

CVEN 3698
Case Study: St. Francis Dam

The St. Francis Dam was a concrete gravity-arch dam constructed between 1924 and 1926 located 40 miles northwest of Los Angeles. It was built to create a reservoir as a part of the Los Angeles Aqueduct. The reservoir which the dam had created was implemented to protect against drought and provide ample water to Los Angeles if an earthquake or sabotage would occur to the Los Angeles Aqueduct. During the construction of the dam, the chief engineer of the project, William Mulholland, made additions to the design by raising the height of the dam. In 1926 and 1927, cracks appeared in the dam and muddy water leaked through the abutments as the reservoir filled. On March 12, 1928, the dam failed and flooded, killing approximately 600 people. The St. Francis Dam catastrophe is considered to be the worst American civil engineering failure of the 20th century. Today, geologists recognize that the rock found in the San Francisquito Canyon area is unsuitable for supporting a dam and a reservoir; however, geologists in the 1920's did not perceive the geological setting to be a danger.