



SUMMER 2015

WCP GAZETTE

WATER CAREER PATHWAYS QUARTERLY NEWSLETTER

In the next seven years, the water and wastewater industry will experience a severe loss of qualified professionals due to retirement. Currently, there are not enough qualified applicants to fill those mission critical positions....

cawatercareers.org
baywork.org

This newsletter is brought to you by the Water Career Pathways consortium funded by the California Department of Education's AB86 Career Pathway Grant



CREATING A CLEAR FUTURE

This California Career Pathway Trust award represents an opportunity for our region to address the critical need for trained employees; while providing thousands of students seamless pathways to postsecondary certifications and degrees in the high-skilled, high-wage, and high-growth water industry.

This endeavor brings together the contributions of Water Districts, High Schools, Community Colleges, Universities, Work Investment Boards, Trade Associations, and Non-profit agencies in the Bay Region. Taking a regional perspective, this consortium is establishing the capacity of educational institutions to offer multi-layered educational services that meet the training needs for our regional employers. We are creating the foundation to fulfil the need of the next generation of worker for what the water industry is calling "mission critical jobs."

As we are coming to the end of our first year of this grant, we have seen many challenges and many successes. Our staff and partners have been diligently developing, modifying and implementing curriculum, trainings, and educational events. We are excited about the development of contextualizing curriculum and learning modules (that are common core compliant) and the creation of industry based certification programs that seamlessly transition from one institution to another. Career fairs have provided students an understanding of what jobs are available, what it takes to secure those jobs, and where they can get the training they need. Staff development opportunities have increased faculty awareness; while providing the knowledge needed to educate their students.

I want to thank all that have been involved; especially our industry partners who have contributed so much of their time, knowledge and resources. Without them, we could not do this work. I would also like to take this opportunity to invite other businesses and educational institutions in the Bay Region to join our WCP consortium. For those interested please feel free to contact us.

Regards,

David Esmaili
Project Manager
Bay Region | Deputy Sector Navigator
Agriculture, Water and Environmental Technology



SANTA CLARA VALLEY WATER DISTRICT – A PARTNER IN CREATING WATER CAREER PATHWAYS

By Ingrid Bella, Chair of BAYWORK, Vice Chair of Water Careers Pathways Consortium, and Sr. Management Analyst at the Santa Clara Valley Water District, Water Utility Enterprise



The Santa Clara Valley Water District (district) manages an integrated water resources system that includes the supply of clean, safe water, flood protection and stewardship of streams on behalf of Santa Clara County's 1.8 million residents. The district effectively

manages 10 dams and surface water reservoirs, three water treatment plants, an advanced recycled water purification center, a state-of-the-art water quality laboratory, nearly 400 acres of groundwater recharge ponds and more than 275 miles of streams. They provide wholesale water and groundwater management services to local municipalities and private water retailers who deliver drinking water directly to homes and businesses in Santa Clara County.

The district depends on a variety of mission critical jobs to construct, operate, and maintain the various physical assets and facilities mentioned above. Engineers help to plan, design, and construct our facilities. Water Treatment Operators operate our water treatment plants 24/7 to ensure there is high quality water supply. Our Instrument and Electrical Technicians as well as our Plant Maintenance Mechanics ensure that these operations are in good working order and reliable. These are just some of the important jobs and people behind your water.

MAKE A DIFFERENCE

Together, we can make a difference in the quality of education and skillsets that graduating students need in order to have a clear direction for a future in the water / wastewater industry.

Careers in water are personally rewarding and beneficial to the community. Did you know that it only takes one to two years of community college classes to begin your career in water? Many of these avenues are also open to advanced learning and skill sets. Opportunity and career growth are two reasons why someone should consider the water industry as a viable career option.

Whether you are in incoming Student, Veteran or someone looking for a change; there is a place for you in water. Classes are forming now! Don't miss out on a great opportunity for a clear future!



CALENDAR OF EVENTS

July 16th, 2015

WCP Advisory Board Meeting

Sept. 8-11, 2015

California Utility Executive Management Assoc. San Diego, CA

Sept. 17th, 2015

WCP Advisory Board Meeting

Sept. 23rd, 2015

WVC Engineering Student tour at the SCVWD Advanced Purification Center

Oct. 2-4th, 2015

CA Science Teachers Assoc. Sacramento, CA

Oct. 20-22nd, 2015

CCCAOE Fall Conference, San Diego, CA

Oct. 29th & 30th, 2015

Green Technology Conference Pasadena Convention Center

A CAREER THAT'S MAKING WAVES — WATER RESOURCES MANAGEMENT

They work at municipal drinking water and wastewater treatment departments, or industrial treatment facilities. They administer, operate, and maintain drinking water and wastewater, as well as distribution and collection systems. Over the next decade, 50% of the people working in the water industry will be retiring. That makes this a great time to get the skills and credentials for a career in the water industry.

The Gavilan College division of Career Technical Education offers both an Associate in Arts degree, and a Certificate of Achievement in Water Resources Management. The program teaches the skills that students need for employment in the water industry, and prepare students for the certification exams administered by the State of California and industry associations. The instructors are experienced industry professionals, expert and up-to-date in industry best practices. Classes are built around practical real-world scenarios, and include demonstrations and field trips to maximize students understanding and familiarity with the water industry, and the types of challenges they will encounter on the job.

Students who successfully complete the program are able to follow safe practices in the laboratory and plant operations.

They are able to apply chemical, microbiological, and mechanical knowledge to maintain proper water and wastewater plant operations. They learn the math and hydraulics skills needed for proper water and wastewater plants, collection systems, and distribution system operations. They are familiar with applicable regulations. Students also learn to interact effectively in written and oral communications – an important workplace skill. The program teaches the use of computers in plant operation, where appropriate and prepares students for the work ethic that will be expected by employers and the public.

The required coursework includes 25-28 units of industry-specific classes, such as Introduction to Wastewater Technology, Beginning Water Treatment Plant Operation, and Applied Hydraulics. Completion of these units ensures eligibility for a Certificate of Achievement. By also completing 39-42 units of general education at Gavilan College, students are able to earn their Associate in Arts degrees. To find out more about the Gavilan College Water Resources Management Program, go to www.gavilan.edu/water, or call (408) 848-4719.

YOUR NEW CAREER IN THE WORLD OF WASTEWATER



As the largest advanced wastewater treatment facility in the western United States, the San José-Santa Clara Regional Wastewater Facility (RWF) protects public and environmental health and supports Silicon Valley's economy.

The RWF treats approximately 110 million gallons of wastewater daily, which is discharged into the San Francisco Bay. The treated water helps keep the bay clean, diversifies populations of birds and fish, and improves wildlife habitat. It serves 8 cities and unincorporated Santa Clara County, providing service to over 1.4 million people. It consistently earns industry peak performance awards for 100 percent compliance with discharge permit requirements.

The RWF also manages the South Bay Water Recycling program delivering recycled water to 700 customers in San

José, Santa Clara, and Milpitas; saving over 2.2 billion gallons of drinking water a year.

This facility is operated by the City of San José Environmental Services Department (ESD). ESD is implementing a \$2 billion capital improvement program over the next 30 years. Due to the more than 100 capital improvement projects to rebuild the RWF's aging infrastructure, ESD is looking for skilled professionals to join our award-winning diverse and dynamic team. By joining our team, there is a great opportunity to apply biological, chemical, and mechanical theory to practical applications and problem-solving.

Meet Laura Reese, Wastewater Treatment Plant Operator at the RWF. Laura works in the paired areas of filtration and disinfection, and assists in the South Bay Water Recycling program. Laura became an operator-in-training in 1999 and a grade II operator in 2002. She is trained in first aid, CPR, HAZWOPER, confined space entry and rescue, and is forklift certified. When asked what she likes most about her job, Laura says, "Everyone I work with is intelligent, highly skilled, and committed to what they are doing. But most of all, I like the fact that I feel good about myself and what I'm doing for the Bay."

Laura is just one of many passionate wastewater professionals working at the RWF. If you're interested in a rewarding career like Laura's, visit www.sanjoseca.gov/wastewaterjobs or contact (408) 535-8550 or ESD-HR@sanjoseca.gov.

CONTEXTUALIZED LEARNING

Water Career Pathways consortium Curriculum Committee is engaged in two key project areas:

1. Contextualized math project

Led by Tue Rust, Math Department Chair from Los Medanos College, the contextualized math project was designed with industry professionals, utilizing real-life problems as the context for applying and cultivating math skills. Students begin each unit with a video of industry professionals re-enacting an actual challenge requiring math competencies. Student teams utilizing data sets to devise a solution to the problem, before watching another video from the industry professionals describing their actual process and the solution. Thanks to our industry partners at East Bay MUD for support on designing the first in this series of contextualized water industry math problems.

2. Interdisciplinary project design to develop the mission critical skills

Our non-profit curriculum partner, Strategic Energy Innovations, is working with high school instructors to identify and design curriculum and pilot projects that help students develop the mission-critical skills required by the water industry. The projects emphasis basic skills and hands-on technical proficiencies needed to obtain post-secondary education or employment.

CONTACT US

Give us a call for more information about your water career pathway.

WATER CAREER PATHWAYS

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PARTNERS

