

Overview

Rehabilitation of Aging Dams

Dams Dot the Landscape

Local communities have constructed more than 10,000 small flood control dams with assistance from the Natural Resources Conservation Service (NRCS) since 1948. Dams are part of our Nation's aging infrastructure that includes highways, bridges, and storm sewers. Local watershed projects represent a \$14 billion national infrastructure investment.

Small watershed projects provide flood control, municipal and irrigation water supply, recreation, erosion control, water quality improvement, wetland development, and wildlife habitat enhancement on more than 130 million acres across the country. Each year, the Small Watershed Program yields benefits of nearly \$1 billion. Local projects are federally assisted, not federally owned projects. Local sponsors own the dams and are responsible for their operation and maintenance.

These dams—located in every state except Alaska, Delaware, and Rhode Island—may be eligible for rehabilitation assistance. The Small Watershed Rehabilitation Amendments of 2000 (Section 313, PL 106-472) authorize assistance for dams constructed under the Small Watershed Program, Pilot Watershed Program, and Resource Conservation and Development Program.

Time Takes Its Toll

The majority of the dams were planned and designed with a 50-year life span. Many of these dams are approaching the end of their designed life—35 already are beyond the end, 450 will reach their end within the next 5 years, and 1,800 will be there within the next 10 years.

As dams get older, deterioration increases and construction costs rise. Some common problems of older dams are:

- Deteriorating metal pipes and structural components—after 50 years, metal rusts and fails.
- Sediment-filled reservoirs—sediment displaces storage of floodwaters. Some sediment may have contaminants from chemicals in runoff from upstream areas.
- Subdivisions and businesses built upstream—roofs and concrete streets and sidewalks increase the volume of runoff to the dam.

Today, many dams are in a far different setting than when they originally were constructed. Most of the dams were built in rural areas to protect agricultural land downstream. Over the years, population growth and urban sprawl have occurred both upstream and downstream from the dams, and land use changes have taken place. Many dams do not meet current state dam safety requirements because of the dramatic changes in the face of the landscape and the land use of the surrounding area.

If a dam should fail, it would pose a serious threat to the health and safety of those living downstream and to the communities that depend on the reservoir for drinking water. A dam failure could create adverse environmental impacts in the same downstream floodplains that it has been protecting for years. When severe storms and heavy rains occur, the dam is often the only barrier between the rising water level and homes, property, and farmland.

Rehabilitation

The legislation authorizes NRCS to work with local community leaders and watershed project sponsors to address public health and safety concerns and environmental impacts of aging dams. NRCS provides technical and financial assistance in planning, designing, and implementing rehabilitation projects for dams or, in appropriate cases, removing them.

More than 70 percent of the dams were built before the National Environmental Policy Act of 1970. Early watershed projects focused on flood control and may not have considered community resource issues such as water quality, riparian corridors, wetland restoration, and threatened or endangered species. Rehabilitation of these dams provides an opportunity for communities to gain new benefits, such as adding municipal and irrigation water supplies, recreation, and wetland and wildlife enhancement.

Rehabilitation projects may be cost shared between the federal government and local sponsors. NRCS will provide 65 percent of the total cost of the rehabilitation project. Local sponsors can provide the remaining 35 percent through “in kind” costs for the value of land rights, project administration, and other planning and implementation costs associated with the project. Federal funds cannot be used for operation and maintenance activities.

Local watershed project sponsors must submit an application—available from the local NRCS office—to request assistance in rehabilitating their dam.

What Can You Do?

Contact your local conservation district, NRCS office, or state dam safety agency about watershed dams in your community that may need rehabilitation. Find out who the local watershed project sponsors are and volunteer to help increase public awareness of the importance of flood control dams in your community. Participate in public meetings about potential rehabilitation projects in your area.

Project sponsors can identify additional resource needs that could be addressed in a potential rehabilitation project. They can identify high priority rehabilitation needs, determine the availability of land rights, and assure that operation and maintenance is current for all their dams.

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