

Assunpink Creek Watershed Floodwater Retarding Structure (FRS) No. 8

Project Information

Total Cost: \$6,240,500

Location of Project:

Mercer County, NJ Congressional District 4

Sponsors:

- Mercer County
- Hamilton Township
- New Jersey Department of Environmental Protection

Authorization: Section 14 of Public Law 83-566 of the Watershed Protection and Flood Prevention Act

Background

Dam No. 8 was constructed in 1967 as a single-purpose, high hazard potential dam to provide flood protection for Hamilton Township, Pond Run, and the Assunpink Creek Watershed. This structure does not meet current NRCS and New Jersey safety and design criteria and performance standards for a high hazard dam. FRS No. 8 has 12 roadways, 292 residences, one commercial building, and six public properties that would be impacted by a breach of the dam. The population at risk is 935 people. There is a need for FRS No. 8 to continue to provide flood protection for residents and motorists downstream.

The recommended plan is to rehabilitate FRS No. 8 to meet current New Jersey Department of Environmental Protection Dam Safety and NRCS criteria.



Example of the recommended weir

The plan provides for:

- Installation of a 110-foot-wide, 4-cycle labyrinth weir over the embankment
- Decommissioning the existing auxiliary spillway by installing a 200-foot-long earthen berm across the existing auxiliary spillway
- Construction of a pedestrian bridge with railing over the labyrinth weir.
- Installation of a stilling basin and rip-rap outlet protection.
- A trash rack bar grate will be installed on the principal spillway riser to reduce the potential for the blockage of the orifice by trash and debris.

There will be no change in the current levels of flood protection downstream due to project activity. Project installation cost is estimated to be \$6,240,500 of which \$4,591,000 will be paid from the Small Watershed Rehabilitation funds and \$1,649,500 from local funds.

The period of analysis suggests a three-year installation and a project life of 50 years.

Watershed Prevention and Flood Prevention Program

Since 1950 local project sponsors, with NRCS assistance, have constructed over 11,000 small flood control dams across the nation. In NJ there have been 19 dams built within six Public Law-566 Project Areas. In addition to flood control, eight dams have permanent pools that provide recreational opportunities such as fishing, boating and swimming.

Many of the dams are nearing the end of their 50-year design life. The first of these dams was built in 1959 and the last in 1986. All structures have performed as designed and have provided flood control and protection for many areas. Periodic inspection of these dams by NRCS engineers show that they are generally in good condition. However, eleven (11) of them have reached at least the halfway point of their 50-year design life expectancy. Rehabilitation of these dams is needed to address critical public health and safety issues in these communities.

Economic and financial data

Costs	Project Purposes	Total Rehabilitation Cost Share		Total Enhanced Cost Share		Annual O&M	
		Non-Fed	Federal	Non-Fed	Federal	Non-Fed	Federal
	Flood Prevention	\$1,649,500	\$4,591,500	\$0	\$0	\$15,200	\$0
	Total Costs	\$1,649,500	\$4,591,500	\$0	\$0	\$15,200	\$0

Benefits	Project Purposes	Average annual benefits	Number of direct beneficiaries
	Flood Prevention	\$366,200	935

Benefit-to-Cost Ratio 1.55 to 1.0 @ 2.50 % for 53 years

Budget Data	Funding Schedule	2021	2022	2023
	Federal Funds	\$656,000	\$279,000	\$3,656,000
	Non-Federal Funds	\$952,000	\$9,500	\$688,000

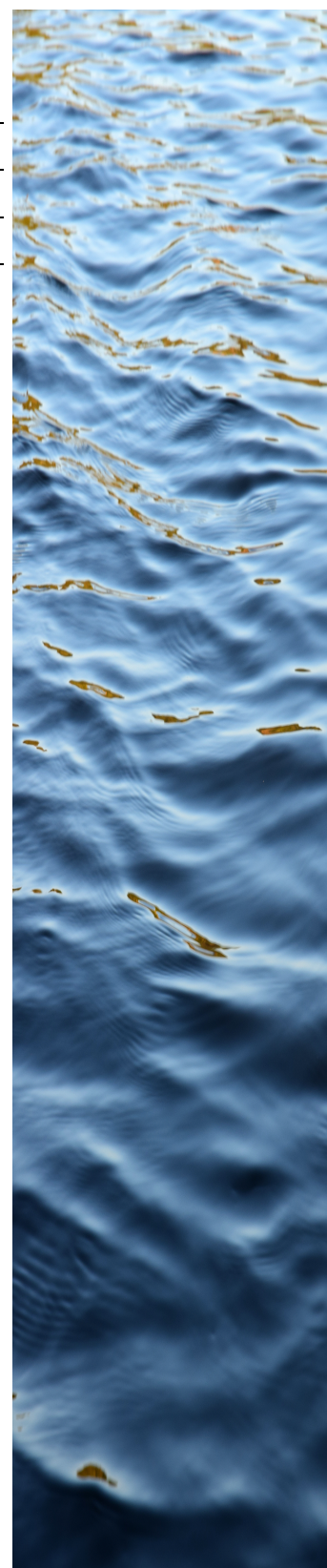
Period of Analysis – 53 Years
(3 years installation period plus 50 years Project Life)

Environmental Problems None

Other Significant or Controversial Issues None

Evidence of Unusual Congressional or Local Interest None

Compliance Is this report in compliance with executive orders, public laws, and other statutes governing the formulation of water resources projects?
 X Yes No



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