

Adapting to our Changing Climate: Current Regulatory Activity to Address Future Impacts

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

STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2017-0012 COMPREHENSIVE RESPONSE TO CLIMATE CHANGE

WHEREAS:

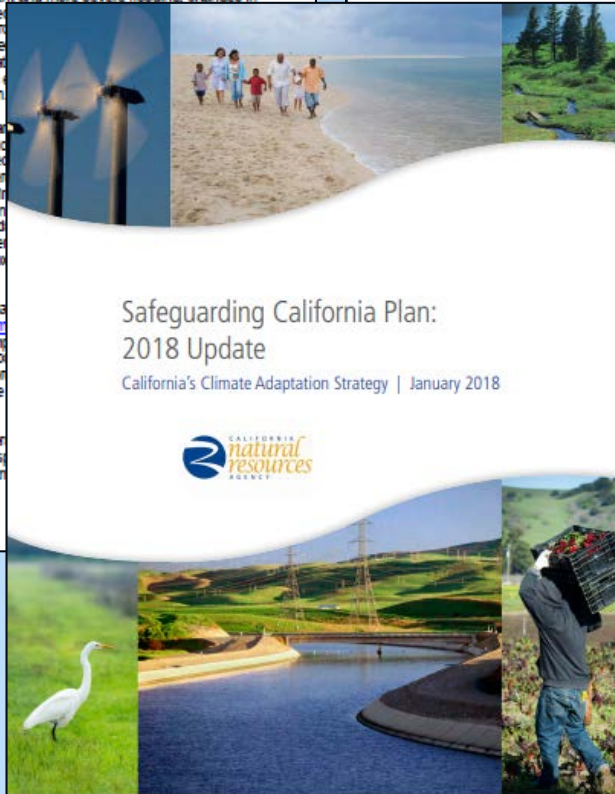
1. Sharp rises in the atmospheric concentration of greenhouse gases over the last century and a half, due to human activity, have led to an increase in global average temperature, and associated climate change.
2. Climate change is affecting and will affect different regions in different ways. Current and future impacts include increasing frequency of extreme weather events, prolonged fire seasons with larger and more intense fires, increased tree mortality, heat waves, sea-level rise and storm surges. Changes in hydrology include declining snowpack and more frequent and longer droughts, more frequent and more severe flooding, changes in the timing and volume of peak runoff, and consequent changes in water availability. Vulnerabilities of water resources include changes to water supplies, subsidence, increased flooding, and related risks to water and wastewater degradation of watersheds, alteration of aquatic ecosystems in coastal areas, and ocean acidification.

Examples of water quality impacts include, but are not limited to, drought lowering stream flow and reducing diatom blooms due to a combination of warm waters, reduced dissolved oxygen, and nutrient pollution, more extreme rainfall events, especially following wildfire, potential sewer overflows due to more intense water runoff, rising sea levels inundating lowland ranges, and increasing areas subject to saltwater pollution and increased absorption of carbon dioxide and hypoxia.

3. The risks of abrupt or irreversible changes increase. The [Intergovernmental Panel on Climate Change](#) indicates that limiting global average temperature increases to 1.5 degrees Celsius is necessary in order to minimize the most severe impacts of climate change. The [California Climate Change Assessments](#) have been addressing the impacts of climate change on the state's strategies.
4. Mitigation, in the context of climate change, refers to the reduction of greenhouse gas concentrations in the atmosphere by reducing greenhouse gas concentrations in the atmosphere.

Safeguarding California Plan: 2018 Update

California's Climate Adaptation Strategy | January 2018





[Home](#) [Agency](#) [Offices](#) [Initiatives](#) [Water Action Plan](#)

AB 2800 (Quirk) Climate-Safe Infrastructure Working Group

The impacts of climate change are already being felt in California and include record-breaking drought, wildfires, flooding, sea level rise, coastal erosion, and heat waves. These impacts are projected to worsen with a future punctuated by what are now considered extreme weather events. Established by AB 2800 (Quirk, Statutes of 2015-16), the working group will unite experts from multiple scientific and state infrastructure disciplines to bolster the inclusion of climate impacts in state design processes. Through its deliberations, the working group will investigate:

- Current informational and institutional barriers to integrating projected climate change impacts into state infrastructure design

Persons responsible for infrastructure design and construction need to address climate change impacts in engineering design for a range of future climate scenarios as related to infrastructure planning and investment.

Working Group Schedule and Meeting Materials

State of California Sea-Level Rise Guidance

2018 UPDATE



SWRCB Climate Change Resolution adopted March 7, 2017

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2017-0012

COMPREHENSIVE RESPONSE TO CLIMATE CHANGE

- “..promote measures that mitigate GHG emissions and contribute to adaptation to effects of climate change..”
- 30 Actions:
 - Support POTWs as part of solution for methane reduction under SB 1383 – co-digestion capacity analysis for food waste diverted from landfills
 - **By July 1, 2018** make recommendations to State Water Board on need to modify permits and other regulatory requirements to reduce vulnerability of water/wastewater infrastructure to flooding, storm surge, and sea level rise.
 - **By July 1, 2018**, begin including vulnerability assessments into community water system/sanitary surveys, and encourage use of U.S. EPA’s Climate Resilience Evaluation and Awareness Tool (CREAT) or comparable approach
- October 2017 – Water Quality Coordinating Committee focus on climate change impacts & reminder of the resolution



SWRCB began the CA POTW Co-Digestion Capacity Analysis in December 2017

- 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.**"*
- Complete Analysis by June 2019
 1. Estimate organics generation in 2025 and 2030 (underway)
 2. Assess existing capacity with no rehab/modifications AND capacity in 2025 and 2030 with rehab/modifications
 3. Assess methane emissions
 4. Investigate opportunities and barriers at small- to medium- sized facilities
 5. Examine pilot/demonstration facilities that have already operated
- CASA to distribute survey to WWTPs with existing anaerobic digesters – Summer 2018



CNRA's Safeguarding CA Plan: 2018 Update

- Released: January 30, 2018
- Lays out roadmap of what state agencies **are** doing and **will** do to protect communities, infrastructure, services, and the natural environment
- 69 recommendations across 11 sectors
- Over 1,000 ongoing actions/next steps across 38 state agencies
- CASA comments addressed
- Invite from SWRCB to meet in February!



SWRCB beginning to develop approach to addressing climate change in permits!

- February 27 – SWRCB & CA Coastal Commission Meeting
 - Presented primary risks to wastewater sector, actions agencies have taken to date, and recommendations
 - Receptive to one water concept, thinking holistically
 - Want to come together to think about vulnerability assessments – case by case basis on permits
 - Want to work as a team and meet regularly to discuss concepts and language they can use in permit updates

AB 2800 (adopted in 2017): Climate-Safe Infrastructure Work Group

Examine how to integrate scientific data concerning projected climate change impacts into state infrastructure engineering, including oversight, investment, design, and construction.



Report due to Legislature: August 2018

Presenting recommendations: Global Climate Action Summit
San Francisco, September 12-14

SWRCB looking to RWQCBs for recommendations on how to modify permits

- April 3 – SWRCB staff provided update on resolution to Board to discuss near-term actions:
 - Changes in policies, permits, and plans
 - Support state's key climate priorities identified in AB 32 Scoping Plan, Safeguarding CA Plan, and Water Action Plan
 - Focused on Statewide SSS WDR through spring 2019
 - Continue review of Regional Water Boards efforts/plans through 2019

Region	Name	Climate Change Action/Work Plan
1	North Coast	Basin Plan Amendments to include a Climate Change Policy
2	San Francisco Bay	Looking at POTW actions with respect to climate change, specifically SLR San Francisco Bay Joint Venture Climate Change Policy
3	Central Coast	
4	Los Angeles	Resolution to prioritize actions to adapt to and mitigate impacts of climate change Develop Climate Change Strategy document
5	Central Valley	Resolution to Adopt Climate Change Work Plan & Full Proposed Work Plan
6	Lahontan	Online Climate Change Survey - August 2016 Working on Climate Change Mitigation and Adaptation - watershed perspective
7	Colorado River Basin	
8	Santa Ana	
9	San Diego	Resolution Addressing Threats to Beneficial Uses from Climate Change

Impacts to wastewater sector vary regionally



- Key impacts of concern to most WWTPs are:
 - Increased frequency of extreme events (precipitation and/or prolonged heat)
 - Increased drought conditions (increasingly restrictive water use, decreased flow to WWTPs)
 - Sea level rise/storm surge

Central Valley Board – Climate Change Work Plan

December 2017



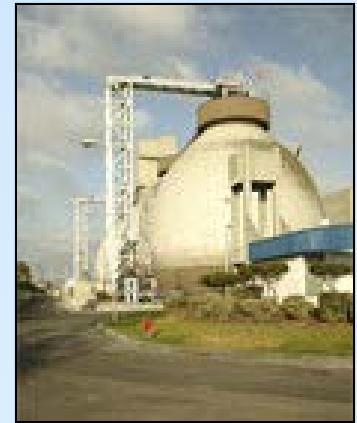
Central Valley Regional Water Quality Control Board

Central Valley Region Climate Change Work Plan

Current State of Knowledge & Considerations for Addressing Climate Change

Generally, the Wastewater Sector needs...

- Flexibility in permits (temporary discharge relief, avoid a one-size-fits-all)
- Holistic approach, considering cross-media impacts related to operational changes for improvement in effluent quality and processing diverted organic waste:
 - Increased GHG emissions
 - Increased local air pollutant emissions
 - Increased water quality monitoring
 - Increased solids to manage
- Consideration of watershed-based permits
- Consideration of wet weather program enhancements (stormwater capture/reuse)



How can you provide input to SWRCB and your RWQCB?

- Participate in SSS WDR update process
 - SWRCB staff outreach workshops:
 - May 17th in Sacramento
 - May 22nd in Fresno
 - May 31st in Riverside
 - SWRCB/CWEA led workshops for wastewater sector input:
 - July in San Diego and Bay Area
 - August in Orange County/Los Angeles and Sacramento
- Track Regional Water Board Actions – concern for DACs, looking at consolidation of small water/wastewater systems
- Bottom Line: There's not a "one size fits all" approach, need to be flexible, vet recommendations legally, and looking to us to provide example language!



Questions?



Thank You!

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