

# Reinvesting in America's Watersheds: A Special Report

## DAMS IN DANGER

TEXAS TEXAS TEXAS TEXAS PEOPLE AT RISK? TEXAS TEXAS TEXAS TEXAS

**F**or 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 Texas, 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.

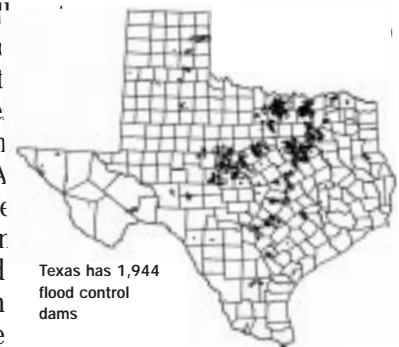


Small watershed projects

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 Texas...

There are 144 small watershed projects in Texas (104 completed or under construction). The total local investment in the projects is \$870 million statewide. The USDA investment in these projects is \$630 million.

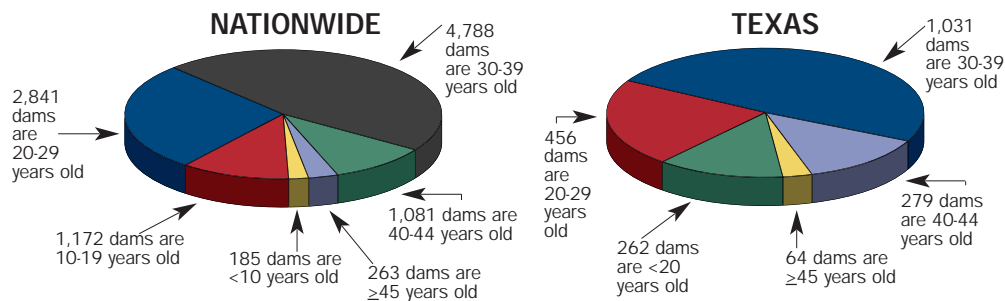


Texas has 1,944 flood control dams

Nearly 2,000 flood control dams have been built as part of these projects, beginning as early as 1948. By 2002, 25 flood control dams will have reached their life expectancy with this number increasing to 342 over the next 10 years. An additional 100 need attention to address structural deterioration, excessive sediment, and slope instability. Currently, 158 dams must be upgraded due to downstream development.

Taking no action could result in significant impacts to 12.3 million people, including potential for loss of life, destruction of private property and vital public infrastructure. In jeopardy are \$20 million in annual benefits. Action must be taken now to protect this investment in small watershed projects.

## Our Aging Dams



# DAMS IN DANGER

## PEOPLE AT RISK?

### Two Case Studies...

#### Providing Flood Control and Protecting the Environment: Plum Creek Watershed

The Plum Creek Watershed project began in 1960, with 18 dams installed by 1975. The investment has paid off in many ways. Sediment is held by the dams, improving downstream water quality. Maintenance costs for roads and bridges have diminished greatly. And there is far less destruction from frequent flooding. In October 1998 about 17 inches of rain fell over the watershed in a 24-hour period. Downstream damages were reduced and lives were saved due to these flood control dams.

This investment is now threatened in Plum Creek and in many small watersheds, primarily across the Blackland region of Texas. Slope failures and decay of vital components place many of the aging dams at risk. Opportunities for additional benefits—rural fire protection, recreation, wildlife, and quality water supply—make this investment in a healthy watershed even greater.

#### Protecting Life and Property: Martinez Creek Watershed

When Martinez Creek Watershed was planned, less than 1,000 people lived in the basin and the economy was almost entirely agricultural. Forty years later, the population has grown 100 fold with the cities of Converse and Universal City now suburbs of the expanding San Antonio metropolitan area. When the six flood control dams were built in the mid-1960s no one could have imagined the extensive downstream development that would occur.

While the dams provide an estimated \$696,000 in annual benefits, far more valuable are the positive impacts on people's lives. However, due to this boom in development, the dams must be upgraded to meet current state dam safety laws and ensure continued protection of the watershed and the lives of people downstream.



Once a rural agricultural setting, Martinez Creek is now dominated by urban land use. This aerial view shows the development around and downstream of the flood control dam in the center of the photo.



Unstable slopes on earth dams is a major problem.

### A Call to Action in Texas

**158**

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

**125**

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

**\$84 million**

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