



TEXAS STATE SOIL & WATER CONSERVATION BOARD

FLOOD CONTROL PROGRAM

Protecting infrastructure, private property, and lives through rehabilitation, repair, and maintenance of Texas' flood control structures

History

Over the past 70 years 2,039 floodwater-retarding structures, or dams, have been built by the United States Department of Agriculture- Natural Resources Conservation Service (USDA-NRCS) through federal programs in Texas. These dams' primary purpose is to protect lives and property by reducing the velocity of floodwaters, and thereby reducing flows to a safer rate. These dams provide over \$151 million in average annual benefits to the people of Texas.

These are earthen dams that exist on private property, and they were designed and constructed by the USDA-NRCS, with the understanding that the private property owner would provide the land, the federal government would provide the technical design expertise and the funding to construct them, and then the local sponsors would be responsible for maintaining them into the future. Local sponsors include Soil and Water Conservation Districts (a subdivision of state government), cities, counties, water control improvement districts, river authorities, and other special purpose districts. With aging dams and rapid urbanization in many parts of Texas, the need for maintenance, dam repair, and rehabilitation continues to grow each year. Currently, 659 dams are classified as high hazard, meaning there is a potential loss of life if the dam fails; however, only 144 of these meet high hazard criteria. That means that 515 need rehabilitation and upgrade to meet safety criteria that will adequately protect lives downstream.

With continuing urbanization, this number is only expected to grow. In recognition that these dams will continue to serve as a critical protection for our state's infrastructure, private property, and lives, the Texas Legislature appropriated funds to the Texas State Soil and Water Conservation Board (TSSWCB) for grants to local Soil and Water Conservation Districts (SWCDs) beginning in 2010 for operation, maintenance, and structural repairs. These grants are administered through two programs, the Operation & Maintenance (O&M) Grant Program, and the Structural Repair and Rehabilitation Grant Program.



Photo Credit: City of McKinney

BY THE NUMBERS

2,039

Flood control dams

659

High hazard dams that have potential for loss of life if dam fails

515

High hazard dams not meeting standards

164

Dams in need of repair

20

Average number of structures reclassified from low to high hazard each year

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Operation and Maintenance Grant Program

The Operation & Maintenance (O&M) Grant Program addresses the growing needs of operation and maintenance of flood control dams. It is a reimbursable grant program for local SWCDs and certain co-sponsors of flood control dams. This program reimburses SWCDs 90% of the cost of an eligible O&M activity as defined by the program rules; the remaining 10% must be paid with non-state funding. Examples of O&M activities include repairing soil erosion, establishing desirable vegetation, fence installation/repair, removal of undesired vegetation, and minor repair of components of the structure. To adequately address all current O&M needs in Texas, it would cost approximately \$14 million.

COST TO ADDRESS FLOOD CONTROL NEEDS

Operation & Management Needs

\$14 Million

Structural Repair Needs

\$110 Million

Rehabilitation/Upgrade Needs

\$2 Billion

Structure Repair and Rehabilitation Grant Program

Currently, there are 164 dams that need repair, and 515 dams that need rehabilitation and upgrade to meet high hazard criteria. The Structural Repair and Rehabilitation Grant Program is addressing this growing backlog by providing state grant funds to local sponsors for dam repair, upgrade, and rehabilitation. This includes matching funds for federal projects through the Dam Rehabilitation Program and the Emergency Watershed Protection (EWP) Program of the Texas NRCS. Since fiscal year 2014, TSSWCB has provided approximately \$44 million in state funding to match approximately \$107 million in federal funding for repair and rehabilitation activities. Repair and rehabilitation/upgrade of dams is costly. Current estimated repair need in Texas is \$110 million, and rehabilitation/upgrade need is \$2.0 billion. These numbers are only expected to grow as dams continue to age, and urban development continues to spread throughout Texas. Over the past 6 years, an average of 20 dams per year have been reclassified from low hazard to high hazard due to urban development downstream.

Photo Credit respectively: Freese and Nichols, Inc., San Antonio River Authority, NRCS

