



**US Army Corps
of Engineers®**
New York District

Upper Passaic River and Tributaries, Long Hill Township, NJ

Flood Damage Reduction & Ecosystem Restoration



**NJ Department of
Environmental Protection**

FACT SHEET

FEBRUARY 2004

DESCRIPTION: The Upper Passaic River study area is located along the Passaic River and several small tributaries in Long Hill Township, New Jersey. In this area, the Passaic River flows along the borders of Long Hill Township and Warren Township, New Jersey. The study area is approximately 15 miles southwest of Newark. The Great Swamp National Wildlife Refuge lies to the north of the area.

Flooding has caused extensive damage to businesses, residences, and infrastructure in and around Valley Road, the major thoroughfare in Longhill Township. Adjacent local streets and neighborhoods are inundated, resulting in property damages as well as road and street closings during flood events. Flood damages are primarily attributable to backwater flooding from the Passaic River into a series of smaller tributaries that drain the floodplain to the river through the town. Increased development and urbanization throughout the watershed has also contributed to higher and more frequent flooding. In addition to flooding, areas in Long Hill Township and along the Passaic River have been degraded by development creating environmental problems that threaten fish and wildlife. Ecosystem restoration opportunities exist at these locations along both banks of the Passaic River.

AUTHORIZATION: The study was authorized by U. S. House of Representatives Resolution Docket 2517, dated May 7, 1997:

“Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, That, the Secretary of the Army is required to review the report of the Chief of Engineers on the Upper Passaic and Tributaries in Long Hill Township (formerly Passaic Township), Morris County, New Jersey, published as House Report Number 94-1702, and other pertinent reports, with a view to determining whether any modifications of the recommendations contained therein are advisable at the present time, in the interest of water resources development, including flood control, environmental restoration and other allied purposes.”

STUDY HISTORY: On May 27, 1999, the U.S. Army Corps of Engineers New York District (USACE) executed a feasibility cost sharing agreement with the State of New Jersey Department of Environmental Protection (NJDEP) for the study. A public notice announcing the initiation of the feasibility study was released on June 30, 1999. Initial study tasks focused on data gathering, surveying and mapping. As funds were appropriated, additional tasks included contract awards for hydrologic and hydraulic modeling, plan formulation, environmental and engineering analyses, and public coordination. Work over the last year has focused on finalizing the formulation of feasible plans, preparation of an environmental assessment, and public involvement.

A public meeting was held in January 2003 to update the community. Coordination with Long Hill Township, neighboring communities, Morris County, and interested parties has occurred throughout the study. A detailed draft report has been prepared documenting the study findings and is available for review. The report will be finalized in the spring of 2004.

RECOMMENDED PLAN: The USACE conducted various field studies in the region including archeological, environmental assessments, geotechnical, hydrologic, hydraulic and engineering investigations. Based on these studies and the review of various alternative solutions with the NJDEP, as the project’s non-Federal sponsor, Long Hill Township, and other interested parties, the following flood damage reduction plan is being recommended.

The recommended flood damage reduction plan will provide flood damage reduction for events with an exceedance probability of approximately 1 percent (100-year event). The plan consists of the construction of a levee and floodwall with two sluice gate closure structures on the western side of the Township and a sluice gate closure structure and a limited road raising on the eastern side of Township. The levee and floodwall will extend along the south side of Valley Road behind existing homes and businesses for a distance of approximately 4,000 feet from Sussex Avenue east to Poplar Drive. The levee and floodwall will have an average height of four to five feet and will consist of compacted earth or steel sheeting with concrete. The floodwall will utilize a wooden “picket” fence facing where it borders residential area. At locations where the levee and floodwall crosses existing roads, the road will be raised and at tributary crossings a closure control gate will be placed to allow normal stream flows. A portion of Valley Road will also be raised in the vicinity of the tributary that crosses near Western Boulevard. The alignment of the line of protection was based on physical, environmental, and economic criteria.

The recommended plan also includes environmental mitigation features. They include the restoration and enhancement of 1.7 acres of wetlands and the preservation of 11.5 acres of existing forested wetlands. The recommended plan also recognizes the importance of maintaining the wide-open natural floodplain, which provides natural flood storage. The levee is set back from the Passaic River by several hundred feet to maintain the natural floodplain and ensure that there is no adverse impact to the river, its flow, and to ensure no adverse impact to neighboring communities. The avoidance and minimization of environmental impacts has resulted in a Finding of No Significant Impact while providing protection to the majority of flood prone areas along Valley Road and adjacent streets such as Mercer, Warren, Essex, Union, and Passaic Streets.

PROJECT COST AND ECONOMICS: The costs of project implementation for the plan will be shared by the Federal government (USACE) and the State (NJDEP) on an approximate 65/35% basis. All operations and maintenance costs will be borne by the non-Federal project partner. The total cost for the recommended plan is: \$5,796,200 and will be shared as follows: \$3,534,181 USACE and \$2,261,987 NJDEP with annual O&M costs of \$20,000, less any applicable credits. The NJDEP will share a portion of its cost with Long Hill Township.

The plan has a total average annual cost of \$319,560, total average annual benefits of \$576,600, a benefit-cost ratio of 1.8 to 1, and average annual net benefits of \$257,040. The benefits represent the flood damages that will be prevented in Long Hill Township.

WHAT IS A LEVEE AND FLOODWALL? Levees and floodwalls are cost effective floodwater barriers that prevent floodwaters from reaching a developed area and provide protection against flooding to homes, commercial buildings, municipal buildings, roadways and infrastructure.

The pictures show what a levee and floodwall will look like when constructed in Long Hill Township.



PLAN VIEW: The aerial view below shows the location of the recommended plan in Long Hill Township.



PROJECT IMPLEMENTATION: The non-Federal project partner, NJDEP, has indicated its support for the recommended plan and is willing to enter into a Project Cooperation Agreement with the Federal Government for the implementation of the plan. At this time, there are no known major areas of controversy or unresolved issues regarding the study and selected plan among agencies or the public interest.

Based upon the feasibility study and the cost of the plan, its implementation will be conducted under Section 205 of the Continuing Authorities Program (CAP) as authorized in the Flood Control Act of 1948 as amended. With the completion of the study, continued support, and future appropriations the Corps, NJDEP, and Long Hill Township will proceed to implement the recommended plan. The projected schedule is as follows:

Plans & Specifications	April 2004 – July 2005
Project Cooperation Agreement Execution	April 2005 – July 2005
Real Estate Acquisition	July 2005 – April 2006
Construction	May 2006 – April 2007

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