preparation of Sewer System Management Plans (SSMPs), including a focus on system resiliency, prioritizing corrective actions, and coordinating with stormwater agencies</li> <li>○ Modified annual reporting requirements</li> <li>○ New mapping requirements</li> <li>○ Modified timelines for preparation of audits and SSMPs.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The first annual reports under the reissued SSS-WDR were due April 1, 2024.</li> <li>• Due dates for the first audits and SSMPs under the reissued SSS-WDR vary by agency. Audit due dates begin later in 2024, and SSMP due dates begin in 2025. The State Water Board has prepared an online tool to assist agencies in determining compliance dates (see link at right).</li> <li>• Maintaining an updated SSMP continues to be a core requirement of the SSS-WDR. SSMP updates are now required every six years (instead of five) and must contain the 11 updated elements described in the reissued SSS-WDR. BACWA has assisted members by preparing a <i>Guide for Developing and Updating SSMPs</i>, now available through the BACWA and State Water Board websites.</li> <li>• In May 2024, BACWA completed a member survey of sewer lateral ordinances in the region. Agencies are using sewer lateral replacement ordinances and incentive programs to address ongoing concerns about infiltration and inflow (I&amp;I).</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to use the Collections System Committee as a forum for discussing best practices for completing audits and SSMPs.</li> <li>• Continue to coordinate with CASA and CWEA on training opportunities for members to address compliance with new requirements in the 2022 SSS-WDR.</li> </ul>	<p>State Water Board SSS-WDR page:  <a href="https://www.waterboards.ca.gov/water_issues/programs/sso/">https://www.waterboards.ca.gov/water_issues/programs/sso/</a></p> <p>Reissued SSS-WDR (General Order 2022-0103-DWQ), Effective June 5, 2023  <a href="https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf">https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf</a></p> <p>Materials from Clean Water Summit Partners Webinars on Reissued SSS-WDR  <a href="https://casaweb.org/sss-wdr/">https://casaweb.org/sss-wdr/</a></p> <p>SSMP and Audit Due Dates Lookup Tool from State Water Board  <a href="https://www.waterboards.ca.gov/water_issues/programs/sso/lookup/">https://www.waterboards.ca.gov/water_issues/programs/sso/lookup/</a></p> <p>Guide for Developing and Updating Sewer System Management Plans  <a href="https://bacwa.org/document/guide-for-developing-and-updating-ssmps-july-2024/">https://bacwa.org/document/guide-for-developing-and-updating-ssmps-july-2024/</a></p> <p>BACWA Private Sewer Lateral Survey Results  <a href="https://bacwa.org/wp-content/uploads/2024/05/Private-Sewer-Lateral-Survey-Results-2024-05-09.pdf">https://bacwa.org/wp-content/uploads/2024/05/Private-Sewer-Lateral-Survey-Results-2024-05-09.pdf</a></p>

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>LABORATORY ACCREDITATION</b>			
<ul style="list-style-type: none"> <li>• In May 2020, the State Water Board adopted new comprehensive regulations for the Environmental Laboratory Accreditation Program.</li> <li>• Adoption of the new regulations was required by AB 1438, legislation that became effective in 2018.</li> <li>• The new ELAP regulations replaced the previous state-specific accreditation standards with a national laboratory standard established by The NELAC Institute (TNI).</li> <li>• Compliance with TNI standards was required beginning <b>January 1, 2024</b>.</li> <li>• The TNI standards pose a particular challenge to small laboratories, many of which have closed because they cannot economically meet the new standards. This reduction contributed to significant ELAP fee increases for the remaining laboratories in FY24 (30% increase).</li> </ul>	<ul style="list-style-type: none"> <li>• The TNI standards apply to every ELAP-certified laboratory, regardless of certificate expiration date and regardless of location. Some laboratories have not yet been assessed to the TNI standard. Starting January 1, 2024, ELAP will be sending laboratories a written request asking for information about assessment plans and requesting a TNI-compliant Quality Assurance manual.</li> <li>• From 2021 to 2024, the BACWA Lab Committee hosted 30 virtual sessions on the TNI standards. Diane Lawver of Quality Assurance Solutions, LLC, provided the training. The training sessions were recorded, and are available to download with a password (available upon request).</li> <li>• For FY25, ELAP is planning to restructure its fees to increase fees for large laboratories with more than 500 fields of accreditation. Smaller laboratories will see no fee increase.</li> <li>• ELAP is now implementing EPA's 2021 Method Update Rule, and advised labs to update any outdated methods by February 2024.</li> <li>• In April 2024, EPA finalized the 2023 Method Update Rule. The 2023 Method Update Rule will be implemented by ELAP at a later date.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide member training on the 2023 Method Update Rule. The Laboratory Committee plans a training event at its October meeting.</li> <li>• Continue to work through BACWA's Laboratory Committee to support members as they navigate laboratory accreditation under the new TNI standards.</li> <li>• Publicize training opportunities offered by consultants, ELAP, and others.</li> </ul>	<p>State Water Board's ELAP regulations page:  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/labs/">https://www.waterboards.ca.gov/drinking_water/certlic/labs/</a></p> <p>ELAP Timeline Guidance Tool:  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/labs/docs/elap-scheduler.xlsx">https://www.waterboards.ca.gov/drinking_water/certlic/labs/docs/elap-scheduler.xlsx</a></p> <p>ELAP Implementation of 2021 Method Update Rule:  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/labs/mur.html">https://www.waterboards.ca.gov/drinking_water/certlic/labs/mur.html</a></p> <p>2023 Method Update Rule:  <a href="https://www.epa.gov/cwa-methods/methods-update-rules">https://www.epa.gov/cwa-methods/methods-update-rules</a></p> <p>Materials from BACWA TNI Training Sessions 2021-2024  <i>request password from BACWA</i>  <a href="https://bacwa.org/committees/laboratory/recordings-from-tni-training-sessions-2021-22/">https://bacwa.org/committees/laboratory/recordings-from-tni-training-sessions-2021-22/</a></p>

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<b>BIOSOLIDS</b>			
<ul style="list-style-type: none"> <li>Regulatory drivers are leading to the phase-out of biosolids used as alternative daily cover (ADC) or disposed in landfills. SB 1383, requiring reductions in the amount of organic material deposited in landfills, went into effect in 2022. CalRecycle is the state agency responsible for implementation.</li> <li>Local enforcement of SB 1383 began in 2024, and compliance is required by January 1, 2025. Requirements include: <ul style="list-style-type: none"> <li>Diverted biosolids must be anaerobically digested and/or composted to qualify as landfill reduction.</li> <li>CalRecycle is accepting applications to qualify other specific treatment technologies as landfill reduction (per Article 2 of SB 1383).</li> <li>Local ordinances restricting land application are disallowed.</li> </ul> </li> <li>While the regulations implementing SB 1383 do not explicitly forbid biosolids disposal/reuse in landfills, it is assumed that since biosolids are a relatively "clean" waste stream that can be easily diverted, landfills will stop accepting biosolids.</li> <li>The Bay Area Biosolids Coalition (BABC) was formed to find sustainable, cost-effective, all-weather options for biosolids management. BABC is a BACWA Project of Special Benefit.</li> </ul>	<ul style="list-style-type: none"> <li>Jurisdictions that divert organic waste must also procure the end products of diversion, such as biogas, biomethane, and compost (but not biosolids). Procurement rules are being phased in over three years (2023 to 2025) and there are interim rules regarding procurement of biogas from POTWs.</li> <li>CalRecycle and biosolids stakeholders are continuing to conduct outreach to counties with ordinances that restrict land application of biosolids.</li> <li>In 2024, biosolids land application in Solano County was discontinued due to property acquisitions by the "California Forever" project.</li> <li>CalRecycle reviews technologies that may be equivalent to landfill diversion/reduction per Article 2 of SB 1383. CalRecycle has also provided clarification on technologies that <i>already</i> comply with SB 1383, and need not apply under Article 2 (e.g., land application of biosolids that have not been anaerobically digested).</li> <li>USEPA is developing draft risk-based values for PFOA and PFOS in biosolids, which are expected to be released for public comment by early November 2024. Later phases will include a risk management analysis and regulations for biosolids end uses.</li> <li>New York and Michigan are already imposing restrictions on land application of biosolids with levels of PFAS &gt;20 ppb for PFOA or PFOS.</li> <li>Synagro's recent acquisition of Denali's California municipal biosolids business may affect agencies' biosolids hauling contracts.</li> </ul>	<ul style="list-style-type: none"> <li>Complete and circulate the latest Biosolids Trends Survey Report covering 2021-2023. The draft report is currently under review by study participants.</li> <li><b>Respond to EPA's Influent Study of POTWs</b>, anticipated as soon as early 2025, which will also function as a nationwide sewage sludge survey. Facilities larger than 10 MGD may be required to participate in the survey and conduct sampling.</li> <li>Continue to follow emerging science and regulatory developments regarding PFAS in biosolids, particularly related to EPA's draft risk assessment for PFAS in biosolids and the impact of EPA's designation of PFOA and PFOS as hazardous substances under CERCLA (see page 9).</li> <li>Engage through CASA and BABC to follow development of regulations implementing AB 1857, with the goal of avoiding limits on POTWs using pyrolysis for organic waste management.</li> <li>Actively work through CASA with State agencies to develop sustainable long-term options for biosolids beneficial use.</li> <li>Meet with BAAQMD regularly to discuss alignment of state and local regulations that affect biosolids treatment and end uses.</li> </ul>	<p>BACWA Biosolids Reports: <a href="https://bacwa.org/committees/biosolids/">https://bacwa.org/committees/biosolids/</a></p> <p>BABC website: <a href="http://www.bayareabiosolids.com">http://www.bayareabiosolids.com</a></p> <p>CASA White Paper on SB 1383 Implementation: <a href="https://bacwa.org/document/summary-of-sb-1383-and-its-implementation-casa-2020/">https://bacwa.org/document/summary-of-sb-1383-and-its-implementation-casa-2020/</a></p> <p>CalRecycle - Short-Lived Climate Pollutant Reduction Strategy <a href="https://www.calrecycle.ca.gov/organics/slcp">https://www.calrecycle.ca.gov/organics/slcp</a></p> <p>CalRecycle Procurement FAQ (Updated by AB 1985) <a href="https://calrecycle.ca.gov/organics/slcp/faq/recycledproducts/">https://calrecycle.ca.gov/organics/slcp/faq/recycledproducts/</a></p> <p>SB1383 Article 2 Determination <a href="https://calrecycle.ca.gov/organics/slcp/recyclingfacilities/article2/">https://calrecycle.ca.gov/organics/slcp/recyclingfacilities/article2/</a></p> <p>EPA National Sewage Sludge Survey <a href="https://www.epa.gov/eg/study-pfas-influent-potws">https://www.epa.gov/eg/study-pfas-influent-potws</a></p>



Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>CLIMATE CHANGE ADAPTATION</b>			
<ul style="list-style-type: none"> <li>Climate change and water resilience are strategic priorities of both the State Water Board and Regional Water Board.</li> <li>In 2019, Governor Newsom signed Executive Order N-10-19 directing State Agencies to recommend a suite of priorities and actions to build a climate-resilient water system and ensure healthy waterways through the 21st century.</li> <li>Bay Area coordination occurs through Bay Adapt, the Bay Area Climate Adaptation Network (BayCAN), and other venues. BACWA has signed a letter of support for the Bay Adapt Joint Platform.</li> <li>In 2022, the State released a Climate Adaptation Strategy, including an updated climate change assessment for the Bay Area region.</li> <li>The Regional Water Board is modifying the Basin Plan to address climate change and wetland policy. The changes will occur through multiple Basin Plan amendments.</li> <li>The California Coastal Commission's November 2021 <i>Sea Level Rise Planning Guidance</i> recommends that agencies "understand and plan" for 2.7 feet of sea level rise (SLR) by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>In June 2024, the Regional Water Board adopted a Climate Change Basin Plan amendment addressing dredge and fill procedures near the region's shorelines, especially for climate adaptation projects.</li> <li>Shallow groundwater response to SLR is a concern in low-lying Bay Area communities. Information about current and future depth-to-groundwater maps is summarized in a January 2023 report now available from Pathways Climate Institute and SFEI.</li> <li>The Bay Conservation and Development Commission (BCDC) is developing regional SLR adaptation planning guidelines for the Bay Area as part of the Regional Shoreline Adaptation Plan. The guidelines must be adopted by Dec 31, 2024, to comply with SB 272, signed by the Governor in Oct. 2023. SB 272 requires cities and counties to develop regional sea level rise adaptation plans by 2034. A draft guidance document will be circulated for public review in September 2024.</li> <li>In 2024, the Ocean Protection Council (OPC) adopted updated SLR guidance. Compared to the 2018 version, projections for extreme SLR (i.e., H++ scenario) have been removed, and the range of projections has narrowed considerably, especially for 2050.</li> <li>The California Coastal Commission has released a public review draft of its latest SLR policy guidance update. Comments are due by September 23<sup>rd</sup>.</li> </ul>	<ul style="list-style-type: none"> <li><b>Begin using the OPC's updated Sea Level Rise Guidance.</b> Updates to the Coastal Commission's "Critical Infrastructure at Risk" SLR planning guidance are expected to follow.</li> <li>Continue to develop webinars on technical topics related to climate change, such as sea level rise projections and changes in precipitation. The BACWA Climate Change Community of Practice will provide a forum to discuss these topics.</li> <li>Engage with BCDC during the agency's development of Regional Shoreline Adaptation Plan guidance, which will likely impact most BACWA member agencies. BACWA is participating in an advisory group for the Regional Shoreline Adaptation Plan.</li> <li>Prepare for engagement with the Regional Water Board on expectations for SLR planning.</li> <li>Continue to work with Regional Water Board and other resource agencies to look for regulatory solutions to encourage wetlands projects for shoreline resiliency.</li> </ul>	<p>Regional Water Board Basin Plan Amendment on Climate Change and Aquatic Habitat <a href="https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/climate_change/">https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/climate_change/</a></p> <p>OPC 2024 Sea Level Rise Guidance <a href="https://opc.ca.gov/wp-content/uploads/2024/05/Item-4-Exhibit-A-Final-Draft-Sea-Level-Rise-Guidance-Update-2024-508.pdf">https://opc.ca.gov/wp-content/uploads/2024/05/Item-4-Exhibit-A-Final-Draft-Sea-Level-Rise-Guidance-Update-2024-508.pdf</a></p> <p>California Coastal Commission SLR Policy Guidance Update <a href="https://www.coastal.ca.gov/climate/slrguidance.html">https://www.coastal.ca.gov/climate/slrguidance.html</a></p> <p>California Coastal Commission's <i>Critical Infrastructure at Risk</i> <a href="https://documents.coastal.ca.gov/assets/slr/SLR%20Guidance_Critical%20Infrastructure_12.6.2021.pdf">https://documents.coastal.ca.gov/assets/slr/SLR%20Guidance_Critical%20Infrastructure_12.6.2021.pdf</a></p> <p>BayCAN Funding Tracker <a href="https://www.baycanadapt.org/">https://www.baycanadapt.org/</a></p> <p>Bay Adapt Joint Platform (includes Regional Shoreline Adaptation Planning info) <a href="https://www.bayadapt.org/">https://www.bayadapt.org/</a></p> <p>2023 Report on Shallow Groundwater Response <a href="https://www.sfei.org/projects/shallow-groundwater-response-sea-level-rise">https://www.sfei.org/projects/shallow-groundwater-response-sea-level-rise</a></p>



Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>CLIMATE CHANGE MITIGATION</b>			
<ul style="list-style-type: none"> <li>• CARB’s Climate Change Scoping Plan Update lays out the approach for the State to meet its greenhouse gas (GHG) emissions reduction targets through 2030. The latest Scoping Plan was updated in 2022 targeting carbon neutrality by 2045, including policies addressing: <ul style="list-style-type: none"> <li>○ Short-lived climate pollutants</li> <li>○ Carbon sequestration on Natural and Working Lands</li> <li>○ Largest emitters (transportation, electricity, and industrial sectors)</li> </ul> </li> <li>• SB 1383 (Short-Lived Climate Pollutant Reduction) calls for: <ul style="list-style-type: none"> <li>○ 40% methane reduction by 2030</li> <li>○ 75% diversion of organic waste from landfills by January 1, 2025</li> <li>○ Policy / regulatory development encouraging production/use of biogas</li> </ul> </li> <li>• BAAQMD developed a Clean Air Plan requiring GHG emissions supporting CARB’s 2050 target (80% below 1990 levels).</li> <li>• BAAQMD proposed the development of Regulation 13 (climate pollutants) targeting methane and nitrous oxide reductions related to organics diversion and management. After a pause of several years, BAAQMD is revisiting Regulation 13 in 2024.</li> <li>• CARB states POTWs are part of the solution for reducing fugitive methane and encourages diversion of organics to POTWs to use available digester capacity and produce biogas.</li> </ul>	<ul style="list-style-type: none"> <li>• CARB is pursuing rapid fleet conversion to zero-emission vehicles (ZEVs), including medium and heavy-duty vehicles, through the Advanced Clean Fleet rule.</li> <li>• In March 2024, CARB re-opened the Advanced Clean Fleet regulations to incorporate requirements of AB 1594 by expanding ZEV purchase and daily usage exemptions for public agency utilities. The rulemaking process is expected to be complete by early 2025. CASA is working with CARB on recommended language.</li> <li>• In addition to pushing for ZEVs, CARB is proposing changes to the Low Carbon Fuel Standard to emphasize hydrogen rather than biomethane as a transportation fuel. Proposed changes to the Low Carbon Fuel Standard were released in early 2024, and CARB intends to vote on a final version on November 8, 2024.</li> <li>• Due to a 2022 CPUC mandate for the state’s four largest gas utilities, PG&amp;E now has an active biomethane procurement program.</li> <li>• In 2023, EPA finalized updates to its Renewable Fuel Standard Set Rule allowing apportionment of renewable identification numbers (RINs) or “Credits for food-waste-based (D5) or sludge-based (D3) biogas.</li> <li>• In fall 2024, as a first step in revisiting Regulation 13, BAAQMD staff are developing a white paper on anaerobic digesters and potentially associated emissions.</li> </ul>	<ul style="list-style-type: none"> <li>• Support BAAQMD’s development of a white paper on anaerobic digestion by providing more information on digestion and associated energy generation infrastructure.</li> <li>• Continue to track implementation of the Advanced Clean Fleet rule. This includes modifications to the rule being developed in 2024 that will exempt some traditional utility-specialized vehicles used by public agency utilities, per AB 1594.</li> <li>• Continue to advocate for changes to the Low Carbon Fuel Standards to maintain a viable pathway for biomethane used as CNG in vehicles. In August and September 2024, CARB will accept public comment on the most recent version of proposed changes to the Low Carbon Fuel Standards. .</li> <li>• Work with PG&amp;E and BAAQMD to explore options for POTWs to inject biogas into PG&amp;E pipelines.</li> </ul>	<p>Climate Change Scoping Plan: <a href="https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan">https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan</a></p> <p>CARB Low Carbon Fuel Standard Rulemaking: <a href="https://ww2.arb.ca.gov/rulemaking/2024/lcfs2024">https://ww2.arb.ca.gov/rulemaking/2024/lcfs2024</a></p> <p>CARB Advanced Clean Fleet Rule: <a href="https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets">https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets</a></p> <p>CARB AB 1594 Information: <a href="https://ww2.arb.ca.gov/sites/default/files/2024-03/240325acfpres_ADA.pdf">https://ww2.arb.ca.gov/sites/default/files/2024-03/240325acfpres_ADA.pdf</a></p> <p>SB 1383: <a href="https://www.calrecycle.ca.gov/org/organics/slcp">https://www.calrecycle.ca.gov/org/organics/slcp</a></p> <p>BAAQMD Regulation 13: <a href="http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants">http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants</a></p> <p>EPA Renewable Fuel Standards: <a href="https://www.epa.gov/renewable-fuel-standard-program/final-renewable-fuels-standards-rule-2023-2024-and-2025">https://www.epa.gov/renewable-fuel-standard-program/final-renewable-fuels-standards-rule-2023-2024-and-2025</a></p> <p>PG&amp;E Procurement: <a href="http://www.pge.com/rngrfo">http://www.pge.com/rngrfo</a>, &amp; <a href="https://casaweb.org/wp-content/uploads/2023/11/PGE-at-CASA-Webinar.pdf">https://casaweb.org/wp-content/uploads/2023/11/PGE-at-CASA-Webinar.pdf</a></p>

## TOXIC AIR CONTAMINANTS

<ul style="list-style-type: none"> <li>• CARB's Climate Change Scoping Plan lays out the approach for the State to meet its greenhouse gas (GHG) emissions reduction targets through 2030. The 2022 Scoping Plan targets carbon neutrality by 2045 with policies for: <ul style="list-style-type: none"> <li>○ Short-lived climate pollutants</li> <li>○ Carbon sequestration on Natural and Working Lands</li> <li>○ Largest emitters (transportation, electricity, and industrial sectors)</li> </ul> </li> <li>• SB 1383 (Short-Lived Climate Pollutant Reduction) calls for: <ul style="list-style-type: none"> <li>○ 40% methane reduction by 2030</li> <li>○ 75% diversion of organic waste from landfills by January 1, 2025</li> <li>○ Policy / regulatory development encouraging production/use of biogas</li> </ul> </li> <li>• BAAQMD developed a Clean Air Plan requiring GHG emissions supporting CARB's 2050 target (80% below 1990 levels).</li> <li>• BAAQMD proposed the development of Regulation 13 (climate pollutants) targeting methane and nitrous oxide reductions related to organics diversion and management. After a pause of several years, BAAQMD is planning to revisit Regulation 13 in 2024.</li> <li>• CARB states POTWs are part of the solution for reducing fugitive methane and encourages diversion of organics to POTWs to use available digester capacity and produce biogas.</li> </ul>	<ul style="list-style-type: none"> <li>• CARB is pursuing rapid fleet conversion to zero-emission vehicles (ZEVs), including medium and heavy-duty vehicles, through the Advanced Clean Fleet rule.</li> <li>• In March 2024, CARB re-opened the Advanced Clean Fleet regulations to incorporate requirements of AB 1594 by expanding ZEV purchase and daily usage exemptions for public agency utilities. The rulemaking process is expected to be complete by early 2025. CASA is working with CARB on recommended language.</li> <li>• In addition to pushing for ZEVs, CARB is proposing changes to the Low Carbon Fuel Standard to emphasize hydrogen rather than biomethane as a transportation fuel. Proposed changes to the Low Carbon Fuel Standard were released in early 2024, and CARB intends to vote on a final version on November 8, 2024.</li> <li>• Due to a 2022 CPUC mandate for the state's four largest gas utilities, PG&amp;E now has an active biomethane procurement program.</li> <li>• In 2023, EPA finalized updates to its Renewable Fuel Standard Set Rule allowing apportionment of renewable identification numbers (RINs) or "Credits for food-waste-based (D5) or sludge-based (D3) biogas.</li> <li>• In fall 2024, as a first step in revisiting Regulation 13, BAAQMD staff are developing a white paper on anaerobic digesters and potentially associated emissions.</li> </ul>	<ul style="list-style-type: none"> <li>• Support BAAQMD's development of a white paper on anaerobic digestion by providing more information on digestion and associated energy generation infrastructure.</li> <li>• Continue to track implementation of the Advanced Clean Fleet rule. This includes modifications to the rule being developed in 2024 that will exempt some traditional utility-specialized vehicles used by public agency utilities, per AB 1594. CARB plans to hold a hybrid workshop on the amendments on September 24<sup>th</sup>.</li> <li>• Continue to advocate for changes to the Low Carbon Fuel Standards to maintain a viable pathway for biomethane used as CNG in vehicles. In August and September 2024, CARB will accept public comment on the most recent version of proposed changes to the Low Carbon Fuel Standards and have scheduled a public hearing to consider amendments for November 8, 2024. Work with PG&amp;E and BAAQMD to explore options for POTWs to inject biogas into PG&amp;E pipelines.</li> </ul>	<p>Climate Change Scoping Plan: <a href="https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan">https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan</a></p> <p>CARB Low Carbon Fuel Standard Rulemaking: <a href="https://ww2.arb.ca.gov/rulemaking/2024/lcfs2024">https://ww2.arb.ca.gov/rulemaking/2024/lcfs2024</a></p> <p>CARB Advanced Clean Fleet Rule: <a href="https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets">https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets</a></p> <p>CARB AB 1594 Information: <a href="https://ww2.arb.ca.gov/sites/default/files/2024-03/240325acfpres_ADA.pdf">https://ww2.arb.ca.gov/sites/default/files/2024-03/240325acfpres_ADA.pdf</a></p> <p>SB 1383: <a href="https://www.calrecycle.ca.gov/org/antics/slcp">https://www.calrecycle.ca.gov/org/antics/slcp</a></p> <p>BAAQMD Regulation 13: <a href="http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants">http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants</a></p> <p>EPA Renewable Fuel Standards: <a href="https://www.epa.gov/renewable-fuel-standard-program/final-renewable-fuels-standards-rule-2023-2024-and-2025">https://www.epa.gov/renewable-fuel-standard-program/final-renewable-fuels-standards-rule-2023-2024-and-2025</a></p> <p>PG&amp;E Procurement: <a href="http://www.pge.com/rngrfo">http://www.pge.com/rngrfo</a>, &amp; <a href="https://casaweb.org/wp-content/uploads/2023/11/PGE-at-CASA-Webinar.pdf">https://casaweb.org/wp-content/uploads/2023/11/PGE-at-CASA-Webinar.pdf</a></p>
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Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>BEST AVAILABLE CONTROL TECHNOLOGY</b>			
<ul style="list-style-type: none"> <li>• Best Available Control Technology (BACT) is a requirement for major new or modified sources of air pollution.</li> <li>• BACT is defined locally as part of BAAQMD’s Rule 2-2, “New Source Review.” BACT is established based on the most stringent level of emissions control that is achieved in practice and that is technologically feasible &amp; cost effective.</li> <li>• CARB is working on proposed amendments to the off-road new diesel engine standards, called “Tier 5” rulemaking. The Tier 5 rulemaking aims to reduce oxides of nitrogen (NOx), particulate matter, and may also include first-time carbon dioxide (CO<sub>2</sub>) emissions standards.</li> </ul>	<ul style="list-style-type: none"> <li>• In December 2020, BAAQMD issued a BACT determination for Tier 4 emissions standards for large standby generators (≥ 1,000 bhp). The determination applied retroactively to applications deemed complete after January 1, 2020. The retroactive BACT designation resulted in cost increases and schedule delays for standby generator installations at some BACWA member agencies.</li> <li>• Based on this experience, BACWA has been working with BAAQMD to provide better notice of future BACT determinations.</li> <li>• BAAQMD plans to issue a BACT determination for Tier 4 emissions standards for standby generators &gt; 50 bhp and &lt; 1,000 bhp. Other regions of the state, such as the Sacramento area, have already adopted Tier 4 emissions standards for diesel engines &gt; 50 bhp. As of June 2024, BAAQMD staff were not planning for the BACT determination to apply retroactively. BACWA has expressed a preference for the use of Tier-4 compliant engines in lieu of Tier 4 certified engines for backup generators in the wastewater sector, as recommended by the National Fire Protection Association (Standard 110). Public notice and workshops are planned for later in 2024.</li> <li>• CARB has announced a public workshop on the proposed off-road diesel engine emissions standards (Tier 5 rulemaking). The virtual workshop will be held September 27<sup>th</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate with BAAQMD to distribute information to members about BACT determination for standby generators &gt; 50 bhp. Continue to advocate for the use of Tier 4 compliant engines in lieu of Tier 4 certified engines.</li> <li>• Continue to coordinate with CASA to participate in review and public comment on CARB’s Tier 5 rulemaking.</li> <li>•</li> </ul>	<p>BAAQMD BACT/TBACT Workbook  <a href="https://www.baaqmd.gov/en/permits/permitting-manuals/bact-tbact-workbook">https://www.baaqmd.gov/en/permits/permitting-manuals/bact-tbact-workbook</a></p> <p>CARB Tier 5 Rulemaking  <a href="https://ww2.arb.ca.gov/our-work/programs/tier5">https://ww2.arb.ca.gov/our-work/programs/tier5</a></p> <p>National Fire Protection Association Standard 110  <a href="https://www.nfpa.org/110">https://www.nfpa.org/110</a></p>

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<b>RECYCLED WATER</b>			
<ul style="list-style-type: none"> <li>Approximately 10 percent of the municipal wastewater of Bay Area POTWs is currently recycled. Expansion of recycled water projects is a goal of many BACWA members, but implementation is slowed by high costs and administrative requirements.</li> <li>In 2018, the State Water Board adopted uniform water recycling criteria for two types of Indirect Potable Reuse: surface water augmentation and groundwater augmentation.</li> <li>In December 2023, the State Water Board adopted uniform water recycling criteria for two types of Direct Potable Reuse: raw water augmentation and treated water augmentation.</li> <li>As of 2020, virtually all recycled water in the Bay Area was produced at centralized facilities using municipal wastewater, and was treated to meet standards for non-potable reuse. There are not yet any Indirect or Direct Potable Reuse projects in the Bay Area, although several are in the planning stage.</li> </ul>	<ul style="list-style-type: none"> <li>The State Water Board is currently developing standards for onsite treatment and reuse of non-potable water in multi-family, mixed use, and commercial buildings. The rulemaking process for onsite non-potable reuse is slated to begin in late summer 2024 with a projected Board adoption in 2025.</li> <li>In June 2023, BACWA completed a Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling, as required by the 2<sup>nd</sup> Nutrient Watershed Permit.</li> <li>In December 2023, the Regional Water Board approved a Basin Plan Amendment that will allow greater flexibility for NPDES permitting of reverse osmosis concentrate discharges to San Francisco Bay. As of August 2024, this Basin Plan Amendment has received all necessary approvals and is now in effect.</li> <li>The Direct Potable Reuse regulations were finalized in August 2024 upon approval from the state's Office of Administrative Law. The regulations go into effect October 1, 2024.</li> </ul>	<ul style="list-style-type: none"> <li>Review draft regulations for Onsite Non-Potable Reuse when they are released by State Water Board staff, which is expected in late summer 2024.</li> <li>Continue to provide members with technical resources related to interagency coordination, such as cost-sharing agreements and permitting. These topics are based on feedback from the September 2023 workshop on interagency collaboration in which wastewater and water agency representatives convened to discuss challenges and opportunities for expanding water recycling in the Bay Area.</li> <li>Continue to track the role of recycled water projects in diverting nutrient loads from San Francisco Bay. Significant nutrient load reductions and annual reporting on recycled water nutrient load diversions are required by the 2024 Nutrient Watershed Permit (see page 2).</li> <li>Track California legislation with potential impacts on recycled water funding, mandates, or regulations.</li> </ul>	<p>Water Boards Recycled Water Policy and Regulations  <a href="http://www.waterboards.ca.gov/water_issues/programs/recycled_water/">www.waterboards.ca.gov/water_issues/programs/recycled_water/</a></p> <p>Direct Potable Reuse Regulations  <a href="http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/dpr-regs.html">www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/dpr-regs.html</a></p> <p>Onsite Nonpotable Reuse Regulations  <a href="http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/onsite_nonpotable_reuse_regulations.html">www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/onsite_nonpotable_reuse_regulations.html</a></p> <p>BACWA Special Studies of Recycled Water and Nature-Based Systems:  <a href="http://bacwa.org/document-category/2nd-watershed-permit-studies/">bacwa.org/document-category/2nd-watershed-permit-studies/</a></p> <p>California's Water Supply Strategy (August 2022)  <a href="http://Resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf">Resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf</a></p> <p>Basin Plan Amendment affecting Water Recycling:  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2023/December/5_final_to.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2023/December/5_final_to.pdf</a></p>

Previously covered issues with no updates can be found in previous [BACWA issues summaries](#).

## ACRONYMS

ADC	Alternate Daily Cover	PCB	Polychlorinated Biphenyl
BAAQMD	Bay Area Air Quality Management District	PFAS	Per- and Polyfluoroalkyl Substances
BACT	Best Available Control Technology	PFHxS	Perfluorohexane Sulfonic Acid
BCDC	Bay Conservation and Development Commission	PFNA	Perfluorononanoic Acid
bhp	brake horsepower	PFOA	Perfluorooctanoic Acid
CalDPR	California Department of Pesticide Registration	PFOS	Perfluorooctane Sulfonic Acid
CARB	California Air Resources Board	POTW	Publicly-Owned Treatment Works
CASA	California Association of Sanitation Agencies	PS	Prioritization Score
CEC	Compound of Emerging Concern	QAC	Quaternary Ammonium Compound
CIWQS	California Integrated Water Quality System	RMP	Regional Monitoring Program
CWEA	California Water Environment Association	RPA	Reasonable Potential Analysis
EC25/IC25	25% Effect Concentration/25% Inhibition Concentration	SF Bay	San Francisco Bay
ELAP	Environmental Laboratory Accreditation Program	SFEI	San Francisco Estuary Institute
ELTAC	Environmental Laboratory Technical Advisory Committee	SLR	Sea Level Rise
EPA	United States Environmental Protection Agency	SSMP	Sewer System Management Plan
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act	TMDL	Total Maximum Daily Load
FY	Fiscal Year	TIN	Total Inorganic Nitrogen
GHG	Greenhouse Gas	TNI	The NELAC Institute
HFPA-DA	Hexafluoropropylene Oxide (HFPO) Dimer Acid, also known as GenX	TST	Test of Significant Toxicity
MCL	Minimum Contaminant Level (Drinking Water)	WQO	Water Quality Objective
MGD	Million Gallons per Day	ZEV	Zero-Emission Vehicle
NACWA	National Association of Clean Water Agencies		
NELAC	National Environmental Laboratory Accreditation Conference		
NMS	Nutrient Management Strategy		
OEHHA	Office of Environmental Health Hazard Assessment		
OPC	Ocean Protection Council		