

# Enabling Sustainable Solutions with AVEVA Data Hub

Michael Cates

Anne Emberson

November 16, 2022

**ECOLAB** | **NALCO** Water





Our purpose is to:

Partner to make the world cleaner, safer and healthier – helping customers succeed while **protecting people and the resources vital to life.**

The value we deliver is:

Enabling the best outcomes for **people, planet and business health** at the highest return.

**PEOPLE HEALTH:**

Help people thrive by protecting their individual health, the food they eat and the space where they live and work.



**PLANET HEALTH:**

Help the planet thrive by protecting the earth's climate and its most valuable resource: water.



**BUSINESS HEALTH:**

Help businesses thrive by protecting their reputation and their bottom line.

We make a difference when we positively impact what's vital:



Water



Food



Health



Climate





# ECOLAB® Delivering Value Across Industries

SERVING 90K+ INDUSTRIAL CUSTOMERS ACROSS 170+ COUNTRIES WITH DIGITALLY-ENABLED, END-TO-END WATER MANAGEMENT & HYGIENE SOLUTIONS

DOWNSTREAM



CHEMICAL



MINING



POWER



PRIMARY METALS



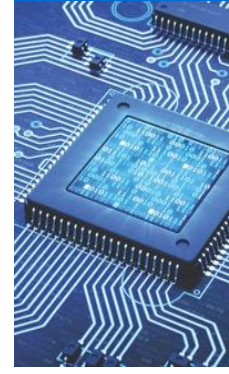
FOOD & BEVERAGE



LIGHT INDUSTRIES



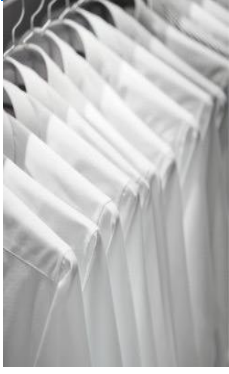
HIGH TECH



PULP & PAPER



TEXTILE CARE



ON-SITE EXPERTISE + CONNECTED CHEMISTRY + DIGITAL TECHNOLOGY + PREDICTIVE ANALYTICS

MAXIMIZE OUTCOMES | MINIMIZE IMPACT | OPTIMIZE COST

HIGHEST RETURN **eROI**<sup>SM</sup>  
by Ecolab

# Understanding True Cost of Water

**Water is often far more expensive than your municipal water bill suggests, due to costs associated with:**

INCOMING WATER RISKS:	The impacts of water use on human health and ecosystems and the future costs of incoming water treatment
OUTGOING WATER RISKS:	The impacts of outgoing water pollution on human health and ecosystems, regulatory restrictions, and the future costs of wastewater treatment
OPERATIONAL COSTS:	The energy required to pump, cool, heat, treat, filter and move water to meet operational needs
POTENTIAL REVENUE RISKS:	The impacts of water use versus availability, based on water required to do business
ENTERPRISE RISKS:	Facility risks regarding projected business growth and location-specific water stress, plus impact to brand reputation

## VISIBLE COSTS

Water Bill

Sewer Bill

## HIDDEN COSTS

**Operational:** Regulatory Risk

Related Energy Costs

Effluent Water Quality

Labor Costs

Operational disruption

**Strategic:** Reputational Risk

# Customer data ingestion made easy with AVEVA



## Challenge

Disparate systems create lag in real-time monitoring, analytics capabilities and alarming. Industrial customers need the ability to see critical data within the control room to make faster decisions.



## Solution

Leveraged the latest AVEVA PI Cloud Connect technology to integrate process data with valuable Ecolab3D™ insights to improve collaboration and increase speed to decisions.



## Benefit

Eliminated equipment failure, reduced downtime and improved operational efficiency by increasing asset performance through quick identification of process upsets resulting in significant \$\$ savings.



# Customer Solutions Powered by ECOLAB3D™

Bringing together multiple sources of data provides a more comprehensive picture of asset health.

**CUSTOMER  
AUTOMATION**



- System Optimization
- Re-use, Re-cycle
- System Assurance



**PERFORMANCE  
CONTROL**



**RISK  
MANAGEMENT**



**VALUE  
MONITORING**



Powered by ECOLAB3D™

# CASE IN POINT: Pinpoint Root Cause of Issues

## DATA VISUALIZATION



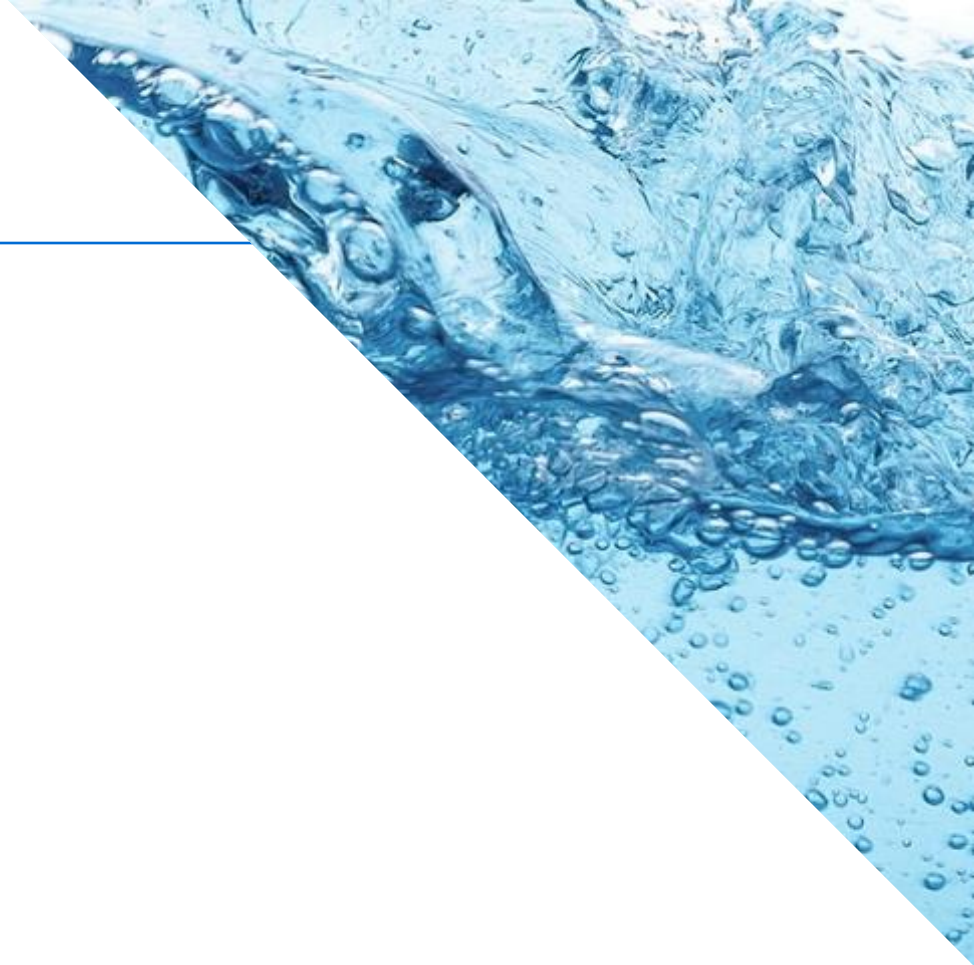
➔ **Data Visualization** enables users to trend and analyze multiple key performance indicators and benchmark performance across sites and assets.



## Powered by ECOLAB3D™

- **Insight:** Excessive boiler blowdowns resulting in water loss
- **Action:** Use Data Visualization charts to identify the root cause: chemical surges result in boiler conductivity spikes, triggering failsafe alarms. Take action to regulate boiler feedwater consistency.
- **Impact:** Save 245K gallons of water and \$2,640 in energy annually





---

**Sustainability is core to  
our purpose to make the  
world cleaner, safer and  
healthier - protecting  
people and vital resources.**

---

Visit us online at [ecolab3D.com](https://ecolab3D.com)

November 2022

**ECOLAB®** | **NALCO** Water





# Michael Cates

## AVP Digital Corporate Accounts

- Nalco Water an Ecolab Company
- [michael.cates@ecolab.com](mailto:michael.cates@ecolab.com)



# Anne Emberson

## Area Vice President Digital

- Nalco Water an Ecolab Company
- [anne.emberson@ecolab.com](mailto:anne.emberson@ecolab.com)