

WEDNESDAY NOVEMBER 16

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# Water & Wastewater

Welcome to Industry Day

Gary Wong | Global Industry Principal Water & Infrastructure

**AVEVA**

A photograph of three men in business attire smiling and talking at an expo booth. The man on the left is wearing a light blue shirt and glasses. The man in the middle is wearing a dark suit jacket over a blue shirt and glasses. The man on the right is wearing a blue shirt, a dark vest, and glasses. They are standing in front of a booth with a whiteboard and a laptop. The whiteboard has the title "PI System Calculation Engine" and a list of bullet points. The background shows other people and booth displays.

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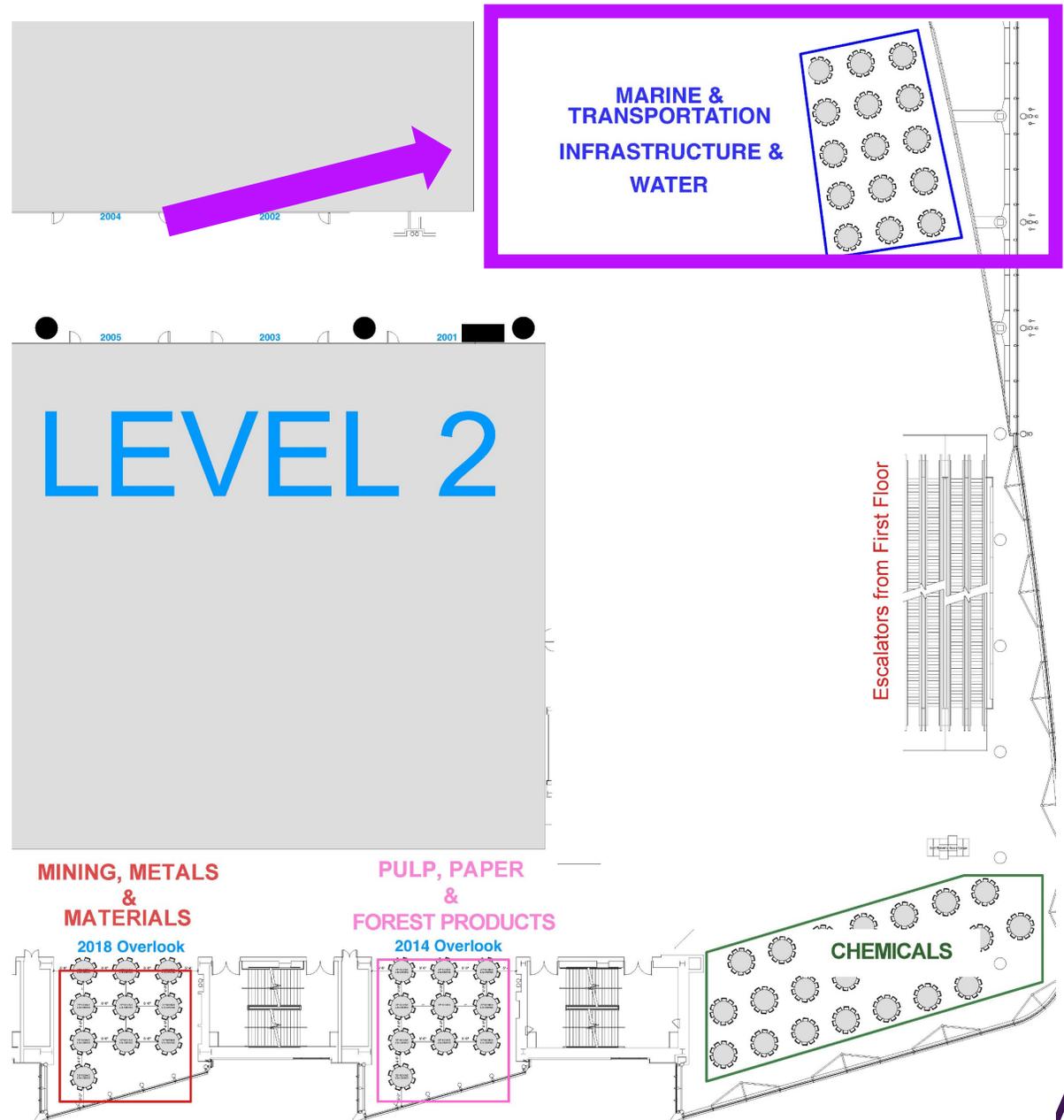
# JOIN US FOR OUR EXPO DINNER EVENT TONIGHT!

5:00 – 7:30 PM

Expo  
Dinner  
Reception

Industry  
Areas

Level 2



# The water energy challenge

For water utilities, energy is the **second-highest expense**, second only to labor costs

U.S. water-related energy use is **>521 million MWh a year** or 13% of the nation's electricity consumption

**48% of water withdrawals** in the United States are used for thermoelectric power production

**Emissions from electricity** were the largest contributor to water-related energy emissions in 98% of water and wastewater utilities

U.S. water utilities contribute **290 million** metric tonnes of CO2 annually, that's **~5%** of the nation's overall carbon emissions

On average every cubic meter of water consumed generates **23lb (10.6Kg)** of carbon emissions



# Five key issues for water and wastewater utilities



**Increasing complexity of service networks**  
 Achieving better emergency preparedness and faster responses to crises



**Budget constraints**  
 Doing more with less while maintaining critical services



**Labor disruption**  
 Attracting a new generation of workers as an aging workforce retires



**Aging infrastructure**  
 Extending asset life as costs to modernize increase



**Preparing for climate threats and natural disasters**  
 Meeting ESG targets with transparency and working toward sustainability

**IMPACT** ↑ ↓

## Five business imperatives for positive outcomes

**Operational agility and resiliency**  
 Enabling situational awareness to improve crisis response across city service lines

**A connected workforce**  
 Digitalizing workforces to enable remote operations and attract new talent

**Sustainability and a path to net zero emissions**  
 Reducing waste and optimize energy efficiency with operational data hubs

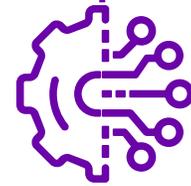


**Greater operational efficiency**  
 Reducing energy and operational costs through industrial information management

**Improved asset reliability and safety**  
 Extending asset life with real-time data and predictive analytics



## Digital initiatives to enable success



Increase asset health and performance

Enable full visibility and awareness

Build your industrial information infrastructure

# Sustainability impact study

## Join us on this journey

AVEVA and Capgemini are partnering with customers to validate the digital solutions sustainability impact on plant operations.

If your company is interested in a free evaluation of sustainability KPI improvements, go to the expo and **ask about the sustainability study**.

### Expo Booth

- Energy transition & circular economy
- Capgemini (Partner Expo)



### Use cases

- Accelerate low carbon transition with process simulation
- Process and utility optimization
- Increase reliability and efficiency with predictive analytics
- Reduce waste and energy consumption with information and production management

### Metrics

- GHG emissions
- Materials waste
- Energy consumption
- Water consumption

# Gwinnett County



10:55 – 11.20

- Gwinnett County's unified platform to improve performance and optimize water production
  - Realize sustainability goals and minimize risk to people, assets and operations while producing more than 70 million gallons of water a day for more than a million residents
  - Make smarter, more informed decisions and speed crisis response



**Sam Paul**

Section Manager | Process Automation /  
SCADA Systems & Projects  
Gwinnett County Department of Water  
Resources



**Robert Touchton**

Chief Technology Officer  
MR Systems

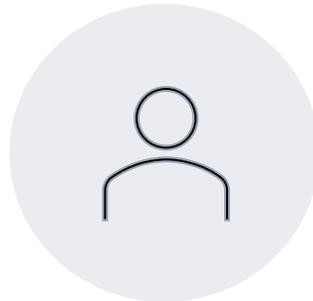


# San Jose Water



11:30 – 11:55

- Pump Optimization: San Jose Water's AVEVA PI System implementation
  - With approximately 80% of the annual energy spend attributed to its pump stations, San Jose Water needed to improve both their cost to production ratio and overall pump efficiency
  - To improve efficiency, better manage assets and empower system operators with trusted, timely data



**Blake Chetcuti**  
Operations Supervisor  
San Jose Water



**Ethan Smith**  
Junior Engineer, Capital Planning  
San Jose Water Co



# South Platte Renew

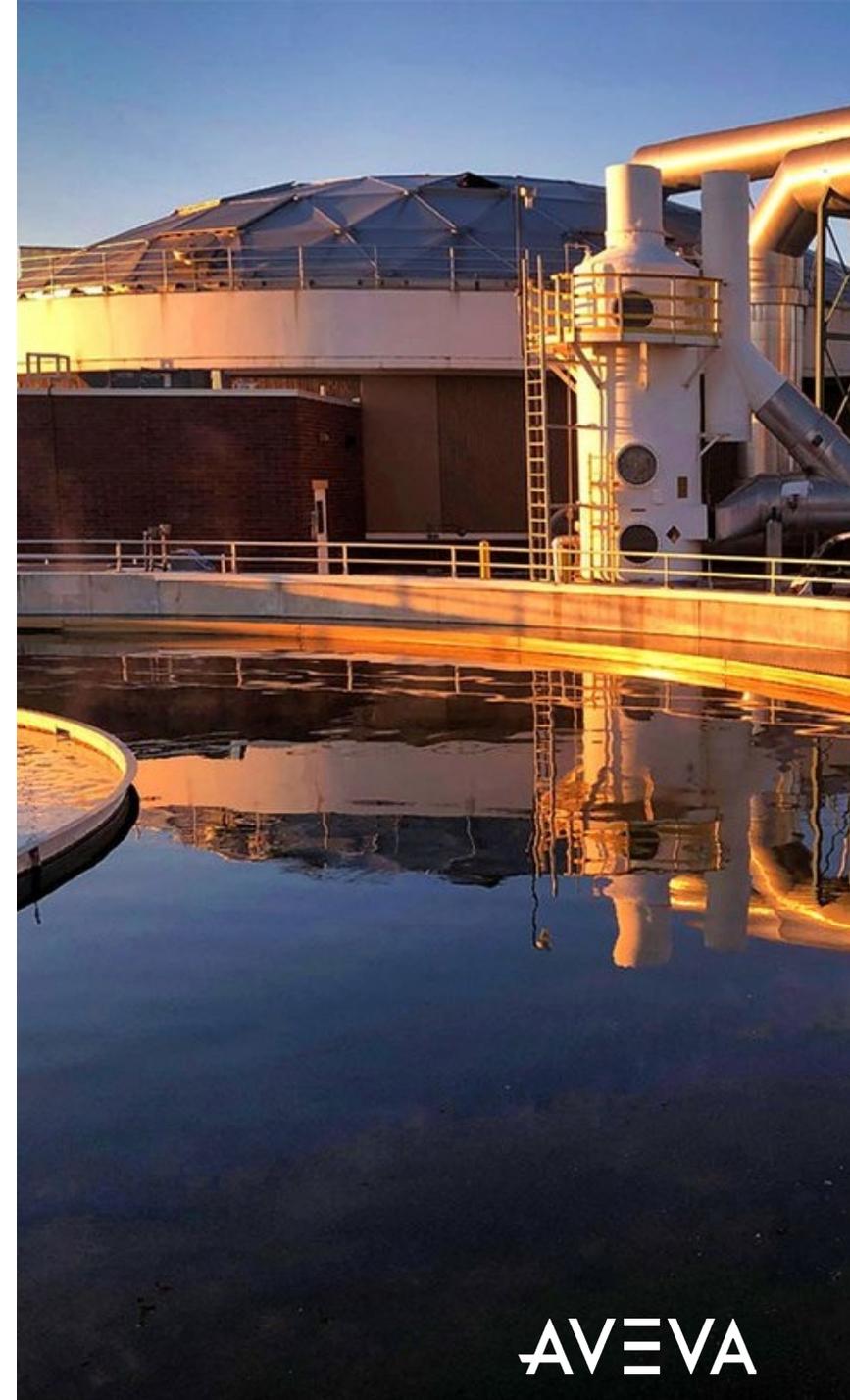
12.05 – 12.30

- South Platte Renew's Advanced Predictive Model vs. Finely Tuned ABAC
  - To meet increasingly stringent regulations on nutrient removal and address increasing influent ammonia concentrations without impacting the treatment of approximately 18 million gallons per day
  - Gain trust of South Platte Renew operations staff for long-term use of advanced process control and achieve stable, year-round partial nitrification performance in the solids contact tanks



**Anna Schroeder**

Engineering Supervisor  
South Platte Renew



# Chelan County PUD

14:00 – 14:25



- Water Rights Monitoring and River Modeling at Chelan County PUD
  - To digitize river elevation models and compare with sensor data to monitor boat launches, beach access, and recreational facilities that we maintain along the Columbia River.
  - Combined with our LIDAR bathymetric survey, digital river modeling also has operational impacts by improving near-term inflow estimates.



**Shaun Harrington**

Data Analyst  
Chelan County PUD



**Peter Vanney**

Sr. Data Analyst  
Chelan County PUD



# Cape May County MUA

14:35 – 15:00

- Cape May County's SCADA Upgrade Case Study - leveraging IT commercial and AVEVA Ecosystem strengths
  - To modernize and standardize the process control and data collection systems across four plants and two departments, for both wastewater and solid waste
  - To remove the constraint of limited tribal knowledge of the long-standing technologies, and allow a new basis to innovate in the future



**Rob Winder**

Operations Coordinator  
Cape May County Municipal Utilities  
Authority



**Matt Ruth**

President  
Avanceon

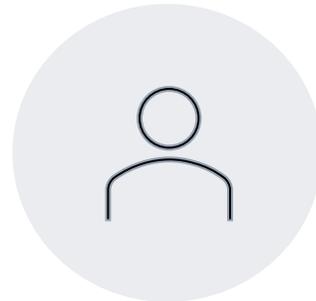
Rob Winder, Matt Ruth Avanceon



# Birmingham Water Works Board

15:10 – 15:35

- Birmingham Water Works Board's Journey to OT-IT-ET Convergence
  - Breakdown organizational silos between IT and OT departments to enable an open and mutually beneficial relationship
  - Address identified security vulnerability and replace outdated and homegrown proprietary apps with commercial off the shelf technology



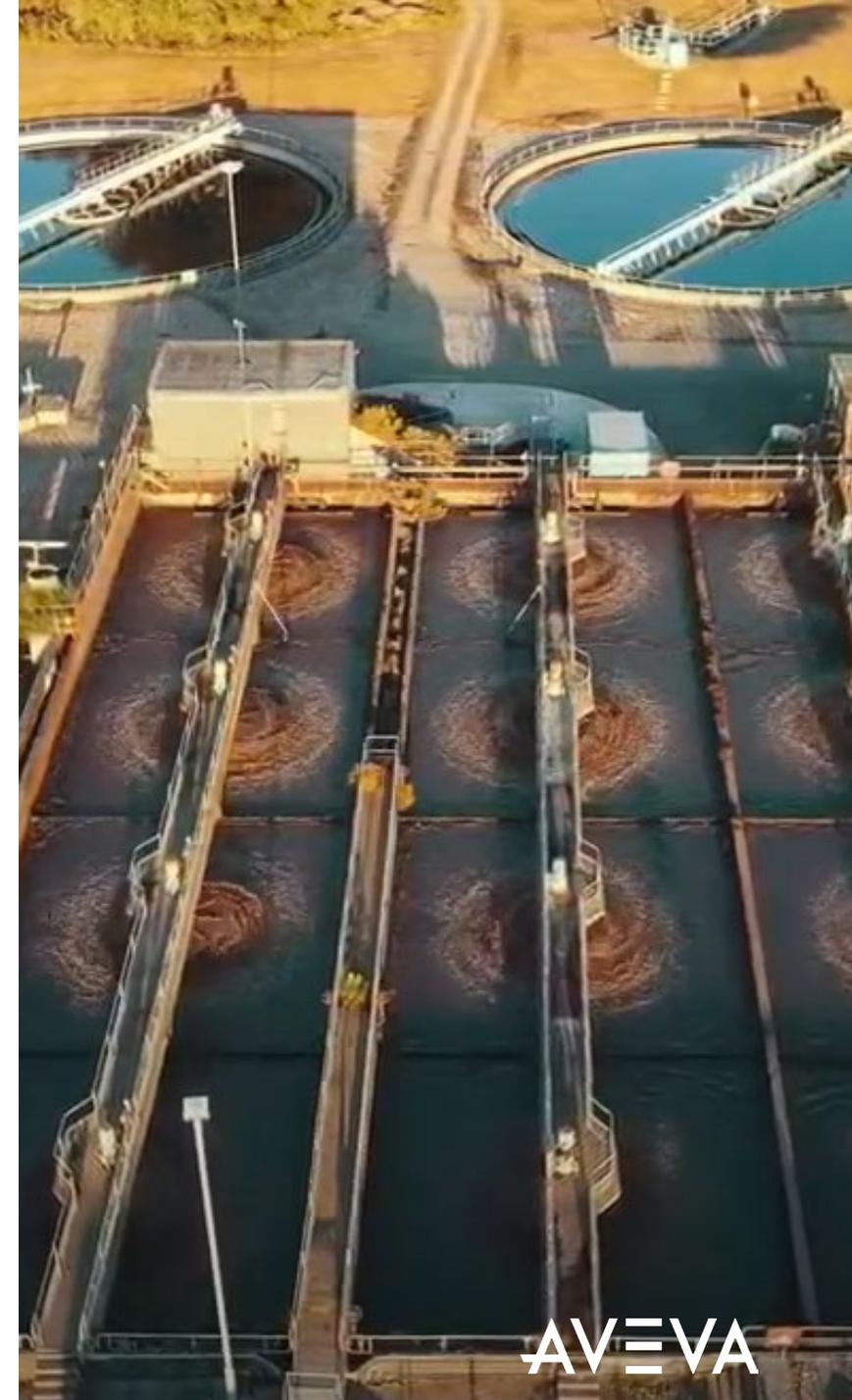
**Trey Finch**

SCADA Analyst  
Birmingham Water Works Board



**Dean Ford**

Managing Principle Engineer  
Luminary Automation, Cybersecurity,  
and Engineering



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# Customer Panel

16:00 – 17:00



**Devin Doring**

Technical Services Supervisor  
City of Salem



**Jan Kooy**

Director, Engineering  
California Water Service



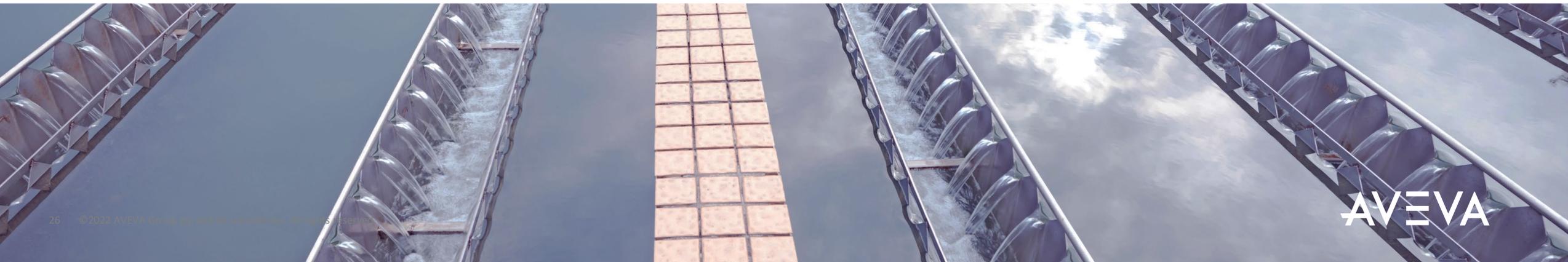
**Alain Dedieu**

Water & Wastewater Segment President  
Schneider Electric



**Gary Wong**

Industry Principal, Water & Infrastructure  
AVEVA



# Questions?

Please wait for the microphone.  
State your name and company.



# Please remember to...

Navigate to this session in the mobile app to complete the survey.



# Thank you!