

CUSTOMER NEWSLETTER

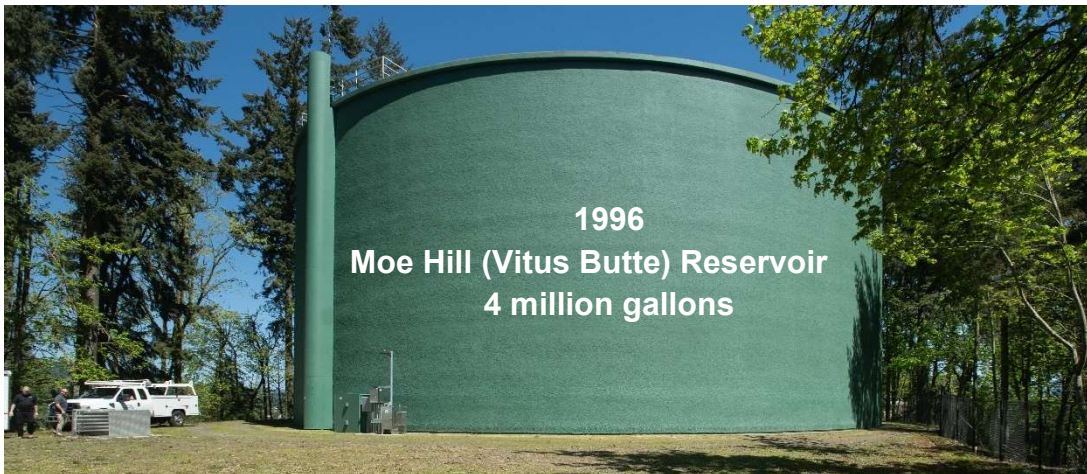
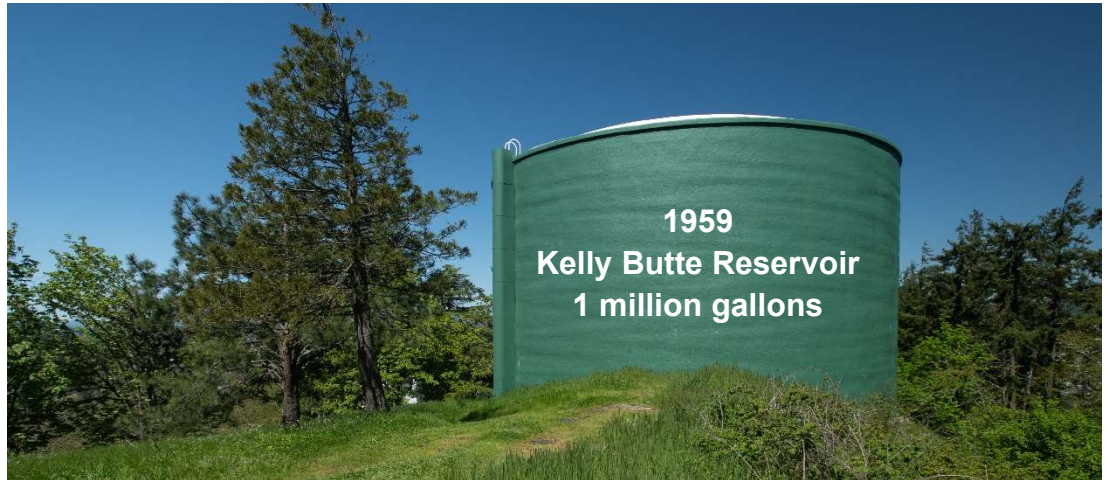
MAY 2024



75 YEARS OF SERVICE

The District's mission has always directed us to provide responsive service and find the best solutions and outcomes for safe and reliable water needs now and in the future. On August 22 your Rainbow Water District will celebrate the 75th anniversary of our founding. We have some fun events planned for this special day, and next month we will announce a chance to earn prizes as part of a children's coloring and essay contest for our "younger" customers.

INFORMATION ABOUT YOUR WATER STORAGE



Rainbow relies on a system of wells, like straws stuck into the earth, to extract groundwater stored in aquifers. This is water stored in cracks in the rocks or in the small void spaces in sands and gravels. Pumps placed into these wells pull and push the water into pipes, boosting the pressure enough that water can go through our underground piping directly into our hilltop storage tanks.

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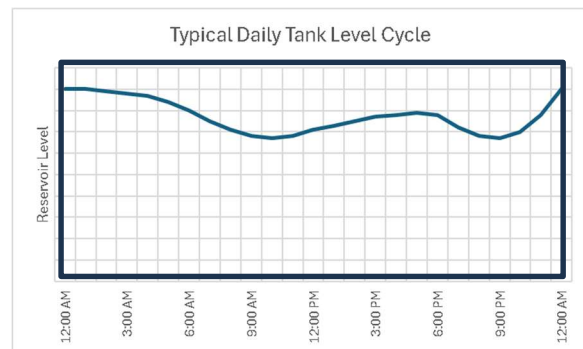
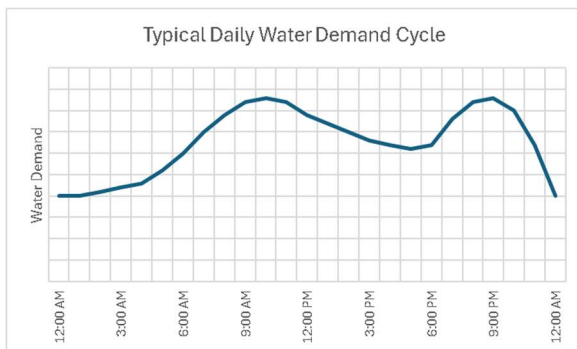
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Kelly Reservoir, a one million gallon concrete reservoir constructed in 1959, is a Rainbow storage facility that serves both SUB and Rainbow customers from the southwest corner of Rainbow's service area, especially customers near the west end of Centennial Boulevard.

Moe Reservoir, a larger four million gallon concrete reservoir constructed in 1996, serves SUB and Rainbow customers from the northeast corner of Rainbow's service area near Marcola Road and 31st Street. SUB contributed 30% of the cost of construction, and jointly utilizes this reservoir to meet their own storage needs in North Springfield.

Just like you do not want to drive your car on a nearly empty gas tank, we never want to lose all the level in our storage tank. (We keep the tank well over half full at all times, saving the stored water in the bottom half of the tank for fighting fires.) It is the weight of the water in this tank that provides pressure throughout the piping system to reach your tap. In most areas water pressure can be as high as 90-100 psi, and many customers need a pressure reducing valve to drop it below 80 psi to protect home plumbing. The higher pressure, however, is what is available at fire hydrants, allowing higher flow rates for the firefighters protecting our homes!



A water system is like a living organism, and a graph of the level in a water tank over time creates a “diurnal” curve that shows the trend as a repeating cycle. In the morning, as people wake up and begin their daily routine, more water is used than the running wells can supply. The water in the storage tank begins to drop to supplement the wells and help meet the demand. As the water level drops, computer controls that monitor the water level automatically start more well pumps. When the cycle reverses, and the pumps are supplying more than people are using, the water level in the tank begins to rise again. Our level controls start to shut off well pumps as the tank fills up until the tank slowly achieves a full level.

The cycle repeats in the evening, as people come home from work and school and use more water. As people sleep our well pumps are working behind-the-scenes, filling the tanks to be ready for the next morning. In the summer, when sprinkler systems kick on early in the morning to begin daily watering, the daily cycles can be more intense and our wells have to work harder to get the tank filled again. We notice this the most when the temperatures near 100 degrees F.