

Reinvesting in America's Watersheds: A Special Report

DAMS IN DANGER PEOPLE AT RISK?

TENNESSEE TENNESSEE

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For 50 years, America's small upstream dams have provided for flood protection, municipal water supplies, wildlife habitat, water for livestock, and recreational opportunities. But time has taken its toll. Many of the nation's dams, including those in Tennessee, are in desperate need of repair. If problems are not corrected, the consequences are grave—to both people and the environment. Funding is needed, and now is the time to act.



Across the Nation...

More than 600 dams need to be rebuilt and upgraded to ensure the safety and health of those downstream. In addition, another 1,500 dams need repairs so they can continue to provide flood control, municipal water supplies, recreational activities, water for livestock, and wildlife habitat. An estimated \$540 million is needed to rehabilitate these dams.



Small watershed projects

Ten thousand dams built under Small Watershed Programs make up a \$9 billion infrastructure. These dams provide more than \$800 million in benefits annually. The majority of these dams were built for a 50-year lifespan and some have already or soon will reach that mark. Funds for building these dams have come from four programs: Flood Control Act of 1944 (PL-78-534); Pilot Watershed Program; Watershed Protection and Flood Prevention Act of 1953 (PL 83-566); and Resource Conservation and Development (RC&D).

In Tennessee...

Tennessee's 49 watershed projects were organized under PL-566. Two



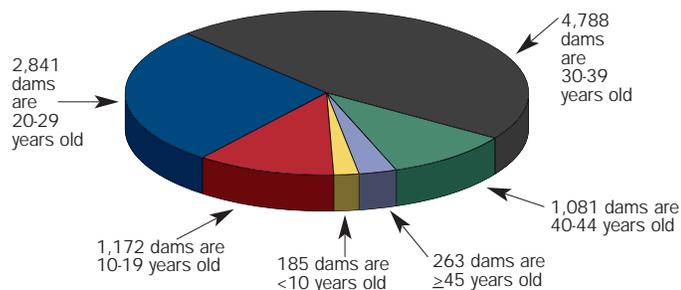
Tennessee's small watershed projects with dams

"pilot" watersheds were among the first small watershed projects in the nation. Twenty-three projects include flood-control dams; another dam was constructed to PL-566 standards as part of an RC&D project. These projects include 137 dams with a total investment of \$95 million.

The first dams, which were built to last 50 years, will begin to reach their evaluated life expectancy in five years. In 15 years, 54 dams (40 percent) will reach their evaluated life; in 20 years, 80 dams (60 percent) will have reached their evaluated life.

The benefits these watersheds provide far outweigh rehabilitation costs. The 13 projects with 43 dams needing repair furnish \$22 million in annual benefits and affect the lives of about 30,000 people. Roads, bridges, and parks are safer because of the dams, which also improve water quality, enhance wildlife habitat, and provide recreation.

Our Nation's Aging Dams



DAMS IN DANGER

PEOPLE AT RISK?

A Case Study...

The 48,000-acre Mud Creek Watershed Project in northwest Tennessee's Weakley County was planned in 1968 to provide relief from flood and sediment damage and reduce upland erosion.

Dam No. 17 in the Mud Creek Watershed Project is a typical small watershed flood-control dam. In 1979 this area was rural farmland so the dam was constructed as a low hazard dam since no people were at risk. This area, like many others across the nation, has experienced development downstream from the dam.

Today when one looks downstream from the dam, the steeple and sanctuary of the Fellowship Baptist Church can be seen on the right of the stream. On the left side of the stream is a group of homes. Both the church and the homes are within about 200 feet of the dam.

To ensure the long-term safety of these homes and the church, this dam must be rehabilitated and upgraded to meet current high hazard criteria. The estimated cost to upgrade the dam is \$500,000. While the Mud Creek Watershed District has maintained an adequate maintenance program, it does not have funding to pursue costly rehabilitation work.

In Tennessee, it's estimated that 16 dams need this type of major upgrade due to downstream development, and an additional 27 dams have various major needs to ensure their long-term safety and stability.



ABOVE: The problems facing the dams include downstream development, which changes the dam's hazard classification. At Dam No. 17, Mud Creek Watershed, a church and homes have been built downstream. LEFT: One of the benefits of the dams is providing improved water quality. The current situation poses a safety and health threat to people, communities, and our wildlife.

A Call to Action in Tennessee

16

dams need to be rebuilt and upgraded to protect life and property in downstream areas

27

dams need repairs to safeguard municipal water supplies, provide flood control, and protect natural resources

\$12 million

is needed to rehabilitate those dams to protect people and natural resources