

CITY OF DUNCAN, CLEAR CREEK LAKE DAM REHABILITATION

STATE PROGRAM: Oklahoma Water Resources Board

ASSISTANCE RECIPIENT: Duncan Public Utilities
Authority

ASSISTANCE AMOUNT: \$15.4M



PROJECT DESCRIPTION

The Clear Creek Lake Dam, which is owned and operated by the City of Duncan, Oklahoma, is an aging dam in need of upgrades to maintain functionality and ensure the continued protection of downstream water quality. In 2022, an Embankment Evaluation and Rehabilitation Alternatives Study revealed that the dam's safety factors did not meet the design criteria, rendering the dam vulnerable to a future flood event. Uneven slopes, tree roots, beaver activity, and several sinkholes with active seepage all contributed to its vulnerability. The failure of the dam would cause significant impairment to downstream water bodies in addition to threatening infrastructure in the community.

The City of Duncan is proactively addressing the threat of dam failure by constructing a new spillway to meet significant-hazard standards. The City received \$15.4 million in CWSRF assistance to complete the dam rehabilitation. The new spillway will be flood resilient, protecting downstream waterbodies and infrastructure as severe wet weather events become more frequent due to climate change. Additional dam improvements will also allow water releases that improve water quality in the lake.

To read more about this case study, please visit <https://www.epa.gov/system/files/documents/2024-04/cwsrf-pisces-2023-recognition-program.pdf>.