Association of State
Dam Safety Officials

Issue Brief

The National Dam Safety Act (reauthorized in 2014 as part of the Water Resources Reform and Development Act)

Summary

- The National Dam Safety Program was reauthorized in May 2014 as part of the Water Resources Reform and Development Act. This modest yet vital program (app. $12.9 million) enables the states to improve their dam safety programs, which translates into reduced risks to life and property.
- The NDSP provides training; technical assistance; research funding; public awareness; and support to states through incentive grant awards that encourage states to improve their programs. No funds under this act may be used to repair any dams. The funds are targeted to support states and to advance the national effort to improve dam safety.
- The 2014 legislation reauthorizes the National Dam Safety Program for five years at the following funding levels:

  1. $.75 million over five years in training assistance to state engineers; and
  2. $1.45 million over five years in research funds to identify more effective techniques to assess, construct and monitor dams; and
  3. $9.2 million over five years split among the states, based on the relative number of dams in each state, to make improvements in programs moving toward satisfying all of the 14 basic statutory authorities and programmatic functions identified in the NDSPA; and
  4. $.5 million over five years for the National Inventory of Dams; and
  5. $1 million over five years for a public awareness program

Benefits

The state assistance grants are based on the number of dams in each of the participating states and are used as an incentive to encourage states to improve their program by meeting basic criteria such as:

- State statutory authority to conduct inspections of dams;
- State authority to require repairs to unsafe dams;
- State authority to take emergency actions if a dam is failing; and
- State policies that address enforcement issues.

These funds help states meet their own unique challenges. States have utilized funds to perform dam failure and dam stability analyses, to hire additional staff to conduct inspections and to conduct owner education workshops. In addition, funds have enabled states to provide additional staff training, and to purchase equipment such as computers, field survey equipment and software, and remote operated cameras for internal inspections. Several states have utilized the grant funds to develop Graphic Information Systems (GIS) to identify the locations of their dams and to map the areas below the dams that would flood in the event of a dam failure. This is especially critical in case the area has to be evacuated.

The training program provides access to technical courses and workshops that state engineers could not otherwise attend. Examples include Dambreak Analysis, Concrete Rehabilitation of Dams, Slope Stability of Dams, Earthquake Analysis, Emergency Action Planning and many others including recent training in Dam Site Security.

The Research Program is an important program to all within the dam safety community. Its funds have been used to identify future research needs such as inspections using ground penetrating radar or risk analysis. Technical guidebooks are on the shelf now with support from this funding. In addition, funds have been used to create a national library and database of dam failures and dam statistics as well as a national clearinghouse and library of dam safety bibliographic data at ASDSO.

Newly funded under the 2014 law is a public awareness program which will focus on developing a national public awareness and outreach initiative to assist the public in preparing for, mitigation, responding to, and recovering from dam incidents.

Background	• In ASCE's *2013 Report Card for America's Infrastructure*, dams received a grade of **D**. Additionally, it has been noted that there are over 4,095 deficient dams in the United States, which have deficiencies that leave them highly susceptible to failure. • Dams provide tremendous benefits including water supply, flood protection, hydroelectric power, irrigation and recreation. There are over 84,000 dams in the United States; however, only 15% of those dams are owned, operated or regulated by Federal agencies (USACOE, DOI, FERC, TVA, etc.). The bulk of the responsibility to assure the safety of the nation's dams falls on the shoulders of the states. Many state programs are understaffed and under-funded to carry out the job and still others are truly overwhelmed by the task. • The Federal government has an important leadership role, considering that dam failures cause loss of life and significant damage to downstream property and critical infrastructure. Funds to repair and recover after a dam failure come from the Federal government through the National Flood Insurance Program and from the President's disaster relief fund. Dam failures do not respect state boundaries and often dams in one state may threaten people and property downstream in a neighboring state. Clearly there is a need for Federal leadership to support state dam safety programs similar to the bridge inspection program of the Federal Highway Administration • The **National Inventory of Dams** is a large database of over 84,000 dams in the United States, developed, updated and maintained by the Army Corps of Engineers. The database provides important information such as size, location, purpose, age, etc. about the country's dams. It is extremely valuable in assessing the changes in the nation's dams (new dams built, major dam rehabilitations, dams removed, etc.)
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