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## IV-L: Flood Control District

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While it is reasonable to assume that flood events have been occurring in the Batavia Kill watershed long before the arrival of the earliest settlers, it was a pair of events in 1955 and 1960 which inflicted such great damage in the watershed that a permanent solution to flooding was sought.

After the 1960 flood, the Greene County Legislature adopted a local ordinance creating the Greene County Soil & Water Conservation District in order to allow the local municipalities access to federal flood protection funds.

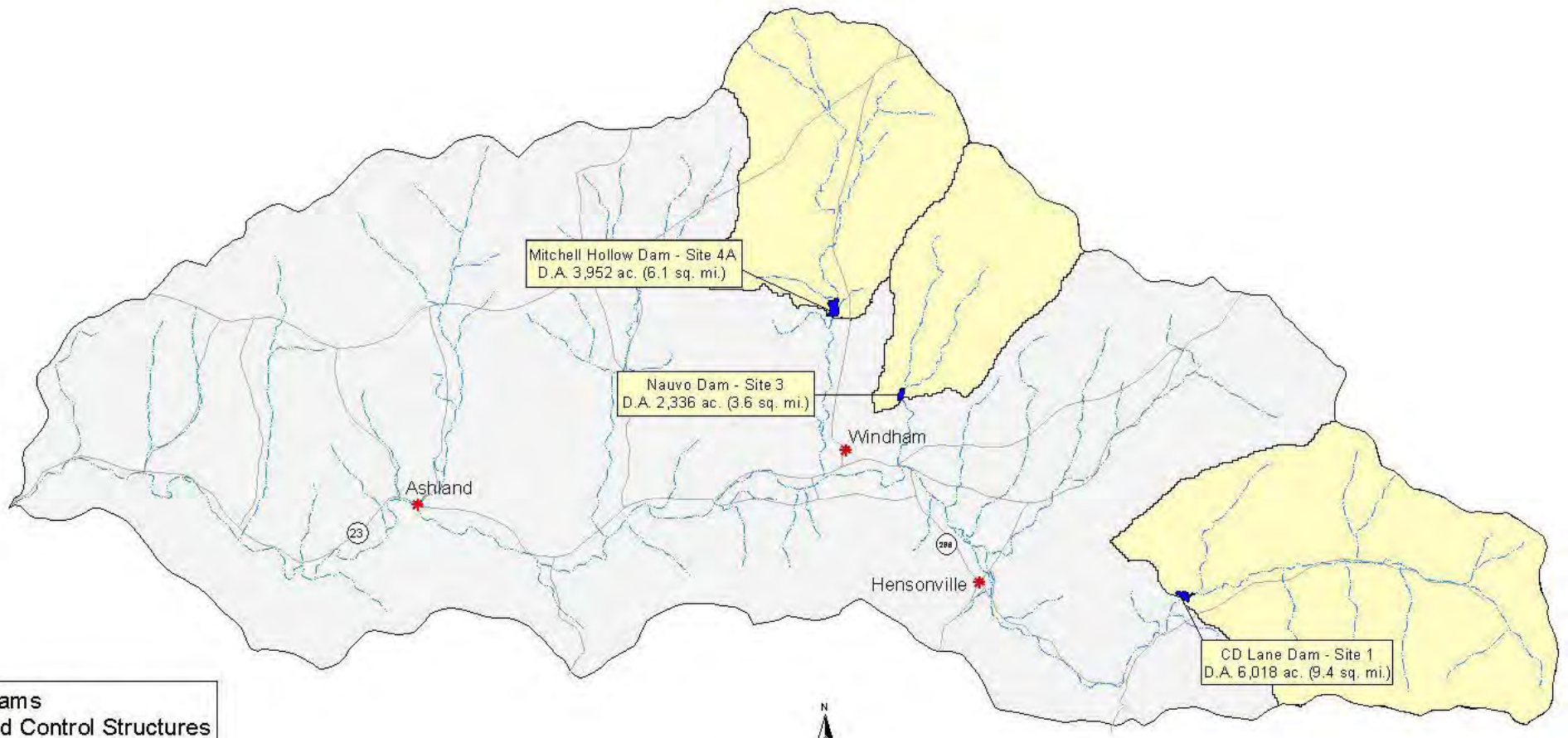


In July 1965, the USDA Soil Conservation Service (now known as the Natural Resources Conservation Service) completed a Watershed Work Plan for Watershed Protection, Flood Prevention, and Water Management in the Batavia Kill Watershed. The work plan called for the development of four flood control structures in the headwaters and on several tributaries to the Batavia Kill at an estimated cost of \$2.9 million (**Map IV-11**); three structures were built.

The work plan also called for over \$333,000 in land treatment measures such as soil stabilization and buffers. Cost-benefit calculations completed for the report indicated that the average annual damage costs of \$132,543 would experience a significant reduction to approximately \$2,563 per year. Annual secondary benefits were estimated to be worth \$14,231 with \$33,550 in benefits to public fish and wildlife to be provided by the project.

**Table IV-8 Summary of Flood Control Structures**

| Site No. | Site Name       | Drainage Area       | Dam Height | Storage Capacity (rainfall) |
|----------|-----------------|---------------------|------------|-----------------------------|
| 1        | C.D. Lane       | 9.6 mi <sup>2</sup> | 69.3 ft    | 4.86 in                     |
| 3        | Nauvo Road      | 3.6 mi <sup>2</sup> | 60 ft      | 4.20 in                     |
| 4A       | Mitchell Hollow | 6.8 mi <sup>2</sup> | 53.4 ft    | 4.05 in                     |



-  Streams
-  Flood Control Structures
-  Roads
-  Drainage Area
-  Batavia Kill Watershed
-  Village/Hamlet

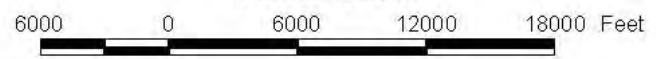
Mitchell Hollow Dam - Site 4A  
D.A. 3,952 ac. (6.1 sq. mi.)

Nauvo Dam - Site 3  
D.A. 2,336 ac. (3.6 sq. mi.)

CD Lane Dam - Site 1  
D.A. 6,018 ac. (9.4 sq. mi.)



Scale 1:72000



Batavia Kill Watershed Area = 46,802 Acres (73 square miles)  
 Total Watershed Area of Flood Control Structures = 12,306 Acres (19.1 square miles)  
 Percentage of Flood Control Structures Watershed Area within Batavia Kill Watershed = 26%

**Batavia Kill Watershed  
 Flood Control Structure  
 Drainage Areas**

Map IV-11  
 Greene County Soil & Water Conservation District  
 Batavia Kill Stream Corridor Management Plan

Data Sources: Streams-NYC DEP from USGS Quad & SCS Soil Survey Maps 1993, edited by GCSWCD to show only streams found on USGS topo quads  
 Batavia Kill Watershed Boundary-NYC DEP derived from USGS topography 1965  
 Flood Control Structures-GCSWCD from USGS Topographic Maps, photorevised 1980  
 Roads-US Department of Commerce, Bureau of the Census 1998 from 1995 Tiger/line files  
 Drainage Area-GCSWCD from DEM using ArcView Spatial Analyst  
 Village/Hamlet-GCSWCD derived from USGS topo map .tif file  
 Map Produced By Greene County Soil & Water Conservation District, January 2001  
 Note: GIS data area approximate according to their scale and resolution.  
 They may be subject to error and are not a substitute for on site inspection or survey.

By the time the last of the first three structures was completed in the summer of 1976, the total cost had risen to \$3.6 million for construction, or a total cost of \$4.5 million when amortized at 3.25% over 100 years. A fourth site (2B) identified in the original work plan was eliminated due to negative environmental impacts and the lack of a favorable cost-benefit relationship (Soil Conservation Service 1978).



**Figure IV-47:** Damage to north emergency spillway on the C.D.Lane dam as the result of flows from tropical storm Floyd.

All of these structures were designed to store up to a 100-year flood event before flow occurs in the emergency spillway, and provide 100 years of storage for sediment accumulation. At the present time, all three structures are well maintained and operated by the Batavia Kill Watershed Protection District. The structures at Mitchell Hollow and Nauvo were the first completed in the early 1970's, with the final structure at Big Hollow completed in 1976. Since the completion of the flood control project, negative flood impacts in the Batavia Kill watershed have been significantly reduced.

The Batavia Kill Flood Protection District is managed by a Board of Directors, and receives its operating funds from the county legislature for the purpose of managing and maintaining the structures. The Board of Directors includes representation of the Greene County Soil & Water Conservation District. The Watershed District employs a part-time Contracting Officer. In addition, the GCSWCD and the Natural Resource Conservation Service provide technical and administrative assistance to the Watershed District. Additional discussions regarding the Batavia Kill Watershed District is provided in later sections of this SMP.