8TH ANNUAL CA WATER DATA SUMMIT

INTELLIGENT QUESTIONING (IQ)
SHARING WATER WISDOM

CATHY GREEN
BOARD VICE PRESIDENT,
ORANGE COUNTY WATER DISTRICT
BOARD VICE PRESIDENT,
ASSOCIATION OF CALIFORNIA WATER AGENCIES

STANFORD UNIVERSITY | PALO ALTO, CA
#CAWaterDataSummit #IntelligentQuestioning
DAY TWO
1:15PM - 2:15PM

EMBRACING THE DATA REVOLUTION TO CREATE WATER WORKFORCE OPPORTUNITIES

Katie Evans
Senior Communications Strategist, Woodard & Curran

Patrick Atwater
Senior Research Analyst, California Forward

Adrian Hightower
Sustainability and Resilience Manager, Metropolitan Water District of Southern California

Dr. Jeannie G. Kim
President, Santiago Canyon College
Metropolitan Water District of Southern California

- Water Wholesaler
- 26 Members Agencies
- 5,200 square miles
- 19 million people
- $1 trillion regional economy
- 4 million acre-foot average water demand
Modern Workforce Landscape

- Mental and Physical Wellness (Covid)
- Mobile/Hybrid/Remote Work Schedules
- Silver Tsunami
- The Great Resignation/Renegotiation
- Higher Staff Turnover
- New Technologies to Improve Workflow
- Tighter Budgets

- Demographic Shifts
- Sustainable & Environmental Priorities
- Less Emphasis on Higher Education
- Updating Workplace Benefits
- Diversity to Improve Hiring and Retention
- Expectations of Transparency
- Data Driven “SMART” Decision Making
Modern Workforce Landscape Challenges

**Top Means of Advancing Digital Capabilities**

*Average Percentage Who Selected It Among Top Three for the Seven Types of Digital Capabilities Measured*

- **More Internal Staff Skills**: 51%
- **Better Understanding of Value by Internal Staff**: 44%
- **Better Understanding of Value by Senior Leadership**: 34%
- **Better Technology**: 29%
- **More Quantified Industry Data About Best Practices**: 23%
- **More Quantified Industry Data About Benefits and ROI**: 21%
- **External Companies With More Capability**: 14%
- **Better Support From Technology Vendors**: 13%

Modern Workforce Landscape Challenges

### Significant Organizational Challenges That Prevent Water Utilities From Meeting Digital Priorities

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Moderate Significance</th>
<th>High/Very High Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance to Change</td>
<td>29%</td>
<td>41%</td>
</tr>
<tr>
<td>Not Understanding Digital Trends (where to invest)</td>
<td>37%</td>
<td>29%</td>
</tr>
<tr>
<td>Lack of Internal Alignment on Digital Goals</td>
<td>29%</td>
<td>35%</td>
</tr>
<tr>
<td>Organizational Structure Impedes Digital Goals</td>
<td>25%</td>
<td>37%</td>
</tr>
<tr>
<td>Limited Senior Management Support</td>
<td>31%</td>
<td>18%</td>
</tr>
</tbody>
</table>

## Modern Workforce Landscape Challenges

<table>
<thead>
<tr>
<th>WHITE-COLLAR JOBS</th>
<th>BLUE-COLLAR JOBS</th>
<th>NEW-COLLAR JOBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typically involve performing job duties in an office setting</td>
<td>Typically perform labor jobs and/or work with their hands</td>
<td>Typically involve more technical or hands-on work, but are not limited to a particular setting</td>
</tr>
<tr>
<td>Generally require formal education, most often a bachelor's degree</td>
<td>Formal education not typically required, although vocational/certification courses may be required for some higher-skilled blue-collar jobs</td>
<td>May not require a traditional college degree, but do require considerable skills/talent, either learned or self-taught</td>
</tr>
<tr>
<td>Have a starting wage that is considered generally high, often paid on a salary basis</td>
<td>Starting wage is considered generally low, particularly in low- or no-skill jobs, often paid on an hourly basis</td>
<td>Starting wage is often much higher than many jobs available to workers with only a high school diploma</td>
</tr>
</tbody>
</table>

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G&A Partners

Time to grow.
Metropolitan's Water Cybersecurity Internship Program

Paid Internship Opportunity Available!
A newly designed internship program offers hands on learning to high school students within the Metropolitan service area. They will learn valuable professional skills in preparation for the workforce and will be introduced to the fundamentals in cybersecurity. A limited number of internships are available, so please contact Tomorrow’s Talent to receive more information.

Program Benefits

- 60 hours of paid internship experience with experts in the field of water resources and cybersecurity including:
  - Hands-on learning at the Pure Water Southern California facility in Carson.
  - Introduction to cybersecurity fundamentals including risk assessment, cyber defense and information security.
  - Extensive soft skills training from Tomorrow’s Talent that include mock interviews, stress management workshops, and resume building.

For more information, please contact Zachary Hill, Tomorrow’s Talent Chief of Staff, at zach@tomorrowstalent.org

- Two high schools near Pure Water So. Cal.
- 90 students engaged in Cyber/IT classes
- 8 students selected for internships with Metropolitan and West Basin MWD
- Each intern received 60 hours of training
- 100% completion rate
A Road to Data Science Workforce Development Programs

Fills a Need in an Emerging Field

Multiple Benefits (Innovation & Inclusion)

Leverages Novel Partnerships

Develops Career Pathways

Can start in High School

The Metropolitan Water District of Southern California

Cybersecurity Internship Program

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About Metropolitan
The Metropolitan Water District of Southern California is a state-established, special district of 21 member agencies – cities and districts covering a 3,400 square mile area. Metropolitan is a leader in providing high-quality drinking water, delivering water-reliant flood control and water conservation programs, and enhancing regional water resources and environment.
Literacy Framing for Modern Workforce Opportunities

- Technological Literacy
  - Digital Tools
- Environmental Literacy
  - Climate & Systems
- Cultural Literacy
  - Diversity, Equity & Inclusion

- Career Technical Education
- Accessibility
- Environmental Justice
Questions?

Adrian Hightower, Ph.D., P.E., ENV-SP
Sustainability and Resilience Manager
Metropolitan Water District of Southern California
ahightower@mwdh2o.com
Santiago Canyon College

2023 STATE/NATIONAL RANKINGS

• #7 in CA – Best Colleges.com
• #11 in CA – Intelligent.com
• #15 in CA – Niche.com
• #47 in U.S. – Niche.com
### Headcount

**Fall 2021**
- Non-Credit: 4,799
- Credit: 11,372
- Credit Part-Time: 9,107
- Credit Full-Time: 2,265
- Total: 15,885

**Spring 2022**
- Non-Credit: 4,918
- Credit: 10,668
- Credit Part-Time: 8,936
- Credit Full-Time: 1,732
- Total: 15,297

### FTES

**2020-2021**
- Non-Credit: 2,365
- Credit: 5,966
- Total: 8,331

**2021-2022**
- Non-Credit: 2,586
- Credit: 5,682
- Total: 8,268

Source: RSCCD Research Data Warehouse and RSCCD 2021-2022 P3 Apportionment

### Awards

**2021-2022**
- Associate Degrees: 898
- Associate Degrees for Transfer: 592
- Certificates - Credit: 1,143
- Certificates - Non-Credit CDCP: 808
- Adult High School Diplomas: 64

Total Awards: 3,505

Source: RSCCD Research Data Warehouse
**Transfers to Four-Year Institutions**

<table>
<thead>
<tr>
<th></th>
<th>2020-2021</th>
<th>2021-2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>California State University</td>
<td>832</td>
<td>695</td>
</tr>
<tr>
<td>University of California</td>
<td>187</td>
<td>210</td>
</tr>
<tr>
<td>Private/Out-of-State</td>
<td>528</td>
<td>524</td>
</tr>
<tr>
<td><strong>Total Transfers:</strong></td>
<td>1,547</td>
<td>1,429</td>
</tr>
</tbody>
</table>

**Student Ethnicity**

- 2.1% Black or African-American
- 9.7% Asian, Native Hawaiian or other Pacific Islander
- 55.4% Hispanic/Latino
- 0.3% American Indian or Alaska Native
- 23.9% White
- 3.1% Two or More Races
- 5.4% Other/Unreported

Source: RSCCD Research Data Warehouse

**Price Per Course Unit**

- California Resident: $46
- Non-Resident: $317

**Percent of Credit Instruction Taught By:**

- Part-Time Faculty: 44%
- Full-Time Faculty: 56%

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(714) 628-4930

Connect with us!  
www.facebook.com/SantiagoCanyonCollege  
www.twitter.com/SantiagoCanyon  
www.sccollege.edu
Bachelor of Science in Digital Infrastructure & Location Science
Building from our Associate of Science in Land Surveying

Submitted 9/5/2023
Programs

- Wastewater/Environmental Sanitation, AS
- Wastewater/Environmental Sanitation, CA
- Wastewater Treatment, CERT
- Water Conservation, CERT
- Water Distribution, AS
- Water Distribution, CA
- Water Distribution, CERT
- Water Equipment Operation and Maintenance, CERT
- Water Treatment, AS
- Water Treatment, CA
- Water Treatment, CERT
- Water Utility Management, CERT