

KEY REGULATORY ISSUE SUMMARY Updated January 16, 2018

Contents	Page	Contents	Page
Nutrients in San Francisco Bay - Science	1	ELAP Update	6
SF Bay Nutrient Watershed Permit	, and the second se		
Chlorine Residual Compliance	3	Climate Change Mitigation	8
Pesticides	3	BAAQMD Rule 11-18	9
Mercury/PCBs Watershed Permit	4	Recycled Water General Order	10
State Water Board Toxicity Provisions	5	Acronyms	11
Compounds of Emerging Concern	5		

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

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources			
NUTRIENTS IN SAN FRANCISCO BAY – SCIENCE						
 SF Bay has historically been resilient to nutrient impacts because of tidal mixing, clam grazing, and high turbidity. However, turbidity has decreased due to capture of sediment by upstream dams, and clam populations are on the decline. Additionally, nutrient loads to the SF Bay are increasing with population. There is concern that SF Bay may lose its resiliency in the future. Because of the complexity of the science behind nutrient impacts in the SF Bay, stakeholders in the region are participating in a steering committee to prioritize scientific studies and ensure that all science to be used for policy decisions is conducted under one umbrella. The watershed permit specifies \$880K/yr of funding from POTWs to the RMP, which BACWA has provided for FY17. 	 For FY18, BACWA is voluntarily contributing an additional \$200k to the science program. Agencies are conducting effluent monitoring under the watershed permit. Current efforts are focused on expanding monitoring data, modeling, and work exploring the linkage between nutrients, dissolved oxygen, and harmful algal species 	 Continue to participate in steering committee and planning subcommittee, and provide funding for scientific studies. Participate in the Nutrient Technical Workgroup, which is a venue to provide technical input to the process, and is open to the public, as well as the Stakeholder Advisory Group. 	BACWA "Other Useful Nutrient Documents" Page: http://bacwa.org/nutrients/ other-useful-nutrient- documents/ SFEI Nutrient Science Plan Documents: http://sfbaynutrients.sfei.org/books/reports-and- work-products			

SF BAY NUTRIENT WATERSHED PERMIT

- The nutrient watershed permit was adopted in April 2014, with an effective date of July 1, 2014.
- Through the nutrient surcharge levied on permittees, BACWA funds compliance with the following provisions of the nutrient watershed permit on behalf of its members:
 - o Group Annual Reporting
- Optimization and facilities upgrade studies
- Support of scientific studies through the RMP at \$880K per year through the five-year permit term, and voluntary \$200K contribution for FY18.
- Consultant team was selected by BACWA Contract Management Group to lead the Optimization and Upgrade studies and annual reporting. The Scoping and Evaluation Plans for the optimization/upgrade studies were submitted to the Regional Water Board in December 2014 and finalized in February 2015. Agencies participating in these studies completed a questionnaire about their facilities' infrastructure, operations, and site constraints. The Consultant team conducted site visits in April through September 2015.
- BACWA hosted workshops on June 28, 2016, and June 7, 2017, to discuss Facility Reports with member agencies, and showcase emerging technologies for nutrient removal.
- BACWA and SFEI most recently submitted a science implementation plan and schedule update on February 1, 2017, and an Optimization/Upgrade study progress update on July 1, 2017.
- All agencies covered by the Nutrient Watershed Permit participated in the first three group Annual Reports, submitted in 2015, 2016, and 2017.
 Agencies are now reporting to BACWA via a data sheet developed by the consultant

- Agencies continue to report nutrient monitoring to the Water Boards through CIWQS and to BACWA via the data sheet.
- The consultant is responding to comments on individual Facility Reports. The Reports must be certified by agencies for inclusion in the Optimization/Upgrade studies.
- The Regional Water Board issued a Letter of Intent with key tenets for the second watershed permit:
 - Continued individual treatment plant nutrient monitoring and reporting;
 - Continued group annual reporting
- Significantly increased funding for science
- A regional assessment of the feasibility and cost for reducing nutrients through means other than treatment and discharge at POTWs;
- Establishing a baseline for POTWs that undertake early actions to reduce nutrients

Nutrient Watershed Permit: http://www.waterboards.c a.gov/sanfranciscobay/bo ard_decisions/adopted_or ders/2014/R2-2014-0014.pdf

Optimization/Upgrade Scoping and Evaluation Plan:

http://bacwa.org/wpcontent/uploads/2015/05/ BACWA_ScopingEvalPla n_Final.pdf

BACWA Nutrient Annual Reports:

http://bacwa.org/documen t-category/nutrientannual-reports/

June 7, 2017
Optimization/Upgrade
Workshop Materials:
https://bacwa.org/docume
nt-category/optimizationand-upgrade-studiesworkshop-2/

Letter from RWB outlining key tenets for second nutrient watershed permit: https://bacwa.org/wp-content/uploads/2017/10/Water-Board-Staff-Intention-2nd-Nutrient-Wshed-Permit-10-17.pdf

CHLORINE RESIDUAL COMPLIANCE

- The Basin Plan chlorine residual effluent limit is 0.0 mg/L. Chlorine residual is the most frequent parameter for violations for Region 2 POTWs, however, because there are 24 hourly reporting events each day, the "opportunities" for violations are enormous. However, the actual violation rates are infinitesimal (~0.001%).
- Agencies are overdosing their effluent with the dechlorination agent, sodium bisulfite, to prevent chlorine violations, a practice which costs more than \$1 million regionally each year.
- The Regional Water Board has agreed to work with BACWA to develop a Basin Plan amendment. BACWA has retained consultant support for this effort.
- The Scope of Work provided for this effort includes an analysis that will consider the compliance impacts of the following alternatives:
- Adopting EPA Ambient Water Quality Criteria for chlorine
- Establishing a Minimum Level for online continuous monitoring system. This may involve a literature review, or field studies.
- Several agencies have participated in a WERF study to look at peracetic acid as an alternative disinfectant. Oro Loma Sanitary District conducted a pilot study in September 2017.

- Work with the consultant and Regional Water Board to proceed with tasks in the Scope of Work to support the Basin Plan Amendment.
- If necessary, volunteer for field studies to support Basin Plan Amendment.

Basin Plan Amendment support Scope of Work: https://bacwa.org/wpcontent/uploads/2018/0 1/EOA-Inc.-SOW-Budget.pdf

PESTICIDES

- 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.
- Through BAPPG, BACWA aims to proactively support a scientifically sound pesticide management program that will not impact POTWs' primary functions of collecting and treating wastewater, recycling water, and managing biosolids.
- In 2016 and 2017, EPA has been reviewing the registration of several key pesticides, a task it conducts once about every 15 years.
- BACWA has funded consultant support to write comment letters advocating for the consideration of POTW and surface water issues during EPA's risk assessments as part of reregistration.
- With chronic toxicity limits likely in the near term, POTWs will be in compliance jeopardy if pesticides contribute to toxicity.

• Continue to comment on pesticide reregistrations.

BACWA Pesticides
Regulatory Update and
Call to action:
https://bacwa.org/wpcontent/uploads/2016/02/
BACWA-PesticideRegulatory-Update-20161.pdf

BACWA Comment Letters: https://bacwa.org/docume nt-category/commentletters/

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources		
MERCURY/PCB WATERSHED PERMIT					
 Mercury/PCB Watershed Permit was reissued on 11/8/17 with 1/1/18 effective date. The Watershed Permit is based on the TMDLs for each of these pollutants. Aggregate PCB and mercury loads have been well below waste load allocations through 2016. Method 1668C for measuring PCB congeners has not been promulgated by EPA. Data collected during the first permit term varied widely depending on which laboratory performed the analyses. BACWA Laboratory Committee developed an updated PCB Protocol to reduce variability between laboratories running Method 1668C, effective January 1, 2014. Data have been more consistent since the distribution of this document. 	 The new watershed permit reduces monitoring frequencies via Method 1668C for agencies with design flows of less than 50 mgd. It also incorporates the guidance from the BACWA PCB Protocol. The permit requires continued risk reduction program funding and annual reporting of effort. For the previous permit. BACWA issued an RFP for community-based organizations to conduct risk reduction work. Two \$25,000 grants were awarded to APA Family Support Services and the California Indian Environmental Alliance. BACWA held a joint progress meeting with these two entities and the Regional Water Board on October 25, 2016. 	Develop a plan to fulfil risk reduction requirements in current permit term.	2017 Mercury/PCB Watershed Permit: http://www.waterboards.c a.gov/sanfranciscobay/bo ard_decisions/adopted_or ders/2012/R2-2012- 0096.pdf Risk Reduction Materials: https://bacwa.org/mercury pcb-risk-reduction- materials/ Updated BACWA PCBs Protocol: https://bacwa.org/wp- content/uploads/2014/02/ PCBs-Sampling-Analysis- and-Reporting-Protocols- Dec13.pdf		

STATE WATER BOARD TOXICITY PROVISIONS

- Draft State Toxicity Policy distributed in April 2017 would establish/require:
 - o numeric limits for chronic toxicity:
 - o use of Test of Significant Toxicity (TST) as statistical method to determine toxicity replacing EC25/IC25 (with concerns it will lead to more false positive results):
 - o Regional Water Board discretion on inclusion of acute toxicity in permits.
- During individual permit reissuances, the Regional Water Board has been performing RPAs for chronic toxicity and giving chronic toxicity limits to agencies with Reasonable Potential.

- BACWA representatives have met with Regional Water Board Staff to discuss the Region 2 implementation of acute toxicity testing and instream waste concentrations.
- BACWA has joined with POTWs throughout the State and CASA to provide informal comments to the State Water Board
- BACWA has joined SCAP, CVCWA and NACWA in a lawsuit alleging EPA did not follow proper procedure in requiring use of the TST.
- BACWA hosted a toxicity workshop in September 2017.

 BACWA will comment on the next draft of the Toxicity Plan once it is released (expected Jan/Feb 2018).

Next Steps for BACWA

· Key issues for BACWA to discuss with the State Water Board continue to be the enforceable limits, monitoring frequency, reasonable potential analysis methodology, sensitive species screening requirements, and instream waste concentration.

State Board Toxicity Page:

http://www.swrcb.ca.gov/ water issues/programs/st ate implementation polic y/tx ass cntrl.shtml

2017 Draft Toxicity Provisions:

https://bacwa.org/wpcontent/uploads/2017/04/ Toxicity-Provisions-Staff-Draft.pdf

Toxicity Workshop Presentations: https://bacwa.org/bacwatoxicity-workshopseptember-18-2017/

COMPOUNDS OF EMERGING CONCERN

- Pharmaceuticals and other trace compounds of emerging concern (CECs) are ubiquitous in wastewater at low concentrations and have unknown effects on aquatic organisms.
- The State Water Board is developing a Pilot CECs Monitoring Plan for the State.
- Region 2's CEC strategy focuses on monitoring/tracking concentrations of constituents with high occurrence and high potential toxicity and source control. Much of what the State Water Board is considering for its Pilot Monitoring Plan is already being implemented in Region 2 through the RMP.
- The Regional Water Board has stated that voluntary participation in RMP CECs studies is key to avoiding State mandates for CECs monitoring. These studies are be for informational and not for compliance purposes. BACWA has provided RMP with a list of POTW volunteers.
- The RMP is currently engaged in a study on microplastics, and was able to obtain adequate POTW participation from the BACWA community.
- The Ocean Protection Council has posted a draft Ocean Litter Prevention strategy, which includes microplastics. BACWA provided comments with CASA and SCAP.

 Continue to participate in the **RMP CEC Workgroup and** solicit agency volunteers for future studies.

RMP CEC Workgroup: http://www.sfei.org/rmp/ec wg#tab-1-4

SFEI Microplastics Science Strategy: http://www.sfei.org/docum ents/microplasticmonitoring-and-sciencestrategy-san-franciscobay

Draft Ocean Litter Prevention Strategy: http://www.opc.ca.gov/we bmaster/ media library/2 017/02/170914 Draft Oc ean Litter Strategy FINA L.pdf

PHASE-OUT OF BIOSOLIDS AS ALTERNATIVE DAILY COVER

- Regulatory drivers are indicating that biosolids used as alternative daily cover (ADC) or disposed in landfills will be phased out:
 - CARB called for a 75% diversion of all organics in landfills by 2025 in the Short-Lived Climate Pollutant Reduction Strategy.
 - AB 341 set a goal to recycle 75% of solid waste by 2020 and CalRecycle's plan to achieve that goal called for a marked, but unquantified, reduction of organics to landfills.
 - In 2020, CalRecycle will count green waste as disposal (per AB 1594), rather than diversion, even when used as ADC.
 - SB 1383, adopted in September 2016, mandates reduction of methane, and 75% diversion of organics from landfills by 2025.

- BACWA conducted a survey and found that more than 50 percent of dry solids in the region are being used as ADC. Most agencies do not have a contingency plan in case ADC is phased out as a beneficial reuse alternative.
- CASA is reviewing and providing comments on the draft SB 1383 regulatory language released at the end of October to provide feedback/input on use of biosolids and biogas as resources.
- Consider ways to build a market for compost and other soil amendment products made from biosolids, using lessons learned in the Pacific Northwest.
- Actively work through CASA with California Air Resource Board, CalRecycle, State Water Resource Control Board, and California Department of Food and Agriculture to mutually develop sustainable long termlong-term options for the beneficial use of biosolids.
- Follow efforts of the Bay Area Biosolids Coalition, investigating all-weather options for biosolids management (including innovative technologies generating energy and other useful bioproducts from biosolids).
- POTW rep invited to participate on BAAQMD's Methane Expert Panel to educate their staff on how to address implementation of SB 1383 at the Air District level.

BACWA 2016 Biosolids Trends Survey Report: https://bacwa.org/wpcontent/uploads/2017/08/ BACWA-2016-Biosolidssurvey-report.pdf

CASA White Paper on Biosolids Reuse in Landfills: https://bacwa.org/wp-

https://bacwa.org/wpcontent/uploads/2017/01/ 1-11-17-Sustainability-forbiosolids-use-atlandfills.pdf

Bay Area Biosolids Coalition page (update in progress to show current efforts):

http://www.bayareabiosolids.com/

CASA Comments on SB 1383 Implementation: https://casaweb.org/wp-content/uploads/2015/12/11-15-17-CASA-Comments-on-Draft-SB-1383-Regulatory-Language.pdf

CLIMATE CHANGE MITIGATION

- CARB's 2017 Climate Change Scoping Plan lays out the approach for the State to meet its greenhouse gas (GHG) emissions reduction targets through 2020 and goals through 2050.
- The 2030 Target Scoping Plan Update states additional policies are needed to achieve GHG levels 40% below 1990 levels by 2030, addressing:
 - Short-lived climate pollutants (i.e., methane)
 - Carbon sequestration on Natural and Working Lands
 - Largest emitters (transportation, electricity, and industrial sectors)
- SB 1383 (Short-Lived Climate Pollutant Reduction) calls for:
 - o 40% methane reduction by 2030
- 75% diversion of organic waste from landfills by 2025
- Policy development encouraging production/use of biogas
- BAAQMD developed a Clean Air Plan that requires GHG emissions reduction on track with CARB's 2030 and 2050 targets.

- CARB states POTWs are part of the solution for reducing methane, and encourages diversion of organics to POTWs to use excess digester capacity and produce biogas for use as transportation fuel. However, diversion also includes biosolids used as ADC.
- Many POTWs are exploring energy generation, but toxic air emissions regulations make waste to energy programs more expensive. Direct injection of biogas to PG&E's pipelines or use as a transportation fuel for a-fleet vehicles may be more efficient.
- CARB aims to develop nitrous oxide emission estimates and/or emission factors for landfills, golf courses, and POTWs. Their research plan identified oxidation ditches as a typical treatment process. To correct this, CASA has collected information on treatment processes used throughout California and is analyzing the data to inform CARB's 2017-2018 state inventory.
- BACWA submitted comments on BAAQMD's Draft Clean Air Plan March 9th. The final Clean Air Plan was adopted April 19, 2017.

- Work with CASA to look for opportunities for POTWs to help the State meet GHG reduction goals.
- Look for opportunities to inform BAAQMD on the opportunities and challenges for climate change mitigation by Bay Area POTWs.
- Work with PG&E and BAAQMD to explore options for POTWs to inject biogas into PG&E pipelines when an agency is interested in pursuing this option. Note that CASA has been discussing the barriers to pipeline injection with CPUC staff and they are about to open proceedings for determining a reasonable range of high heating values for digester gas and updating their current standard of 990 Btu/scf.
- POTW rep invited to participate in BAAQMD's Methane Expert Panel to educate their staff on how to address implementation of SB 1383 at the Air District level.

2017 Climate Change Scoping Plan:

https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

CARB proposed Short Lived Climate Pollutant Reduction Strategy:

https://www.arb.ca.gov/cc/shortlived/meetings/0314 2017/final_slcp_report.pdf

SB 1383:

http://www.leginfo.ca.gov/pub/15-

16/bill/sen/sb 1351-1400/sb 1383 bill 20160 919 chaptered.htm

BAAQMD Clean Air Plan Measures:

http://www.baaqmd.gov/pl ans-and-climate/airquality-plans/currentplans

BACWA Comments on Clean Air Plan:

https://bacwa.org/wpcontent/uploads/2017/03/ COMMENT-LETTER-ON-BAAQMD-DRAFT-2017-CLEAN-AIR-PLAN-3-9-17.pdf

BAAQMD Rule 11-18

- Regulation 11, Rule 18 (Rule 11-18), adopted November 15, 2017, is BAAQMD's effort to protect public health from toxic air pollution from existing facilities such as POTWs.
- Per the Rule, BAAQMD will use toxic emissions inventories and proximity to the nearest receptor (residents or offsite workers) to conduct site-specific Health Risk Screening Analyses (HRSA). From these HRSAs. BAAQMD will determine each facility's prioritization score (PS). BAAQMD will conduct Health Risk Assessments (HRAs) for all facilities with a cancer PS>10 or non-cancer PS >1.0. After verifying the model inputs, if the facility still has PS above that threshold, that facility would need to implement a Risk Reduction Plan that may include employing Best Available Retrofit Control Technology for Toxics (TBARCT).
- BACWA developed a White Paper on the Rule to describe its potential impacts on the POTW community.
- In response to a request by BAAQMD, the AIR Committee delivered a letter report summarizing specific challenges that POTWs would face in complying with the rule due to budgeting and planning constraints related to being public agencies.
- In response, BAAQMD moved all POTWs to Phase 2 to give sufficient time to update the modelsmodel's inputs, and plan for emissions reduction or TBARCT, as needed. Phase 2 begins in 2019 with the development of HRAs for facilities with a cancer PS>1.0.
- BACWA submitted comments on the Proposed Rule October 16 and on the EIR and staff report on October 25.

 AIR Committee gathered data on proximity factors from each facility and submitted to BAAQMD for updating prioritization scores. BACWA to follow up on progress of the score updates by end of Q1 2018.

Next Steps for BACWA

 BACWA members to meet with BAAQMD staff to discuss the conflict between this Rule and methane-reducing POTW projects..projects. BAAQMD Rule 11-18 page:

http://www.baaqmd.gov/rules-and-compliance/ruledevelopment/rules-underdevelopment/regulation-11-rule-18

Rule 11-18 Process Flowchart: https://bacwa.org/docume nt/baaqmd-11-18process-flowchart-08-17-17/

BACWA Letter on POTW impacts:

https://bacwa.org/wpcontent/uploads/2017/04/ BACWA-AIR-Letter-Report-To-BAAQMD-04-04-17-1.pdf

BACWA White Paper: https://bacwa.org/wp-

content/uploads/2017/01/ 11-18-White-Paper_final-2.pdf

BACWA Comments on Proposed Rule:

https://bacwa.org/wpcontent/uploads/2017/10/ BACWA-AIR-Comment-Letter-Regulation11-Rule18-10-16-17.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources			
RECYCLED WATER GENERAL ORDER						
 In response to the Governor's proclamation of a Drought State of Emergency, the State Water Board adopted a General Order on June 3, 2014 to streamline permitting for recycled water. The State Water Board reissued the General Order on June 7, 2016, making enrollment mandatory for Regional Permittees. The State General Order, as adopted, is more onerous than Region 2's General Order for water reuse, 96-011. 	 The State Water Board plans to update the State General Order within the next three years subsequent to its revision of the State Recycled Water Policy. One of the anticipated changes to both documents is a reduction in priority pollutant monitoring. Although the State Water Board's intention is to enroll 96-011 permittees within three years of adoption of the State General Order, which is June 7, 2019, the San Francisco Regional Water Board does not intend to do a blanket transition, but only enroll agencies with new or expanded recycled water projects. However, the State Recycled Water Policy amendment is expected to include a process for transitioning Regional permittees. 	 Work with our agencies planning new or expanded Recycled Water Projects to see how coverage under the new State General Order impacts their new recycled water projects. Provide comments on 2018 State Recycled Water Policy update through WateReuse, and participate in stakeholder process. A proposed revision is expected in March 2018. 	2016 State Recycled Water General Order: http://www.waterboards.c a.gov/board decisions/ad opted orders/water quali ty/2016/wqo2016 0068 d dw.pdf State Recycled Water Policy Amendment Page: https://www.waterboards. ca.gov/water issues/prog rams/water recycling pol icy/index.html#amendme nt			

[&]quot;Parking lot" issues with no updates can be found in previous <u>BACWA issues summaries</u>.

ACRONYMS

ADC Alternate Daily Cover

BAAQMD Bay Area Air Quality Management District
BTU/SCF British thermal units per standard cubic foot

CARB California Air Resources Board

CASA California Association of Sanitation Agencies

CEC Compound of Emerging Concern

CIWQS California Integrated Water Quality System CVCWA Central Valley Clean Water Agencies CWEA California Water Environment Association

EC25/IC25 25% Effect Concentration/25% Inhibition Concentration

ELAP Environmental Laboratory Accreditation Program

ELTAC Environmental Laboratory Technical Advisory Committee

EPA United States Environmental Protection Agency FIFRA Federal Insecticide, Fungicide, and Rodenticide Act

FY Fiscal Year GHG Greenhouse Gas

HRSA Health Risk Screening Analyses

HRA Health Risk Assessment

LACSD Los Angeles County Sanitation Districts
NACWA National Association of Clean Water Agencies

NELAC National Environmental Laboratory Accreditation Conference

PCB Polychlorinated Biphenyl

POTW Publically Owned Treatment Works

PS Prioritization Score RFP Request for Proposals

RMP Regional Monitoring Program

SCAP Southern California Alliance of POTWs

SF Bay San Francisco Bay

SFEI San Francisco Estuary Institute
TMDL Total Maximum Daily Load
The NELAC Institute

TNI The NELAC Institute
TST Test of Significant Toxicity