

"Under Pressure" - Calculating Flow Rate at the EBMUD Orinda Plant - How
Math is Important

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VIDEO	AUDIO
<p>SCENE 1 - INTRO IN CONTROL ROOM:</p> <p>Scene opens with a two-shot of Maria and Andrew</p>	<p><u>MARIA</u> "Hi. My name is Maria Rodriguez and I'm a Senior Water treatment Operator at The East Bay Municipal Utility District or East Bay Mud. Our work is very important for our community and the environment. At East Bay Mud we operate six water treatment plants to provide clean drinking water for 1.4 million people."</p> <p><u>ANDREW</u> "I'm Andrew Kwan, and I'm also a Senior Water Treatment Operator with the District. Water treatment operators are public health workers and our plants are staffed 24 hours per day 7 days a week to ensure that you always have safe water."</p> <p><u>MARIA</u> "We believe our jobs very important and take continuing education classes each year to improve our skills. But to get entry-level jobs in water treatment it is necessary to have strong math skills, because we use math on a regular basis to make sure the water is property treated."</p> <p><u>ANDREW</u> "To give you an idea of how important math is for our work, we want to share information about how math helped us keep water flowing at a constant rate and maintain excellent water quality steady when we needed to make a repair at the plant a few months ago." <u>MARIA</u> "Even when we need to make a repair or do maintenance at the plant, we can never let down our customers. We'd like to show you an example of the math it takes to provide reliable water service."</p>

VIDEO	AUDIO
<p>SCENE 2- CONTROL ROOM:</p> <p>Maria is sitting at the control panel when Andrew enters the room</p>	<p><u>ANDREW</u> "The bearings on the motor in basin 1 are making a lot of noise. I felt the motor and it was really hot."</p> <p><u>MARIA</u> "I agree, If the motor is hot, we should shut down the basins and have an electrician look at it."</p> <p><u>ANDREW</u> "What is the plant's flow-rate right now?"</p> <p><u>MARIA</u> "The plant flow rate is 19 million gallons per day, with 9.5 million gallons per day going through basin 1. Andrew, Please call an electrician and let them know we need to take basin 1 out of service because we need to investigate the motor in Basin 1."</p> <p><u>ANDREW</u> "OK."</p> <p><u>MARIA</u> "We need to calculate how long it currently takes for water to flow through Basin 2 when it is flowing at 9.5 million gallons per day. We also need to calculate how long it will take when we take Basin 1 out of service and the flow on Basin 2 increases to 19 million gallons per day. Then we will know where we are now and how long it will take for the water to flow through the plant when we increase the flow in basin</p>

VIDEO	AUDIO
	<p>2 from 9.5 million gallons per day to 19 million gallons per day."</p> <p><u>ANDREW</u> "I have a handbook for the basins and they give the dimensions. After I call the electrician, let's go to the plant conference room and do the math on the white board."</p>
<p>ENDING IN CONTROL ROOM: Two-shot of Andrew and Maria</p>	<p><u>ANDREW</u> "I've found being a Water Operator is a great job, very interesting and rewarding. Not only is there good pay and benefits and job security, but you know you are protecting the health of your customers."</p> <p><u>MARIA</u> "If you'd like to hear more about how you could prepare yourself for a career in the Water or Wastewater industry like we did, visit the BAYWORK website at baywork.org to hear our personal stories. You will see that some of the career interviews on the BAYWORK website are available in both English and Spanish. The career section of the website is full of information about great water industry jobs; please check out the website and learn more."</p>