



Wisconsin Dam Rehabilitation Project May 2004

**Keeping Dams Safe
Protecting People, Property and
Natural Resources**



Plain-Honey Creek

White Mound Lake Structure No.3

Spring 2004

The watershed dams built through Public Law 83-566 are important to Wisconsin in many ways. They provide flood control to prime farmland, highways, communities and residences and conserve natural resources.

Wisconsin was chosen in 2000 as a pilot state to rehabilitate several aging watershed dams. Plain-Honey Creek Watershed Dam No.3 is part of this national pilot rehabilitation project. Experience and information gained from this project is being used as other dams are rehabilitated across the nation.

The Plain-Honey Creek Watershed Plan, authorized in 1965, included three single purpose flood control dams and one multi-purpose flood control and recreational facility. Dam No. 3 was built in 1970 and is the structure that created White Mound Lake.

Two homes and a business were built downstream of the dam after it was constructed. These structures were built in an area considered "at-risk" and posed a high hazard to the safety of the residents if the dam were to fail. The families were relocated and the structures removed from the area. A new floodplain zoning ordinance restricts future development in the area and allows the dam to be reclassified as a low-hazard dam.

Plain-Honey Creek Watershed

Considerable siltation behind the dam of White Mound Lake was impairing storage capacity. In order to meet dam safety requirements, several measures needed to be taken.

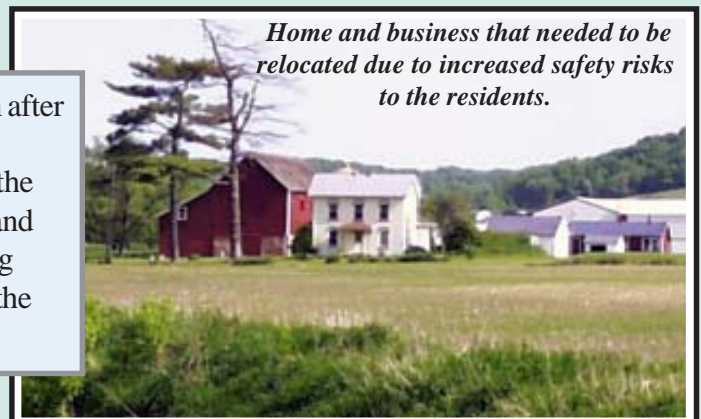
The USDA Natural Resources Conservation Service developed a supplemental watershed plan and an environmental assessment which recommended removal of sediment from behind the dam, relocating two houses and one business downstream of the dam and adopting a floodplain zoning ordinance that prohibits future development.

Construction project cost: \$1,927,000

Funding: Sixty-five percent of the project construction cost and 100% of the technical assistance costs was provided by the USDA Natural Resources Conservation Service (NRCS). The remaining cost of repair

Watershed Project Sponsor:
Sauk County Land Conservation
Department

*Home and business that needed to be
relocated due to increased safety risks
to the residents.*



Plain-Honey Creek Watershed

- ◆ Size: 45,500 acres or 71 square miles
- ◆ Dams: 3
- ◆ Project Primary Purpose: Removal of two homes and a business that were built in the hydraulic shadow of the Structure No. 3 dam. The project also included removal of sediment from White Mound Lake, improving the water quality and extending the life of the dam.
- ◆ History: In 1965, the main problems identified in the watershed were frequent flooding to agricultural lands, roads and bridges. The Village of Plain experienced flooding, and land values were depreciating. Three flood control structures were built through the PL-83-566 program.

Wisconsin Watershed Program

Eighty-seven small flood control dams have been built in Wisconsin through the Watershed Protection and Flood Control Act of 1954 (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 people's lives every day.

Wisconsin Rehabilitation Needs

- ◆ Over thirteen 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 and 2000.
- ◆ Increased hazards have been created downstream from more than 20 dams due to home development in or near the floodplains.
- ◆ Structural components like slide gates and principal spillway pipes have deteriorated.
- ◆ Sedimentation has reduced flood storage capacity in some structures.

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 the next five years it is anticipated that NRCS will receive 900 sponsor requests requiring 1,500 watershed assessments resulting in 700 watershed plans.
- ◆ There are currently 110 watershed rehabilitation projects in the Nation.

For additional information about this rehabilitation project contact the USDA Natural Resources Conservation Service, 8030 Excelsior Drive, Suite 200, Madison, Wisconsin, 53717, (608) 662-4422.

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 Programs then Watershed Rehabilitation

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