

Mountain Creek Dam No. 10 Padera Lake Rehabilitation Project Ellis County, Texas

Fact Sheet
March 2017

History of the Dam:

Mountain Creek Watershed Dam No. 10, known locally as Padera Lake, is located three miles northwest of Midlothian, Texas. The dam was constructed in 1956 as a low hazard dam by the Dalworth Soil and Water Conservation District with the assistance of the Natural Resources Conservation Service (NRCS) Watershed Program.

The dam is one of three dams in the Mountain Creek Watershed, all located in Ellis County. The watershed extends into Johnson, Dallas and Tarrant Counties. The dams were constructed for flood control.



Rehabilitation included construction of a roller-compacted concrete auxiliary spillway.

Why Rehabilitate the Dam?

The dam was originally designed as a low hazard dam with a 50-year service life. It was constructed to help control flooding and to manage sediment.

Because of severe erosion on the back slope of the dam, urban development downstream and changes in dam safety standards since the dam was constructed the 58-year old dam was reclassified as a high hazard dam in 2006.

Rehabilitation Details:

The soil in the new dam was treated with lime to reduce shrinking and swelling.

Over 6,000 tons of rock riprap was placed on the dam's front slope for reinforcement. The dam height remained at approximately 50 feet. The 19-inch principal spillway outlet pipe was replaced with a 42-inch pipe. The earthen spillway was replaced with a roller-compacted concrete (RCC) spillway over the top of the dam. These measures were necessary to meet the criteria associated with a high hazard dam.

Project Cost:

The primary project sponsor, Dalworth SWCD, joined together with several city and county governments to facilitate the \$6 million rehabilitation project. NRCS provided the design and construction inspection services for the project and the Texas State Soil and Water Conservation Board (TSSWCB) allocated state appropriated funds to pay for the construction costs.

Benefits:

Rehabilitation of the dam brought it up to current State dam safety criteria and extended its life and its benefits for another 100 years

Partners:

Dalworth Soil and Water Conservation District
Texas State Soil and Water Conservation Board.
USDA NRCS
Cities of Grand Prairie, Midlothian, Venus; Trinity River Authority; Tarrant County; Ellis-Prairie Soil and Water Conservation District; Ellis County, and Johnson County

For More Information Contact:

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