

IWVWD General Manager's Column
September 12, 2019

“I Feel the Earth Move”

By Don Zdeba

“I Feel the Earth Move” is a song written and recorded by Carole King. Carole felt it move for a different reason (“I feel my heart start to trembling whenever you're around”) than we recently did. It has been over two months since our community “felt the earth move” from the significant seismic events of July 4th and 5th. We have since learned of significant damage to infrastructure on the China Lake Naval Base and the immediate overwhelming effects on our neighbors in Searles Valley, including loss of water supply for nearly a week. Although there was certainly damage locally, considering the magnitude 6.4 and 7.1 earthquakes within the span of 36 hours, our community was fortunate to have experienced the relatively small amount of damage that we saw. Earthquakes of such magnitude in more densely populated cities with taller structures would result in significantly more devastation.

A few years ago, seismologists modeled what might happen should a major earthquake strike Southern California, creating what was called the “ShakeOut” scenario. The scenario involved a 7.8 quake in the Coachella Valley in 2008. Within minutes, the waves from the quake would travel across the state leveling older buildings, damaging roads, and severing utilities (electric, gas, telephone, water). Hundreds of fires would result from ruptured gas lines and with roads impassable due to damage and water systems damaged due to severed lines, containing the blazes would be nearly impossible. Depending on the time of year, damage from fires could be much more devastating if Santa Ana winds were blowing dusty, dry air inland toward the coast when the quake struck. The lines that bring water, electricity and gas to Los Angeles all crossing the San Andreas Fault would be damaged and repairs would take months. The reservoirs on the Los Angeles side of the San Andreas do contain at most a six month supply when full, but that has not been the case recently, particularly during the last extended drought. Though most modern buildings built to newer seismic codes may survive, many would be structurally unusable. The aftershocks would continue to cause destruction over the following days and weeks.

The ShakeOut scenario estimated damages on the order of \$200 billion, 50,000 injuries and 2,000 deaths. Those surviving would be living under difficult and miserable conditions with damaged systems they rely on - water, electricity, sewage systems, telecommunications, roads – possibly unavailable for up to a year. Without functioning infrastructure, the local economy could easily collapse, and people would abandon Los Angeles.

Compare this scenario to our experience and you can see how fortunate we really were. Although gas and electric utilities did experience localized outages and damage, the response was immediate and services were repaired, restored and tested quickly.

While some customers unfortunately experienced damage on their side of service, customers of the Indian Wells Valley Water District did not experience interruption of their water supply throughout the entire series of earthquakes. There has been some damage to our facilities, but system redundancy has kept the water flowing. We have compiled a list of damages and submitted a preliminary estimate to the Governor's Office of Emergency Services. Governor Newsom's Proclamation of a State of Emergency makes us eligible for recovering 75% of the eligible repair costs. At this time, we are still determining possible related damage and gathering cost estimates, particularly for our water storage tanks. We are fortunate for the foresight of the Board of Directors to support the District's Reserve Policy that enables us to bear the cost of these repairs while awaiting reimbursement from the State and without incurring additional debt.

July 4th and 5th of 2019 are days that we will surely remember throughout our lives. I hope that your family has recovered physically and emotionally in the days since and any damages you experienced as a result were minimal. We need to use this as a learning experience to better prepare ourselves for a similar occurrence going forward. Finally, we need to acknowledge the first responders, including our own Water District employees, for a job well done and also recognize the outpouring of support from the various emergency and service organizations as well as our neighboring communities for the assistance they provided, often without being asked.