

# Reinvesting in America's Watersheds: A Special Report

## 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 Virginia, 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.

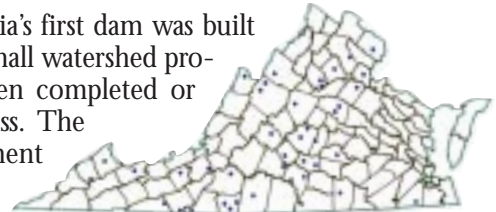


Small watershed projects

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 Virginia...

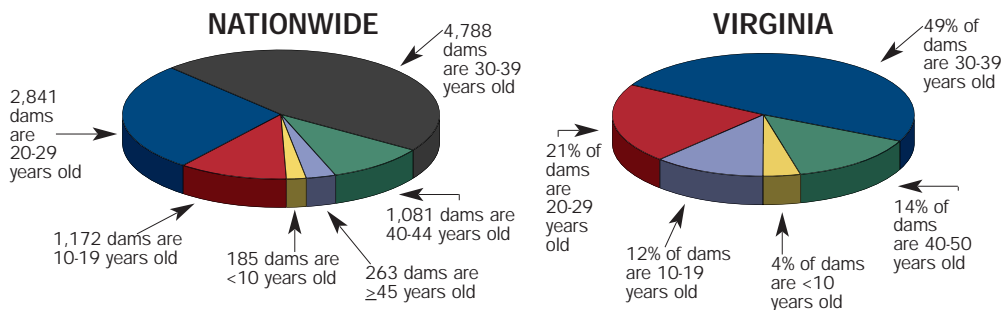
Since Virginia's first dam was built in 1957, 49 small watershed projects have been completed or are in progress. The local investment in these projects is \$21 million state-wide. The USDA investment is nearly \$60 million. Although not all of these dams are in critical need of rebuilding, Virginia has many dams that need major rehabilitation. Just consider:



Virginia's small watershed projects

- Ten dams that were built to protect agricultural lands now have homes or other structures built downstream.
- Six dams need repairs that, if not corrected will cause significant and adverse environmental, economic, and social impacts.
- An estimated \$10 million is needed to rehabilitate these dams.
- There are 144 upstream flood-control dams in 49 watersheds. The dams provide flood protection to millions of acres and make up a \$216 million infrastructure.

## Our Aging Dams



# DAMS IN DANGER

PEOPLE AT RISK?

## A Case Study...

Located in the rolling foothills of the Blue Ridge Mountains in southwest Virginia, the Marrowbone Creek Watershed is in dire need of rehabilitation. The primary problem involves the emergency spillway that does not meet current Virginia dam safety regulations.

The dam was built in 1961 to reduce erosion and flood damage to cropland and pastureland. Since then, homes, roads, and bridges have been built downstream. Protecting lives and property calls for a more stringent design than protecting agricultural land. The local soil and water conservation district has maintained the dam for nearly four decades, but doesn't have the funds needed to make major repairs.

The watershed covers nearly 19,300 acres (30 square miles). The dam controls 37 percent of the watershed which drains into the Smith River. Local sponsors of the project are the Blue Ridge Soil and Water Conservation District and Henry County. The local sponsors, with assistance from the Natural Resources Conservation Service, built the flood-control dam and five miles of channel improvement as part of the watershed project between 1961 and 1967. This was done under the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566).

The dam reduced erosion and sediment damage on 300 acres of cropland and created 34 acres of lake for fish and wildlife habitat. It provides a constant stream flow to support a water supply for the town of Ridgway and water for irrigating crops. It also protects roads and bridges from flooding, including U.S. Highway 220—the major route from Greensboro, North Carolina, to Roanoke, Virginia.

When the Virginia Dam Safety Agency conducted an in-depth assessment of the state's aging dam structures in 1998, it ranked Marrowbone Creek number one on its list of top ten priority dams for rehabilitation. Repairing the dam will require raising its height and widening the earthen spillway in order to meet dam safety laws.



THE PROBLEMS. Development downstream requires upgrading the dam to meet safety criteria. Marrowbone Creek Watershed has protected homes, roads, bridges, farmland, and residents for almost 40 years.



WHY REPAIR THE DAMS? Clean water and flood control are important to the 10,000 residents who live here. The current situation poses a safety and health threat to people, communities, and natural resources.

## A Call to Action in Virginia

**10**

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

**6**

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

**\$10 million**

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