

**Sugar Creek Watershed Dam No. L- 44  
Caddo County, Oklahoma**



Dam L-44 during rehabilitation construction.

This dam was severely damaged in 2007 as a result of Tropical Storm Erin which dropped over eight inches of rain in the watershed in six hours. The auxiliary spillway eroded down to sandstone which directed flow toward the back toe of the dam causing a near failure of the embankment.

Water flow during the storm overtopped a county road immediately downstream of the dam sending sediment and a large volume of water downstream toward houses within the breach inundation area.

The rehabilitation of the dam included relocating the dam further downstream so that it will serve as a county road. The auxiliary spillway was designed to flow through a box culvert under the new paved road.

The project was coordinated with the Oklahoma Department of Transportation, Caddo County Commissioners, Bureau of Indian Affairs, South Caddo Conservation District, Oklahoma Conservation Commission and the Natural Resources Conservation Service.

**Yellow River Watershed Dam No. 14  
Gwinnett County, Georgia**



This dam was built in 1968 under the Resources Conservation and Development Program (RC&D).

The dam was built as a significant hazard dam based upon the fact that two state highways were downstream from the dam. Since 1968 the population of the county has increased from 73,000 to 625,000 and urban development has occurred both upstream and downstream from the dam.

There are 45 homes in the dam breach zone and this prompted the Georgia Environmental Protection Division to identify the dam as a high hazard dam. The dam was approved for rehabilitation by NRCS and the project has been completed.

A roller compacted concrete spillway was constructed over the top and down the back slope of the dam. Construction cost was \$1.8 million and the public benefits associated with the project are \$3.7 million annually. The life span of the dam was extended for another 100 years.

# Watershed Rehabilitation Progress Report

January 2013

**The Watershed Program Has Provided Multiple Benefits to Communities for Over 60 Years**

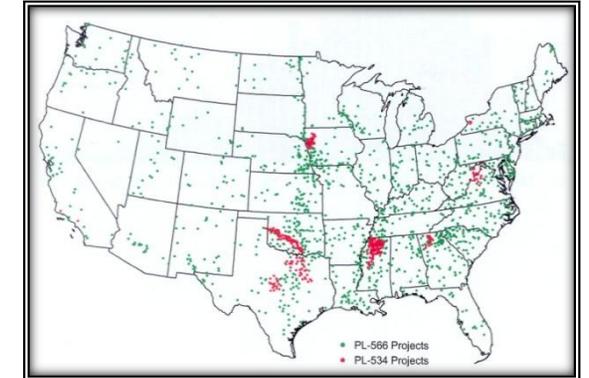
Congress established the Watershed Program by enacting the Flood Control Act of 1944 (Public Law 78-534) and the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566). Under these authorizations, the USDA Natural Resources Conservation Service has assisted watershed project sponsors in the construction of more than 11,800 flood control dams in 1,300 watersheds in 47 states since 1948.

These projects provide an estimated \$2.2 billion in annual benefits in reduced flooding and erosion damages, recreation, water supplies, and wildlife habitat.

**Time Has Taken Its Toll on Dams**

Many dams today are in a far different setting than when they were constructed. Population has grown; residential and commercial development has occurred upstream and downstream from the dams; land uses have changed; sediment pools have filled; and concrete and metal components have deteriorated.

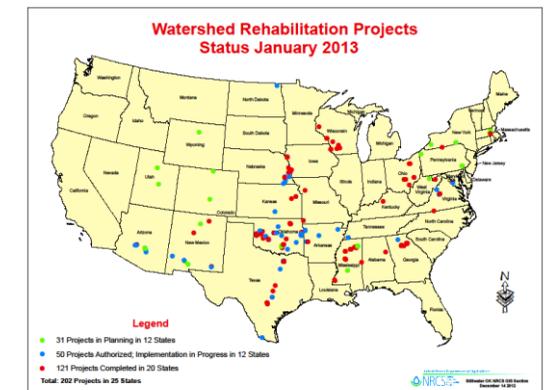
Many dams do not meet current state dam safety regulations that have been enacted and revised with more stringent requirements than when the dams were built. Many of these dams are also nearing the end of their planned life span of 50 years and some need rehabilitating to ensure they remain safe, continue to function as designed and to continue providing benefits.



Flood control dams have been constructed in 1,300 watersheds in 47 states and Puerto Rico.

**Status of Rehabilitation Projects**

As of January 2013, there are 202 approved rehabilitation projects in 25 states. One hundred and twenty-one of these projects in 20 states have been completed; 50 projects in 12 states are being implemented (either in design or construction phase); and 31 projects in 12 states are in the planning stage.



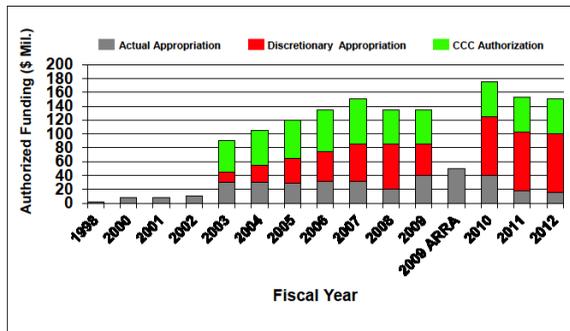
## Watershed Rehabilitation Amendments of 2000

Congress passed the Watershed Rehabilitation Amendments of 2000 which amended the Watershed Protection and Flood Prevention Act (Public Law 83-566) and authorized the Natural Resources Conservation Service to provide technical and financial assistance to watershed project sponsors in rehabilitating their aging dams.

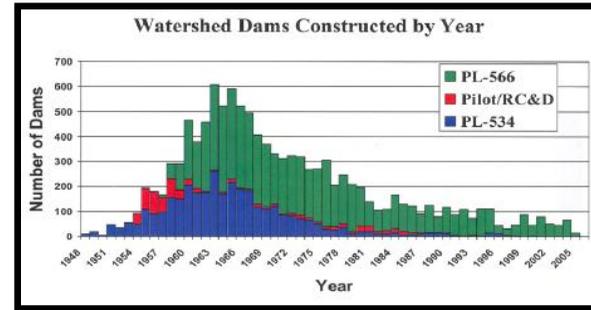
The purpose of rehabilitation is to extend the service life of the dams and bring them into compliance with applicable safety and performance standards or to decommission the dams so they no longer pose a threat to life and property.

The NRCS provides technical assistance and 65 percent cost share on approved rehabilitation projects. This funding comes from Congressional appropriations as authorized through the Farm Bills.

Authorized and Appropriated Funding for Watershed Rehabilitation



Funds for rehabilitation are authorized in the Farm Bills and appropriated annually by Congress. Discretionary and Commodity Credit Corporation funding has been authorized.



Many of the 11,800 flood control dams were constructed in the 1960s-70s and now are 40 to 50+ years old.

### Local Sources of Cost-Share Funds

Local watershed project sponsors provide thirty-five percent of the cost of a rehabilitation project and obtain needed land rights and permits. The source of these funds varies from state to state.

Some of the methods that are being utilized in states to obtain funding for rehabilitation include:

- Bonds,
- County budgets
- State park division
- State appropriations
- Municipal taxing authority
- Watershed taxing authority
- In-kind technical services

### National Watershed Rehabilitation Contact:

Lorenzo Henderson  
 Watershed Rehabilitation Specialist  
 NRCS, Washington D. C.  
 202-205-4098.  
 Email: [lorenzo.henderson@wdc.usda.gov](mailto:lorenzo.henderson@wdc.usda.gov)

**Following are examples of rehabilitation projects in four states.**

## Pohick Creek Watershed Dam No. 3 Fairfax County, Virginia



Articulated concrete blocks were placed in the auxiliary spillway.

Pohick Watershed Dam No. 3 is one of six dams constructed in the Pohick Creek Watershed to protect homes, businesses, and infrastructure from flooding during large storms. The dam, built in 1981, was reclassified as a high hazard dam when state dam safety regulations were changed.

The Fairfax County and Northern Virginia Soil and Water Conservation District partnered with NRCS to complete a \$1.7 million project using \$1.1 million in American Recovery and Reinvestment Act (ARRA) funds.

Modifications included installing articulated concrete blocks in the auxiliary spillway to prevent severe storm erosion, raising and lengthening the existing training dike; and building a second dike to direct auxiliary spillway flow to the valley floor.

This upgrade will extend the dam's flood control benefits for another 50 years and provide protection for 875 people who live or work downstream. It will also ensure that its walkways, wildlife and open spaces remain a focal point for outdoor recreation.

## Martinez Creek Dam No. 5 Bexar County, Texas



Martinez Creek Dam No. 5 was built in 1964 for flood control and protection of rural agricultural land. Now there are 99 residential, 4 public, and 3 commercial properties located downstream within the breach area. A failure of the dam would put all these properties and an estimated 500 people in danger as well as anyone traveling on Kitty Hawk road.

The lake formed by the dam is an important resource in the community as an integral part of the City of Live Oak's city park. Over 15,000 people visit the park each year with an estimated 1,350 utilizing the lake for fishing, picnicking, migratory bird watching and other water-based activities.

The dam was functioning as designed. However, it was constructed as a low hazard dam and now has been reclassified as high hazard due to urban development downstream and the potential for loss of life if the dam should fail.

The dam was rehabilitated to meet current dam safety standards and to extend its life span for another 100 years. The height of the dam was raised and a roller compacted concrete spillway, new inlet tower and principal spillway pipe were installed.