

MARCH 15, 2018 – BACWA EXECUTIVE BOARD MEETING

Air Quality, Climate Change, & Energy (ACE) Workgroup Update

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Priority Issues

- SB 1383 SLCP Reduction Regulatory Development
- SWRCB Co-Digestion Capacity Analysis
- Bay Area AQMD Regulation 13: Climate Pollutants
- Water-Energy GHG Guidance & Nexus Registry
- AB 617: Community Air Protection Program

- SWRCB's Climate Change Vulnerability Census
- America's Water Infrastructure Act of 2018



SB 1383: Short-Lived Climate Pollutant (SLCP) Reduction Implementation

- 40% methane reduction by 2030
(relative to 2013 levels)
- Organic waste diversion from landfills
(includes biosolids, digestate, and sludges)
 - 50% by 2020 (relative to 2014 levels)
 - 75% by 2025 (relative to 2014 levels)
- CEC/CPUC to incentivize biogas production/use
- **45-day comment period ended March 4th**
- Adoption 2020 – Effective 2022 – Enforceable 2024



SB 1383: Proposed Organic Waste Reduction Regulations

- ✓ Emergency disposal to landfills for 90 days
- ✓ Limit on local ordinances
- ✓ Land application qualifies as a reduction pathway
- Procurement of compost and “renewable gas” as transportation fuel remains, need this expanded
 - CA Accidental Release Prevention (Cal-ARP) Program



SWRCB: CA POTW Co-Digestion Capacity Analysis

- Purpose: *“Enable the **Water Board to work with wastewater agencies, local governments, community members and other stakeholders to inform approaches to better coordinate and cost-effectively maximize organic waste diversion from landfills, co-digestion at wastewater treatment plants, and beneficial biogas and biosolids utilization.**”*



- To be complete June 2019



BAAQMD Regulation 13: Climate Pollutants Rule Development

Rules and Regulations	GHGs	Odors	VOCs	Toxics
Regulation 13: Climate Pollutants	N ₂ O, PCPs	n/a	n/a	n/a
Rule 13-1: Significant Methane Releases	CH ₄	Yes	Yes	Yes
Rule 13-2: Organic Material Handling	CH ₄	Yes	Yes	Yes
Rule 13-3: Composting Operations	CH ₄	Yes	Yes	Yes
Rule 13-4: Wastewater Operations	CH ₄ , N ₂ O	Yes	Yes	Yes





BAAQMD Regulation 13: Climate Pollutants Rule Development

Next Steps:

- Rule 13-1: Figure out how to purge/abate biogas when cleaning digesters over next 4 months
- Rules 13-2 & 13-3: Workshops to be held in Q2 2019, Board of Directors in Q3 2019 (pre-processing)
- Rule 13-4: Development to begin in late 2019
BAAQMD-BACWA-CASA meeting March 7th "Wastewater Treatment 101"



Water-Energy GHG Guidance Initiative, WEG 2.0

- Goal: Develop methodology to quantify, compare, and analyze the GHG emissions embedded in delivered water
- Cool Planet Project in partnership with SCE & The Climate Registry, began in 2015
- 2018 - include operations related to WW & RW, including emissions tracking

Voluntary Water-Energy Nexus (WEN) Registry

- Goal: Develop suite of protocols/guidance enabling measurement, reporting, & tracking of entity-wide emissions
 - Looking to IPCC 2019 Refinement for a N₂O emission factor update
- Next Steps: To receive responses to edits/comments provided & in-person meeting in Sacramento May 13th



AB 617: Community Air Protection Program

- CARB to harmonize air monitoring, reporting, & local emissions reduction programs for CAPs and TACs (and GHGs).
- In 2018, CARB set direction to:
 - Assess community exposure
 - Establish criteria for air monitoring
 - Identify source contributions and strategies for emissions reduction
- October 2019:
 - Establish emission reduction targets, schedule, & enforcement programs
 - Air Districts to submit annual progress reports to CARB in 2019 for 2018



AB 617: Stationary Source Applicability Thresholds

- Report GHGs to CARB per Section 38530 of H&SC
- Emit 250+ tpy of a nonattainment pollutant or precursor
- Receive an “elevated” prioritization score per Section 44360 of H&SC
- Sources in selected (“active”) communities
- LATEST: To require ≥ 10 MGD WWTPs to report complete AB 2588 list of toxic compounds (**over 500 compounds**) on annual basis – YIKES!
- Comments due 3/29, Conference Call on 3/18 @9 am



California to be Carbon Neutral by 2045!

- Executive Order B-55-18
- SB 100: 100% Clean Energy Act
 - 50% by 2026 (no longer 2030)
 - 60% by 2030
 - 100% by 2045 (w/out increasing GHG emissions in Western Grid)
- SB 1440: Biomethane Procurement
 - Requires PUC to consider adopting policies & incentives



Executive Department
State of California

EXECUTIVE ORDER B-55-18 TO ACHIEVE CARBON NEUTRALITY

WHEREAS climate change is causing historic droughts, devastating wildfires, torrential storms, extreme heat, the death of millions of trees, billions of dollars in property damage, and threats to human health and food supplies; and

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, do hereby issue this Executive Order, effective immediately:

IT IS HEREBY ORDERED THAT:

1. A new statewide goal is established to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions.
2. The California Air Resources Board shall work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal.
3. The California Air Resources Board shall work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.
4. The California Natural Resources Agency, the California Environmental Protection Agency, the California Air Resources Board, and the California Department of Food and Agriculture shall include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

WHEREAS California has taken the following specific steps to reduce greenhouse gas emissions:

- Requiring significant reductions of destructive super pollutants including black carbon and methane;
- Supporting clean transportation to reduce petroleum use 45 percent by 2030;
- Setting a goal of 5 million zero emission vehicles by 2030;
- Proposing to double the reduction in the carbon intensity of fuels through the Low Carbon Fuel Standard by 2030;
- Moving the state to 100 percent clean energy by 2045;
- Requiring the state to double the rate of energy efficiency savings in buildings;
- Extending and improving the state's cap-and-trade program;
- Directing cap-and-trade funds to greenhouse gas reducing programs which benefit disadvantaged communities;
- Developing a Forest Carbon Plan to better manage California's forest land.



State/regional initiatives looking at how CA will adapt to impacts of climate change

The collage includes several key documents:

- CA.gov Website:** A screenshot of the California government website showing the "AB 2800 (Quirk) Climate-Safe Infrastructure Working Group" page. The page mentions that climate change impacts are already being felt in California and includes record-breaking drought, wildfires, flooding, sea level rise, coastal erosion, and heat waves.
- State of California Sea-Level Rise Guidance:** A report cover with the title "State of California Sea-Level Rise Guidance" and the subtitle "10th Update".
- Safeguarding California Plan: 2018 Update:** A report cover with the title "Safeguarding California Plan: 2018 Update" and the subtitle "California's Climate Adaptation Strategy | January 2018".
- State Water Resources Control Board Resolution No. 2017-0012:** A document titled "STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2017-0012 COMPREHENSIVE RESPONSE TO CLIMATE CHANGE". The "WHEREAS" section states that sharp rises in atmospheric concentration of greenhouse gases over the last century and a half, due to human activity, have led to an increase in global average temperature. It also notes that climate change is affecting and will affect different regions in different ways, including increasing frequency of extreme weather events, prolonged heat waves, more frequent and more severe flooding, changes in peak runoff, and collapsed impacts on water quality and quantity, subsidence, increased amounts of water pollution, erosion, loss of water and wastewater infrastructure and operations, loss, alteration of aquatic ecosystems and loss of habitat, multiple impacts on agriculture, and ocean acidification. It further states that impacts include, but are not limited to, dry periods and in flow and reducing duration of stream discharges, harmful algal bloom of warm waters, reduced ability of warm lakes to treat nutrient pollution, more erosion and sedimentation caused by especially heavy winds, and increased velocity of stream outflows due to more intense precipitation and increased storm runoff. It also mentions that climate change is increasing the risk of wildfires, increasing the frequency and intensity of extreme weather events, and increasing the risk of coastal flooding. The resolution also mentions that the Board's previous resolutions have provided a strong foundation of response to climate change on the state, as well as a potential response to climate change, refers to actions taken to reduce greenhouse gases in the atmosphere. The most effective way to reduce greenhouse gases in the atmosphere is to reduce emissions.



SWRCB Climate Change Resolution

- State Water Board seeks feedback from permitted facilities:
 - Recommended permit modifications and other regulatory requirements to reduce vulnerability of water and wastewater infrastructure to flooding, storm surge, and sea level rise.
 - Encourage use of U.S. EPA's Climate Resilience Evaluation and Awareness Tool or a comparable approach to identify vulnerabilities to climate change impacts at water and wastewater utilities.
- CASA provided comments on and edits to the census Friday, January 18th
- Waiting to hear feedback from State Water Board

Questions for: Wastewater Collection, Wastewater, and/or Treatment Agencies
CLIMATE CHANGE IMPACTS

Agency: _____
 Check facilities your agency is responsible for: Collection Interception Treatment Disposal
 Approximate population receiving wastewater service from your agency: _____
 Contact: _____ Title: _____
 Phone: _____ Email: _____ Date: _____

PLEASE NOTE THIS SURVEY DOES NOT ALTER PERMIT REQUIREMENTS, DOES NOT REMOVE ANY OF THE ACTIONS AND IS NOT A COMMITMENT OF FUNDING.

1. Has your agency conducted a facility or infrastructure vulnerability assessment that includes climate change-related impacts or future extreme weather events (e.g., sea level rise, storm surge, drought, high winds, precipitation, flooding, or extreme heat)? Yes (Q2a,b,c,d) No

2a. Is there a link to a regional assessment (e.g., municipal Climate Action Plan or Integrated Regional Water Management Plan) that addresses infrastructure vulnerability to climate change-related impacts and includes your context?
 Yes. Click here to link.
 No. The survey for your agency is complete. [Skip here.](#)

2b. Which components were covered by the vulnerability assessment? (Check all that apply)
 Collection system Collection ponds, storage, drop tank, and wet weather facilities
 Interception and pump stations Treatment facilities Flow control Storage Conveyance
 Disinfection Distribution Other: _____
 Other: _____

3. Are results of the assessment available on the internet? Yes No

If "Yes," please provide the website address: _____

4. Select state of assessment to assess readiness of your facilities to climate change impacts. For measures already in place, indicate the year of completion. For in-progress, and planned measures indicate the expected year of completion.

Measure	State of assessment			Completion Year
	In Place	In Progress	Planned	
Expanding capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increasing maintenance or rehabilitation frequency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhancing treatment capability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other key facilities (e.g., pumping, monitoring or engineering facilities, valves or lines, retaining or backflowing equipment, or wetting down, sewer access or manholes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



America's Water Infrastructure Act 2018

- S. 3021 Signed into law Oct 23, 2018
- Statutory requirements for “**community water systems**”, not wastewater at this time
- Requires community water systems conduct:
 - Risk & Resilience Assessment
 - Prepare/Revise an Emergency Response Plan
- Malevolent acts and natural hazards in the context of physical security and cybersecurity
- Utility must submit letter to US EPA certifying both are complete, every five years thereafter
- Failure to submit results in enforcement & penalty up to \$25,000/day



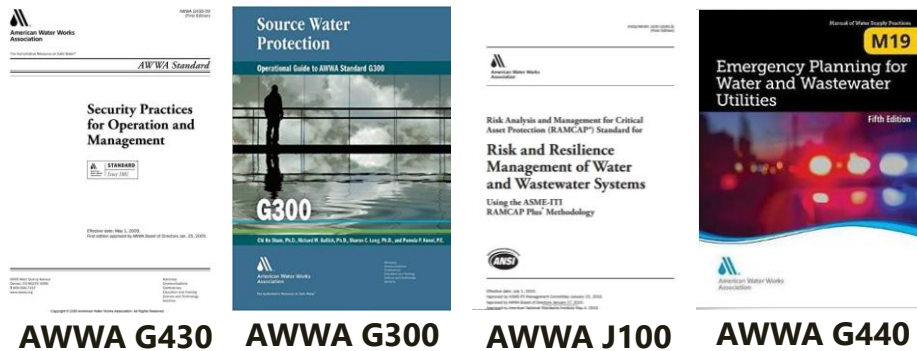
America's Water Infrastructure Act 2018

Community Water System (population served)	Risk & Resilience Assessment	Emergency Response Plan
>100,000	Mar 31, 2020	Sept 30, 2020
50,000–100,000	Dec 31, 2020	June 30, 2021
3,300–50,000	June 30, 2021	Dec 30, 2021

- Does not define how a utility must complete the RRA or ERP, but does support the use of voluntary consensus standards recognized by USEPA for purposes of compliance



Guidance documents & standards provide compliance framework for RRAs & ERPs



Thank You!...Questions?

Next Meeting:

Air Quality, Climate Change, & Energy -
ACE Workgroup
March 28th, 10 am – noon
Webinar/Conference Call

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