

Student and Young Professionals of CWEA
Sacramento Chapter



CWEA

Advanced Primary and Secondary Treatment Systems Demonstration Plant Tour

Come learn about the advanced primary and secondary treatment
demonstrations at the Linda County Water District Wastewater
Treatment Plant.

Thursday, May 22, 2025

Event Details

Admission Fee*

Member: \$20

*Admission fees pay for food, beverage, and
venue cost of the mixer and presentation.

Non-Member: \$30

Please contact Teresa Lopez at teresa@robertson-bryan.com to request a student admission discount!

Tour Address

Linda County Water District
Wastewater Treatment Plant
909 Myrna Ave, Olivehurst, CA 95961

Mixer Venue Address

Urban Roots
1322 V St, Sacramento, CA 95818

Tour

Agenda

Advanced Primary and Secondary Demonstration Plant Tour

12:00 PM - 3:00 PM

Please wear long pants and closed-toe shoes.
Prepare for potential hot weather!

Social Networking Mixer and

Technical Presentation

4:00 PM - 6:00 PM

Caliskaner Water Technologies will be presenting the results of
the technology demonstration and evaluation project involving
several advanced primary and advanced secondary treatment
technologies, funded by the California Energy Commission.

Mixer

[Click here to sign up for the tour!](#)

Thank you to our sponsors!

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Demonstration of Advanced Primary and Secondary Treatment Technologies for Energy and Performance Benefits to Wastewater Treatment

This project executed by Caliskaner Water Technologies (CWT) includes the design, installation, demonstration, development and evaluation of advanced primary treatment (APT) and advanced secondary treatment (AST) technologies. The APT and AST technologies can achieve significant energy, capacity, cost and performance benefits at wastewater treatment plants (WWTPs) compared to conventional primary treatment (CPT) and conventional secondary treatment (CST) systems. Four APT technologies demonstrated include Cloth Disk Primary Filter, Proteus Primary Filter, Compressible Media Biofilter, MicroScreen and three AST technologies demonstrated include MicroVi, Aerobic Granular Sludge, and Membrane Aerated Biofilm Reactor. The project (EPC- 20-044) is funded by the California Energy Commission with a total budget of approximately \$6.7M and multiple partners including equipment manufacturers, utilities, subject matter experts, and academia. The project also documents the first application of combining full-scale APT and AST technologies in a holistic, integrated system that quantifies their complementary performance. Additional benefits of APT, AST, and combined APT and AST systems include increased treatment performance and increased treatment capacity and reductions in greenhouse gas emissions, energy consumption, and treatment footprint. Following benefits of APT and AST technologies were demonstrated and verified in this project:

For more information about CWT and completed/on-going projects:
<https://www.cwatertech.com>

- Footprint reduction of up to 70% for primary treatment
- Footprint reduction and capacity increase up to 20 % for secondary treatment
- Increase in removal efficiency of up to 60% in primary treatment
- Energy savings between 30% and 35% from APT and AST applications, respectively
- Energy savings of up to approximately 45% when APT and AST applications were used together

Dr. Onder Caliskaner

Dr. Onder Caliskaner has 30 years of experience in technology research and development, demonstration, project management, process engineering, planning, and design services to public agencies and private industries. His main engineering and research interests are: carbon diversion, primary filtration, advanced primary treatment, tertiary filtration, process modeling, optimization of treatment processes, water reuse, and advanced treatment. He has received several awards and has over 100 publications and presentations for technology projects focused on energy savings, intensification, decarbonization and performance increase at WWTPs.

Dr. Derya Dursun

Dr. Derya Dursun has over 20 years of experience as an environmental engineer. Her area of expertise spans from wastewater treatment to biosolids management. She is leading CWT's critical task of accelerating innovation of technologies and processes to increase treatment and energy performance while increasing capacity of the WWTPs. She is also a coauthor for WEF MOP and EPA Process Design Manual for Sludge Treatment and Disposal. She also serves for WEF - Residuals and Biosolids Committee.