

The Digital Worker: Workforce Implications of Digital Tools

- 8:30 – 8:40 **Introduction** - Catherine Curtis, Chair of BAYWORK,
Present the purpose, format, and desired outcomes of the workshop.
- 8:40 – 9:30 **Panel 1 - Overview of Available Digital Tools and Their Workforce Implications**

Sharon Peters from EMA will provide an overview of different types of digital tools available to utilities (e.g., to support operations, asset management, and customer service).

Cheryl Davis, past BAYWORK Chair, will discuss workforce issues to consider in selecting and implementing digital tools (e.g., digital sophistication and attitude).

Jeff Oxenford, from the Rural Community Partnership, will present the findings of a Water Research Foundation report on Building Workforce Skills for Future Intelligent Water Operations.
- 9:30 – 9:45 Small Group Discussions
- 9:45 – 10:00 Report Out on Small Group Discussions
- 10:00 – 10:30 Coffee Break
- 10:30 – 11:30 **Panel 2 - Lessons Learned on Workforce Implications of Digital Tools (small and medium-size utilities)**

Lessons learned in implementation of digital systems will be discussed by **Ting Lu and Mark Poling** of Clean Water Services, **Curt Rayer** of San Jose Water, and **Steve Miksis** from Ross Valley Sanitation Services. Presentations will cover a wide range of different types of systems, including monitoring and control of water distribution systems, water treatment, and wastewater collection, and the use of augmented, mixed, and virtual reality tools.
- 11:30 – 11:45 Small Group Discussions
- 11:45 – 12:00 Report Out on Small Group Discussions
- 12:00 – 1:30 Lunch
- 1:30 – 2:30 **Panel 3 - Lessons Learned on Workforce Implications of Digital Tools (large utilities and national perspective)**

Heather Pohl from the San Francisco Public Utilities Commission (Water Enterprise) will discuss how lessons learned from implementation of an automated meter reading infrastructure system are being applied to selection and implementation of new digital tools.

Ted Lam from East Bay Municipal Utilities District will discuss the operations and maintenance challenges associated with implementation of new tools (e.g., maintenance and operations of parallel systems).

Cindy Goodburn from Cindy Goodburn Consulting will discuss (1) on-site development of customized systems, (2) the need for collaboration between operations and information technology staff and (3) the need to expand the training offered by community colleges and unions to include the digital skills needed by skilled trades workers.

2:30 – 2:45 Small Group Discussions

2:45 – 3:00 Report Out on Small Group Discussions

3:00 – 3:30 Coffee Break

3:30 – 4:00 **Panel 4 - Workforce Support Options by Utilities (In-house, Regional, and Consulting Support)**

Desmond Barca from the San Francisco Public Utilities Commission (Wastewater Enterprise) will discuss real-time control and predictive tools, upgraded distribution control systems, improved human-machine interfaces, and in-house development of training programs to prepare staff to use new tools.

Robert Scott from Santa Clara Valley Water District (and Vice-Chair of BAYWORK) will describe (1) BAYWORK's research findings relating to workforce implications of digital tools and (2) BAYWORK's plans for supporting Bay Area water-wastewater utilities in the areas of staff preparedness (skills of current staff), candidate development (skills of future staff), and corporate culture (staff openness to new approaches).

Cristina Ahmadpour from Isle, Inc. will describe support that can be provided by consultants to assist utilities in effective use of digital tools.

4:30 – 4:45 Small Group Discussions

4:45 – 5:00 Whole Group Discussion and Wrap Up