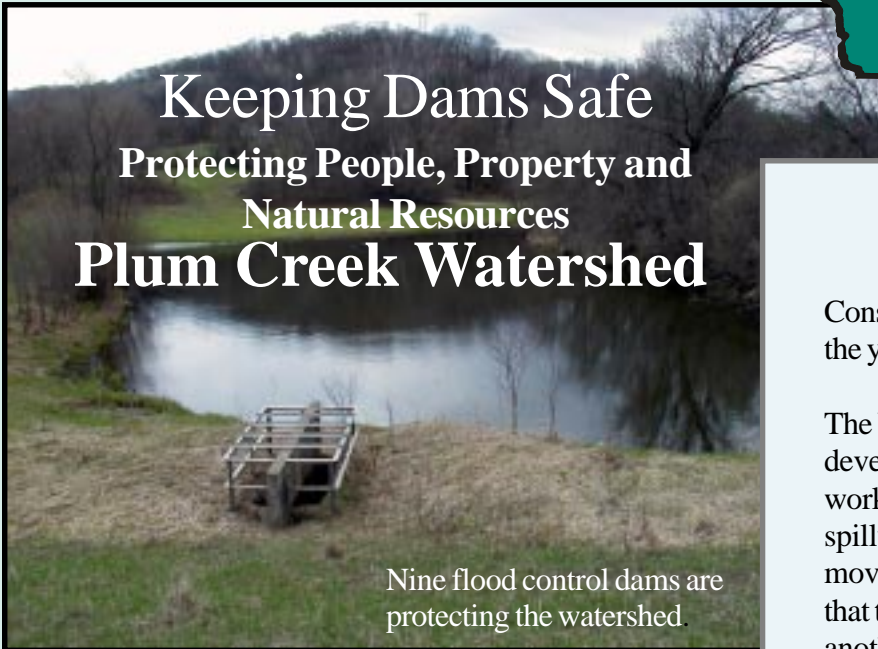




Wisconsin Dam Rehabilitation Project May 2003



Keeping Dams Safe Protecting People, Property and Natural Resources Plum Creek Watershed

Nine flood control dams are protecting the watershed.

Dam 19 has stopped the advance of a gully that was causing severe erosion and provides valuable flood protection to agricultural land, roads and other property downstream.

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. Plum Creek Watershed Dam No. 19 is part of this national pilot rehabilitation project. Experience and information gained from this project will be used as other dams are rehabilitated across the nation.

Plum Creek dam, built in 1969, developed serious problems in the principal spillway pipe that goes through the dam. Dam failure could result if the pipe wasn’t repaired. This dam needed to be rehabilitated to ensure it remains safe and continues to provide protection for property and natural resources in the watershed.

Plum Creek Watershed

Considerable siltation occurred behind the dam over the years reducing floodwater storage.

The USDA Natural Resources Conservation Service developed a supplement to the watershed plan of work to include repairs to the site. The principal spillway pipe was repaired and sediment was removed from the pool of the dam. These repairs ensure that the dam will continue to provide benefits for another 50 years.

This dam provides flood protection for agricultural lands by increasing water infiltration. It prevents severe gully erosion and reduces the sediment load downstream that helps protect water quality.

Construction project cost: \$93,850

Funding: Sixty-five percent of the project construction cost and technical assistance was provided by the USDA Natural Resources Conservation Service as authorized by the 2000 Agricultural Appropriations Act. The remaining cost of repair work was provided by the project sponsor.

Watershed Project Sponsor:
Pierce County Land Conservation
Committee

Watershed surveys in the 1940’s found no game fish in Plum Creek. Today portions of Plum Creek are rated as a Class II trout stream, due in part to the conservation practices applied in the Plum Creek Watershed.



Plum Creek Watershed

- ◆ Size: 61,055 acres
- ◆ Dams: 4
- ◆ Project Primary Purpose: watershed protection, flood control and recreational benefits to the community.
- ◆ History: Dams number 12 and 19 were built in 1969 and were designed for a 50-year life. Dams 2 and 3 were built in 1974 and were designed for a 100-year life. Dam 2 is a multiple purpose flood control and recreation structure. The dams provide flood and erosion control for agricultural land and flood control for the community of Plum City.

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 lead 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 400 watershed project sponsors in 36 states indicated an interest in USDA funds and assistance in 2001 to rehabilitate over 1,400 dams at an estimated cost of over \$540 million.
- ◆ There are currently 110 watershed rehabilitation projects in the Nation.

For additional information about this rehabilitation project contact the USDA Natural Resources Conservation Service office, 8030 Excelsior Drive, Suite 200, Madison, WI, 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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