

Keeping Dams Safe

Protecting People, Property and Natural Resources

Upper Hocking Watershed A Pilot Rehabilitation Project

Ohio



The Upper Hocking Watershed Dam No. 8 is one of three flood control dams in Ohio to be included in national pilot watershed rehabilitation projects. These dams will be rehabilitated to ensure they continue to protect lives, property and natural resources in the watershed.

Experience and information gained from these projects will be used as other dams across the nation are rehabilitated.

Situation:

Dam No. 8 is a high hazard dam that does not currently meet dam safety standards. The concrete riser and outlet structure are deteriorating and sediment has accumulated to nearly 100 percent of the designed storage capacity.



The concrete in the principal spillway tower is deteriorating and represents a threat to the safety of the dam.

Why Action is Needed:

Failure of the dam could result in possible loss of lives and the destruction of property and infrastructure that could impact hundreds of people.

Rehabilitation Planning Process:

Several alternatives were considered including taking no action, dam removal and structural rehabilitation options. The alternative selected by local sponsors will extend the life of the dam for at least another 50 years.

A supplement to the watershed work plan was developed and an environmental assessment was conducted as part of the locally-led process of obtaining information and input from local people.

Action:

The alternative selected by local sponsors includes removal and replacement of most of the concrete riser and outlet structure and the removal of accumulated sediment. The width of the auxiliary spillway will be increased from 104 feet to 200 feet.

- ◆ Rehabilitation Project Estimated Cost: \$750,000
- ◆ Funding: Sixty-five percent of the project construction cost and technical assistance will be provided by the USDA Natural Resources Conservation Service through the 2000 Agricultural Appropriation Act. This Act authorized and funded pilot rehabilitation projects in Wisconsin, New Mexico, Ohio and Mississippi. Local sponsors are responsible for 35 percent of the costs and the landrights and easements.



The Mt. Zion road is on top of the dam that is located four miles west of Lancaster, Ohio.

Watershed Project Sponsors:

Hunters Run Conservancy District and Fairfield Soil and Water Conservation District.

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Dam No. 8 was built in 1960 for flood control and is one of eight flood control dams in the watershed. There are also 21 grade stabilization structures. The watershed project was originally authorized by Congress as a pilot project and the dams were built between 1955 and 1961. Twenty-five of the 29 dams are now in need of significant repair, restoration or upgrading to bring them to a sound and safe condition.



Upper Hocking Dam No. 8, looking upstream. The lake has filled with sediment reducing room for flood water storage.

Upper Hocking Watershed Description

- ◆ Size: 49 square miles (31,418 acres)
- ◆ Number of Dams: 29
- ◆ Construction Started: 1955
- ◆ Construction Ended: 1961
- ◆ Primary Purpose: Flood Control, gully erosion control, reduce sediment damages and recreation.
- ◆ Population Served: 35,000 people in the city of Lancaster and 120,000 in Fairfield County have easy access to recreation facilities.

Benefits

- ◆ Flood Control
- ◆ Sediment Reduction
- ◆ Greenfield Lake and Rock Mill Creek Lake are in parks that provide excellent recreational opportunities.

National Rehabilitation Needs

Since 1948 over 11,000 small flood control dams have been built in 2,000 watersheds in 47 states.



Location of dams that are over 30 years old.

Many of these earlier constructed dams were designed for a 50-year life expectancy. Over one-half of the dams are over 30 years old. Today many of these older dams need rehabilitation. Concrete and metal used in the principal spillways have deteriorated and in some situations public safety and health are at risk.

Over 400 watershed sponsors in 36 states indicated an interest in receiving USDA funds and assistance in 2001 to rehabilitate over 1,400 dams.

Ohio Rehabilitation Needs

- ◆ Ohio has 78 flood control dams in 11 watersheds.
- ◆ Twenty dams (25%) are over 40 years old.
- ◆ Forty-nine dams (62%) are over 30 years old.
- ◆ There are 28 high hazard dams and 35 medium hazard dams.
- ◆ Over one-half of the dams currently need rehabilitation.

For additional information about this rehabilitation project contact the USDA Natural Resources Conservation Service office, 200 N. High Street, Room 522, Columbus, Ohio, 43215. (614) 255-2472.

Information about pilot rehabilitation projects in other states and about other issues related to aging watershed dams is available at the NRCS national web site (www.nrcs.usda.gov). Click on Aging Watersheds.

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