

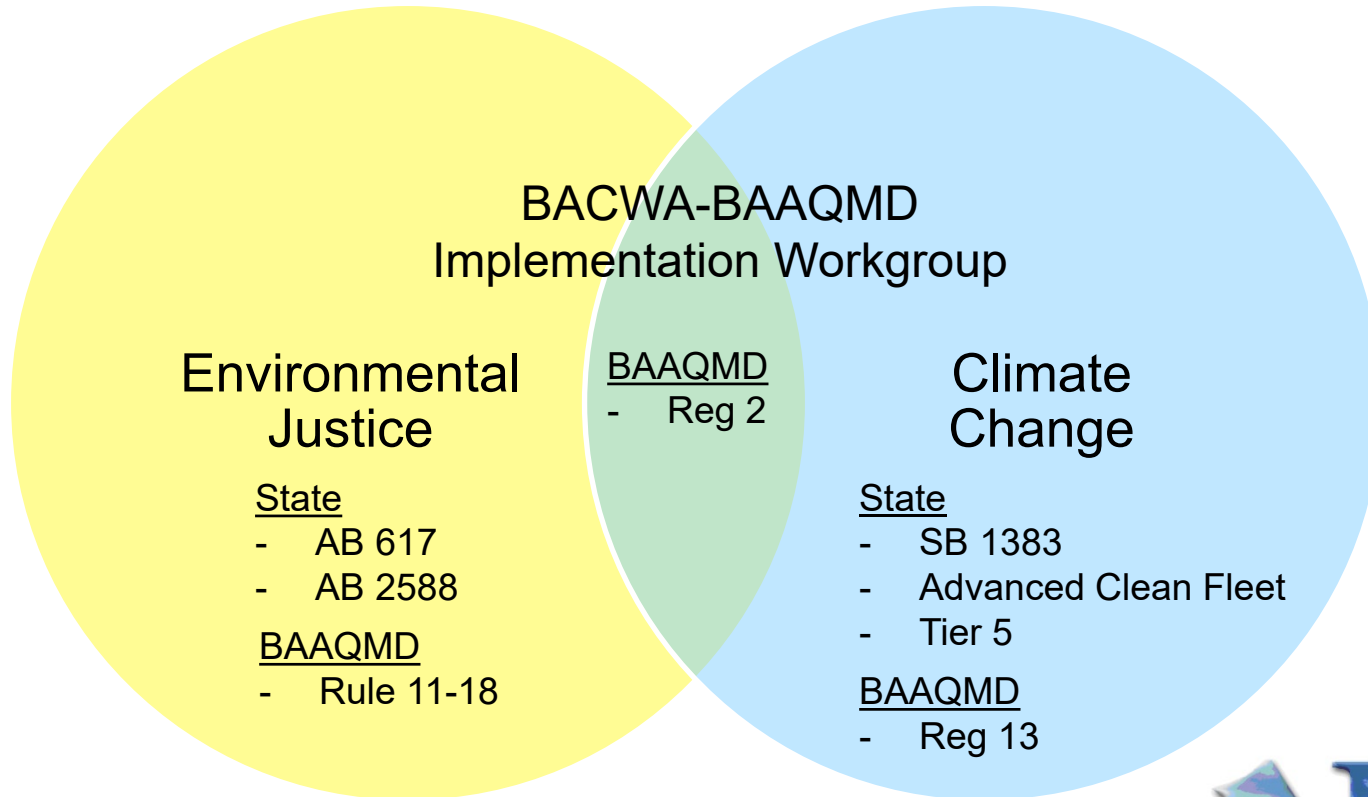


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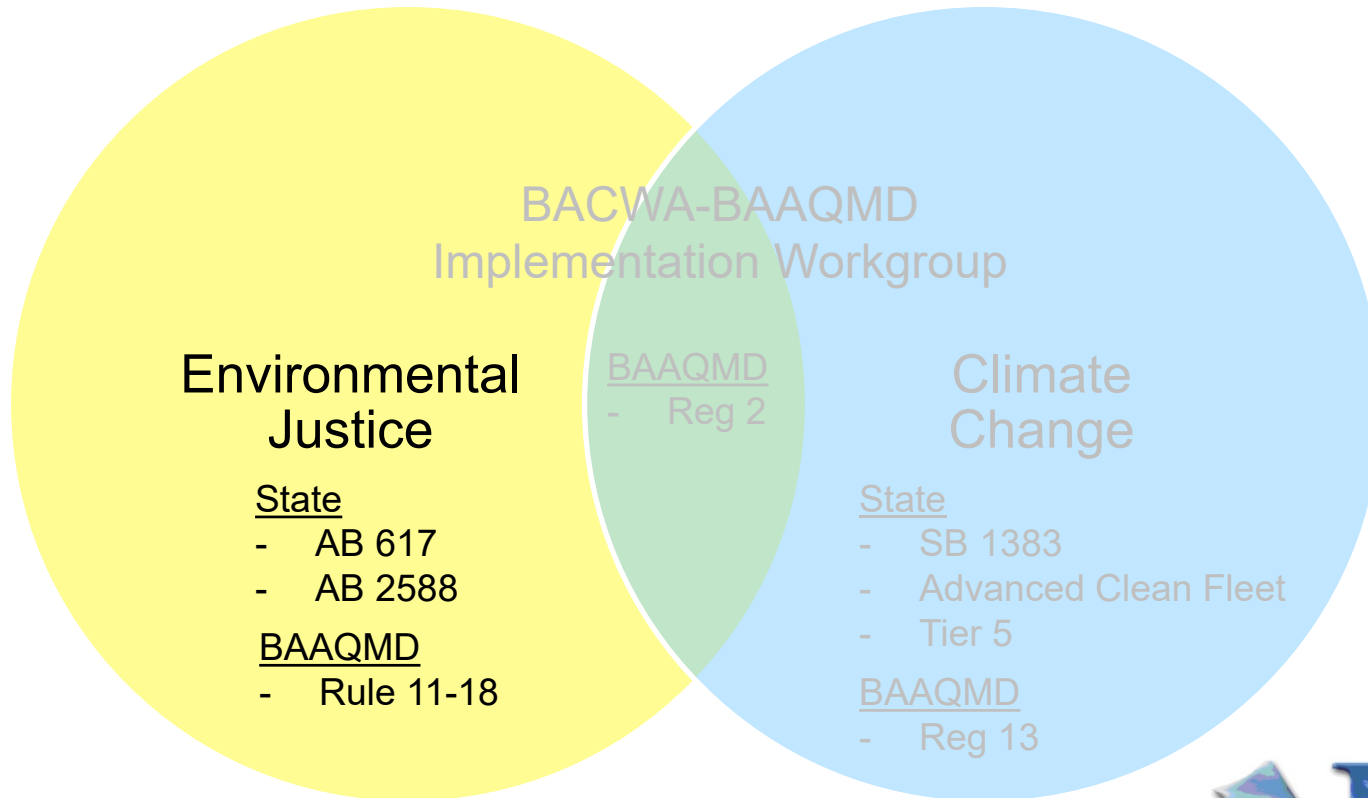
A Committee of the Bay Area Clean Water Agencies

**BACWA Annual
Members Meeting
May 6, 2022**

Air Issues & Regulations



Air Issues & Regulations



Environmental Justice

State

- AB 617
- AB 2588

BAAQMD

- Rule 11-18

Climate Change

State

- SB 1383
- Advanced Clean Fleet
- Tier 5

BAAQMD

- Reg 13



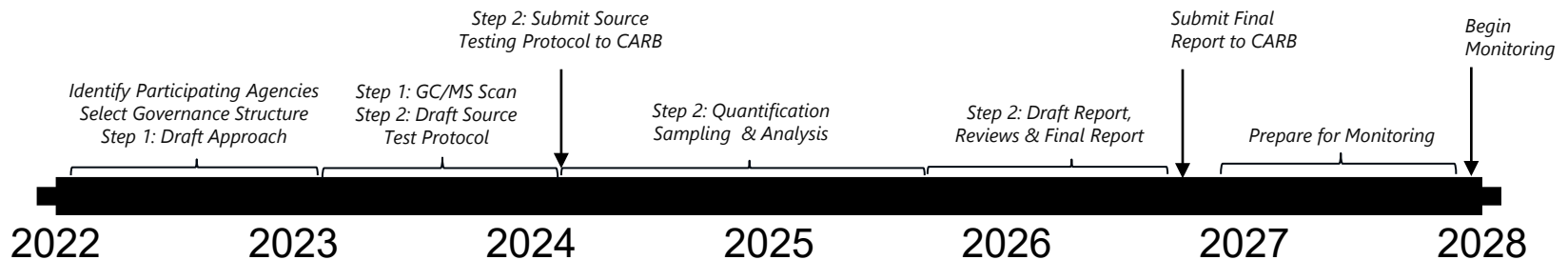
Criteria Pollutants & Toxics Reporting and Air Toxics “Hot Spots” Program Updates

- AB 617 gives CARB authority to “harmonize” air monitoring, reporting, & emission reductions from stationary sources
- AB 2588 Hot Spots compound list is >1000 compounds (from >500)
 - Many of the compounds have unknown toxicity levels
 - Many of the compounds have unknown emission factors
 - Many of the compounds are not relevant to WWTPs
- CASA worked closely with CARB to negotiate phased compliance, allowing WWTPs to:
 - Report business as usual through 2028 (begin reporting in 2029 for 2028 data)
 - Perform a “two-step process” for determining a shortlist of compounds
 - Scanning air space of unit processes to determine detectable compounds
 - Determining the sampling and analysis methods to quantify emissions (Mimic 1990 Pooled Emissions Estimation Program, PEEP)



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How can WWTPs comply with the updated CTR and Air Toxics “Hot Spots” Programs?



Result: Short-list of compounds and emissions factors determined by participating agencies and air district staff (also informs Rule 11-18)

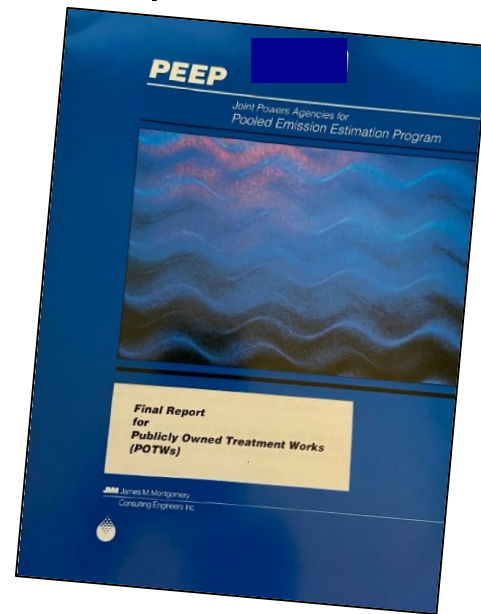
A cost estimate is being developed for fiscal year 23/24 budgeting.



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Air Toxics: 1990 Pooled Emissions Estimation Program (PEEP)

- Provided participating agencies a standard estimation methodology for determining air toxics emissions from their respective facilities.
 - 25 POTWs across CA formed a JPA
 - 18 unit processes (liquid, solid, gas)
 - 20 sites (managed as north and south)
 - 3 rounds of sampling over 5 months
 - Project duration: ~2 years (1989-1990)
 - Budget: \$2.5M (1990)



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Next steps for Wastewater Sector...

- CASA 2022 actions:
 - Draft approach for Step 1 of two-step process (examining scan and source test requirements)
 - Identify participating agencies
 - Select governing structure
- Meeting with air districts and source test specialists to discuss scan methods – may lead to a paper exercise
- Subgroup meeting monthly for the rest of the calendar year



Understanding New Requirements for Air Toxics Reporting

California air districts are beginning to adapt recent amendments to the California Air Resources Board's (CARB) Air Toxics "Hot Spots" Program Emission Inventory Criteria and Guidelines (EICG) and the Reporting of Criteria Air Pollutants and Toxic Air Contaminants Regulation (CTR). This fact sheet is to inform your organization of those regulatory updates, how they apply to the wastewater sector, and for your reference in discussions with air district staff.

REGULATORY UPDATES: As part of improving air toxic emissions reporting, the public's access to the data, and reduction strategies for priority communities, the updates to the EICG and CTR:

- Expand the number of compounds to be validated for monitoring and reporting from a total of ~500 to over 1,000 for permitted waste facilities, including wastewater treatment plants (WWTPs).
- Establish criteria for air monitoring AND an approach for the waste sector (i.e., the "two-step" process) to identify a short list of toxics relevant to WWTPs.
- Identify strategies/timelines for emissions reductions (prioritizing overburdened communities).

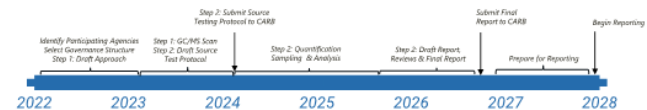
Since most of the 1,000+ compounds do not have approved sampling or laboratory methods and have not been assessed by the Office of Environmental Health Hazard Assessment, health risks associated with these compounds cannot be quantified. In turn, any prematurely reported information will yield erroneous emission estimates, causing confusion and potentially unwarranted alarm for our neighbors.

WASTEWATER SECTOR IMPACTS & RESPONSE: CARB approved a phased compliance approach that allows permitted WWTPs to report business as usual through 2028 while the sector executes the two-step process to:

1. Perform a scan of air samples across various treatment plant unit processes to determine detectable compounds (of the 1,000+ compounds).
2. Quantify the emissions of detectable toxic compounds based on an approved sampling and analysis approach (working with air districts and CARB).

The two-step process will take approximately five (5) years and up to \$10 million for the wastewater sector to complete. In the meantime, the wastewater sector is unable to quantify any new air toxic compounds until the completion of the statewide two-step process and must rely upon the results of the two-step process as the "best available data and methods." In other words, no new air toxics need to be reported until 2029.

The winter/spring of 2022 CASA will work with the membership to establish an oversight and cost-recovery structure for the two-step process. Thereafter, about 20 WWTPs will need to sample emitting unit processes in accordance with approved protocols.¹ A tentative schedule of the two-step process is provided below:



For more information or if you have questions, please contact Sarah Deslauriers at sdeslauriers@carollo.com or David Rothbart at drotbart@lacsdc.org. Updates are provided as part of CASA's Air Quality, Climate Change, & Energy Workgroup monthly meetings and an Air Toxics Subgroup has been established that meets as needed.

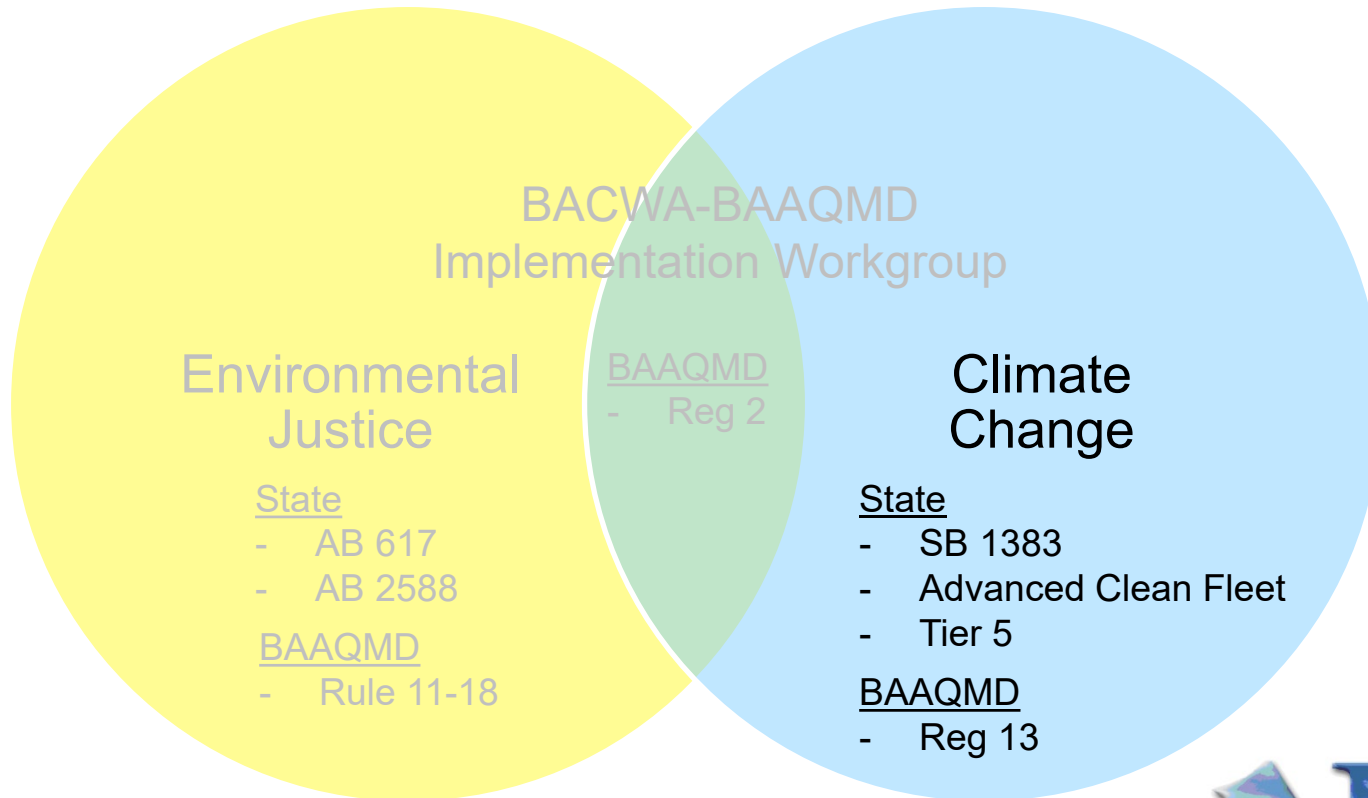
¹ Scanning and sampling protocols will be developed in collaboration with and approved by local air districts and CARB staff. CASA will lead the coordination and development of the protocols.

BAAQMD Rule 11-18: Risk Reduction from Air Toxic Emissions at Existing Facilities

- Phased implementation based on cancer prioritization – WWTPs in Phase 2 (timeline uncertain)
- **Issues:**
 - Emission factors are based on old influent data and can result in erroneously high Prioritization Scores
 - Timing of Rule 11-18 risk reduction implementation may conflict with timing of CARB-approved two-step process for updating emission factors
- **Next Steps:** Coordinate risk reduction plan development with statewide two-step process (to be complete in 2028) to give time to...
 - Update relevant TAC emission factors
 - Determine needed and cost-effective risk reduction measures (considering rate payer impacts)

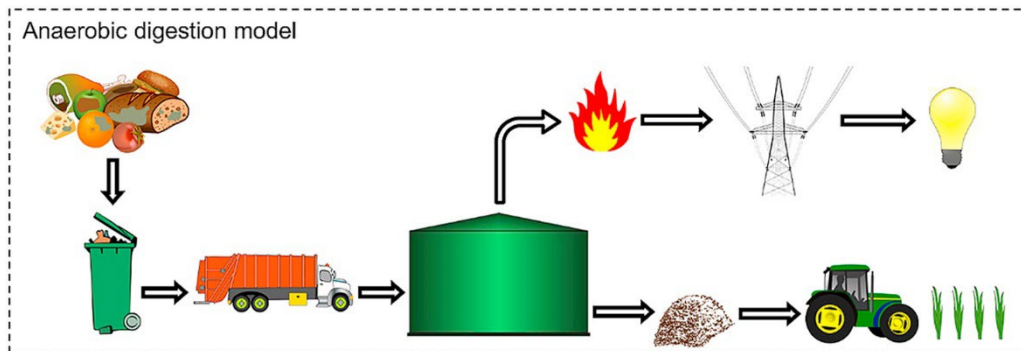


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SB 1383 Regulations: Organics Diversion & SLCP Reduction

- Targets 40% methane reduction by 2030
- Organic waste diversion from landfills – 50% by 2020 and 75% by 2025
- Incentivizes biogas production
- **Issues:** BAAQMD regulations do not consider overall methane reduction (i.e., at landfills) and act to limit increases in biogas production
- **Next Steps:** BAAQMD to consider CARB/CalRecycle/SWRCB's scope for total methane reduction in Rule 13-4 development and support increased biogas production/utilization



Proposed BAAQMD Regulation 13: Climate Pollutants

Rule	Notes
13-1: Significant Methane Releases	Tabled indefinitely to focus on source-specific rules.
13-2: Organic Waste Handling	Draft is focused on organic material handling: Material Recovery Facilities, Transfer Facilities, Chip & Grind Facilities.
13-3: Composting Operations	Draft language in development, not released.
13-4: Sewage Treatment & Anaerobic Digestion	BACWA providing input on draft language. Draft rule to consider biogas produced/collected, minimizing other pollutants, flare requirements, record keeping, reporting requirements, etc. Working with BAAQMD to collect information on BMPs to inform rule development and scoping a non-competitive proposal
13-5: Hydrogen Plants	Focus on hydrogen production at petroleum refineries.

Rule Development Suspended due to COVID-19 & Lack of Data

Proposed CARB Advanced Clean Fleet Regulations

Advanced Clean Fleet Rule

- Zero-emission fleets by 2045
- Applies to vehicles with a gross vehicle weight rating $\geq 8,500$ lbs
- Government entities viewed as early adopters
- Convert public fleets by 2035 (purchase agreement by 2027)
- Goal to adopt regulation by end of 2022

Issues of Concern

- No provisions for essential public services
- Near-ZEV definition does not allow for wastewater biogas as low carbon fuel
- Support normal replacement cycle of vehicles within public fleets and delayed start date for low population counties
- Unreasonable regulatory timeline
- Credit for early purchase



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CARB Proposed Tier 5 Off-Road Diesel Engine Standards

- BAAQMD issued Tier 4 BACT December 2020
 - Diesel backup engines ≥ 1000 bhp
- CARB rulemaking underway
 - Board consideration 2024-2025
 - Implementation 2028-2029

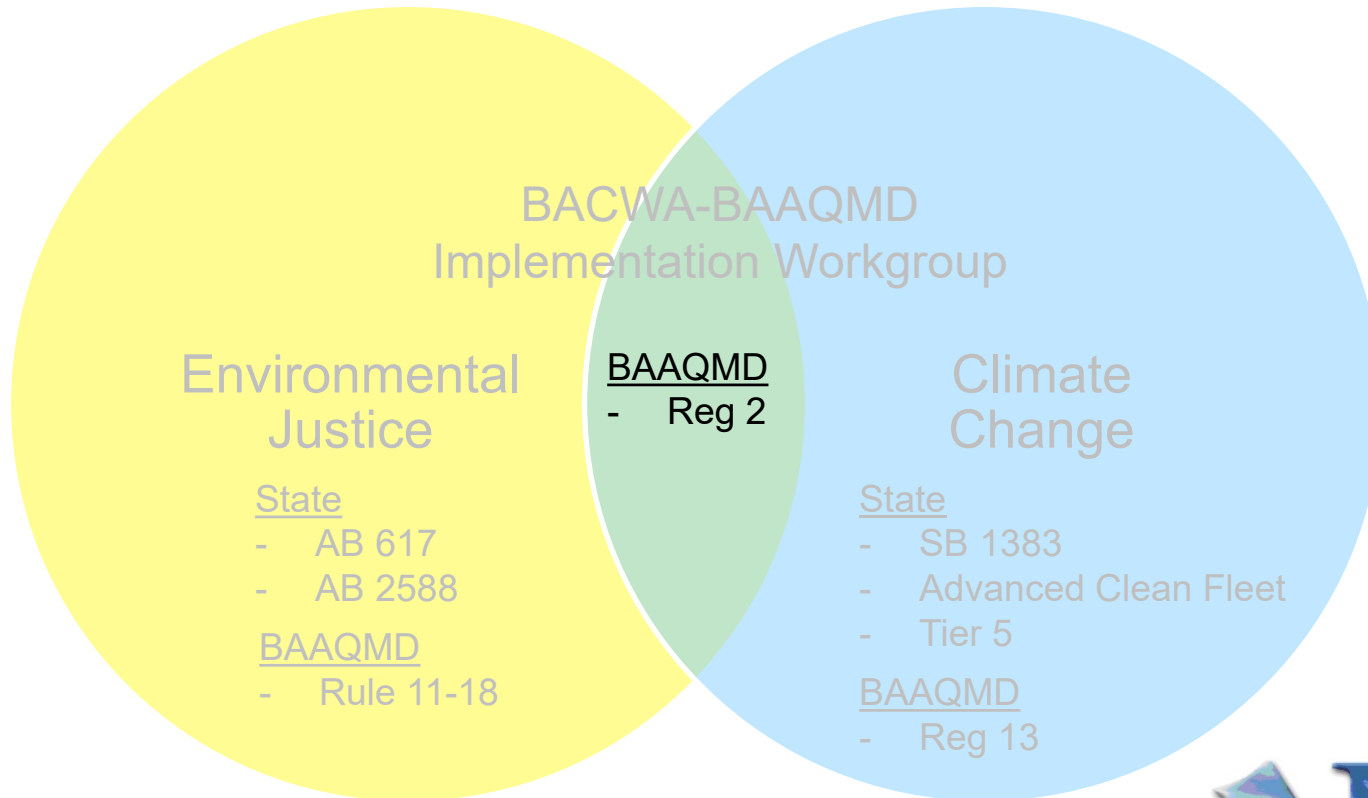
EPA Tier 4 emission standards

Pollutant	BACT Limit
POC	0.14 g/bhp-hr
NO _x	0.5 g/bhp-hr
SO ₂	CARB Diesel Fuel (15 ppm sulfur)
CO	2.6 g/bhp-hr
PM-10	0.02 g/bhp-hr

Proposed Tier 5 emission standards

Pollutant	Potential Limit Reduction from Tier 4 Limits *
NO _x	75-90% reduction
PM	50-75% reduction
NMHC	no change
CO	no change
	*depending on engine size

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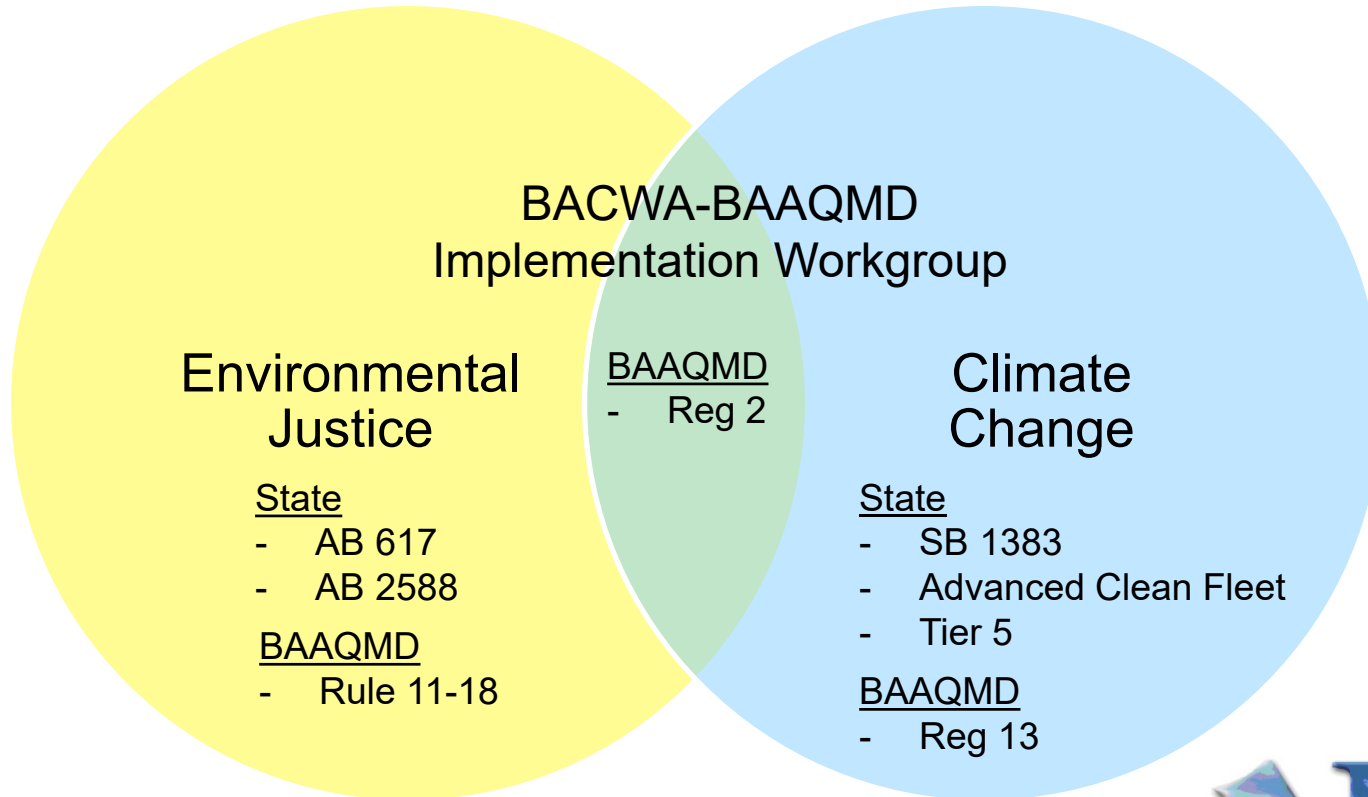
Overview of Approved Amendments to BAAQMD Regulation 2 (Permits)

- Allowable risk is 6 per million (instead of 10 per million)
- New definitions
 - "essential public services" (vs emergency) do not include POTWs
 - "project" is any project at the facility within 5 years (was 3)
 - "baseline" for modifications is lowest of 3 scenarios ("actual", "permitted", "capacity")
- Extends BAAQMD review times
 - Completeness from 15 to 30 working days
 - Action from 35 to 90 or 180 working days (depending on complexity)
 - Public comment response from 30 to 60 days
- **Outcome: Implementation Workgroup**



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BACWA-BAAQMD Implementation Workgroup

- Partners
 - Regulatory development
 - Innovative technology support
 - Funding support
- Mimic BACWA-RWQCB relationship
 - Meet quarterly
 - Initial meeting: March 30th
 - Biannual reports to BAAQMD Board



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Thank you!

Upcoming Meetings:

BACWA AIR Committee,
June 9th, 10 am – Noon

CASA Air Quality, Climate Change & Energy (ACE) Workgroup
June 23rd, 8:30 – 10:30 am

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