Su-As-Co Nichols Dam Ma301
Rehabilitation Project
Worcester County, Massachusetts

History of the Dam:
The George H. Nichols Dam is located in Westborough, Massachusetts, a suburban community in Worcester County west of Boston.

It is one of ten dams in the Sudbury-Assabet-Concord (SuAsCo) Watershed Project. These dams act as a system to control drainage of nearly 50 square miles and provide available flood storage for more than four billion gallons of water. The dams provide an estimated $1.7 million in annual flood damage reduction.

The dam was constructed in 1970 by local watershed project sponsors with the assistance of the USDA Natural Resources Conservation Service (NRCS) Watershed Protection and Flood Prevention Program.

The dam is operated and maintained by the Massachusetts Department of Conservation and Recreation and provides flood control and recreational areas.

Rehabilitation Details:
Rehabilitation included widening and armoring the auxiliary spillway to prevent overtopping of the dam and potential breach failure and construction of concrete retaining walls. The rehabilitation project began in October 2010 and was completed in June 2012.

Project Cost:
The NRCS provided technical assistance and 65 percent of the construction cost. Project sponsors provided easements and land rights for the project and 35 percent of the cost.

Construction costs for rehabilitation of the dam were $2,289,877 with NRCS providing $1,488,420 and project sponsors providing $801,457. Federal funds for the project came from the American Recovery and Reinvestment Act of 2009.

Benefits:
Rehabilitation of the dam ensures the continued flood control, fish and wildlife habitat benefits and availability of the lake's recreational areas. The dam reduces the potential for flood damages to 131 homes and businesses and 10 bridges and provides direct or indirect benefits to an estimated 870 residents.

The rehabilitation project not only provides benefits to the immediate area, but provides resource conservation, and economic and public safety benefits that extend well beyond that area.

Why Rehabilitate the Dam?
Urban development upstream of the dam has increased the quantity of storm water runoff and the predicted hydrologic conditions during storm events exceeded NRCS dam safety standards. Rehabilitation brought the dam up to current NRCS dam safety standards.

During rehabilitation construction tropical storm Irene hit the area. The construction contractor had to construct an earthen berm in the new auxiliary spillway to protect the dam from breaching and lower the lake water level. Only minor damage was done to the dam from the storm.

Partners:
MA. Department of Conservation and Recreation
MA. Division of Fisheries and Wildlife
Worcester County Conservation District
USDA Natural Resources Conservation Service

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