

Keeping Dams Safe

Protecting People, Property and Natural Resources

Chippewa Creek Watershed A Pilot Rehabilitation Project

The Chippewa Creek Watershed Project Dam Number 3A is one of three flood control dams in Ohio to be included in national pilot rehabilitation projects. These dams will be rehabilitated to ensure they remain safe and continue to protect people 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:

The dam was originally constructed in 1980 to reduce flooding and sedimentation damages to farmland and the town of Seville, two miles downstream. Since the dam was constructed homes have been built downstream. If the dam failed there would be potential loss of lives and property destruction downstream. The dam has been reclassified from a medium hazard dam to a high hazard by the Ohio Department of Natural Resources because of the downstream development. It needs to be upgraded so that it will be in compliance with current safety standards.



The dam protects homes, roads and other structures including Interstate highway 76, which would be at risk if the dam failed.

Why Action is Needed:

Dozens of homes, businesses, and local roads would be flooded if the dam failed. Interstate highway 76 is located 1200 feet downstream. Plus, the dam forms a 21-acre lake that has been developed into a park and provides fishing, picnic shelters, playground structures, restrooms, hiking trail and wildlife observation overlook.

Ohio



The 21-acre lake formed by the dam in Hubbard Valley Park provides fishing, picnic areas, play grounds, restrooms, a hiking trail, and a wildlife observation area.

Rehabilitation Planning Process:

Several alternatives were considered including taking no action, dam removal and structural rehabilitation options. The alternative selected by local sponsors will ensure that the flood reduction and recreational benefits will continue for 75 more 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 will include reconstruction and widening of the auxiliary spillway and limited removal of sediment.

- ◆ Rehabilitation Project Estimated Cost: \$300,000
- ◆ 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 cost and the landrights and easements.

Watershed Project Sponsors:

Muskingum Watershed Conservancy District, Medina County Park District, and Medina Soil and Water Conservation District.

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Dam 3A was constructed in 1980 as the last of eight floodwater retention dams in the watershed. The Muskingum Watershed Conservancy District, Medina County Park District, and Medina Soil and Water Conservation District are the watershed project sponsors. The dams were constructed by the USDA NRCS, through the Watershed Protection and Flood Control Act of 1953 (PL83-566). The Medina County Park District operates the park and lake.



Removal of sediment on about four acres of the upper pool area will restore sediment storage capacity, fish habitat and recreational boating opportunities.

Chippewa Watershed Description

- ◆ Size: 188 square miles (120,320 acres)
- ◆ Number of Dams: 8
- ◆ Construction Started: 1969
- ◆ Construction Ended: 1980
- ◆ Primary Purpose: Flood control and recreation
- ◆ Population Served: 25,000 people in the local area and 230,000 in Medina and Wayne Counties have access to the recreation facilities.

Benefits:

- ◆ Flood Control
- ◆ Protection of 20 miles of roads and 50 bridges
- ◆ Reduction of sediment
- ◆ Improvement of water quality
- ◆ Fish and wildlife habitat
- ◆ Recreational areas

National Rehabilitation Needs

- ◆ Since 1948 over 11,000 small flood control dams have been built in 2,000 watersheds in 47 states.
- ◆ Many of these earlier constructed dams were designed for a 50-year life expectancy.
- ◆ Some dams have already exceeded this 50-year lifespan. 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 USDA funds and assistance in 2001 to rehabilitate over 1,400 dams.

Ohio Rehabilitation Needs

- ◆ Ohio has 78 small 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 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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