

## Public Presentations: Creating and Delivering Effective Technical Presentations

### Description:

This will be a thorough and interactive workshop on anaerobic co-digestion at water resource recovery facilities (WRRFs). The workshop will progress through 3 sections: (1) Anaerobic Digestion Fundamentals, (2) Co-digestion feedstock selection and management, (3) Residuals management. Each section will begin with brief presentations from technical leaders specializing in anaerobic digestion and will conclude with a series of interactive activities in which workshop participants will break into teams to solve co-digestion challenges related to each section's theme. The two interactive challenges will be supported using pre-configured anaerobic digester models run by facilitators.

### Speakers:

**Chris Wilson**, HRSD

**Joerg Blischke**, Black & Veatch

**Christine Polo**, Carollo

**Manel Garrido**, UCI

**Vrunda Patel**, inCTRL

**Matthew Higgins**, Bucknell University

### Agenda:

TIME	TOPIC	INSTRUCTOR/AFFILIATION
13:00	Welcome	Chris Wilson, HRSD
13:10	<b>Section 1. Anaerobic digestion fundamentals</b> <ul style="list-style-type: none"> <li>▪ Fundamentals of co-digestion, challenges, opportunities, and lessons learned</li> <li>▪ State-of-the-art overview</li> <li>▪ State-of-the-practice overview</li> </ul>	Chris Wilson, HRSD Christine Polo, Carollo
13:40	<b>Interactive Session:</b> Polling/Quiz and Moderated Discussion using Mentimeter Software	Alex Rosenthal, inCTRL
14:00	Break	
14:15	<b>Section 2. Co-digestion feedstock selection and management</b> Pretreatment technologies, and the economics of feedstock procurement	Joerg Blischke, Black & Veatch
14:35	<b>Interactive Session:</b> Co-digestion blend optimization: Whole Group will select combinations of common feedstocks with predicted qualities and yields	Manel Garrido, UCI
15:10	<b>Case Study:</b> Biogas production optimization Strategies and approaches for biogas production optimization and risk mitigation, participants will learn load equalization strategies and operating guidelines for anaerobic digesters	Michael Hyatt, East Bay Municipal Utility District
15:30	Break	

<b>15:45</b>	<b>Section 3. Residuals management</b> Impacts of co-digestion on downstream WRRF processes	Matt Higgins, Bucknell University
<b>16:05</b>	<b>Interactive Session:</b> Feedstock combinations will be dynamically modelled simulating irregular delivery schedules while targeting an equalized load to maintain constant biogas production rate, The group will also evaluate the impact of co-digested sludge on downstream unit processes with a specific focus on solids management and centrate treatment.	Vrunda Patel, inCTRL
<b>16:50</b>	Wrap-Up	Alex Rosenthal, inCTRL Chris Wilson, HRSD
<b>17:00</b>	Conclude	