



United States Department of Agriculture

Pohick's Short Story:

In the 1960s, Fairfax County requested assistance from USDA NRCS (then the Soil Conservation Service) to construct several flood-control dams in the 23,000-acre Pohick Creek Watershed. Six dams were built between 1969 and 1985, including Royal Lake in 1977.

In 1985, the dams protected residents from flooding during Hurricane Juan. When floodwaters deluged the nation's capital in 2006, Pohick dams again held back millions of gallons of water.

Fairfax County has been nationally recognized for operating and maintaining these dams. With the aging of these structures, the county called upon NRCS to help with rehabilitating them.

The County rehabilitated Lake Braddock using local funds. USDA NRCS provided federal funds to help rehabilitate Royal Lake in 2009, Woodglen Lake in 2010, Lake Barton in 2011, and Huntsman Lake in 2014. Mercer Lake, the sixth dam, did not need rehabilitation.



Royal Lake in June 2006

April 2015

Dam Rehabilitation Fact Sheet

Royal Lake Dam, Pohick Creek Watershed



The rehabilitated Royal Lake dam offers flood protection, scenic beauty, and recreational opportunities for Fairfax County residents.

Royal Lake was the first dam in the Pohick Creek Watershed rehabilitated in partnership with USDA's Natural Resources Conservation Service (NRCS) to reduce flood risks downstream, comply with current dam design and safety standards, and maintain the present level of flood control and recreation benefits.

The Fairfax County Board of Supervisors and Northern Virginia Soil and Water Conservation District entered into a project agreement with NRCS to share costs to upgrade the dam spillway. NRCS provided \$1,484,718 of the project costs and the sponsors covered the remaining \$799,463 of the \$2,284,181 project.

The rehabilitation project included:

- Widening and realignment of the auxiliary spillway to direct water away from existing townhouses;
- Raising the training dikes to direct the auxiliary spillway flow from the toe of the dam to protect townhouses downstream; and
- Armoring the auxiliary spillway and training dikes with articulated concrete blocks covered with soil and grass to prevent erosion.

The project did not entail draining the lake or raising the dam height but did require the removal of some trees to accommodate the new alignment. Affected walking paths were also relocated.

Fairfax County's Department of Public Works and Environmental Services oversaw construction which commenced in June 2008 and concluded in April 2009.

Benefits of this partnership project include:

- Reducing the threat to loss of life and property for approximately 710 people who live and work downstream of the dam;
- Protecting 168 single family homes and town houses, 35 businesses, and two public buildings; and
- Protecting two major roads used by 51,000 vehicles per day, two railroad lines used by approximately 9,000 passengers per day, and three bridges.

Natural resource protection has been a priority in every phase of the project. When officials discovered a prehistoric site during their natural, cultural, and environmental assessment, Fairfax County and NRCS co-sponsored an archaeological excavation of the site on the southern end of Royal Lake Park.

These joint efforts helped uncover tools and projectile points/knives that native peoples used in this area about 6,500 years ago and preserve them for future generations.



Archaeologists recovered boring, scraping, chopping, and cutting tools, as well as projectile points/knives during the excavation in Royal Lake Park.



These before and after aerial photos of Royal Lake show how the auxiliary spillway was rerouted to move water away from the townhouses near the dam.

The NRCS provides technical and financial assistance to watershed project sponsors in the planning and installation of flood control and other conservation measures in approved watershed projects.

Between 1954 and 2001, the NRCS helped local sponsors build 150 dams in 35 watersheds in 27 Virginia counties. For more information on Virginia watershed projects, visit www.va.nrcs.usda.gov/.

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Natural Resources Conservation Service

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