

Pohick Creek Watershed Protection and Flood Prevention Project

FAIRFAX COUNTY, VIRGINIA

The first flood prevention project to be undertaken in a watershed being converted totally from rural to urban land use.

SPONSORED BY

Fairfax County Board of Supervisors
United States Department of Agriculture, Soil Conservation Service
Northern Virginia Soil and Water Conservation District

Pohick - A Watershed in Transition

While there are hundreds of small watershed projects in the United States developed under Public Law 566, the Pohick Creek Watershed Protection and Flood Prevention Project is a unique "first." The project began in 1965 when erosion from construction activity had virtually destroyed several residential lakes. In addition, a multi-million dollar sewer referendum opened up the Pohick Watershed for residential and commercial development. These circumstances caused public concern that rapid conversion of land from rural to urban uses was creating irreversible damage to streams and the pleasant hillsides. The Pohick work plan was approved in January 1967.

Instead of traditional techniques for land treatment in rural watersheds, the Pohick project brought forth new guidelines for land treatment in urban situations. An erosion and siltation ordinance was passed by Fairfax County in 1967. In 1972 the Commonwealth of Virginia enacted a bill for erosion and sediment control modeled after the Fairfax County ordinance.

The Fairfax County Park Authority, Department of Environmental Management and Department of Public Works worked closely with the USDA Soil Conservation Service and the Northern Virginia Soil and Water Conservation District to insure that natural resources in the Pohick Creek Watershed were conserved as land use changes occurred. This partnership continues.

Major Benefits of The Project

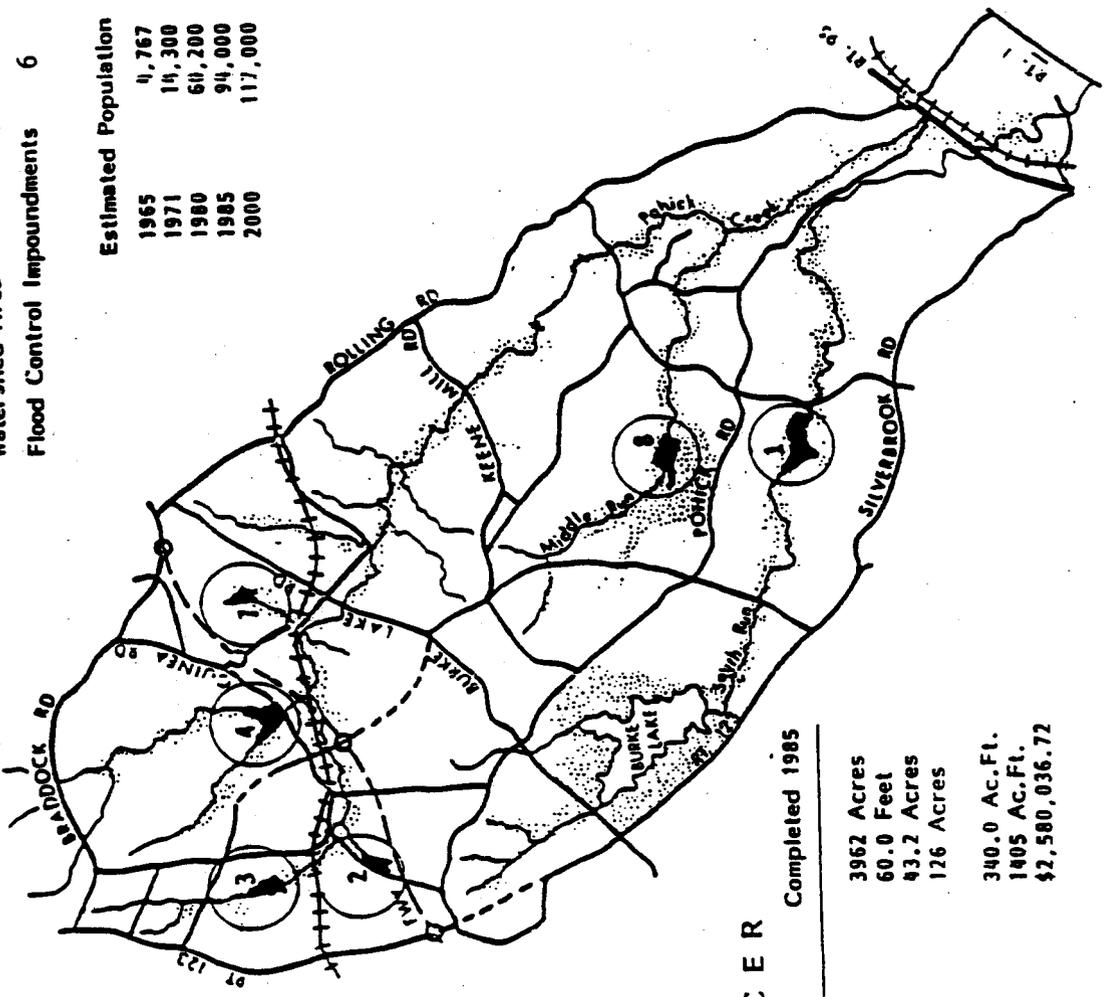
- Protects stream valleys from flooding
- Promotes orderly residential and commercial development
- Expands water-based recreation
- Protects wildlife habitat in flood plain areas
- Influences the establishment of effective erosion and siltation control ordinances
- Serves as a laboratory for new ideas on urban soil and water conservation measures
- Provides improved quality of stormwater to the Potomac and Chesapeake Bay
- Reduces siltation in rivers and lakes
- Challenges developers and land owners to protect the natural environment
- Preserves open space in stream valleys
- Eliminates unsightly and expensive concrete riprap channels
- Provides aesthetic backdrop for adjacent residential and commercial development

POHICK CREEK WATERSHED

Watershed Area 22,690 Acres
 Flood Control Impoundments 6

Estimated Population

1965	4,767
1971	14,300
1980	60,200
1985	94,000
2000	117,000



L A K E M E R C E R

Dam Site 1 Completed 1985

Drainage Area 3962 Acres
 Height of Dam 60.0 Feet
 Permanent Pool Area 43.2 Acres
 Flood Pool Area 126 Acres
 Storage Capacity 340.0 Ac.Ft.
 Permanent Pool 1405 Ac.Ft.
 Flood Pool \$2,580,036.72
 Construction Cost

L A K E B A R T O N Completed 1978

Dam Site 2

Drainage Area 538 Acres
 Height of Dam 37.4 Feet
 Permanent Pool Area 11 Acres
 Flood Pool Area 29 Acres
 Storage Capacity 64.0 Ac.Ft.
 Permanent Pool 262.0 Ac.Ft.
 Flood Pool \$244,980
 Construction Cost

Dam Site 3 Completed 1981

Drainage Area 736 Acres
 Height of Dam 35.1 Feet
 Permanent Pool Area 15 Acres
 Flood Pool Area 36 Acres
 Storage Capacity 100.0 Ac.Ft.
 Permanent Pool 279.0 Ac.Ft.
 Flood Pool \$356,484
 Construction Cost

L A K E R O Y A L

Dam Site 4 Completed 1977

Drainage Area 2343.0 Acres
 Height of Dam 38.5 Feet
 Permanent Pool Area 38.0 Acres
 Flood Pool Area 99.0 Acres
 Storage Capacity 258.0 Ac.Ft.
 Permanent Pool 839.0 Ac.Ft.
 Flood Pool \$373,008
 Construction Cost

L A K E B R A D D O C K

Dam Site 7 Completed 1970

Drainage Area 428 Acres
 Height of Dam 41.2 Feet
 Permanent Pool Area 18.07 Acres
 Flood Pool Area 27.14 Acres
 Storage Capacity 189.5 Ac.Ft.
 Permanent Pool 543.8 Ac.Ft.
 Flood Pool \$180,879
 Construction Cost 50.238
 Developer Paid 49.778
 SCS Paid

H U N T S M A N L A K E

Dam Site 8 Completed 1973

Drainage Area 1484.80 Acres
 Height of Dam 41.0 Feet
 Permanent Pool Area 27.0 Acres
 Flood Pool Area 60.0 Acres
 Storage Capacity 183.0 Ac.Ft.
 Permanent Pool 531.0 Ac.Ft.
 Flood Pool \$176,162
 Construction Cost