

Keeping Dams Safe

Protecting People, Property and Natural Resources

Bad Axe Watershed A Pilot Rehabilitation Project

Skildum Dam (Dam No. 24) in the Bad Axe Watershed in Wisconsin was selected and funded in 2000 as part of a national pilot rehabilitation project. The dam will be rehabilitated to ensure it remains safe and continues to protect lives, property and natural resources in the watershed. Experience and information gained from this pilot project will be used as other dams across the nation are rehabilitated.

Situation:

Skildum Dam, located in Vernon County, was built in 1963. Following heavy rains in the spring of 2000, significant seepage through the left abutment resulted in partial failure of the dam. There is also a pipe separation in the principal spillway.



Seepage in the embankment has resulted in partial failure of the dam.



Why Action is Needed:

The Skildum dam is located on a tributary to Hornby Creek that flows into a Class I trout stream. Rehabilitating the dam will ensure the continued protection of water quality in Hornby Creek, and of agricultural land, rural roads and bridges downstream from the dam. These rural roads and bridges provide for emergency services to rural properties.

Hornby creek is classified as an Exceptional Resource Water having excellent water quality and valued fisheries. The failure of the dam could seriously damage this water quality.

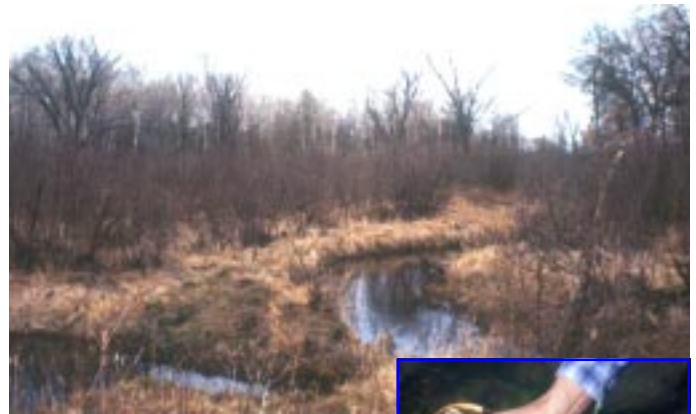
Wisconsin



Action:

The rehabilitation of the dam will include repair of the damage to the left abutment and repair of the principal spillway pipe separation.

- ◆ Rehabilitation Project Cost: \$291,000
- ◆ 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 Appropriations Act. This Act authorized and funded pilot projects in Wisconsin, New Mexico, Mississippi and Ohio. The watershed project sponsor, is responsible for 35 percent of the funding and the landrights and easements.



Skildum dam helps maintain the water quality in Hornby Creek, a Class I trout stream.



Watershed Project Sponsor:
Vernon County Land Conservation Committee.

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Bad Axe Watershed

The watershed is located in the western part of Wisconsin's driftless (unglaciated) area in Vernon County. The watershed is part of the Upper Mississippi drainage basin.

- ◆ Size: 132,000 acres
- ◆ Dams: 8
- ◆ Project Purpose: watershed protection and flood control for agricultural land and recreation.

The dams were built by the USDA Natural Resources Conservation Service assisting the Vernon County Land Conservation Committee. The Committee assumed operation and maintenance for the dams after construction.

National Rehabilitation Needs



Location of dams that are over 30 years old.

- ◆ 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. 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.

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 the communities and benefit peoples' lives every day.

Rehabilitation Needs

- ◆ Over 13 dams in the state have deteriorating components including pipe separations and 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 for many of the structures.

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.

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