Cedar Springs Dam Post Seismic Response: Lessons Learned

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On July 4 and July 5, 2019, the Ridgecrest earthquakes occurred in the town of Ridgecrest, California approximately 141 km and 165 km, respectively, north of Cedar Springs Dam. A foreshock with a Magnitude (M) of 6.4 was recorded on July 4, 2019 with the main event occurring on July 5, 2019 producing a M7.1 event. Cedar Springs Dam is a Department of Water Resources (DWR) facility within the East Branch of the State Water Project. The embankment is a compacted earth and rock fill embankment with a main section crest height of 249 feet. The Dam facility includes a zoned embankment, a gated stream release tunnel, an ungated ogee crest concrete lined spillway, and seepage gallery. In response to the earthquakes, DWR staff and their representatives rapidly mobilized to the facility to inspect and assess the condition of the Dam using tools and approaches that have been developed by DWR in planning for and assessing facilities to prior seismic events. A reassessment of those tools was made after the Cedar Springs Dam rapid response and evaluations resulting in a series of response team recommendations. The rapid response team experiences, observations and recommendations for improvements will be presented.