**BACWA** wishes to thank our sponsors for their contributions and efforts to bring this popular topic to our membership ...

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# **Contributors**











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# Me (come!

# NUTRIENT TREATMENT TECHNOLOGY SYMPOSIUM

October 21, 2013 8:00 am to 4:00 pm

**Spur Urban Center** 654 Mission Street San Francisco California 94105

ag0913bacwaprogram.indd













# Who we are ...

**BACWA** is a joint powers agency, formed under the California Government Code by the five largest wastewater treatment agencies in the San Francisco Bay Area. Our members include the many municipalities and special districts that provide sanitary sewer services to more than 6.5 million people. BACWA is dedicated to working with our members, state and federal regulatory agencies, and non-governmental organizations to improve and enhance the San Francisco Bay environment. We provide technical expertise, financial support, and a public utility perspective to ensure that regulations affecting our members are well-informed, thoughtful and effective.

# Why is this important?

Historically, the San Francisco Bay has not been adversely affected by nutrients (nitrogen and phosphorus). Consequently, discharge regulations for most of the wastewater facilities discharging to the Bay do not include effluent limits related to nutrients. However, the San Francisco Regional Board is in the process of developing nutrient watershed permit(s) for the Bay. The Regional Board is planning to issue the watershed permit(s) in 2014. As part of the permit, the Regional Board may require wastewater agencies in the Bay Area to assess alternatives for optimizing and/or upgrading their wastewater plants to reduce nutrients in the future.

# **Program**

Time	Item	Speakers	Location
8:00 - 8:15 8:15 - 8:25 8:25 - 8:30 8:30 - 8:45	Continental Breakfast Opening Remarks and Perspective Symposium Overview and Format A Framing Concept: "The Innovation of Process, and the Process of Innovation"	Dave Williams, BACWA Executive Director Moderator David Jenkins, UC Berkeley Denny Parker, Brown and Caldwell	1st Floor 2nd Floor 2nd Floor 2nd Floor
8:45 - 10:35 8:45 - 9:05 9:05 - 9:25 9:25 - 9:45 9:45 - 10:05 10:05 - 10:35	SEGMENT 1 - CONVENTIONAL TREATMENT TECHNOLOGIES AND HOW THEY ADAPT TO NUTRIENT REDUCTION Overview of Conventional Treatment Technologies Suspended Growth Technologies and Nutrient Reduction Biofilm Processes and "The Tale of Two Cities" Wetlands, Natural Systems, and "Green Technologies" Alternatives Panel Discussion  Morning Break and Networking	JB Neethling, HDR James Barnard, Black and Veatch  Denny Parker, Brown and Caldwell Josiah Cain, Sherwood Engineers  Jenkins, Neethling, Barnard, Parker, and Cain	2nd Floor
	SEGMENT 2 - OPTIMIZATION OF EXISTING		2
11:00 - 12:25 11:00 - 11:20	FACILITIES Unintended Consequences of BNR Conversion (i.e. sludge settling problems, foaming, struvite formation, and excessive energy use) and Process	Alex Ekster, Ekster and Associates	2nd Floor
11:20 - 11:40	Optimization Solutions Side-Stream Treatment Technologies and Experience	Beverley Stinson, Aecom	
11:40 - 12:00 12:00 - 12:25	Split Treatment Strategies Panel Discussion	Andre Gharagozian, Carollo Engineers Jenkins, Ekster, Gharagozian, and Stinson	
12:25 - 1:00	Lunch		1st Floor
1:00 - 2:25 1:00 - 1:20 1:20 - 1:40 1:40 - 2:00 2:00 - 2:25	SEGMENT 3 - NEW APPROACHES, TECHNOLOGIES, AND RESEARCH Overview of New and Emerging Technologies ReNUWIt Research Highlights and Engineered Wetlands Phosphorus Capture and Recovery Panel Discussion	John Fraser, Carollo Engineers David Sedlak, UC Berkeley  Steve Wirtel, Ostara Fraser, Sedlak, Wirtel, Neethling, and Stinson	2nd Floor
2:25 - 2:50	Afternoon Break and Networking		
2:50 - 3:50	SEGMENT 4 - BAY-DELTA REGIONAL POTW NUTRIENT ACTIVITIES UPDATE  Moderator Jim Kelly, JMK Engineering Panel discussion format from local member agencies on current and planned studies and activities related to nutrient treatment	Mike Connor - East Bay Dischargers Authority Jim Ervin - SJ/SC Wastewater Treatment Plant Ben Horenstein - EBMUD Karen Kubick - SFPUC Wastewater Enterprise Prabhakar Somavarapu - SRCSD Curt Swanson - Central Contra Costa Sanitary District	2nd Floor
3:50 - 4:00	Closing Comments	Dave Williams, BACWA Executive Director	