

Advisory Meeting Agenda & Minutes Fall 2022

Water Supply Technology Advisory Committee Meeting

Agenda

Please review the following agenda before our meeting on December 16, 2022.

Water Supply Technology Advisory Committee Meeting	
Date: December 16, 2022	Time: 1:00 p.m. to 3:00 p.m. Location: https://cccconfer.zoom.us/j/96823409797 Password: 737976
Facilitator: Melita Caldwell-Betties	Attendees: Zoom Participant/Registrant Listing
Beginning/Ending Time	Activity
1:00–1:05 p.m.	Welcome and Introductions
1:05–1:10 p.m.	Review of May 21, 2021 Meeting Minutes
1:10–1:40 p.m.	Discussion Topic: Status of the Water Supply Technology (WST) Program Discussion Topic: Program Evaluation
	1) Enrollment Trends 2) Curriculum Design <ul style="list-style-type: none"> a. Water Supply Technology Associate of Science Degree b. Water Supply Technology Certificate of Achievement 3) Stackable Certificates <ul style="list-style-type: none"> a. Basic Waterworks Certificate of Completion b. Wastewater Technology Certificate of Completion c. Water Use Specialist Certificate of Completion
1:40–2:25 p.m.	Discussion Topic: Industry Trends-Water Puts America to Work
	1) Baccalaureate Degree Potential <ul style="list-style-type: none"> a. Steering Committee Establishment b. Succession Planning <ul style="list-style-type: none"> i. Workforce Needs ii. Baccalaureate Hiring Potential c. Curriculum Alignment <ul style="list-style-type: none"> i. Employment and Job Placement ii. Program Entrance Requirements iii. Competency-Based testing iv. Public Administration (Shared Governance) v. Emphasis in Water Resource Management Career Pathway <ul style="list-style-type: none"> 1. Advanced Writing 2. Statistics 3. Public Policy 4. Water Law 5. GIS 6. Cybersecurity 7. Technical Issues and Regulatory Compliance 2) Teaching Resources
2:25–2:35 p.m.	Discussion Topic: Program Support Needs
	1) Curriculum Redesign: Letters of Support 2) Guest Lecturer Series 3) Virtual Internships /Job Shadowing/Mentorships 4) In Kind Contribution: Facilities/Time/Resources
2:35–2:50 p.m.	Open Forum: Question & Answer

<p>2:50–2:55 p.m.</p>	<p>Action Items/Assignments</p> <ol style="list-style-type: none"> 1) Educational Summit Planning 2) Paid Internships 3) Water Resource Career Pathways (Utility and Maintenance Management) 4) GIS Non-Credit Certificate 5) Investigate GIS/CAD Applications Workforce Demand Needs 6) Competency-based equivalency: Returning veterans 7) Millennial/Gen X: How to message opportunities to this target population? 8) Emerging Technologies (Automation & Instrumentation) 9) Carryover Item: Automation and Cybersecurity curriculum additions to program awards 10) Carryover Item: Professional Development Opportunities-(externships) 11)
<p>2:55–3:00 p.m.</p>	<p>Upcoming Meetings:</p> <ol style="list-style-type: none"> 1) WST Advisory Meeting Spring 2023-May 12, 2023 (Tentative) 2) WST Advisory Meeting Fall 2022-December 15, 2023 (Tentative)
<p>3:00 p.m.</p>	<ol style="list-style-type: none"> 3) Meeting Adjournment

Minutes

Please review the minutes before our meeting on December 16, 2022.

Water Supply Technology Advisory Committee Meeting

Date: December 16, 2022	Time: 1:00 p.m. to 3:00 p.m.	Location: https://cccconfer.zoom.us/j/96823409797 Password: 737976
Facilitator: Melita Caldwell-Betties	Attendees: Tom Oxford, Garry Parker, Michael Cruz Dan Villanueva, , Alison Loukeh, Todd Heibel, Devin Arciniega, Caleb Wheatley, Jennifer McDaniel, Alec Mackie, Nirmala Mahadevan, Caleb Wheatley, Tim Worley, Sue Mosburg, Mark Wiley , Devin Arciniega, Garry Parker, Jaime Huffman, Jeffry Dennis, Steven Harrison, Tiffany Baca, Ernie Ariza, Michael Gaynor , Susanne Mata, Alec Mackie, Alison Loukeh. See registration list for agency affiliations.	

Activity

Welcome and Introductions

Due to the number of attendees and time constraints, introductions were done via the chat. Melita Caldwell-Betties advised all the invitee list would be shared with individual contact data at a later date. Melita Caldwell-Betties thanked everyone for attending and briefly reviewed the agenda and presentation documents previously provided to the attendees.

Review May 21, 2022 Meeting Minutes:

Discussion Topic: Status of the Water Supply Technology (WST) Program

Program Structure: Agenda & Presentation Materials

Melita Caldwell-Betties directed the invitees to review the Water Supply Technology Program presentation materials plus agenda with links to program awards and approved courses in seven core disciplines: water distribution, water treatment, wastewater collection, wastewater treatment, water use efficiency, cross-connection controls/backflow prevention and instrumentation. The presentation documents were used to identify the industry sectors, enrollment trends, changes to curriculum design and the addition of stackable credentials to be taken in each career pathway. Transition to online learning has been a positive benefit to programs based on enrollment data.

Curriculum Updates

Additional pathways under consideration: Water Resource Management to include utility both utility and maintenance management Attendees asked about OSHA Safety course additions in the future. Action item as a potential special topics course or review existing college curriculum from other program to meet workforce need.

Discussion Topic: Program Evaluation (See presentation)

Water Resources Baccalaureate Pathway (Transcript)

Water Technology Program is interested in pursuing with the support of advisory another waterworks pathway offering water resources courses to a baccalaureate degree. The program is asking for support from regional employers, water organizations, educators, and students. Program curriculum has to be unique and not offered at a CSU or UC.

Melita Caldwell-Betties

What we're going to do is ask for support letters. A few characteristics of the program of what it might look like. And this is just a proposal. Water is a unique profession. We know it is an essential public service. and we feel right now the associate degree is good, but we feel that in order to go to the higher levels in the organization, if you're running a water agencies to promote up to a supervisor, promote up to operation, superintendent someday, even sometimes a chief plant operator

The Board of Directors or human resources are identifying secession planning goals with respect to the education an individual would have to have. that requisite degree of a bachelor. Then what an opportunity for us to off as a college a method of training those people with management skills automation, water law, or perhaps geographically, information systems, business management, public policies, and public administration.

Employees having operation and maintenance experience is not all that there is. Future leaders need to have management skills to manage water resources, financial accounting and statistics. There's a lot of data that goes into what we do with respect to looking at water management and then teaching resources as well, too. If you join the steering committee we're going to be talking about admission and selection criteria.

- A minimum qualification might be just an associate degree. Do we want a GPA requirement?
- Is there professional licensing on our national certification? We already know about the State of California
- certifications Grade one to five?

- Is there an entry point for a student that's interested in going for the bachelor's program?
- What are the degree requirements? Currently, the associate degree is about sixty units. The program must be 120 units to be equivalent to a bachelor's degree. Consider the concept of a blending of lower and upper division work. And remember how I talked about those that competency-based testing or credit for prior learning?
- Prior learning assessments, we want to incorporate that. That is what the steering committee is going to help to be able to determine and resolve. Also, the minimum qualifications for teaching. You must have a master's degree related to the assignment.

Sue Mosburg

01:32:12

It is my understanding that one of the community colleges in the San Diego Region is schooling up a water bachelor's program.

Melita Caldwell-Betties

01:32:26

We are offering the program at the community college level. What is happening is that we are going to compartmentalize it into one program. Students will stay at the community w level, and take all their lower division courses. Collectively, we will create upper division courses at the community college level. The benefits for students are an opportunity for financial aid along with reimbursement for current students who are employees of the water agencies. Let us not forget, it is a bachelor's degree at a lower cost.

Sue Mosburg

01:34:13

A couple of years ago I had helped write some of the initial paperwork for that bachelor's degree. So it could be that there's some pieces of that that still remain that might be helpful in building this program, so always good to build up at what others have already tried to do and started.

Caleb Wheatley

01:35:33

If students are ones can just get their foot in the door somewhere. A lot of organizations will also pay for the education. I know my organization Western Municipal Water District, will pay for education. So, even though sometimes students may not be able to feel like they can't afford it a lot of times. If you can get your foot in the door somewhere, whether it's just a warehouse or any position doesn't matter reading meters. It does not matter. The organization that you get into can also help offset the cost.

Melita Caldwell-Betties

01:36:12

And we talked earlier. Some of the participants in the meeting talked about how there are jobs becoming available and how they need an established pipeline. Talking about current employees that are currently in the industry and interested in being promoted. They too may want to take advantage of some of these positions that are going to be vacated at the top. It would be a way to provide that training for them as well. And, like Caleb said, I agree with you. That is how I got my master's degree. Actually, Eastern Municipal Water District. As a chief plant operator, I took enrolled in the Cal State San Bernardino graduate program offered by the Water Resources Institute. The program has now been discontinued. Whatever the demand of the workforce is? Whatever the industry requirements? Whatever makes our students marketable? I feel that we should be actually moving forward

Caleb Wheatley

01:37:43

Okay, hey, Melita? One other thing, I did see the comment earlier, as far as how smaller systems try to retain their operators if it is a smaller organization. Maybe if they have a good education program that's getting paid a lot of times that also help retain your staff versus them going to bigger or agencies organizations that pay for school. Because a lot of times some of the smaller agencies may not cover education. A big driving force. The bigger agencies will pay for education. Why should I stay here?

Melita

Okay, I want to answer a question from the chat. Tim had an incredibly good question. He says, does a baccalaureate opportunity have to be for a degree not offered by a 4 year college or university?

Yes. The community college does not want to compete with current academic programs and cause low enrollment concerns at the impacted institution. Look at those examples that I gave you mortuary science. There are no four-year programs in these subject areas. For example, respiratory care. Water is also unique. There is one at the master's level. Somebody asked about naming it. Because it is not business administration, because we are dealing with public administration, managing public or shared governance of public resources. But the question is one that the steering committee is going to come up with. Water resource management was the emphasis given by the Water Resource Institute to its former master's degree program.

Tim Worley

01:40:42

Thank you. I think public administration is the direction I thought I was hearing. So, thanks for the clarification.

Melita Caldwell-Betties

01:40:46

Let us work together to develop a robust program. What skillsets are lost when that knowledge pool leaves because of the great tsunami because the baby boomers are retired. We are working collectively together to help water and wastewater systems fill that need.

Todd Heibel

01:42:18

Hi! Hello, everyone! Sorry I would turn on my camera. But again. My hair makeup and wardrobe team were not available today, so my apologies. So, so honored to be Melita's colleague at San Bernardino Valley College, and I teach in the geography GIS Program, and I am really excited about this very interdisciplinary multi-disciplinary baccalaureate degree that's coming up. I am happy to help, and you know, either sending students your way, or vice versa.

Melita Caldwell-Betties

We are requesting information from the committee on identifying the hard to fill positions that are being vacated and require a bachelor's degree. Are there any pay scale differences in relation to this employment gap? Does any water agencies have data: bachelor's degree versus the associates degree or no degree. For example, how does your organization view job placement and promotional opportunities for candidates with bachelor's degrees? Is it more receptive? And then, if the college offers the proposed degree, does it lead to higher wage opportunities?

My experience when I was in the industry to answer this question is yes. I know in some of the smaller agencies, you can go from being an operator. The next step on the career ladder is Grade III journeyman level operator. The next promotional step can lead to Crew Chief, then Operations Superintendent. At that level, you could possibly be running the water utility. It just depends on what the industry needs are. Again. Our job at SBVC is to best serve the needs of the community and of course the workforce needs. But again, a great conversation, because we have run out of time. Look for the invite for the steering committee.

Discussion Topic: Industry Trends-Water Puts America to Work

Melita Caldwell Betties discussed asked if there was a need for potential curriculum updates to include automation and cybersecurity since remote monitoring of facilities was the cure-all for staffing shortages during the pandemic. Action items carried over as agenda topic at next meeting.

Open Forum: Question & Answer

Attendees asked about OSHA Safety course additions in the future. Action item as a potential special topics course (activated sludge, anaerobic digestion, etc.) or review existing college curriculum from other programs to meet workforce need. Soft skills additions to course content should be reviewed. However, individual students should take responsibility for learning the standards set by the employing workforce. If skillsets are lacking in the hiring process, identify fit before hiring at the water agency level.

Action Items/Assignments: *Priority List of Future Discussion Items*

- 1) OSHA Safety Course
- 2) Investigate GIS/CAD Applications Workforce Demand Needs
- 3) Competency-based equivalency: Returning veterans
- 4) CWEA Advanced Water Treatment Certification (Direct and Indirect Potable Use)
- 5) Educational Summit Planning
- 6) Carryover Item: Automation and Cybersecurity curriculum additions to program awards
- 7) Carryover Item: Professional Development Opportunities-(externships)

Upcoming Meetings:

- 1) **WST Advisory Meeting Spring 2023-May 12, 2023 (Tentative)**
- 2) **WST Advisory Meeting Fall 2022-December 15, 2023 (Tentative)**

Meeting Adjournment