

Water/Wastewater Technology Program
Advisory Board Meeting
April 27, 2021

Meeting called to order at 11:33AM

Agenda

- I. Introductions
- II. Mission Statement
- III. Overview/Recent History
- IV. COVID-19 Update
- V. Enrollment Trend
- VI. Course Schedule - 2-Year Plan
- VII. Program Additions and Changes
- VIII. Water Lab Improvements
- IX. Marketing and Outreach
- X. Good of the Order

I. Introductions

The following Advisory Board Members accepted this April 27 Advisory Board Meeting invitation and were present at the meeting:

- a. Clint Baze, General Manager, Rincon de Diablo MWD
- b. Melita Caldwell-Betties, Faculty Chair-Water Supply Technology, San Bernardino Valley College
- c. Chris Clemens, System Operations Supervisor, SDCWA
- d. Daniel Cotter, Chief Plant Operator, City of Oceanside, Vice President of CWEA San Diego Section
- e. Patty Duran, Human Resources Analyst, SDCWA
- f. Gary Gramling, Lead Instructor and Program Coordinator, Citrus College
- g. James Mattern, Chief Plant Operator/Operations Manager, Encina Wastewater Authority
- h. Michelle Peters, Technical and Compliance Manager, Poseidon Water
- i. Chris Robbins, Public Information/Conservation Supervisor, Vallecitos Water District
- j. Alan Styles, Director, Certificate of Specialized Study in Water Management & Leadership, CSU, San Marcos
- k. Christopher Trees, Director of Operations, San Elijo JPA

Palomar College Staff

- ~~a. Tony Fedon, Department Chair, Trade and Industry~~
- ~~b. Nichol Roe, Interim Dean, Career Technical and Extended Education~~
- c. Jacob Shiba, Water Technology Program Coordinator

II. Mission Statement

The Mission Statement of Palomar College is:

Our mission is to provide an engaging teaching and learning environment for students of diverse origins, experiences, needs, abilities, and goals. As a comprehensive community college, we support and encourage students who are pursuing transfer-readiness, general education, basic skills, career and technical training, aesthetic and cultural enrichment, and lifelong education.

We are committed to helping our students achieve the learning outcomes necessary to contribute as individuals and global citizens living responsibly, effectively, and creatively in an interdependent and ever-changing world.

The Water/Wastewater Technology Mission Statement is:

Our mission is to educate and prepare students for careers and advancement in the water industry.

Proposed New Mission Statement:

Our mission is to educate and prepare all students including those of diverse backgrounds, experiences, and abilities for careers and advancement in the water industry. Our committed, highly trained faculty and partnerships with Local, State, and National entities ensure that our graduates will have successful careers that improve their lives, their communities, and the economy.

Vote: Unanimous approval of proposed mission statement

III. Overview and Recent History

The water/wastewater technology program recognized a need for a full-time faculty member to grow the program. Hired in Fall 2019, Jacob Shiba has now been the program coordinator for almost 4 semesters, or 2 years. It is essential to note that the part-time faculty are still the foundation for the program and their contributions will continue to improve the program. There are currently 10 active part-time faculty members, with one new member in the hiring process.

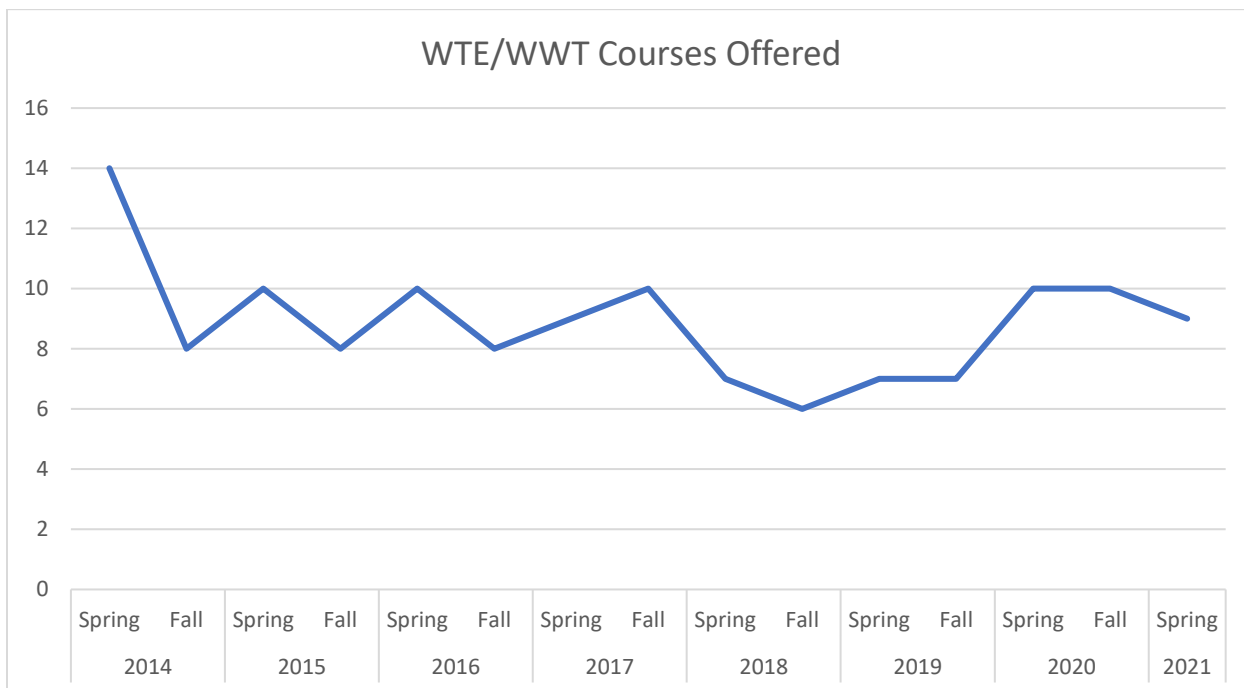
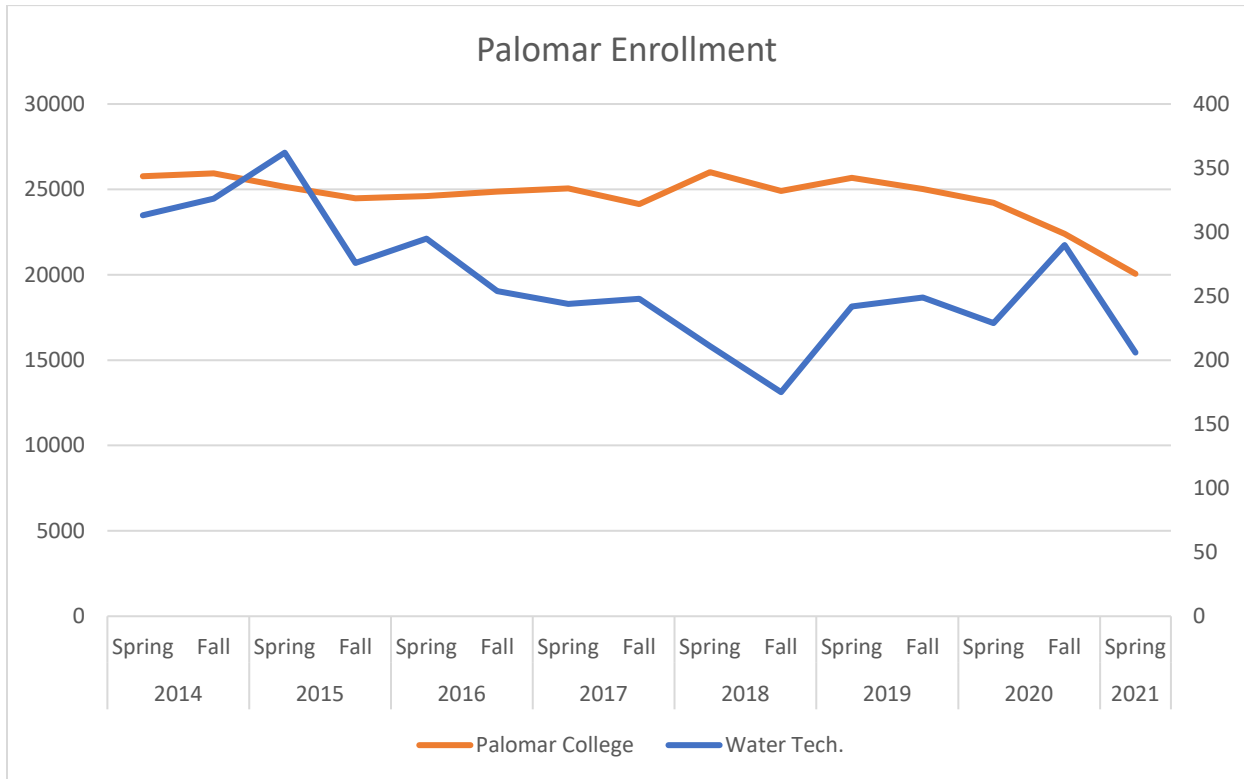
IV. COVID-19 Update

As you are all aware, this unprecedented and rapidly changing situation has dramatically impacted learning at Palomar College. As of Spring 2021, all lectures at Palomar College are online and a select few labs are in-person, Backflow being the only water lab in-person. As of now, Fall 2021 lectures are set to be online with Lab Analysis and Backflow labs in-person. The college is looking into more in-person classes for Fall 2021, all dependent upon local stats.

Discussion: Gary and Melita see a lot of opportunity to reach more students with online learning and see it as an advantage to the younger generations. Chris C. recommends a in person component to allow for relationship building, networking, better learning. Alan agrees with Chris C. Patty suggests both in-person and online opportunities in order to be inclusive.

Jacob explained high flex model and members were interested. Will pursue online and in-person classes in the future.

V. Enrollment Trends



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Discussion: Alan sees the same trends at the CSU level. Chris C. commented that many of his employees register for classes at the last minute or after hearing a fellow coworker has started classes.

Vote: Board approved a motion to ask Palomar College Administration for flexibility on course cancellation dates, as many water workers enroll at the last minute.

VI. Course Schedule – 2-Year Plan

Course Schedule					
Calendar 1 (odd)		Calendar Year 2 (even)			
Spring	Fall	Spring	Fall	Units	
WTE/WWT 50	WTE/WWT 50	WTE/WWT 50	WTE/WWT 50	3	Calculations in Water/Wastewater Technology
WTE 52	WTE 52	WTE 52	WTE 52	3	Water Distribution Systems
WTE 54	WTE 54	WTE 54	WTE 54	3	Basic Plant Operations: Water Treatment
WTE/WWT 56		WTE/WWT 56		3	Intro to Electrical and Instrumentation Processes
WTE/WWT 58	WTE/WWT 58	WTE/WWT 58	WTE/WWT 58	3	Backflow Tester Training
WTE/WWT 60		WTE/WWT 60		3	Public Works Management
	WTE/WWT 62		WTE/WWT 62	3	Cross Connection Specialist
	WTE 64		WTE 64	3	Laboratory Analysis for Water/Wastewater
	WTE/WWT 66		WTE/WWT 66	3	Motors, Pumps, and Hydraulics
WTE 72				3	Waterworks Distribution II
		WTE 74		3	Advanced Plant Operations: Water Treatment and Reclamation
	WWT 52		WWT 52	3	Basic Plant Operations: Wastewater Treatment
	WWT 54		WWT 54	3	Wastewater Collection Systems
WWT 64		WWT 64		3	Advanced Plant Operations: Wastewater Treatment
WTE/WWT 97	WTE/WWT 97	WTE/WWT 97	WTE/WWT 97	0.5-4	Water/Wastewater Technology Education Topics
CE 100	CE 100	CE 100	CE 100	3-4	Cooperative Ed (<i>must be related to Water or Wastewater Technology</i>)

We would also like to offer accelerated Summer courses and refresher courses.

VII. Program Additions and Changes

Program Designation

Currently, the Water Technology and Wastewater Technology programs are treated as two separate programs, which creates many barriers, additional work, and confusion among students. Our faculty have suggested we merge the two programs into Water Technology Education (WTE). There will still be two separate designations for the Associate Degree and Certificate of Achievement in Water Technology and Wastewater Technology.

Discussion: Chris C. thinks accelerated courses a good idea and brought up course repeatability as an issue that limits enrollment. Dan recommended Palomar have accelerated, less unit courses for industry CEUs.

James recommended that students in the lower level classes be provided an explanation of the program on the first day of class. Chris C. said could cause confusion for WW students and will need adequate outreach.

Vote: Board unanimously approved merging designation.

Course Changes

Currently, all WTE and WWT courses are 50 level courses and therefore non-transferrable. This disables these courses from being taken by students looking to transfer to a four-year college. By converting all of the WTE/WWT courses to 100 level courses, it allows for a whole new

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section of the student body at Palomar College to take our courses and potentially enter the program. Having all courses at the 100 level also allows for advancement in degrees for those looking to move into management positions. This is a major priority for the program and will work in tandem with the single program distinction. Courses will also be assessed to be Credit for Prior Learning eligibility in order to award credits for validated college-level skills and knowledge gained outside of a college classroom. This will be specifically beneficial for our military students. Below you will see the recommended course numbers.

Course	Current	Proposed	Change Type
Water Technology	WTE/WWT	WTE	Program Change
Calculations	WTE 50	WTE 150	Course Change
Water Distribution	WTE 52	WTE 152	Course Change
Water Treatment	WTE 54	WTE 154	Course Change
Instrumentation	WTE 56	WTE 156	Course Change
Backflow	WTE 58	WTE 158	Course Change
Public Works Management	WTE 60	WTE 160	Course Change
Cross Connection	WTE 62	WTE 162	Course Change
Lab Analysis	WTE 64	WTE 164	Course Change
Pumps, Motors, Hydraulics	WTE 66	WTE 166	Course Change
Waterworks Distribution II	WTE 72	WTE 272	Course Change
Advanced Plant Operations	WTE 74	WTE 274	Course Change
Wastewater Treatment	WWT 52	WTE 153	Course Change
Collections	WWT 54	WTE 155	Course Change
Advanced WWT	WWT 64	WTE 263	Course Change
Career Pathways	N/A	WTE 51	New Course
Fundamentals	N/A	WTE 102	New Course
Water Efficiency	N/A	?	New Course
Water Resources	N/A	?	New Course
Safety	N/A	?	New Course

New Courses considered being offered:

1. Water Efficiency
2. Water Resources
3. Safety
4. Advanced Water Treatment and Reuse

Discussion: Dan recommends an AWT certificate, as the future is just “water.” Chris C. suggests we consider Desalination as well. Chris R. says bringing to 100 is a good idea. Melita recommends to check on the CID descriptors. Chris Trees would like to see career and safety classes.

Vote: Board unanimously approves moving courses from 50 to 100 level.

VIII. Water Lab Improvements

- i. Awarded \$22,000 in Perkins V funding in 2020 to update and enhance our Instrumentation class. Purchases include three PLC Learn Labs, 10 computers, and outdoor lab equipment.
- ii. Applied for \$35,000 in Perkins V funding for purchase of cutaway and dissectible valves and pumps and Pump Maintenance Training Systems.
- iii. We are currently seeking additional grant funding and donations to improve our outdoor water lab, increase hands on displays, and set up a SCADA system for students to use.

IX. Marketing and Outreach

- New brochure- See below
- Industry visits and guest speakers
- Military Outreach focused on Credit for Prior Learning
- Improved college website
- Career fairs and high school visits
- Social media creation- Instagram only thus far
- Student Surveys- Ongoing

Discussion: Dan recommends working with local industry groups, such as the CWEA. He will invite Palomar to next board meeting. Chris C. says we have a good list. Michelle says the industry needs more exposure and outreach as a whole.

X. Good of the order

Board requested that Jacob send out an email with everyone's contact info on the call. Meeting adjourned at 1:33pm.

WATER TECHNOLOGY PROGRAM

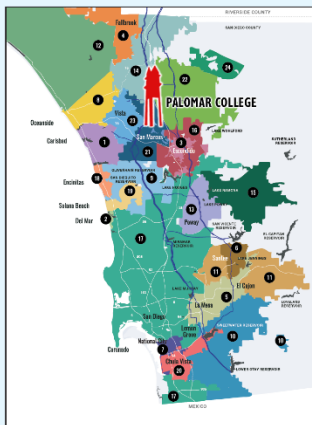


About Palomar's Water Technology Program

Our mission is to educate and prepare students for careers and advancement in the water industry. Nearly one thousand people in North San Diego County are working at public utilities to protect life's most precious resource. Many of these workers earn \$50,000 to \$150,000 per year without a four-year university degree required. About 35% of those employees will be eligible for retirement within the next three years.

An education in Water Technology from Palomar College opens doors to employment in publicly owned water utilities, private utilities, regulators, environmental consulting firms, and industry, particularly breweries.

The Palomar College Water Technology Program works cooperatively with the San Diego County Water Authority and other local agencies to provide practical, on-the-job experience to interested students, and a talent pipeline of potential candidates to the water/wastewater industry.



What is Water Technology?



Water Supply Treatment: Locating, managing, and cleaning water sources before being delivered to customers.



Water Distribution: Operating the entire system of pipes, pumps, motors, valves, and tanks to ensure safe and reliable delivery of water to homes and businesses.



Wastewater Collections and Treatment: the collecting of used water from homes and businesses followed by the safe removal of chemicals and other harmful pollutants at a wastewater treatment plant.

Courses offered:

- Water/Wastewater Math
- Water Distribution Systems
- Water Treatment
- Wastewater Treatment
- Wastewater Collections Systems
- Backflow Tester Training
- Cross-connection Specialist
- Pumps, Motors, and Hydraulics
- Electrical and Instrumentation
- Laboratory Analysis
- Public Works Management



Find out more:

<https://www2.palomar.edu/pages/watertech/>

[palomarwatertech](https://www.instagram.com/palomarwatertech)

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