

**MISSION-CRITICAL PROFILE**

**Name:** Luis Cuellar

**Organization:** Alameda County Water District



**Job Category (Check one below):**

- |                                                     |                                                                                   |
|-----------------------------------------------------|-----------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Water Treatment | <input type="checkbox"/> Electronic Maintenance Technician/ Instrument Technician |
| <input type="checkbox"/> Water Distribution         | <input type="checkbox"/> Electrician/Electrical Line Worker                       |
| <input type="checkbox"/> Wastewater Treatment       | <input type="checkbox"/> Machinist/Mechanic                                       |
| <input type="checkbox"/> Wastewater Distribution    | <input type="checkbox"/> Other                                                    |

**1. Please describe the work you do:**

I work as Water Treatment Plant Operator at Alameda County Water District's Treatment Plant 2. It's a conventional treatment plant that uses the elevation head from the South Bay Aqueduct to run hydroelectric generators which produce enough electricity to run all the treatment processes including ozone generation. Typical duties include SCADA operation, routine grab sample analysis, jar testing, ozone residual analysis, perform filter backwashes, analyzer and chemical dosing verification, daily equipment inspections and running the distribution system just to name a few.

**2. What combination of education, vocational training, apprenticeship, experience, and/or skill did you obtain in order to be qualified and selected for your job?**

I have an A.A. degree in electronics technology from Ohlone College in Fremont. I then completed the Water Treatment course offered by Sacramento State's Office of Water Programs. After that I took various online courses offered by AWWA including courses offered by various schools and instructors such as O.C.T., Gary Gottowski, Glenn Reynolds and Larry McCollum. Once I had the credits I needed, I applied for a trainee position with the Alameda County Water District. It was there that I received the hands on training and experience needed to get my T-3 and T-4 certification.

**3. What do you like best about your job?**

I always love the feeling I get after I've solve a water treatment issue. Who knew that someday I'd be operating a water treatment plant and solving problems at the plant no less! Knowing what to do when a problem arises is when you can show just what you're worth. Running a water treatment plant can be very intimidating at first for a person who came straight from the mailroom, such as myself, but through training

and experience I gained confidence in my abilities to troubleshoot and solve issues. Going from a trainee to a confident Journeyman is an awesome feeling!

**4. Please tell us about the projects and activities you have enjoyed most in your work in the water/wastewater field, and what made them rewarding.**

Not long ago there was a fire at a machine shop in southern Fremont. The only reason I knew was because I stepped outside and noticed smoke rising from the other side of the hill. Curious as to what was going on, I logged on to the internet and did a search and found that the fire was indeed in our service area and was quite a big fire. I then opened up our San Francisco take-off to about 1500 gallons per minute to supplement the fire flows. Although we had plenty of water in storage for fire flows, what I took from that experience is that being proactive is vital to the job I do and that we have a great tool in the internet and smartphone technology in getting information rather than waiting for it to come to us. We play an important role in assisting other agencies carry out their work. We as operators need to remain vigilant at all times and be willing to work with other agencies. They can be our eyes and ears just as much as we are to them.

**5. What qualities and capabilities are needed in order for a person in your area of expertise, to be successful in the water/wastewater industry?**

I think some of the greatest qualities needed to be successful in the water treatment industry are attention to detail and a proactive work ethic. The best operator is the one who remains vigilant and takes action early before something small becomes a big problem. Complacency is something you want to avoid. Never rely solely on SCADA feedback. It's always a good idea to get up and walk around the plant and see for yourself how everything's running and perform grab samples to verify that your analyzers are working correctly.

Another quality is the willingness to review your water treatment knowledge and keep it fresh in your mind. It isn't enough to just get the right numbers all the time. An operator must understand why those numbers mean anything and how to get the desired results.

**6. Do you have any advice for an individual who is considering pursuing a career in your field in the water/wastewater industry?**

Rome wasn't built in a day! Be patient in your approach. No one learns water treatment overnight. I have to admit that when I decided to pursue a career in water treatment, I didn't have much faith that I'd accomplish my goal. I had to accept that it would take me awhile to learn it. What worked best for me was taking it one day at a time and focus on the quality of my study sessions as opposed to the quantity of studying. I'd make it a goal to study one hour a day. I'd go somewhere where there were minimal distractions. Before long, I had a bit of momentum behind me and I was well on my way to completing my courses. I couldn't stop even if I wanted to! Eventually I finished and it was a great feeling of accomplishment. Small quality steps were the key!