RECLAMATION Managing Water in the West

Teton Dam History & Facts

On June 5, 1976, Teton Dam in southeastern Idaho catastrophically failed during its first fill. Early that Saturday morning, bulldozer operators tried in vain to plug seepage holes on the downstream face of the dam. By 11 a.m., a torrent of water ripped through the dam, releasing more than 1 million cubic feet per second. The communities of Sugar City, Rexburg, and Wilford were battered by the trees, houses, cattle, and cars carried by the floodwaters. This disaster resulted in the loss of 11 lives and millions of dollars in property damage.

The failure of Teton Dam was a catalyst for Reclamation's <u>Dam Safety</u> program. The goal of the Dam Safety program is long-term



stability of dams to protect lives and property, and ensure the physical integrity of Reclamation dams. The program is recognized worldwide as the standard for Dam Safety and Risk Management. The commitment to dam safety extends from the Commissioner in Washington, D.C., to the field staff at every Reclamation dam. Reclamation engineers assess all Reclamation dams under strict criteria established by the program. Each structure is periodically reviewed for stability under seismic and hydrologic loading, indications of internal erosion and physical deterioration.

Facts about Teton Dam

- Teton Dam was constructed from February 1972 to June 1976. The Bureau of Reclamation designed Teton Dam and awarded the construction contract to Morrison-Knudsen Company, Inc. The contract award totaled \$39,476,142.
- The Teton Dam site is located in southeastern Idaho, 12 miles northeast of Rexburg.
- Teton Dam was intended to provide flood control, power generation, recreation, and supplemental irrigation water for 111,250 acres of farmland in the Upper Snake River Valley.
- Teton Dam failed June 5, 1976, releasing over 230,000 acre-feet of water.
- Eleven deaths resulted from the disaster and about \$400 million in property damage.
- The towns of Wilford, Sugar City, Roberts, and Rexburg were struck the hardest, and parts of Idaho Falls and Blackfoot were also flooded.
- Floodwaters were contained 70 miles downstream at American Falls Reservoir.
- Engineers and geologists come from all over the world to look at and learn from the failed dam site.
- Learn more at: http://www.usbr.gov/pn/snakeriver/dams/uppersnake/teton/index.html.



Safety of Dams Program

- After Teton Dam failed, Reclamation established its Dam Safety program, which is now used as a model for dam safety all over the world.
- The Safety of Dams Act became public law Nov. 2, 1978. "An act to authorize the Secretary of the Interior to construct, restore, operate, and maintain new or modified features at existing federal Reclamation dams for Safety of Dams purposes."
- The Safety of Dams program focuses on evaluating and implementing actions to resolve safety concerns at Reclamation dams.
- The goal of the Safety of Dams program is long-term stability of Reclamation dams to protect lives, property, and ensure the physical integrity of the dams.
- Under the Safety of Dams program, Reclamation completes studies to identify and accomplish needed corrective action on Reclamation dams. The selected course of action relies on assessments of risks and liabilities with environmental considerations and public involvement also informing the decision-making process.
- Comprehensive Reviews are performed every eight years and look at the changes in the state of the art construction methods, the loading conditions on the dam, downstream population and an evaluation of risks.
- Periodic Facility Reviews are conducted every eight years and alternate with the CRs on a four-year cycle. The PFR involves a detailed on-site examination of structures.
- Annual site inspections are conducted during the years in which there are no CRs and PFRs.
- Emergency Action Plans are updated annually and tabletop and functional exercises are performed for every four years on an alternating schedule. Tabletop exercises are an information discussion of actions to be taken in case of an emergency and functional exercises are action-based exercises where players perform or simulate their response to a given scenario.
- Learn more at: <u>http://www.usbr.gov/ssle/damsafety/index.html</u>.