History

Over the past 70 years 2,041 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, 641 dams are classified as high hazard, meaning there is a potential loss of life if the dam fails; however, only 123 of these meet high hazard criteria. That means that 514 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.
Structural Repair and Rehabilitation Grant Program
Currently, there are 181 dams that need repair, and 518 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 provide 95% of dam repair cost and 98.25% of dam upgrade cost, and matching funding 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 $22.5 million in state funding to match approximately $78.2 million in federal funding for repair and rehabilitation activities. Repair and rehabilitation of dams is costly. Current estimated repair need in Texas is $135 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 21 dams per year have been reclassified from low hazard to high hazard due to urban development downstream.

For More Information
Contact Steve Bednarz at sbednarz@tsswcb.texas.gov or (254) 773-2250.

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 $12 million.

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Cost to Address Flood Control Needs

- **$12 Million** - Current O&M Needs
- **$135 Million** - Structural Repair Needs
- **$2 Billion** - Cost of rehabilitating and upgrading 518 dams to meet high hazard criteria

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