

# 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 Pennsylvania, 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.

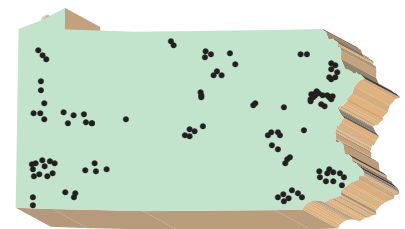


Small watershed projects

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 Pennsylvania...

Pennsylvania has some of the nation's oldest dams. Because of their age, many of these dams need major repair or even removal. The state's Department of Environmental Protection is coordinating these efforts through its Dam Safety Division.

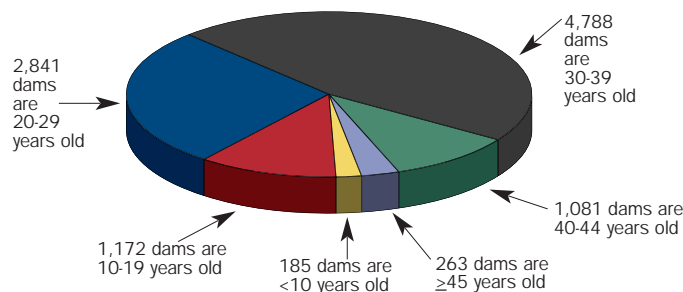


Pennsylvania's watershed projects

Since the 1950s, the local sponsors, assisted by the Natural Resources Conservation Service, have built more than 91 dams in Pennsylvania, primarily for flood protection under the PL-566 program. Although these dams continue to function in a safe manner today, at least 14 dams have problems, which if not corrected, could increase the risk of failure during floods.

What will it take to repair Pennsylvania's aging dams? Generally, the repairs involve replacing damaged concrete and metal components at the outlet works, or rehabilitating gates that drain the reservoir.

## Our Nation's Aging Dams



# DAMS IN DANGER

PEOPLE AT RISK?

## A Case Study...

In western Pennsylvania, the Sandy Creek Watershed was developed to reduce damage to agricultural lands and to protect the communities of Sandy Lake and Stoneboro. In addition to upland conservation activities, the local sponsors, with the assistance of the Natural Resources Conservation Service, built two dams to protect this 42,000-acre watershed. There were 14 project sponsors, including the local municipalities, Mercer and Crawford counties, the Pennsylvania Department of Highways, the Pennsylvania Fish Commission, the Pennsylvania Game Commission, and the Pennsylvania Department of Forests and Water.

One of the two dams, Lake Wilhelm, controls 58.8 square miles of drainage with more than 25,000 acre-feet of storage for flood protection and to provide fish and wildlife habitat. Although the sponsors have provided adequate maintenance, the structure has developed several problems which will be expensive to repair under their normal operating budgets. Repairs that need to be made include:

- Replace concrete in the outlet pipe and the outlet structure, which has been damaged by the severe winter weather during recent years.
- Add rock to the emergency spillway to repair erosion caused by excessive groundwater seepage.

Repairs are expected to cost about \$170,000.

Lake Wilhelm has been selected as one of the dams targeted for rehabilitation. This dam, like most small flood-control dams in the state of Pennsylvania, is a high hazard dam because it protects people, homes, major roads, and businesses.

Although all of these watershed dams have many useful years of service remaining, additional monies will be needed to maintain them at a high level of safety as they age.



**TYPICAL PROBLEMS.** Damaged trash racks or gates prevent proper operation of the reservoir. Large amounts of debris and sinkholes, shown here at the outlet, can result.



**RESIDENTS DEPEND ON OUR DAMS.** From trout fishing and other recreational activities to simply clean water to drink, residents have come to rely on Pennsylvania's dams. The dams also protect municipal water supplies and provide flood protection for downstream residents. Lives and infrastructure can be at risk if dams are not properly maintained.

## A Call to Action in Pennsylvania

**91**

dams have been built in Pennsylvania since the 1950s by local sponsors with assistance from the Natural Resources Conservation Service

**14**

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

**\$817,000**

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