Keeping Dams Safe
Protecting People, Property and Natural Resources

Glen Hills Creek Watershed
A Pilot Rehabilitation Project

Wisconsin

The Glen Hills Creek Watershed Dam No. 2 was selected and funded in 2000 as part of a national pilot rehabilitation project. Changes in conditions downstream from the dam has put lives and property in danger if the dam was to fail.

Experience and knowledge gained in the pilot projects will be used in watershed projects across the nation as sponsors deal with similar situations.

Situation
The dam was designed as a low-hazard dam to protect agricultural land. After construction of the dam in 1972, a residence was built downstream. As a result the dam does not meet current safety standards for a high hazard dam.

This residence, which was built after the dam was constructed and before development restrictions were put into place, will be moved out of the floodplain.

Why Action is Needed:
Although the dam is structurally sound, sponsors want to make sure that if the dam were to fail, lives would not be put at risk downstream. Removal of the home will allow the dam to remain classified as a low-hazard dam.

Nine flood control dams are protecting the watershed and providing recreational and other benefits.

Action:
Several alternatives were considered, with the most effective and least expensive one being relocating one family and moving a single family dwelling from the floodplain.

A county floodplain ordinance has been enacted to prevent future development below all of the Glen Hill Creek dams.

- Rehabilitation Project Costs: $203,500
- Funding: Sixty-five percent of the project cost and technical assistance will be provided by the USDA Natural Resources Conservation Service, authorized by the 2000 Agricultural Appropriation Act. This Act authorized and funded pilot rehabilitation projects in Wisconsin, New Mexico, Ohio and Mississippi. The watershed sponsor is responsible for thirty-five percent of funding, landrights and easements.

Watershed Project Sponsor:
St. Croix County Conservation Committee.

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- Size: 36,000 acres
- Dams: 9
- Primary Purpose: watershed protection and flood control. One dam was designed with recreational benefits.

The dams were built by the USDA Natural Resources Conservation Service, assisting the watershed sponsor, the St. Croix County Conservation Committee. The Committee assumed operation and maintenance for the dams after construction.

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

For additional information about this rehabilitation project contact the USDA Natural Resources Conservation Service office, 6515 Watts Road, Suite 200, Madison, Wisconsin, 53719, (608) 276-8732.

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.

Wisconsin Watershed Program

Eighty-seven small flood control dams have been built in Wisconsin through the Watershed Protection and Flood Control Act of 1953 (Public Law 83-566). Most of these dams were built from the mid-1950's through the 1980's.

These dams provide flood control to prime farmland, highways, and communities. They are an integral part of communities and benefit peoples' lives every day.

Rehabilitation Needs

- Over 13 dams in the state have deteriorating components, including pipe separations or cracked concrete pipe supports.
- Over 20 dams are known to be built in rock formations that have fractured bedrock, a condition that led to a failure of a dam in 1978.
- Increased hazards have been created downstream from over 20 dams, due to home development in or near the floodplain.
- Structural components like slide gates and principal spillway pipes have deteriorated.
- Sedimentation has reduced flood storage capacity in some structures.