



# KEY REGULATORY ISSUE SUMMARY

## Updated February 7, 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 FY24, BACWA is contributing \$1.8M to fund scientific research needed to make management decisions for the 3<sup>rd</sup> Watershed Permit. This payment completes the science funding requirement in the 2<sup>nd</sup> 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.</b></li> <li>Continue to assist with preparation of a brief “State of the Science” document summarizing the scientific accomplishments of the NMS team 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 FY24 Science Program Plan Materials <a href="https://drive.google.com/drive/folders/16H_sQ8AuogHy- eo9QZx2A9Ph9MTecq5j?usp=drive_link">https://drive.google.com/drive/folders/16H_sQ8AuogHy- eo9QZx2A9Ph9MTecq5j?usp=drive_link</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>BACWA Nutrient FAQ <a href="https://bacwa.org/wp-content/uploads/2023/01/BACWA-Nutrient-Fact-Sheet.pdf">https://bacwa.org/wp-content/uploads/2023/01/BACWA-Nutrient-Fact-Sheet.pdf</a></p> <p>2023 SF Bay Algal Bloom <a href="https://bacwa.org/general/2023-algal-bloom-in-sf-bay-updated-8-3-2023/">https://bacwa.org/general/2023-algal-bloom-in-sf-bay-updated-8-3-2023/</a></p>

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<b>SF BAY NUTRIENT WATERSHED PERMIT</b>			
<ul style="list-style-type: none"> <li>• The 1<sup>st</sup> Nutrient Watershed Permit was adopted in 2014, and required a regional study on Nutrient Treatment by Optimization and Upgrades, completed in 2018.</li> <li>• The 2<sup>nd</sup> Nutrient Watershed Permit was adopted in 2019. It includes: <ul style="list-style-type: none"> <li>○ Continued individual POTW nutrient monitoring and reporting;</li> <li>○ Continued group annual reporting;</li> <li>○ Significantly increased funding for science;</li> <li>○ Regional assessment of the feasibility and cost for reducing nutrients through nature-based systems and recycled water;</li> <li>○ Establishing current performance for Total Inorganic Nitrogen (TIN), and “load targets” for nutrient loads based on 2014 to 2017 load data plus a 15% buffer for growth and variability</li> <li>○ Recognition of “early actors” who are planning projects that will substantially decrease TIN loads.</li> </ul> </li> <li>• Through the nutrient surcharge levied on permittees, BACWA funds compliance with the following provisions on behalf of its members: <ul style="list-style-type: none"> <li>○ Group Annual Reporting</li> <li>○ Regional Studies on Nature-Based Systems and Recycled Water</li> <li>○ Support of scientific studies through the Regional Monitoring Program (RMP) with \$11M over the five-year permit term.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Studies related to Recycled Water and Nature-Based Systems were completed in June 2023, as required by the 2<sup>nd</sup> Nutrient Watershed Permit.</li> <li>• Each year by February 1, BACWA submits a Group Annual Report on behalf of its members. The report summarizes trends in nutrient concentrations and loading for each agency, and for all the agencies as a whole. The annual reporting period in the 2<sup>nd</sup> Watershed Permit is based on a water year (Oct. 1 – Sept. 30). The Group Annual Report for 2022-2023 was completed on February 1, 2024.</li> <li>• In response to the summer 2022 algae bloom, Regional Water Board staff plan to include significant TIN load reduction requirements in the 3<sup>rd</sup> Watershed Permit. The NMS modeling team tested several load reduction scenarios to inform the new requirements. Based on this modeling, Regional Water Board staff are currently proposing dry season load limits that are about 40% lower than actual loads from the 2022 dry season.</li> <li>• The current concept proposed by the Regional Water Board is for the permit to contain interim limits for dry season TIN loads that are effective immediately and “final limits” that become effective after 10 years. The 10-year clock could be modified in subsequent permits if the “final limits” become more stringent, so the term “final” only applies to this specific permitting action.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Review and comment on the administrative draft and Tentative Order versions of the forthcoming 3<sup>rd</sup> Nutrient Watershed Permit. The administrative draft is expected in February 2024, and the Tentative Order will be available later in the spring.</b></li> <li>• Advocate for sufficient time for agencies to implement nutrient load reduction projects, include those with involving innovative technologies, recycled water, and nature-based solutions.</li> <li>• BACWA continues to convene a Nutrient Strategy Team to develop BACWA’s key tenets for the 3<sup>rd</sup> Watershed Permit, and <b>members are encouraged to participate.</b> The Nutrient Strategy Team is actively engaging with the Regional Water Board to expand upon the key tenets and discuss implementation details for the 3<sup>rd</sup> Watershed Permit, including the magnitude and timing of required load reductions.</li> <li>• Agencies will continue to report nutrient monitoring data both through CIWQS and directly to BACWA.</li> </ul>	<p>2nd Nutrient Watershed Permit:  <a href="http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2019/R2-2019-0017.pdf">www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2019/R2-2019-0017.pdf</a></p> <p>Special Studies of Recycled Water and Nature-Based Solutions:  <a href="http://bacwa.org/document-category/2nd-watershed-permit-studies/">bacwa.org/document-category/2nd-watershed-permit-studies/</a></p> <p>BACWA Group Nutrient Annual Reports:  <a href="http://bacwa.org/document-category/nutrient-annual-reports/">bacwa.org/document-category/nutrient-annual-reports/</a></p> <p>Presentations from 2023 BACWA Annual Members Meeting  <a href="http://bacwa.org/document-category/2023-annual-meeting/">bacwa.org/document-category/2023-annual-meeting/</a></p> <p>BACWA September 2023 Status of 3<sup>rd</sup> Watershed Permit Negotiations  <a href="http://bacwa.org/wp-content/uploads/2023/09/WSP-Negotiations-Update-2023-09-05.pdf">bacwa.org/wp-content/uploads/2023/09/WSP-Negotiations-Update-2023-09-05.pdf</a></p> <p>BACWA Concerns related to Compliance Timelines in the 3<sup>rd</sup> Watershed Permit  <a href="http://bacwa.org/document/bacwa-comments-on-nutrient-removal-timelines-2024-01-29/">bacwa.org/document/bacwa-comments-on-nutrient-removal-timelines-2024-01-29/</a></p>

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
<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 Region 2 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 have worked together for more than decade to modify the effluent limit for chlorine residual.</li> </ul>	<ul style="list-style-type: none"> <li>In 2020, the Regional Water Board adopted a Basin Plan Amendment that incorporated EPA’s ambient water quality criteria for chlorine into the Basin Plan. Since the Basin Plan Amendment was not approved by EPA, it did not go into effect.</li> <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 will be 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 requires 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 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 opportunity for public comment.</li> <li>• Through BAPPG, 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> </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 FY24 is \$69k.</li> <li>• The Regional Water Board leverages BACWA's efforts to provide their own comment letters.</li> <li>• The August 2023 version of the BAPPG/BACWA Pesticide Watch List added indoor uses of Quaternary Ammonia Compounds, whose usage has been increasing in recent years.</li> <li>• In January 2023, CalDPR released a Sustainable Pest Management Roadmap. The Roadmap identifies actions that would enhance understanding of pesticide use in urban areas and enhance outreach to urban pesticide users. CalDPR is also pursuing a significant increase to the "Mill Fee," a tax on pesticide sales, to fund some activities identified in the Roadmap. The proposed tax increase was included with the Governor's State Budget Proposal for FY25 and would be applicable to all pesticides, 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 the newly available 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="https://bacwa.org/bappg-pesticides/">bacwa.org/bappg-pesticides/</a></p> <p>Flea and Tick Outreach Toolkits: <a href="https://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="https://baywise.org/residential/for_your_pets/">baywise.org/residential/for_your_pets/</a></p> <p>CalDPR Sustainable Pest Management Roadmap <a href="https://www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/">www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/</a></p> <p>BACWA coalition letter on modernizing the pesticide approval process <a href="https://bacwa.org/document/bacwa-nacwa-coalition-comments-on-fda-epa-pesticide-modernization-2023-04-25/">bacwa.org/document/bacwa-nacwa-coalition-comments-on-fda-epa-pesticide-modernization-2023-04-25/</a></p> <p>BAPPG/BACWA Pesticides Watch List <a href="https://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>

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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 FY24, 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 2022, 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 July 14, 2020.</li> </ul>	<ul style="list-style-type: none"> <li>• As part of the 2021 Triennial Review of the Basin Plan, the Regional Water Board has prioritized designation of three new beneficial uses: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB) and Subsistence Fishing (SUB). Water bodies designated with these beneficial uses could also be assigned lower mercury objectives.</li> <li>• BACWA supported risk reduction programming by two grantees to fulfill requirements of the 2017 Mercury &amp; PCBs Watershed Permit. In August 2023, BACWA arranged for the grantees to present their work to Regional and State Water Board staff.</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 tribal outreach on fishing and fish consumption.</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>• BACWA Lab and Permits Committee members are working to facilitate smoother electronic reporting of PCB congeners via EPA Method 1668C.</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>• Track potential Basin Plan Amendments resulting from the Triennial Review project related to new beneficial use designations. The new designations are not expected to impact the Bay-wide mercury TMDL in the near term, but there could be localized or longer-term impacts.</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 (Updated August 2023)  <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- 2022 (Updated July 2023)  <a href="https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2023/July/6_ssr.pdf">https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2023/July/6_ssr.pdf</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 October 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 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 on May 1, 2023, and they became effective on June 1, 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>• Since 2016, agencies have 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 is collaborating with stakeholders on a special study to improve the quality of <i>Ceriodaphnia dubia</i> testing. The multi-laboratory study of toxicity testing has been completed and presented to the State Water Board. CASA held an information webinar for members in December 2023.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Begin conducting toxicity testing using the Statewide Toxicity Provisions.</b> As of June 2023, member agencies with individual NPDES permits reissued after August 2022 have automatically 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.</li> <li>• Members hiring a contract laboratory to perform testing using <i>Ceriodaphnia dubia</i> should utilize the <i>Ceriodaphnia dubia</i> Quality Assurance Guidance Recommendations, 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> Quality Assurance Guidance Recommendations (SCCWRP) <a href="https://ftp.sccwrp.org/pub/download/DOCUMENTS/CeriodaphniaQA/October2023Deliverable.pdf">https://ftp.sccwrp.org/pub/download/DOCUMENTS/CeriodaphniaQA/October2023Deliverable.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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**COMPOUNDS OF EMERGING CONCERN (CECS)**

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| <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>• Region 2'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 Region 2 through the RMP.</li> </ul> | <ul style="list-style-type: none"> <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> <li>• Bay dischargers are continuing to provide supplemental funding for RMP CECs studies through the NPDES Permit Amendment adopted in December 2021 by the Regional Water Board.</li> <li>• The State Water Board has recently increased its focus on CECs. In November 2022, 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> </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. Recent studies have focused on Quaternary Ammonium Compounds (which can interfere with treatment plant biological processes), sunscreen chemicals, bisphenols, and ethoxylated surfactants.</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:<br/> <a href="http://www.sfei.org/rmp/ecwg#ab-1-4">http://www.sfei.org/rmp/ecwg#ab-1-4</a></p> <p>BACWA CECs White Paper:<br/> <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<br/> <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:<br/> <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> |
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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> </ul>	<ul style="list-style-type: none"> <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> <li>• OPC is funding 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.</li> <li>• The Revised Draft 2024 California Integrated Report (303(d) List) notes that San Francisco Bay is “potentially threatened” by microplastics. Due to data limitations, the Bay is <u>not</u> proposed to be 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>• Three BACWA member agencies are participating in the OPC-funded microplastic study. A final report is expected in spring 2024. 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 approximately six months later.</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/2022_0223/Item_6_Exhibit_A_Statewide_Microplastics_Strategy.pdf">https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/2022_0223/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>



**PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

<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, the formation of an “EPA Council on PFAS” was announced.</li> </ul>	<ul style="list-style-type: none"> <li>• The EPA and State of California are developing drinking water standards for PFAS compounds. <ul style="list-style-type: none"> <li>○ DDW has developed drinking water notification and response levels for PFOA, PFOS, Perfluorobutane Sulfonic Acid (PFBS), and Perfluorohexane Sulfonic Acid (PFHxS).</li> <li>○ EPA has released final health advisories for PFOA (0.004 ng/L) and PFOS (0.02 ng/L).</li> <li>○ In 2023, EPA proposed Maximum Contaminant Levels for PFOA and PFOS as individual contaminants, and PFHxS, PFNA, PFBS, and HFPO-DA (commonly referred to as GenX Chemicals) as a PFAS mixture. By design, these MCLs are very close to the current limits of quantification.</li> </ul> </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>• In 2022, EPA proposed a rule designating PFOA and PFOS as hazardous substances under CERCLA (the Superfund law). The designation could impact effluent disposal and biosolids programs.</li> <li>• In January 2024, EPA completed development of Method 1633, a new analytical method for PFAS in complex matrices like wastewater. Method 1633 is a Clean Water Act method and is recommended for use in pretreatment programs and NPDES permitting.</li> </ul>	<ul style="list-style-type: none"> <li>• BACWA’s Regional PFAS Study was conducted by SFEI in two phases: <ul style="list-style-type: none"> <li>○ In Phase 1 (2020), fourteen facilities collected samples of influent, effluent, reverse osmosis concentrate, and biosolids.</li> <li>○ In Phase 2 (2022), six agencies conducted sampling of influent, effluent, and biosolids; residential sewersheds, commercial and industrial users; hauled organic waste used as digester feed; and groundwater.</li> <li>○ The study found that residential areas and industrial laundries are potential sources of PFAS.</li> <li>○ The final report is now complete, and is available upon request. BACWA has also prepared a PFAS Study Summary for members’ use.</li> </ul> </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 PFAS Strategic Roadmap  <a href="http://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024">www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024</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>EPA Methods for PFAS  <a href="http://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas">www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas</a></p> <p>CA Labs Certified for Method 1633  <a href="http://www.waterboards.ca.gov/pfas/docs/pfas-laboratories.pdf">www.waterboards.ca.gov/pfas/docs/pfas-laboratories.pdf</a></p>
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**SANITARY SEWER SYSTEMS GENERAL ORDER**

<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 State Water Board's goals for the update were: <ul style="list-style-type: none"> <li>○ Updating the 2006 Order</li> <li>○ Clarifying compliance expectations and enhancing enforceability</li> <li>○ Addressing system resiliency, including climate change impacts</li> <li>○ Identifying valuable data and eliminating non-valuable reporting requirements</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The reissued order became effective on June 5, 2023.</li> <li>• The first annual reports due under the reissued order are due April 1, 2024.</li> <li>• The reissued SSS-WDR 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; and</li> <li>○ Modified timelines for preparation of audits and SSMPs. The State Water Board has prepared an online tool to assist agencies in determining compliance dates (at right).</li> </ul> </li> <li>• Maintaining an updated SSMP continues to be a core requirement of the SSS-WDR. Beginning in May 2025, SSMP updates will be required every six years (instead of five) and must contain the 11 updated elements described in the reissued SSS-WDR.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuing working through the Collections System Committee to update a guidance document for Sewer System Management Plans (SSMPs). BACWA has hired a consultant to assist with this task, and work is underway.</li> <li>• Complete a member survey of sewer lateral ordinances in the region. Prompted by changes to the reissued SSS-WDR and ongoing concerns about infiltration and inflow (I&amp;I), some agencies are considering changes to their practices regarding sewer lateral maintenance and replacement.</li> <li>• Continue to coordinate with CASA and CWEA on training opportunities for members as they transition to enrollment under the new SSS-WDR.</li> </ul>	<p>State Water Board SSS-WDR page:  <a href="https://www.waterboards.ca.gov/water_issues/programs/ssso/">https://www.waterboards.ca.gov/water_issues/programs/ssso/</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-dwg.pdf">https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo-2022-0103-dwg.pdf</a></p> <p>Materials from Clean Water Summit Partners Webinars on Reissued SSS-WDR  <a href="https://casaweb.org/ssss-wdr/">https://casaweb.org/ssss-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/ssso/lookup/">https://www.waterboards.ca.gov/water_issues/programs/ssso/lookup/</a></p>
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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 are replacing the current 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> </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>The TNI standards pose a particular challenge to small laboratories, many of which are closing because they cannot economically meet the new standards. ELAP has reported a 15% reduction in the number of accredited laboratories in California since 2020, and a 25% reduction since 2015. This reduction is contributing to significantly higher ELAP fees for the remaining laboratories. ELAP fees increased by 30% in FY24. ELAP is investigating fee structure options that would reduce impacts on small laboratories. Fee restructuring will not occur until FY25 or later.</li> <li>ELAP is now implementing EPA's 2021 Method Update Rule. ELAP has advised labs to update any outdated methods by February 2024.</li> <li>Since 2021, the BACWA Lab Committee has been hosting training sessions on the TNI standards.</li> </ul>	<ul style="list-style-type: none"> <li>The BACWA Lab Committee will host Q&amp;A sessions on the TNI standards in February, April, and June 2024. The free virtual training sessions are open to BACWA members holding a valid copy of the 2016 TNI Standard. Diane Lawver of Quality Assurance Solutions, LLC, is providing the training. BACWA's TNI training sessions are recorded, and a link is available upon request.</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 'Roadmap to ELAP Accreditation' page:  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/labs/roadmap_to_elap_accreditation.html">https://www.waterboards.ca.gov/drinking_water/certlic/labs/roadmap_to_elap_accreditation.html</a></p> <p>State Water Board's ELAP regulations page:  <a href="http://www.waterboards.ca.gov/drinking_water/certlic/labs/elap_regulations.shtml">http://www.waterboards.ca.gov/drinking_water/certlic/labs/elap_regulations.shtml</a></p> <p>BACWA Training Session flyer:  <a href="https://bacwa.org/wp-content/uploads/2023/06/BACWA-Lab-TNI-Training-Series-Flyer-FY24.pdf">https://bacwa.org/wp-content/uploads/2023/06/BACWA-Lab-TNI-Training-Series-Flyer-FY24.pdf</a></p> <p>ELAP Timeline Guidance Tool:  <a href="https://www.waterboards.ca.gov/drinking_water/certlic/labs/docs/2022/elap-scheduler-1-1.xlsx">https://www.waterboards.ca.gov/drinking_water/certlic/labs/docs/2022/elap-scheduler-1-1.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>

## BIOSOLIDS

<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, adopted in September 2016 requires organics diversion:             <ul style="list-style-type: none"> <li>-50% by 2020 (relative to 2014)</li> <li>-75% by 2025 (relative to 2014)</li> </ul>             CalRecycle is the state agency responsible for implementation.           </li> <li>Regulations implementing SB 1383 went into effect in 2022. Jurisdictions can begin local enforcement January 1, 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>In December 2023, Sutter County revised its ordinance to allow land application of Class A biosolids, reversing its previous ban. The change was made to conform to SB 1383. CalRecycle and biosolids stakeholders continue to conduct outreach to counties with restrictive ordinances.</li> <li>CalRecycle reviewed the first application under Article 2 ("H Cycle"), and determined it conditionally qualifies as equivalent to landfill diversion/reduction. CalRecycle plans to provide additional 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>AB 1857, signed in 2022, removes a diversion credit for municipal solid waste incinerators. CalRecycle will soon prepare draft regulations implementing the law, which could apply to biosolids treated via pyrolysis.</li> <li>New York and Michigan are imposing restrictions on land application of biosolids with levels of PFAS &gt;20 ppb for PFOA or PFOS. Based on the recently completed regional study of PFAS, few BACWA members are likely to exceed those thresholds for land-applied biosolids.</li> </ul>	<ul style="list-style-type: none"> <li>BACWA's next Biosolids Trends Survey Report will be completed in 2024 and will cover 2021-2023. It will replace the most recent (2021) version, which covers 2018-2020.</li> <li>Continue to follow emerging science and regulatory developments regarding PFAS in biosolids (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 California Air Resource Board, CalRecycle, State Water Board, and California Department of Food and Agriculture to develop sustainable long-term options for biosolids beneficial use.</li> <li>Meet with BAAQMD regularly in 2024 to discuss alignment of state and local regulations.</li> </ul>	<p>BACWA 2021 Biosolids Trends Survey Report: <a href="https://bacwa.org/wp-content/uploads/2021/12/BACWA-2021-Biosolids-Trends-Survey-Report.pdf">https://bacwa.org/wp-content/uploads/2021/12/BACWA-2021-Biosolids-Trends-Survey-Report.pdf</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/organic/slcp/recyclingfacilities/article2/">https://calrecycle.ca.gov/organic/slcp/recyclingfacilities/article2/</a></p> <p>SB 1383 Procurement FAQ (including interim rules for POTWs) <a href="https://calrecycle.ca.gov/organics/slcp/faq/recycledproducts/">https://calrecycle.ca.gov/organics/slcp/faq/recycledproducts/</a></p>
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**CLIMATE CHANGE MITIGATION**

- 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:
  - Short-lived climate pollutants
  - Carbon sequestration on Natural and Working Lands
  - Largest emitters (transportation, electricity, and industrial sectors)
- SB 1383 (Short-Lived Climate Pollutant Reduction) calls for:
  - 40% methane reduction by 2030
  - 75% diversion of organic waste from landfills by January 1, 2025
  - Policy / regulatory development encouraging production/use of biogas
- BAAQMD developed a Clean Air Plan requiring GHG emissions supporting CARB's 2050 target (80% below 1990 levels).
- 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 may revisit Regulation 13 in 2024.
- 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.

- CARB is pursuing rapid fleet conversion to zero-emission vehicles (ZEVs), including medium and heavy-duty vehicles, through the Advanced Clean Fleet rule. The Advanced Clean Fleet rule allows organization to opt into one of two programs, with exceptions:
  - **Public Fleets (default):** Requires 50% of vehicles added to be ZEV by 2024, and 100% by 2027.
  - **High Priority Fleet (Group 3):** With exceptions, requiring 10% of vehicles added to be ZEV by 2030 and 100% by 2042.
- Complete conversion will be difficult for heavy-duty specialty trucks and will remove a potential market for biogas. CASA has requested to continue allowance of biogas as a sustainable transportation fuel.
- In addition to pushing for ZEVs, CARB is proposing changes to the Low Carbon Fuel Standard with increasing emphasis on hydrogen as a transportation fuel. Conversion of biogas into hydrogen remains to be demonstrated.
- In 2022, the CPUC mandated that CA's four largest gas utilities (including PG&E) procure biomethane. PG&E has an active biomethane procurement program, with more solicitations expected in 2024.
- 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.

- Review and comment on the draft Low Carbon Fuel Standards, which reduces the viability of biomethane use as CNG in vehicles. Comments are due February 20<sup>th</sup>, and a public hearing will be held March 21<sup>st</sup>.
- Track implementation of the Advanced Clean Fleet Regulations, which CARB is discussing with a newly formed Truck Regulation Implementation Group w/ supporting subgroups.
- Follow the fate of proposed legislation (AB 1594) that could exempt some public utility specialty vehicles from the Advanced Clean Fleet Regulations as part of the TRIG discussions. Can only be integrated into the ACF with amendments to the ACF in 2025.
- Closely follow rule development of Proposed Regulation 13 (climate pollutants), which BAAQMD may revisit in 2024.
- Look for ways to inform BAAQMD on opportunities and challenges related to climate change mitigation by Bay Area POTWs, including education about anaerobic digesters and POTW operations.
- Work with PG&E and BAAQMD to explore options for POTWs to inject biogas into PG&E pipelines.

Climate Change Scoping Plan, including 2022 Update:  
<https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan>

CARB Low Carbon Fuel Standard:  
<https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard>

CARB Advanced Clean Fleet Rule:  
<https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets>

SB 1383:  
<https://www.calrecycle.ca.gov/organics/slcp>

BAAQMD Regulation 13  
<http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants>

EPA Renewable Fuel Standards  
<https://www.epa.gov/renewable-fuel-standard-program/final-renewable-fuels-standards-rule-2023-2024-and-2025>

PG&E Procurement  
<http://www.pge.com/rngrfo>, &  
<https://casaweb.org/wp-content/uploads/2023/11/PG&E-at-CASA-Webinar.pdf>

**CLIMATE CHANGE ADAPTATION**

<ul style="list-style-type: none"> <li>Climate change and water resilience are a strategic priority of both the State Water Board and Regional Water Board.</li> <li>In April 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 April 2022, the State released a Climate Adaptation Strategy, including an updated climate change assessment for the Bay Area region.</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> <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> </ul>	<ul style="list-style-type: none"> <li>In 2022, 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>Separately from the Basin Plan amendment, the NDPEs division has released information regarding permitting of nature-based solutions.</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.</li> <li>The Ocean Protection Council (OPC) has issued a draft 2024 SLR guidance update reflecting the latest projections. Previous projections for extreme SLR (i.e., H++ scenario) have been removed, and the range of projections has narrowed considerably, especially for 2050. Updates to the Coastal Commission's "Critical Infrastructure at Risk" SLR planning guidance are expected to follow.</li> </ul>	<ul style="list-style-type: none"> <li><b>Review and understand the updated projections in the OPC's 2024 Draft SLR Guidance document.</b> OPC will hold informational webinars in February, and comments are due March 4<sup>th</sup>.</li> <li><b>Identify contact(s) at each agency to join BACWA's Climate Change Community of Practice.</b> BACWA plans to host a webinar series in 2024 on technical topics related to climate change, such as sea level rise projections and changes in precipitation. The 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>OPC 2024 Draft Sea Level Rise Guidance  <a href="https://opc.ca.gov/2024/01/draft-slr-guidance-2024/">https://opc.ca.gov/2024/01/draft-slr-guidance-2024/</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>California Climate Adaptation Strategy  <a href="https://climateresilience.ca.gov">https://climateresilience.ca.gov</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>NPDES Permitting for Nature-Based Solutions  <a href="https://bacwa.org/wp-content/uploads/2022/08/NPDES-Permitting-for-Nature-Based-Solutions-5.pdf">https://bacwa.org/wp-content/uploads/2022/08/NPDES-Permitting-for-Nature-Based-Solutions-5.pdf</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>
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## TOXIC AIR CONTAMINANTS

<ul style="list-style-type: none"> <li>• Regulation 11, Rule 18 (Rule 11-18), adopted in 2017, is BAAQMD's local effort to protect public health from toxic air pollution from existing facilities, including POTWs.</li> <li>• Per the Rule, BAAQMD will conduct site-specific Health Risk Screening Analyses and determine each facility's prioritization score (PS). BAAQMD will conduct Health Risk Assessments (HRAs) for all facilities with a cancer PS&gt;10 or non-cancer PS&gt;1.0. After verifying the model inputs, if the facility still has PS above that threshold, that facility would need to develop and implement a Risk Reduction Plan that may include employing Best Available Retrofit Control Technology for Toxics (TBARCT).</li> <li>• AB 617 (Community Air Protection Program) – requires CARB to harmonize community air monitoring, reporting, &amp; local emissions reduction programs for air toxics and GHGs). POTWs within communities already impacted by air pollution may have to accelerate implementation of risk reduction measures.</li> <li>• AB 2588 (Air Toxics “Hot Spots” Program) - Establishes a statewide program for the inventory of air toxics emissions from individual facilities, as well as requirements for risk assessment and public notification of potential health risks. 2020 updates expanded compound list from &gt;500 to &gt;1,700.</li> </ul>	<ul style="list-style-type: none"> <li>• In December 2023, BAAQMD released Regulatory Concepts for Amendments to Rule 11-18. The amendments outline procedures for HRAs, among other program details. Updated prioritization scores were also released.</li> <li>• In the <i>Final Statement of Reasons</i> for rulemaking on AB 617 and AB 2588, CARB provided the wastewater sector time to develop a short-list of relevant compounds and perform a pooled emissions estimating effort to update outdated default emission factors (through 2028).</li> <li>• In 2021, BAAQMD amended Rule 2-5 to reduce allowable levels of toxic air contaminants in new source permitting. In 2022, BAAQMD and BACWA convened a working group to address concerns related to toxic air contaminants and rule-making, which is meeting quarterly. BACWA is coordinating with BAAQMD about implementation of the two-step process and its timing relative to BAAQMD Rule 11-18 and 2-5.</li> <li>• In July 2023, the EPA announced a proposal to revise its Air Emissions Reporting Requirements (AERR). CARB has applied to submit information on behalf of California facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Review and Comment on the Regulatory Concepts for Amendments to Rule 11-18.</b> A public workshop will be held February 15<sup>th</sup>, and comments are due February 29<sup>th</sup>.</li> <li>• Continue participating in the BAAQMD workgroup to discuss toxic air contaminants, rule development, and related air quality regulatory issues.</li> <li>• <b>Report “business as usual” for air toxics through 2028 (through year 2027 data).</b> CARB is preparing a message to Air Districts confirming POTWs can delay reporting new compounds until the two-step process is complete. The wastewater sector has until 2028 to perform a statewide “two-step process” to determine a shortlist of compounds relevant to the wastewater sector to report.</li> <li>• <b>For budget planning purposes, BACWA members with permitted capacity ≥ 5 MGD should expect the study to cost approximately \$3,700 per MGD of actual average annual daily flow (not permitted dry weather flow).</b> Study costs will be refined and spread over four years. BACWA will assist CASA in collecting funds from participants who are also BACWA's members.</li> </ul>	<p>BAAQMD Facility Risk Reduction Program Updates (Rule 11-18):  <a href="https://www.baaqmd.gov/community-health/facility-risk-reduction-program">https://www.baaqmd.gov/community-health/facility-risk-reduction-program</a></p> <p>BAAQMD Rule 2-5  <a href="https://www.baaqmd.gov/rules-and-compliance/rules/reg-2-permits?rule_version=2021%20Amendments">https://www.baaqmd.gov/rules-and-compliance/rules/reg-2-permits?rule_version=2021%20Amendments</a></p> <p>CARB page on AB 617 and AB 2588:  <a href="https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting">https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting</a>  <i>Final Statement of Reasons</i>  <a href="https://ww3.arb.ca.gov/board/15day/ctr/fsor.pdf">https://ww3.arb.ca.gov/board/15day/ctr/fsor.pdf</a></p> <p>Timing of Rule 11-18 vs. Process for AB 617  <a href="https://bacwa.org/document/baaqmd-rule-11-18-vs-carb-two-step-process-for-ab-617-feb-2023/">https://bacwa.org/document/baaqmd-rule-11-18-vs-carb-two-step-process-for-ab-617-feb-2023/</a></p> <p>EPA Air Emissions Reporting Requirements  <a href="https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr">https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr</a></p>
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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 Region 2 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 Region 2 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 Region 2, 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 by Spring 2024 with a projected Board adoption in Fall 2024.</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>• The State Water Board has launched a “Strike Team” to assess how California will meet new recycled water goals listed in California’s Water Supply Strategy: 800,000 acre-feet per year of recycled water by 2030 and 1.8 million acre-feet per year by 2040. The Strike Team will also document challenges to meeting these goals, such as funding.</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. The Basin Plan Amendment must be approved by the State and USEPA before it goes into effect.</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 as soon as spring 2024.</li> <li>• Build on successes of the September 2023 workshop on interagency collaboration. 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. Load reductions are expected to be a requirement of 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>December 2023 Basin Plan Amendment  <a href="http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendment_s/NPDES_corrections.html">www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendment_s/NPDES_corrections.html</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	PFBS	Perfluorobutane Sulfonic Acid
BCDC	Bay Conservation and Development Commission	PFHxS	Perfluorohexane Sulfonic Acid
BTU/SCF	British thermal units per standard cubic foot	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
CAP	Criteria Air Pollutant	RMP	Regional Monitoring Program
CEC	Compound of Emerging Concern	RPA	Reasonable Potential Analysis
CIWQS	California Integrated Water Quality System	SCAP	Southern California Alliance of POTWs
CVCWA	Central Valley Clean Water Agencies	SF Bay	San Francisco Bay
CWEA	California Water Environment Association	SFEI	San Francisco Estuary Institute
DDW	Division of Drinking Water, State Water Resources Control Board	SLR	Sea Level Rise
EC25/IC25	25% Effect Concentration/25% Inhibition Concentration	SSMP	Sewer System Management Plan
ELAP	Environmental Laboratory Accreditation Program	TMDL	Total Maximum Daily Load
ELTAC	Environmental Laboratory Technical Advisory Committee	TIN	Total Inorganic Nitrogen
EPA	United States Environmental Protection Agency	TNI	The NELAC Institute
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act	TST	Test of Significant Toxicity
FY	Fiscal Year	WQO	Water Quality Objective
GHG	Greenhouse Gas	ZEV	Zero-Emission Vehicle
MCL	Minimum Contaminant Level (Drinking Water)		
MGD	Million Gallons per Day		
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		