

THE NUTS AND BOLTS OF WATER STORAGE

In the high desert – or anywhere else for that matter - water is essential for life. There are organisms in the world that thrive without oxygen, some in boiling temperatures and others in sub-zero temperatures. Some microbes even survive without sustenance as we define it. But no living thing on Planet Earth can “do” without water.

Obviously, storing water in areas where rainfall is rare is a prudent step to take. But across the globe, public and private water systems, whatever the regional rainfall numbers, rely on some type of storage capability.

The Indian Wells Valley Water District is no exception.

There are many reasons to construct and maintain water storage sites. Among these you might list the ability to more easily cover peak demand hours, to smooth out ever changing levels of supply, to save wear and tear on pumping mechanisms or even to provide a secure water supply in times of system disruption - due to an earthquake, say. As an example, having a reliable source of water during an emergency ensures the ability to fight fires by keeping water pressure at required levels.

One very common (and visible!) public water storage facility is the above-ground tank and that's what the Water District relies on here in the Valley. In fact, we currently operate and maintain a total of 10 water tanks scattered throughout Water District boundaries with a total holding capacity of just under 17 million gallons.

In the past, the District's manmade reservoirs consisted mainly of the bolted steel variety. However, bolted steel tanks are only available in proscribed configurations and aren't readily designed to handle seismic activity. And too, over time, the gaskets placed at the seams between plates can corrode, which may result in a heightened susceptibility to leaks.

The two most recently completed storage facilities erected by the IWVWD – one south of Jarvis and the other east of County Line - are welded steel water tanks that are expected to enjoy a typical “shelf life” of about 50 years. Holding 3 million gallons of water between them, they were designed and built to accommodate seismic activity and are not reliant on gaskets, making leaks highly unlikely. Amazingly, because of their sheer size, these types of facilities are put together using large prefabricated sections that are placed by a crane sitting within the actual physical boundaries of the tank. Once welding is complete, a section of the structure is removed so that the crane can exit.

You might be interested to know that the bolted steel tank (no longer used for water storage) currently situated near China Lake Acres came from an abandoned site in Ridgecrest Heights. The Younger Brothers Moving Company relocated the entire structure using a huge trailer – without unbolting it first. The crew wound up bracing the

inside to avoid bowing and shifting of the load and drove down side streets, which were mostly dirt at that time, to deliver it to its present site.

The business of the Indian Wells Valley Water District is to serve our customers and provide them with the highest quality water at the best possible price while respecting the environment. A large portion of this mission involves planning and building for future population growth. Our water storage facilities help ensure that we will continue to have the capability of delivering good tasting, affordable, safe water to you for the foreseeable future and decades to come.