



# MILL BROOK at HIGHLAND PARK, NJ Flood Risk Management Project

As of: February 2012

**US ARMY CORPS OF ENGINEERS**

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## **DESCRIPTION**

The Borough of Highland Park is located in the Raritan River Basin in Middlesex County, New Jersey, approximately 20 miles south of Newark, New Jersey. Mill Brook is a small tributary of the Raritan River at Highland Park. The study area is bounded by River Road on the southwest, Raritan Avenue on the southeast, Suttons Lane on the northeast, and an Amtrak embankment on the northwest. A persistent flooding problem exists along Mill Brook, with the affected area being subject to inundation and structural damage from an increase in water surface elevation. In addition, certain areas are suffering extreme erosion due to an increase in flows. The problem is caused primarily by water being backed up into structures and across properties upstream, due to the inadequate capacity of an existing masonry arch culvert running under the Amtrak railroad tracks. Because of increased growth and urbanization of the area since the original construction of the railroad embankment, the existing culvert is now unable to accommodate this increased flow and approximately 200 structures are subject to chronic flooding.

## **AUTHORIZATION**

Section 205 of the Flood Control Act of 1948, as amended (33 U.S.C. 701s)

## **STATUS**

The recommended plan consists of installing a new 175-foot long, 10-foot diameter reinforced concrete culvert under the Amtrak embankment. The new culvert will be installed approximately 130 feet to the west and downstream of the existing Amtrak culvert with the latter remaining in place and in service, and the new culvert being installed by tunneling beneath the existing Amtrak railroad embankment. Tunneling is required because Amtrak has indicated that existing train service using the railroad tracks cannot be interrupted. A new 320-foot long by 10-foot wide concrete-lined open channel will convey water from Mill Brook to the entrance of the new culvert. A diversion weir at the inlet to the approach channel with a control elevation 5 feet above the Amtrak inlet will retain higher frequency discharges in the existing Amtrak culvert, in an effort to increase sediment scour and reduce maintenance requirements at the inlet to the existing culvert. Also, a new outlet channel will extend approximately 53 feet to the outlet head of the existing Amtrak culvert. The purpose of this structure is to reduce erosion and scour at the outlet of the two culverts. Additional work will include stabilization of the left bank of Mill Brook at the terminus of Cleveland Avenue, as well as minor stream channel clearing work upstream of the Amtrak culvert.

The New Jersey Department of Environmental Protection (NJDEP) is the non-federal sponsor. NJDEP provided funds to cost share the Feasibility Phase of the study and signed a Feasibility Cost Sharing Agreement on 24 October 1994. The Feasibility Report was completed in July 1998 and design was initiated. However, there has been no federal funding available to complete the design, which has significantly delayed completion of this project phase. An additional \$300,000 is required to complete this phase. Prior to completion of design, a Project Partnership Agreement, outlining implementation requirements, must be signed between the Corps and NJDEP.

## **STUDY COST**

Estimated Federal	\$ 1,963,000
Estimated Non-Federal	\$ <u>1,057,000</u>
Total	\$ 3,020,000

**CONTACT**

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**CONGRESSIONAL INFORMATION**

Representative Frank Pallone, NJ District #6