

Jul-1889	Flood Event: This was a severe summer storm of limited extent which centered west of the Mamaroneck and Sheldrake River Basins. The average rainfall over this area was about 10 inches.
Oct-1903	Flood Event This was an unusual storm of cloudburst type and was of great areal extent. The rainfall was centered over Paterson, New Jersey about 18 miles west of the Mamaroneck and Sheldrake River basins. During this storm an average rainfall of 7.8 inches fell on the study areas and caused one of the worst floods in history.
Jan-1933	Village of Mamaroneck used work relief funds (Federal funds) for implementing locally-conceived flood control improvements on the Mamaroneck and Sheldrake Rivers. The Village cleared the channels of these streams within its corporate limits.
Mar-1936	Flood Event This was a general transcontinental storm throughout the northeastern United States. During the period, an average rainfall of 3.0-3.5 inches fell over the study areas. The precipitation from this storm was augmented by melting snow with a water equivalent of about 2 inches.
Jan-1937	Village of Mamaroneck used Work Progress Administration Funds (WPA, Federal funds) for implementing locally-conceived flood control improvements on the Mamaroneck and Sheldrake Rivers. The channel of the Mamaroneck River was widened to 30 feet and masonry walls were constructed from North Barry Avenue to Jefferson Avenue, a distance of 2,400 feet. Only the middle 1,000 feet of this project, centered on Hillside Avenue now remain, the upper reach having been replaced by a channel relocation required for the construction of the New England Thruway and the lower reach, by channel work done by the Village in 1953 and 1954.
Jul-1938	Flood Event This storm was a severe summer storm of limited extent which covered southeastern New York, Connecticut, and Massachusetts. During this period an average rain of about 5.4 inches to 6.0 inches fell on the study areas of which about 3.7 inches fell in 7 hours. This storm was preceded by 3 days of moderate rains. Actual discharge measurements for the flood are not available. By using the unit hydrograph procedure, the estimated peak discharge was 870 cubic feet per second on the Sheldrake River upstream of its junction with the Mamaroneck River and 2,600 cubic feet per minute on the Mamaroneck River downstream of the junction with the Sheldrake River at USGS stream gage location.
Sep-1938	Flood Event This storm, which covered the Atlantic coastal states and centered over Connecticut and Massachusetts, was the result of a tropical hurricane. During this storm an average rainfall of 8.7 inches fell on the study areas. The storm was preceded by 2 days of moderate rainfall. This storm caused severe flooding on the Mamaroneck and Sheldrake Rivers. On the Mamaroneck River downstream of the junction of the Sheldrake River, the peak flood discharge was estimated at 2,500 cubic feet per second.
Jul-1942	Flood Event
Aug-1942	Flood Event This was a severe local storm of cloudburst intensity which centered over the southern portion of Westchester County. During this period, the total average rainfall over the study areas was about 6 inches. After a rainfall 4.59 inches during the day of 9 August 1942, a heavy rain of 2.53 inches was recorded at Larchmont between noon and 2:00 pm on 10 August 1942. This sudden downpour caused severe flooding.
Aug-1942	Preliminary Examination Report on the Mamaroneck and Sheldrake Rivers and Bridges in the Village and Town of Mamaroneck and Town of Harrison recommended channel improvement of Mamaroneck River in the Village of Mamaroneck and Town of Harrison and Sheldrake River in the Village and Town of Mamaroneck, and channel clearing, dredging, removal of obstruction and reconstruction of bridges. Marginally favorable and recommended further study in the form of a Survey Report.
Sep-1944	Flood Event This storm was the result of a severe hurricane which originated in the West Indies. Although the hurricane was about equal in intensity to that of September 1938, the rainfall intensity was less severe. During this storm, a total of about 9.4 inches of rain fell over the study areas.
Nov-1945	Report on flood conditions on the various streams in Westchester County, submitted to the County Board of Supervisors on Storm Water Control. Measures considered included: (a) channel improvements along the Mamaroneck and Sheldrake Rivers in the Village of Mamaroneck, (b) the diversion of flood flows from the Mamaroneck and Sheldrake Rivers in the Village of Mamaroneck, and (c) flood detention along the Mamaroneck River at the Westchester Joint Water Works Reservoir, and along the Sheldrake River at Larchmont Reservoir #2 and on the East Branch. Recommended that a project consisting of channel improvement in the Village of Mamaroneck in combination with upstream flood detention be adopted to control floods along the Mamaroneck and Sheldrake Rivers.

Dec-1945	Survey Report - "Mamaroneck and Sheldrake Rivers and Tributaries" Improvements considered were the same as in the Preliminary Examination report for Mamaroneck and Sheldrake River, Aug-1942. Recommendation was unfavorable.
May-1946	Flood Event A peak discharge of 1,200 cubic feet per second was recorded at the Mamaroneck River an Mamaroneck stream gage.
Dec-1948	Survey Report, submitted to Congress on 9 December 1948, was unfavorable.
Jan-1950	With construction of the New England Thruway in the early 1950's, 2 reaches of the Mamaroneck River totaling 1800' were improved, within one reach from the south end of First Street to the Town of Harrison boundary channels were re-aligned and widened and the North Barry Avenue bridge was replaced with a higher, longer-span bridge several hundred feet downstream of the old bridge. Improvement were made on two reaches (totaling nearly 3000') of the Sheldrake River from Larchmont Gardens Lake to a point 600 feet below Fenimore Road. Channels were re-aligned and widened and old, low, short-span bridges at Rockland Avenue and Fenimore Road were replaced with higher, longer, twin-span Structures .
Mar-1951	Flood Event A peak discharge of 1,550 cubic feet per second was recorded at the Mamaroneck River an Mamaroneck stream gage.
Jun-1952	Flood Event A peak discharge of 1,270 cubic feet per second was recorded at the Mamaroneck River an Mamaroneck stream gage.
Jan-1953	From 1953-1954 the Village straightened the Mamaroneck River between Nostrand and Jefferson Avenues and deepened it between Halstead Avenue and a point downstream of the U.S.G.S. This work has resulted in lower stages than would otherwise have prevailed during the substantial floods which have occurred since the completion of this work.
Mar-1953	Flood Event A peak discharge of 1,620 cubic feet per second was recorded at the Mamaroneck River an Mamaroneck stream gage.
Aug-1955	Flood Event A hurricane produced a peak discharge of 1,370 cubic feet per second was recorded at the Mamaroneck River at Mamaroneck stream gage.
Sep-1955	Study resolution authorized-along the Mamaroneck and Sheldrake in the Village of Mamaroneck
Sep-1955	Chief of Engineers letter dated 16 September 1955 requested NAD prepare and submit a combined report examination and survey scope covering the resolution of 14 September 1955, 14 November 1955, and 13 June 1956
Sep-1955	NAD Division Engineer assigned the report covering the three resolutions
Oct-1955	One of the most damaging floods of record A cold front moved into eastern Pennsylvania and southern New York on the morning of 13 October 1955 and became stationary with a coastal wave moving northward accompanied by moderate to heavy rains on the 14th and 15th of October. The center drifted slowly northward bringing an abundance of rains which continued in the northeast until the 16th. Concurrently, progress of an extratropical storm accompanied by moderate to heavy rains. The maximum daily rainfall recorded in the vicinity was 4.64 inches. The storm of October 1955 caused major flooding on the Mamaroneck and Sheldrake Rivers. A peak discharge of 1940 cubic feet per second was recorded at the Mamaroneck River at Mamaroneck stream gage.
Nov-1955	Chief of Engineers letters dated 22 and 23 November 1955 requested NAD prepare and submit a combined report examination and survey scope covering the resolution of 14 September 1955, 14 November 1955, and 13 June 1956
Nov-1955	NAD Division Engineer assigned the report covering the three resolutions
Dec-1955	NAD Division Engineer assigned the report covering the three resolutions
Jun-1956	Resolution adopted as a result of flooding in Aug and Oct of 1955.
Nov-1956	NAD Division Engineer assigned the report covering the three resolutions
Jun-1959	Navigation Report-Survey Report for the East Basin of Mamaroneck Harbor at the lower estuary of the Mamaroneck River, resulted in authorized Federal navigation project

Aug-1960	Flood Event
Apr-1961	Flood Event
Mar-1962	Flood Event
Jan-1967	Flood Plain Information Report was completed for the use of local interests along the Mamaroneck and Sheldrake Rivers.
Nov-1967	Hurricane Report-Interim Survey Report on Hurricane Study of Westchester County, New York along Long Island Sound, recommended no improvements to protect shoreline at that time.
May-1968	Flood Event
Apr-1968	Dolph Rotfeld Associates submitted Reconnaissance Report, entitled "Mamaroneck and Sheldrake River Basins - Analyses of Flood Control Studies," to County Planning Department. Report recommended (subject to further detailed studies) the use of the Westchester Joint Waterworks Reservoir, Silver Lake, Larchmont Reservoir, Forest Lake and Spring Lake as flood control facilities in the Mamaroneck and Sheldrake River Basins.
May-1968	Survey Report for Streams in Westchester County, NY and Fairfield County, CT considered local protection works at the Village of Mamaroneck consisting of channel modifications with walls and levees along the Mamaroneck and Sheldrake Rivers. The study was favorable, however the Board of Engineers for Rivers and Harbors returned the report to the District for reconsideration of a debris jam occurrence. Restudy indicated the considered project was not economically feasible.
Aug-1971	Flood Event
	Tropical Storm "Doria" originated in the Bahama Islands and moved northward along the North Atlantic Coast. At the Scarsdale rain gage adjacent to the Sheldrake River Basin, a total rainfall of 6.54 inches was recorded between the 27th and 28th of August. The storm of August 1971 caused major flooding on the Mamaroneck and Sheldrake Rivers. A peak discharge of 2,260 cubic feet per second was recorded at the Mamaroneck River at the Mamaroneck stream gage. It is estimated that the peak discharge for the Sheldrake River at its mouth was 845 cubic feet per second.
Jun-1972	One of the most damaging floods of record - \$12,250,000 (2007 price level)
	Tropical Storm "Agnes" was the result of a tropical storm depression that originated south of the Gulf of Mexico and moved northward over land carrying massive amounts of moist air. At the Scarsdale rain gage in the Mamaroneck and Sheldrake River Basins, a total of 4.83 inches was recorded on the 18th and 19th of June. The Mamaroneck and Sheldrake River basin-wide rainfall was 4.52 inches. The storm of June 1972 caused the second highest (to date) flood of record on the Mamaroneck River at Mamaroneck and was estimated at 3,800. cubic feet per second based on U.S. Geological Survey indirect computations and hydraulic computations using flood marks. At Winfield Avenue on the Mamaroneck River above the Sheldrake River, in the vicinity of the Mamaroneck Reservoir, a discharge of 2,560 cubic feet per second was estimated with the HEC-1 model. This flood was routed down to a point above the Sheldrake River and the peak discharge was determined to be 2,594 cubic feet per second. For the Sheldrake River at its mouth, the peak discharge was estimated as 957 cubic feet per second.
Apr-1973	Reconnaissance Report, Sheldrake River Mamaroneck, NY was completed in April 1973 which considered channel improvements along the Sheldrake River in the Town of Mamaroneck consisting of a reinforced concrete flume. The report was favorable, however, the cost apportioned to Federal interests was in excess of the small project authority limitation, and further study was recommended under the Westchester County Streams Survey authority.
Sep-1974	Flood Event
Sep-1975	One of the most damaging floods of record, also the largest flood of record - \$69,000,000 (2007 price level)
	Hurricane "Eloise" was the result of a tropical storm depression that originated east of Puerto Rico and moved northward over land carrying massive amounts of moist air. The duration of the storm in the study areas was from the morning of the 19th to the early morning hours of the 27th. The Mamaroneck River basin wide rainfall was 4.89 inches. The storm of September 1975 caused the highest flood of record on the Mamaroneck River at Mamaroneck gage with a peak discharge of 4,260 cubic feet per second.
Apr-1976	Following floods of 1972 and 1975, local interests request Federal assistance. Chief of Engineers, by letter to the NAD, granted approval for the preparation of an interim report for the Mamaroneck and Sheldrake Rivers under the Westchester County Streams Survey Investigation.
Jun-1977	FEMA, Village of Mamaroneck, Type 15 Flood Insurance Study
Oct-1977	Feasibility Report For Flood Control, Mamaroneck and Sheldrake Rivers Basin (Village and Town of Mamaroneck New York) and Byram River Basin (Greenwich, Connecticut and Port Chester, New York). Recommended a combination of channel widening and deepening, retaining walls, stream realignment, bridge replacement and enlargement, levees, and a diversion tunnel. The recommended plan for Mamaroneck and Sheldrake was economically favorable, and the project was recommended for further development along with projects for the Town of Mamaroneck and for the Byram River.

Nov-1977	Storm Event A tropical depression merged with a weak extratropical storm off the New Jersey Coast. This resulted in a heavy down pour with 4.75 inches on 8 November over the Mamaroneck River Basin with a maximum hourly intensity of 0.80 inches per hour. The storm of November 1977 caused the fourth highest flood of record (to date) on the Mamaroneck River at Mamaroneck gage with a peak discharge of 2,790 cubic feet per second.
Jul-1978	The Board of Engineers for Rivers and Harbors (BERH), transmitted the Feasibility Report to General Morris, Chief of Engineers. He supported the plans for the village of Mamaroneck and for the Byram River, but recommended deletion of the plan for the Town of Mamaroneck due to Corps policy which deemed the problem area as local drainage and therefore a local responsibility.
Jan-1979	Flood Event for which claims to the National Flood Insurance Program were made
Mar-1979	FEMA, Village of Rye Brook, Type 15 Flood Insurance Study
Apr-1979	Chief of Engineers transmitted Feasibility report to the Secretary of the Army, Secretary of the Interior, governors, and other agency heads
Oct-1979	FEMA, City of Rye, Type 15 Flood Insurance Study
Apr-1980	Flood Event for which claims to the National Flood Insurance Program were made This storm originated in the Midwest and moved toward the Great Lakes. It was caused by a typical frontal system with an occluded warm and cold front. This resulted in a heavy downpour of up to 4.07 and 4.65 inches on 9 April, at the Scarsdale and Pleasantville Stations with a maximum hourly intensity of 1.00 inches per hour at the Scarsdale Station. The storm of April 1980 caused the sixth highest flood of record on the Mamaroneck River at Mamaroneck gage with a peak discharge of 2,790 cubic feet per second.
Sep-1981	FEMA, Town of Harrison, Type 15 Flood Insurance Study
Jan-1982	Flood Event for which claims to the National Flood Insurance Program were made
Apr-1983	Flood Event This storm originated in the Midwest and moved toward the Great Lakes. It was caused by a typical frontal system with an occluded warm and cold front. This resulted in a heavy down pour from 2.40 to 3.20 inches in the Westchester County area with an average of 2.74 inches over the Mamaroneck River Basin. The storm of April 1983 caused a peak discharge of 1,810 cubic feet per second at the Mamaroneck gage.
Apr-1983	Secretary of the Army transmitted the report to the Office of Management and Budget
May-1983	Clarke and Rapuano Inc., consulting engineers to the Village of Mamaroneck, submitted "Washingtonville Flood Control Project" report, which recommended a series of staged channel modifications and bridge alterations to reduce flooding along the lower Mamaroneck and lower Sheldrake Rivers. The recommendations were aimed at providing some immediate flood reduction at a much reduced cost when compared to the Federal plan, and was also viewed by the Village as a possible non-Federal contribution toward the larger plan recommended in the Corps' Feasibility Report.
Sep-1983	Secretary of the Army transmitted the report to the Speaker of the House of Representatives of Congress
Oct-1983	FEMA, Village of Mamaroneck, Type 15 Flood Insurance Study (Supplement)
Jul-1984	Flood Event for which claims to the National Flood Insurance Program were made
Nov-1984	FEMA, City of Rye, Type 15 Flood Insurance Study (Supplement)
Nov-1986	Construction authorized for recommended project by Section 401(a) WRDA of 1986 (PL 99-662) Note: Village of Mamaroneck project was 1 of 3 independent plans authorized. The other authorized projects were the Sheldrake River in the Town of Mamaroneck, NY, and the Byram River in Greenwich, CT and Port Chester, NY. These latter two projects are not addressed in this GDM. Mamaroneck, Sheldrake, and Byram Rivers, New York and Connecticut WRDA Language: The project for flood control, Mamaroneck and Sheldrake River Basins, New York and Connecticut, and Byram River Basin, New York and Connecticut: Report of the Chief of Engineers, dated April 4, 1979, at a total cost of \$68,500,000, with an estimated first Federal cost of \$51,400,000 and an estimated first non-Federal cost of \$17,100,000. Such project shall include flood protection for the town of Mamaroneck as recommended in the report of the Division Engineer, North Atlantic Division, dated March 28, 1978.
Jan-1988	Draft General Design Memorandum (GDM), Flood Control Project for the Mamaroneck and Sheldrake Rivers Basin in the Village of Mamaroneck completed, plan included modifying nearly 10,000 feet of river channel, constructing about 3,700 feet of retaining walls, replacing four bridges, and building interior drainage works on the Mamaroneck River. Sheldrake River, modifications include a diversion tunnel about 3,000 feet in length from its inlet at Fenimore Road to the west basin of Mamaroneck Harbor, channel modification along approximately 2,700 feet, a retaining wall for about 1,700 feet and a levee approximately 1,000 feet long. Washington level review indicated some features of plan should be separable elements. This resulted in separable elements with an estimated BCR of 0.4 on the Sheldrake element. Local interests would not support a "partial" project
Jan-1989	General Design Memorandum (GDM), Flood Control Project for the Mamaroneck and Sheldrake Rivers Basin in the Village of Mamaroneck completed

Jun-1989	Flood Event
May-1990	Flood Event for which claims to the National Flood Insurance Program were made
Apr-1996	Flood Event for which claims to the National Flood Insurance Program were made
Oct-1996	Flood Event for which claims to the National Flood Insurance Program were made
Sep-2004	Flood Event for which claims to the National Flood Insurance Program were made
Mar-2007	On March 2, 2007 approximately 2-3" of rain fell in just a few hours, inundating large areas of the Village.
Mar-2007	USACE attended March 29, 2007 meeting to discuss flood damage reduction project process and potential USACE actions.
Apr-2007	15 April Nor'easter. Flooding from the Mamaroneck and Sheldrake Rivers impacted the Town and Village with a total of 7.5 inches of rain within 45 hours.