



90th Anniversary of the collapse of Sheffield Dam, CA

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The Dam

- Was constructed in 1917 near Santa Barbara, CA
- The dam and foundation were primarily silty sand that was poorly compacted.
- Seepage had been noticed prior to the failure.

The Earthquake

- At about 6:42 am on June 29, 1925 there was an **earthquake of magnitude 6.8** with an epicenter located about 7 miles N.W. of the dam which caused the dam to fail catastrophically.

The Dam Failure

- The lake was not full and was only impounding approximately 92 acre-ft of water.
- Almost the entire dam collapsed.
- The failure caused flooding of 1-2 feet in the lower part of the city.



What caused the failure?

- After much analysis, the authors of a 1960's ASCE journal article concluded that liquefaction at the base of the dam caused the movement of the embankment and stated that if the dam had been compacted to at least 90% relative density it likely could have withstood the earthquake.



Thank You!