

Clean Water Summit Partners

Biosolids, Air, Climate, Energy, Nutrient (BACEN) Nexus Webinar Agenda



Welcome, Objectives, & Agenda Overview (9:30-9:40)

Note: Each presentation includes a brief period of Q&A immediately following

BACEN Issue Presentations

Getting the Waste Out of Water: Wastewater Treatment 101 (9:40 – 10:00)

Overview of wastewater collection and treatment as a critical function to communities, and an overview of the numerous regulatory agencies governing treatment systems.

Speaker: Sarah Deslauriers, CASA Director of Air, Climate & Energy Programs

Intersection of Nutrient Removal & Air Emissions at Wastewater Treatment Facilities (10:00 – 10:30)

A top priority of the State Water Board and various Regional Water Boards is managing nutrients to avoid Harmful Algal Blooms in waterways, Ocean Acidification & Hypoxia in the ocean, and elevated nitrates in drinking water supplies. However, removing nitrogen from the liquid wastewater stream requires treatment processes that increase energy demand, chemical addition, and may result in an increase in nitrous oxide emissions as a natural byproduct. This presentation will provide insight into the relationship between nitrogen removal and nitrous oxide emissions and the need to bring together the Water Boards, CARB, and Local Air Districts to discuss tradeoffs and additional research that is needed to better understand and optimize outcomes.

Speakers: Lorien Fono, BACWA Executive Director and Mike Falk, HDR

15-Minute Break (10:30-10:45)

Intersection of Organic Waste Diversion & Wastewater Treatment (10:45-11:15)

CalRecycle and CARB require diversion of organic waste to reduce statewide methane release from landfills. Municipal wastewater facilities can receive and co-digest a significant amount of divertible organic food waste. In turn, wastewater plants see an increase in biogas production that can be used to create renewable fuels and renewable energy, and displace fossil fuel-based fuel/power, but can also result in increased nutrient loads. This presentation will summarize the wastewater sector's capacity to receive organics, the opportunities associated with utilizing the byproducts, and the challenges with treating an increased nutrient load, underscoring the need for CalRecycle, CARB, local Air Districts, and Water Boards to discuss and address the tradeoffs.

Speakers: Steve Jepsen, Clean Water SoCal Executive Director and Rashi Gupta, Carollo Engineers

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Wastewater Biogas: A Resource to Support the Circular Economy (11:15 -11:45)

The legislature and Governor have directed CARB to create a plan for reducing greenhouse gas (GHG) emissions statewide to achieve carbon neutrality by 2045. While the wastewater sector is not a significant emitter of GHGs (nor a target for GHG emission reductions), the sector offers tremendous opportunity for community-wide GHG emission reductions. Examples include: accepting diverted organic waste (reducing landfill emissions), beneficially utilizing biogas to displace fossil fuel-based energy and fuel use, biogas powered microgrids for energy resilience, and beneficially utilizing biosolids as a soil amendment to replace synthetic fertilizer. However, biogas utilization is limited due to restrictions set by local Air Districts, CARB, the California Public Utilities Commission (CPUC), and CalOSHA. These limitations can prevent and discourage wastewater agencies from participating in broader GHG-reducing programs, putting community resilience at risk.

Speakers: Sarah Deslauriers, CASA Director of Air, Climate & Energy Programs and Ali Chehrehsaz, TerraVerde Energy

Closing Thoughts: Moving “From Silos to Systems” (11:45-12:00)

Speaker: Adam Link, CASA Executive Director



Hosted by the Clean Water Summit Partners:

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