

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

MODERATOR



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

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INTELLIGENT QUESTIONING (IQ)
SHARING WATER WISDOM
SEPTEMBER 7&8, 2023



STANFORD UNIVERSITY | PALO ALTO, CA
CaWaterDataSummit.org

[#CAWaterDataSummit](#) [#IntelligentQuestioning](#)



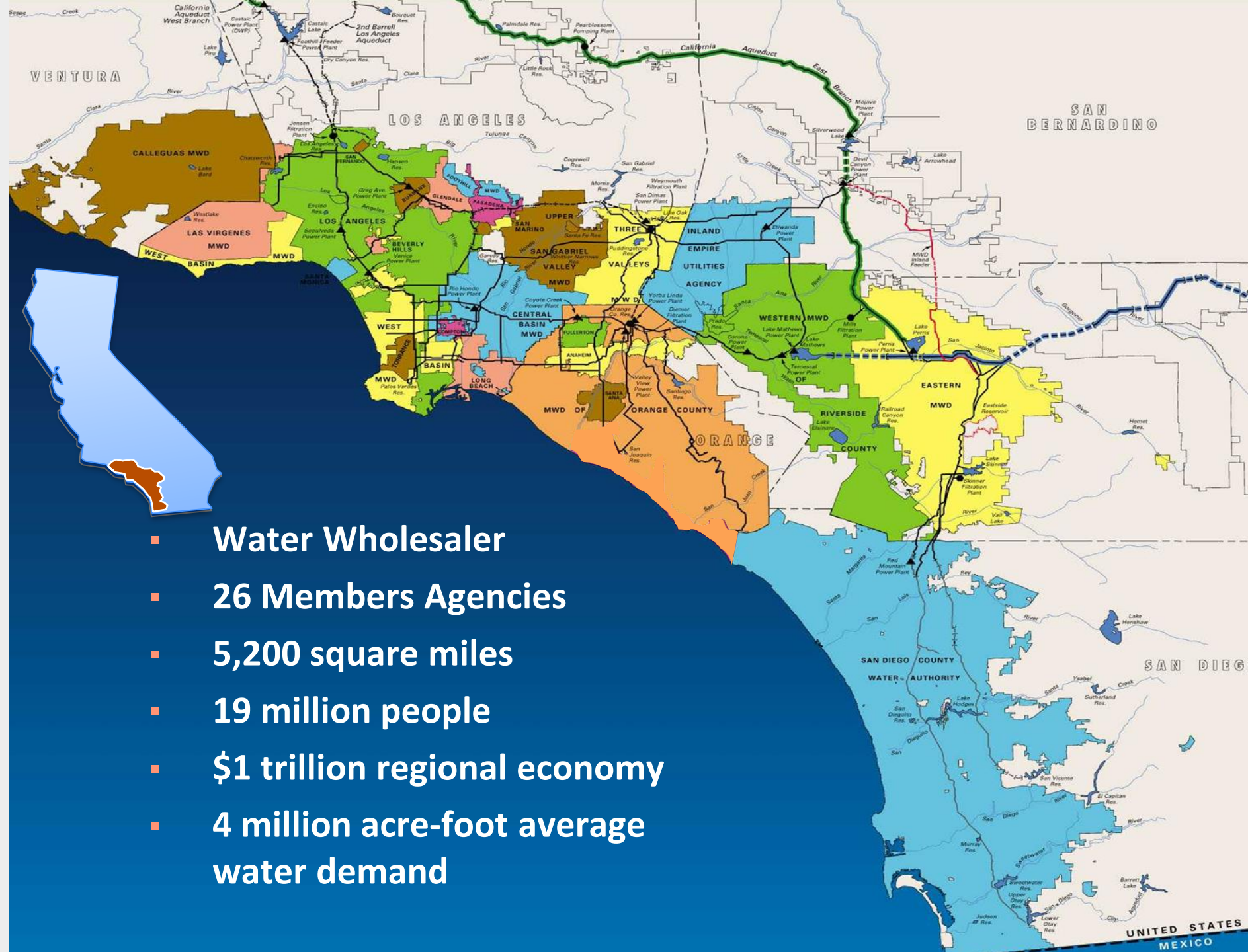
California Water Data Summit

Embracing the Data Revolution to Create Water Workforce Opportunities

September 8th, 2023

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



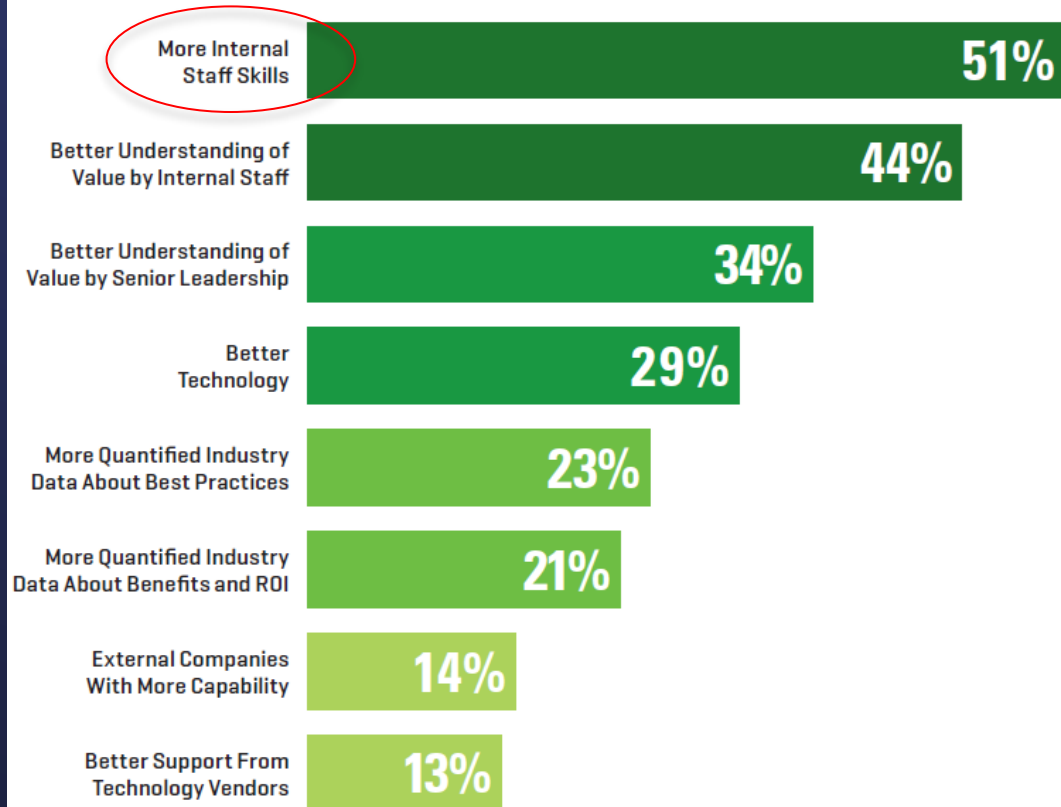
Modern Workforce **Landscape**

- 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

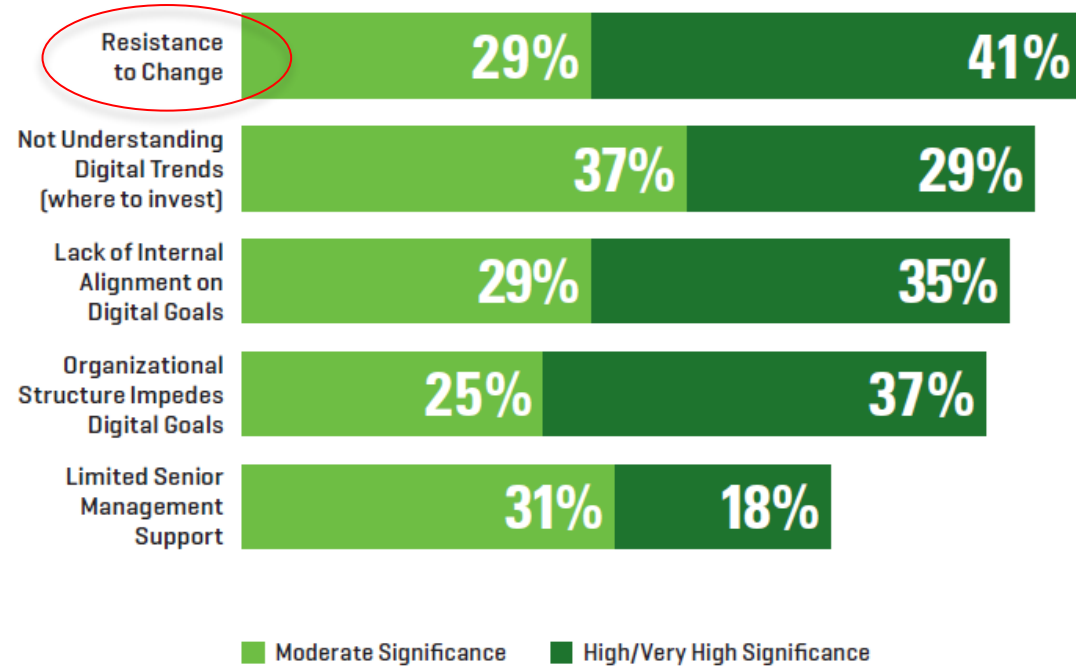
Average Percentage Who Selected it Among Top Three for the Seven Types of Digital Capabilities Measured



Ref: <https://www.construction.com/toolkit/reports/Digital-Capabilities-of-US-Water-Utilities>

Modern Workforce Landscape Challenges

Significant Organizational Challenges That Prevent Water Utilities From Meeting Digital Priorities



Bentley
Advancing Infrastructure
PREMIER PARTNER

SmartMarket Brief

DODGE DATA & ANALYTICS

Digital Capabilities of US Water Utilities

RESEARCH PARTNERS: American Water Works Association, NACWA, WaterWorld, Water Environment Federation

Ref: <https://www.construction.com/toolkit/reports/Digital-Capabilities-of-US-Water-Utilities>

Modern Workforce Landscape Challenges



WHITE-COLLAR JOBS

Typically involve performing job duties in an office setting

Generally require formal education, most often a bachelor's degree

Have a starting wage that is considered generally high, often paid on a salary basis



BLUE-COLLAR JOBS

Typically perform labor jobs and/or work with their hands

Formal education not typically required, although vocational/certification courses may be required for some higher-skilled blue-collar jobs

Starting wage is considered generally low, particularly in low- or no-skill jobs, often paid on an hourly basis

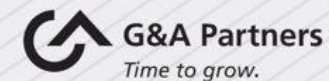


NEW-COLLAR JOBS

Typically involve more technical or hands-on work, but are not limited to a particular setting

May not require a traditional college degree, but do require considerable skills/talent, either learned or self taught

Starting wage is often much higher than many jobs available to workers with only a high school diploma



Metropolitan's Water Cybersecurity Internship Program



The Metropolitan Water District
of Southern California

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.

About Metropolitan

The Metropolitan Water District of Southern California is a state-established cooperative of 26 member agencies – cities and public water agencies – that serve 19 million people in six counties. Metropolitan imports water from the Colorado River and Northern California to supplement local supplies and helps its members develop increased water conservation, recycling, storage and other resource management programs.

BE INFORMED
BE INVOLVED

www.mwdh2o.com



@mwdh2o

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



The Metropolitan Water District
of Southern California

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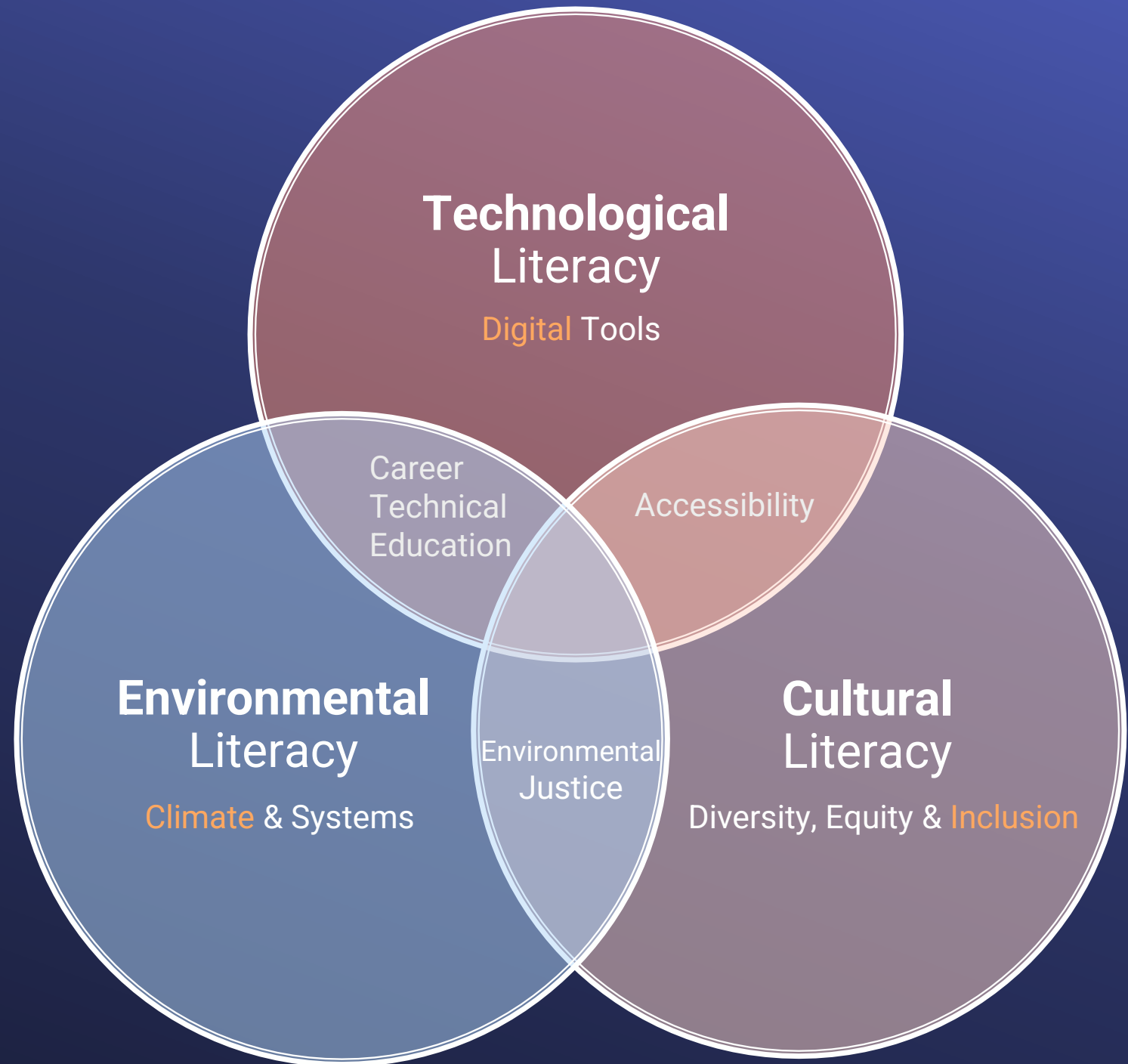
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For more information,
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Tomorrow's Talent
Chief of Staff, at
zach@tomorrowstalent.org



- Fills a Need in an Emerging Field
- Multiple Benefits (Innovation & Inclusion)
- Leverages Novel Partnerships
- Develops Career Pathways
- Can start in High School

Literacy Framing for Modern Workforce Opportunities





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**

What happens here matters.



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



FAST FACTS

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

	2020-2021	2021-2022
California State University	832	695
University of California	187	210
Private/Out-of-State	528	524
TOTAL TRANSFERS:	1,547	1,429

STUDENT ETHNICITY

2021-2022



- 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:



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Esther Odegard, Assistant to the President
Odegard_esther@sccollege.edu
(714) 628-4930

Connect with us!
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www.twitter.com/SantiagoCanyon
www.sccollege.edu



CALIFORNIA COMMUNITY COLLEGES
BACHELOR'S
DEGREE PROGRAMS



**Santiago
Canyon
College**

What happens here matters.

**Bachelor of Science in Digital Infrastructure & Location Science
Building from our Associate of Science in Land Surveying**

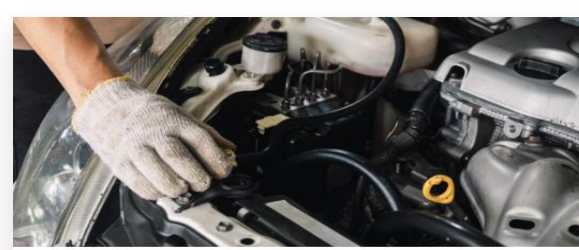
Submitted 9/5/2023



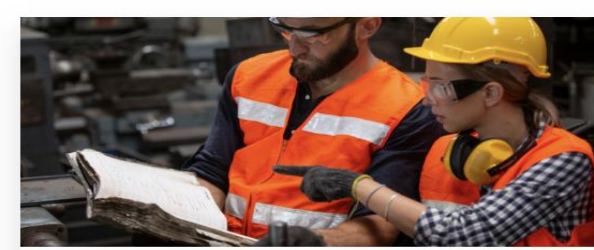
Carpentry



Electrician



Maintenance Mechanic



Operating Engineers

SANTIAGO CANYON COLLEGE APPRENTICESHIPS



Power Lineman



Surveying



**Carpentry – Acoustical Tile,
Drywall/Lather, Drywall
Finisher, Plastering**



**Carpentry – Concrete, Finish
Carpentry, Framing, Tilt-up**



Carpentry – Millwright



Carpentry – Pile Driver



[Academics](#) > [Areas of Study](#) > [Water and Wastewater Technology](#)

[Water and Wastewater Technology Menu](#) 

Water and Wastewater Technology

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