

# Reinvesting in America's Watersheds: A Special Report

## DAMS IN DANGER PEOPLE AT RISK?

ARKANSAS ARKANSAS

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**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 Arkansas, 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.

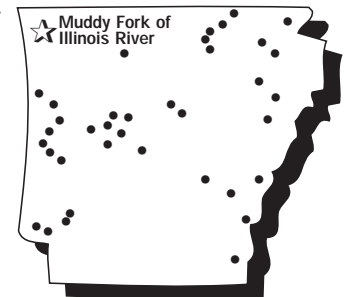


Small watershed projects

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 Arkansas...

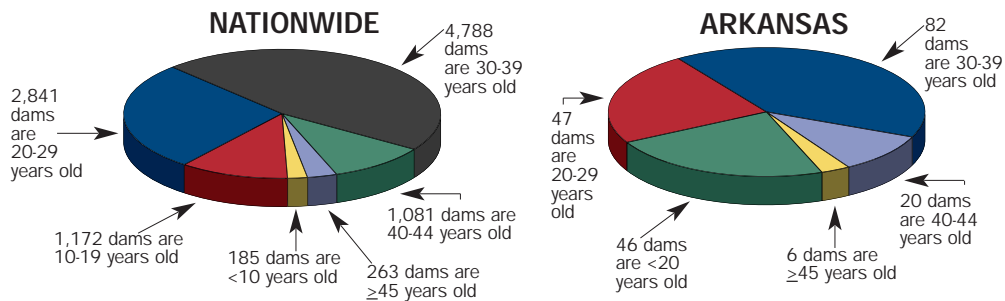
In 1954, Arkansas completed its first small watershed flood-control dam. Of the other 196 dams in the state, 14 will reach the end of their planned useful life by the year 2005, with 17 more by 2010. Some of the dams will need major work to extend their life; others need rehabilitation even before the end of their planned life. Just consider:



Arkansas has 201 dams in 54 small watershed projects

- 18 dams that were built to protect agricultural lands now have homes or other buildings built downstream.
- 59 dams, if not repaired, will have significant and adverse environmental, economic, and social impacts.
- At least \$20 million will be needed to rehabilitate these dams.
- The 201 upstream flood-control dams in 54 watersheds provide flood protection for over 225,000 acres.
- The dams make up a \$215 million infrastructure and provide \$7 million in annual benefits.

## Our Aging Dams



## A Case Study...

During the 1960s and 1970s, local sponsors, with assistance from the Natural Resources Conservation Service, built four dams on the Muddy Fork of the Illinois River. These sites have provided flood protection, recreation, and two municipal and industrial water supplies for the cities of Prairie Grove and Lincoln.

This watershed project has greatly contributed to the economic growth of the area by providing more than \$542,000 in annual benefits. Other benefits include fish and wildlife habitat, habitat for endangered species, improved water quality, erosion control, increased employment, rural fire protection, and community pride. These lakes have served northwest Arkansas for 35 years, but as the dams age, their ability to continue to provide all these benefits must be examined.

The population of northwest Arkansas, where the Muddy Fork of the Illinois River watershed is located, has grown more in the past 15 years than any other region in the state. This growth has caused changes in land use that impact watersheds. Four dams were built in the 1960s and 1970s at a current expenditure of nearly \$8 million in federal cost and \$7 million in local cost.

The present and future economic, social, and environmental benefits of these lakes must be addressed. Without continued support, the dams will deteriorate. Thousands of citizens and businesses will risk losing the flood protection, water supply, and recreation these lakes provide. Many will risk loss of life if the dams fail. Site 3 was constructed as a low hazard dam, but the construction of homes downstream from the dam has changed it to high hazard. Sites 2 and 4, constructed as low hazard, are now significant hazard. These dams must be upgraded to meet state dam safety laws.

Topics that must be addressed include water quality, sediment accumulation, deteriorated concrete and steel, and downstream safety requirements. These are major expenses that exceed what local sponsors can afford.



**THE PROBLEMS.** Concrete and steel in the main spillway will need repairs or replacement due to age (above). Houses and other buildings (left) were constructed below the dam after the lake was built. To meet today's dam safety laws, the dam will need to be rehabilitated.



**POSITIVE IMPACTS.** This youngster enjoys water from a fountain that is supplied by the water supply lake in the Muddy Fork watershed.

## A Call to Action in Arkansas

**18**

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

**59**

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

**\$20 million**

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