

# Reinvesting in America's Watersheds: A Special Report

COLORADO COLORADO

## DAMS IN DANGER PEOPLE AT RISK?

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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 Colorado, 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.

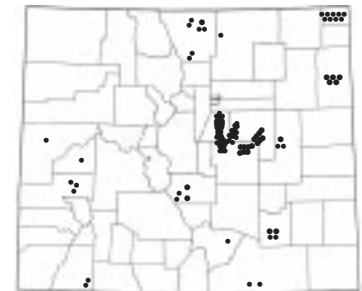


Small watershed projects

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 Colorado...

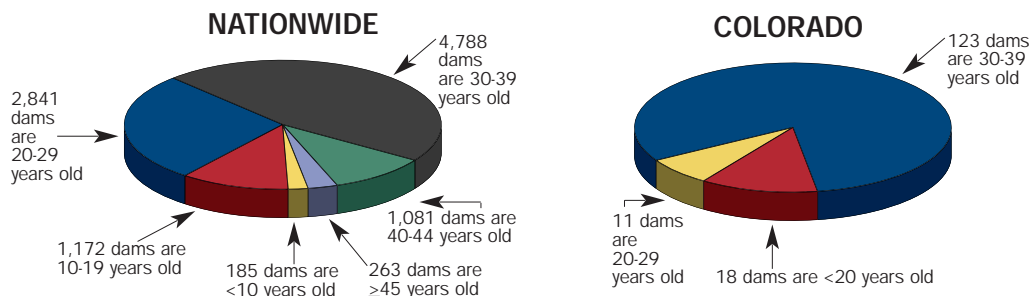
Colorado's Small Watershed Program began in 1954 with the Kiowa Creek Watershed located in the east-central part of the state in Elbert and El Paso counties. The watershed flows into the South Platte River Basin. While the watershed continues to provide many benefits, the dams have problems that must be addressed. Just consider:



Colorado has 152 small flood-control dams

- 16 dams that were built to protect agricultural lands now have homes or other structures built downstream in the flood plain.
- 33 dams, if not repaired, will have significant and adverse environmental, economic, and social impacts.
- An estimated \$28 million is needed to rehabilitate these dams.
- The 152 upstream flood-control dams in 22 watersheds provide flood protection for more than 1 million acres and make up nearly a \$60 million infrastructure.

## Our Aging Dams



# DAMS IN DANGER

PEOPLE AT RISK?

## A Case Study...

In the north-central part of Colorado, Boxelder Creek Watershed Dams are in need of being rebuilt. The five watershed project dams were designed to protect agricultural lands from floodwater, sediment, and erosion damages. New residential development downstream from the dam added the protection of human life as a new concern for three of these dams. With the recent residential and commercial development, the watershed has become part of Colorado's "Growing Pains."

It is projected that only 1,150 square miles of land in Colorado will be subject to residential growth between 1990 and 2020, if current development densities persist, according to an article by Thomas Clark (*Denver Post*, February 14, 1999). Protecting lives and structures downstream calls for a more stringent design than does protecting agricultural land. The North Poudre Irrigation Company has maintained the dams, but doesn't have the funds to make major upgrades to meet their changed requirements for protection of human life.

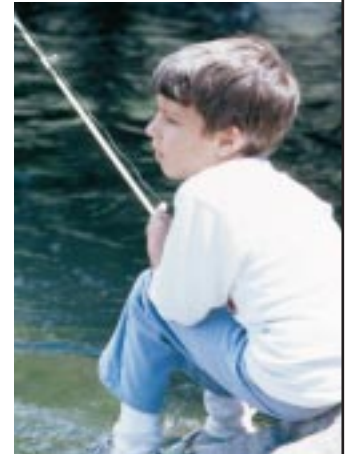
The watershed includes 160,640 acres and encompasses the city of Wellington and the eastern portion of Fort Collins along Interstate 25. It drains into the Cache La Poudre River, which is a tributary to the South Platte River. The Fort Collins Soil Conservation District was the local sponsor of the project; however, North Poudre Irrigation Company assumed operation and maintenance of the dams after construction.

The local sponsors, with assistance from the Natural Resources Conservation Service (NRCS), built these flood-control dams as part of the watershed project between 1970 and 1988. This was done under the authority of the Watershed Protection and Flood Prevention Act.



**THE PROBLEMS.** Top: Seep area below dam; note strong seep in gutter. Above: Cracks across dam (left) and above draw down pipe (right). In addition, the dams were constructed to protect agricultural lands, but downstream areas have since developed. This means the dams may need to be rebuilt, which will be costly.

**WHY REPAIR THE DAMS?** Right: Children and adults enjoy the recreational benefits the dams provide. Additionally, clean water is vital to whole communities. The current situation poses a safety and health threat to people, communities, and natural resources.



## A Call to Action in Colorado

**16**

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

**33**

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

**\$28 million**

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