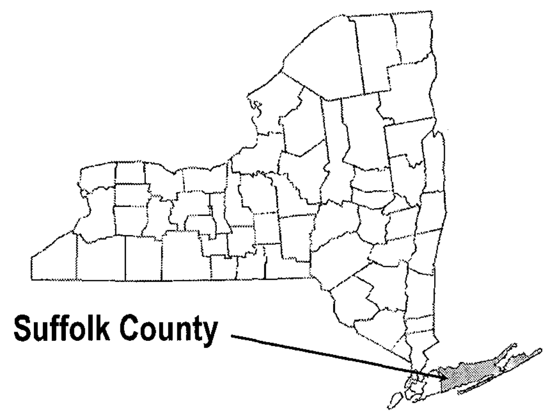
FLOOD INSURANCE STUDY

SUFFOLK COUNTY, NEW YORK
(ALL JURISDICTIONS)



COMMUNITY NAME	COMMUNITY NUMBER
AMITYVILLE, VILLAGE OF	360788
ASHAROKEN, VILLAGE OF	365333
BABYLON, TOWN OF	360790
BABYLON, VILLAGE OF	360791
BELLE TERRE, VILLAGE OF	361532
BELLPORT, VILLAGE OF	361069
BRIGHTWATERS, VILLAGE OF	361342
BROOKHAVEN, TOWN OF	365334
DERING HARBOR, VILLAGE OF	361524
EAST HAMPTON, TOWN OF	360794
EAST HAMPTON, VILLAGE OF	360795
GREENPORT, VILLAGE OF	361004
HEAD OF THE HARBOR, VILLAGE OF	361513
HUNTINGTON, TOWN OF	360796
HUNTINGTON BAY, VILLAGE OF	361543
ISLANDIA, VILLAGE OF	361623
ISLIP, TOWN OF	365337
LAKE GROVE, VILLAGE OF[1]	361624
LINDENHURST, VILLAGE OF	360798
LLOYD HARBOR, VILLAGE OF	360799
NISSEQUOGUE, VILLAGE OF	361510
NORTH HAVEN, VILLAGE OF	360800
NORTHPORT, VILLAGE OF	360801
OCEAN BEACH, VILLAGE OF	365339
OLD FIELD, VILLAGE OF	361545
PATCHOGUE, VILLAGE OF	360803

[1]Non-floodprone community

COMMUNITY NAME	COMMUNITY NUMBER
POOSPATUCK INDIAN RESERVATION	360237
POQUOTT, VILLAGE OF	361518
PORT JEFFERSON, VILLAGE OF	360804
QUOGUE, VILLAGE OF	360806
RIVERHEAD, TOWN OF	360805
SAGAPONACK, VILLAGE OF	361487
SAG HARBOR, VILLAGE OF	360807
SALTAIRE, VILLAGE OF	365341
SHELTER ISLAND, TOWN OF	360809
SHINNECOCK INDIAN RESERVATION	360629
SHOREHAM, VILLAGE OF	361506
SMITHTOWN, TOWN OF	360810
SOUTHAMPTON, TOWN OF	365342
SOUTHAMPTON, VILLAGE OF	365343
SOUTHOLD, TOWN OF	360813
THE BRANCH, VILLAGE OF	361551
WESTHAMPTON BEACH, VILLAGE OF	365345
WEST HAMPTON DUNES, VILLAGE OF	361649

REVISED:
SEPTEMBER 25, 2009

Federal Emergency Management Agency
FLOOD INSURANCE STUDY NUMBER
36103CV000A

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program (NFIP) have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Part or all of this FIS may be revised and republished at any time. In addition, part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

Initial Countywide FIS Effective Date: May 4, 1998

Revised Countywide FIS Dates: September 25, 2009

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EXHIBITS

FLOOD INSURANCE STUDY
SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

1.0 INTRODUCTION

1.1 Purpose of Study

This countywide Flood Insurance Study (FIS) investigates the existence and severity of flood hazards in, or revises previous FISs/Flood Insurance Rate Maps (FIRMs) for, the geographic area of Suffolk County, New York, including: the Indian Reservations of Poospatuck and Shinnecock; the Towns of Babylon, Brookhaven, East Hampton, Huntington, Islip, Riverhead, Shelter Island, Smithtown, Southampton, and Southold and the Villages of Amityville, Asharoken, Babylon, Belle Terre, Bellport, Brightwaters, Dering Harbor, East Hampton, Greenport, Head of the Harbor, Huntington Bay, Islandia, Lake Grove, Lindenhurst, Lloyd Harbor, Nissequogue, North Haven, Northport, Ocean Beach, Old Field, Patchogue, Poquott, Port Jefferson, Quogue, Sagaponack, Sag Harbor, Saltaire, Shoreham, Southampton, The Branch, Westhampton Beach, and West Hampton Dunes (hereinafter referred to collectively as Suffolk County). The Village of Lake Grove is non-floodprone.

This FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This FIS has developed flood risk data for various areas of the county that will be used to establish actuarial flood insurance rates. This information will also be used by the communities within Suffolk County to update existing floodplain regulations as part of the Regular Phase of the National Flood Insurance Program (NFIP), and by local and regional planners to further promote sound land use and floodplain development. Minimum floodplain management requirements for participation in the NFIP are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain these requirements and criteria.

1.2 Authority and Acknowledgments

The sources of authority for this FIS are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The May 4, 1998, FIS was prepared to include incorporated communities within Suffolk County into a countywide FIS. Information on the authority and acknowledgments for each jurisdiction included in this countywide FIS, as compiled from their previously printed FIS reports, is shown below.

Amityville, Village of:	for the original FIS report, the wave height analyses were prepared for the Federal Emergency Management Agency (FEMA) and completed in March 1980. For the FIS report dated July 16, 1987, the hydrologic analyses were prepared by the U.S. Army Corps of Engineers (USACE), New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-R-2044. That work was completed in May 1986.
Asharoken, Village of:	for the FIS report dated April 1983, the wave height analyses were prepared for FEMA. The data were obtained from the U.S. Department of the Interior, Geological Survey (USGS); Dewberry & Davis; FEMA; and Aero Graphics Corporation.
Babylon, Town of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated June 4, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.
Babylon, Village of:	for the original FIS report, the wave height analyses were prepared for FEMA and completed in September 1980. For the FIS report dated July 16, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-R-2044. That work was completed in May 1986.
Belle Terre, Village of:	for the FIS report dated September 16, 1982, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.

Bellport, Village of:	for the original FIS report, the wave height analyses were prepared by Harris-Toups Associates for FEMA and completed in May 1982. For the FIS report dated June 18, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.
Brightwaters, Village of:	for the original FIS report, the wave height analyses were prepared by Harris-Toups Associates for FEMA and completed in December 1980. For the FIS report dated July 16, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-R-2044. That work was completed in May 1986.
Brookhaven, Town of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in May 1982. For the FIS report dated February 19, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.
Dering Harbor, Village of:	for the FIS report dated June 15, 1988, the hydrologic and hydraulic analyses were prepared by Dewberry & Davis for FEMA, under Contract No. EMW-85-C-2044. That work was completed in June 1987.
East Hampton, Town of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated February 19, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis

for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.

East Hampton, Village of: for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated March 4, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.

Greenport, Village of: for the original FIS report, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in January 1980. For the FIS report dated October 16, 1984, the hydrologic and hydraulic analyses were prepared by Dewberry & Davis, under agreement with FEMA, using data supplied by the Village of Greenport. That work was completed in January 1984.

Head of the Harbor, Village of: for the FIS report dated February 1, 1983, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.

Huntington, Town of: for the FIS report dated August 16, 1982, the wave height analyses were prepared for FEMA. The Town of Huntington, the USACE, the Suffolk County Department of Public Works, and Aero Graphics Corporation were contacted for information pertinent to these analyses.

Huntington Bay, Village of: for the FIS report dated October 18, 1982, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.

Islip, Town of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated July 2, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.
Lindenhurst, Village of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated July 16, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-R-2044. That work was completed in April 1986.
Lloyd Harbor, Village of:	for the April 1983 FIS report, the wave height analyses were prepared for FEMA. The data were obtained from the USGS, Dewberry & Davis, FEMA, and Aero Graphics Corporation.
Nissequogue, Village of:	for the FIS report dated November 16, 1982, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.
North Haven, Village of:	for the April 1983 FIS report, the wave height analyses were prepared for FEMA. The data were obtained from the USGS, Dewberry & Davis, FEMA, and Aero Graphics Corporation.
Northport, Village of:	for the FIS report dated October 18, 1982, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.

Ocean Beach, Village of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated March 4, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.
Old Field, Village of:	for the FIS report dated October 18, 1982, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.
Patchogue, Village of:	for the original FIS report, the wave height analyses were prepared by Harris-Toups Associates for FEMA and completed in December 1980. For the FIS report dated June 18, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. R-2044. That work was completed in November 1985.
Poquott, Village of:	for the FIS report dated February 1, 1983, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.
Port Jefferson, Village of:	for the FIS report dated September 2, 1982, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.
Quogue, Village of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated March 4, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis

for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.

Riverhead, Town of: for the FIS report dated June 1, 1982, the wave height analyses were prepared for FEMA. The Suffolk County Planning Commission, Aero Graphics Corporation, and the Town of Riverhead were contacted for data pertinent to the study.

Sag Harbor, Village of: for the FIS report dated May 17, 1982, the wave height analyses were prepared for FEMA. The National Oceanic and Atmospheric Administration (NOAA); the USACE; the New York Department of Transportation; the Suffolk County Department of Planning and Public Works; Lockwood, Kessler and Bartlett, Inc.; Harris-Toups Associates; Topometrics; Aero Graphics Corporation; and the Village of Sag Harbor Village Clerk were all contacted for data.

Saltaire, Village of: for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated June 4, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.

Shelter Island, Town of: for the FIS report dated July 19, 1982, the wave height analyses were prepared for FEMA. The Suffolk County Department of Public Works, the USACE, Aero Graphics Corporation, and the Town of Shelter Island were contacted for data pertaining to these analyses.

Shoreham, Village of: for the FIS report dated March 1983, the wave height analyses were prepared by Michael Baker, Jr., Inc., for FEMA. Data were also obtained from the USGS, Dewberry & Davis, FEMA, and Aero Graphics Corporation.

Smithtown, Town of:	for the FIS report dated June 1978, the hydrologic and hydraulic analyses were prepared by Camp, Dresser & McKee, Environmental Engineers, for the Federal Insurance Administration (FIA), under Contract No. H-3832. That work was completed in December 1976.
Southampton, Town of:	for the original FIS report dated December 1, 1982, the wave height analyses were prepared by Dewberry & Davis for FEMA, under Contract No. EMW-C-0543. That work was completed in May 1982. For the FIS report dated July 2, 1987, the updated hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.
Southampton, Village of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in March 1982. For the FIS report dated June 4, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.
Southold, Town of:	for the original FIS report dated March 18, 1980, the hydrologic and hydraulic analyses were prepared by the USACE, New York District, for FEMA, under Inter-Agency Agreement No. IAA-H-19-74, Project Order No. 18, and No. IAA-H-16-75, Project Order No. 6. That work was completed in May 1977. For the FIS report dated June 15, 1983, the wave height analyses were prepared by Dewberry & Davis for FEMA, under Contract No. EMW-C-0543. That work was completed in April 1982. For the FIS report dated April 17, 1985, the wave height analyses were prepared by Dewberry & Davis for FEMA, using data supplied by the Town of Southold. That work was completed in

	February 1984. For the FIS report dated August 16, 1993, the hydrologic and hydraulic analyses for Plum Island were prepared by Dewberry & Davis for FEMA. That work was completed in February 1992.
The Branch, Village of:	for the FIS report dated May 17, 1982, the hydrologic and hydraulic analyses were prepared by Harris-Toups Associates for FEMA, under Contract No. H-4606. That work was completed in December 1980.
Westhampton Beach, Village of:	for the original FIS report, the wave height analyses were prepared by Dewberry & Davis for FEMA and completed in January 1982. For the FIS report dated May 19, 1987, the hydrologic analyses were prepared by the USACE, New York District, for FEMA and completed in May 1985. The wave height analyses were revised by Dewberry & Davis for FEMA, under Contract No. EMW-C-0968. That work was completed in November 1985.

The authority and acknowledgments for the Villages of Islandia, Lake Grove, Sagaponack, West Hampton Dunes, and the Poospatuck and Shinnecock Indian Reservations are not included because there were no previously printed FISs for those communities.

For the May 4, 1998, countywide FIS, transportation features were provided in digital format by the New York State Department of Transportation (NYSDOT), Mapping and Information Systems Bureau, State Office Campus, Building 4, Room 105, Albany, New York 12232. The base map is copyrighted by the NYSDOT. The digital files were compiled by the NYSDOT at a scale of 1:24,000 from NYSDOT 7.5-minute quadrangle maps on a stable base and updated using aerial photography. The base mapping files were modified in and around the floodplains to match previously compiled FISs. The digital FIRMs were produced using Universal Transverse Mercator coordinates referenced to the North American Datum of 1927 and the Clarke 1866 spheroid.

For this revision, a new coastal storm surge analysis was incorporated for the Atlantic Ocean and bays. In addition, the stillwater elevations for the Long Island Sound and bay areas were updated. Finally, for both the Atlantic Ocean and Long Island Sound, overland wave height analyses were performed. Also as part of this revision, approximate riverine floodplain areas were revised based on procedures developed to account for the importance of groundwater contribution to the computation of the 1-percent annual chance discharge in Suffolk County.

This work was accomplished by Leonard Jackson Associates and Dewberry for FEMA under Contract No. EMN-2002-RP-0018 and completed in March 2008.

Digital base map information was provided by the New York State Office of Cyber Security and Critical Infrastructure Coordination.

1.3 Coordination

Consultation Coordination Officer's (CCO) meetings may be held for each jurisdiction in this countywide FIS. An initial CCO meeting is held typically with representatives of FEMA, the community, and the study contractor to explain the nature and purpose of a FIS, and to identify the streams to be studied by detailed methods. A final CCO meeting is held typically with representatives of FEMA, the community, and the study contractor to review the results of the study.

The dates of the initial and final CCO meetings held for Suffolk County and the incorporated communities within its boundaries are shown in Table 1, "Initial and Final CCO Meetings."

TABLE 1 – INITIAL AND FINAL CCO MEETINGS

Community	Initial CCO Date	Final CCO Date
Amityville, Village of	*	August 20, 1986
Asharoken, Village of	*	*
Babylon, Town of	*	*
Babylon, Village of	*	August 21, 1986
Belle Terre, Village of	August 2, 1977	May 18, 1982
Bellport, Village of	July 29, 1977	November 30, 1981
Brightwaters, Village of	August 4, 1977	October 21, 1981
Brookhaven, Town of	*	*
Dering Harbor, Village of	*	July 2, 1987
East Hampton, Town of	*	*
East Hampton, Village of	*	*
Greenport, Village of	August 3, 1977	June 14, 1982
Head of the Harbor, Village of	August 2, 1977	September 25, 1982
Huntington, Town of	*	*
Huntington Bay, Village of	August 3, 1977	May 26, 1982
Islip, Town of	*	*
Lindenhurst, Village of	*	August 21, 1986
Lloyd Harbor, Village of	*	*
Nissequogue, Village of	August 2, 1977	June 17, 1982
North Haven, Village of	*	*
Northport, Village of	August 3, 1977	June 9, 1982
Ocean Beach, Village of	*	*
Old Field, Village of	August 2, 1977	May 11, 1982
Patchogue, Village of	*	*
Poospatuck Indian Reservation	*	*

*Data not available

TABLE 1 - INITIAL AND FINAL CCO MEETINGS - continued

Community	Initial CCO Date	Final CCO Date
Patchogue, Village of	August 4, 1977	November 30, 1981
Poquott, Village of	August 2, 1977	September 23, 1982
Port Jefferson, Village of	August 2, 1977	November 18, 1981
Quogue, Village of	*	*
Riverhead, Town of	*	*
Sagaponack, Village of	*	*
Sag Harbor, Village of	*	*
Saltaire, Village of	*	*
Shelter Island, Town of	*	*
Shinnecock Indian Reservation	*	*
Shoreham, Village of	*	*
Smithtown, Town of	October 1, 1975	June 13, 1977
Southampton, Town of	*	*
Southampton, Village of	*	*
Southold, Town of	*	June 15, 1982
The Branch, Village of	August 2, 1977	January 5, 1982
Westhampton Beach, Village of	*	*
Westhampton Dunes, Village of	*	*

*Data not available

The initial CCO meetings were held with representatives of FEMA or the FIA, the communities, and the study contractors to explain the nature and purpose of the FIS, and to identify the streams to be studied by detailed methods. The final CCO meetings were held with representatives of FEMA or the FIA, the communities, and the study contractors to review the results of the studies.

For the May 4, 1998, countywide FIS, FEMA notified the various communities by letter on February 3, 1995, that the countywide FIS would be prepared.

For this revision, FEMA held an initial CCO meeting with representatives from the communities on October 17, 2006. At that meeting and a subsequent one on July 19, 2007, the communities were informed about the scope of this revision and the primary sources of data for the study. A final CCO meeting was held October 28-30, 2008, and was attended by representatives of the jurisdictions in Suffolk County, Dewberry, NYDEC, and FEMA.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Suffolk County, New York.

All or portions of the flooding sources listed in Table 2 were studied by detailed methods. Limits of detailed study for riverine flooding sources are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

TABLE 2 - FLOODING SOURCES STUDIED BY DETAILED METHODS

Coastal/Tidal
Atlantic Ocean
Barley Field Cove
Bellport Bay
Block Island Sound
Centerport Harbor
Cherry Harbor
Chocomant Cove
Coecles Inlet
Conscience Bay
Cutchogue Harbor
Dering Harbor
Fishers Island Sound
Flanders Bay
Fort Pond Bay
Gardiners Bay
Great Peconic Bay
Great South Bay
Greenport Harbor
Hay Harbor
Huntington Bay
Huntington Harbor
Lake Montauk
Little Peconic Bay
Lloyd Harbor
Long Island Sound
Majors Harbor
Moriches Bay
Napeague Bay
Nicoll Bay
North Race
Northport Bay
Northport Harbor
Northwest Harbor
Noyack Bay
Orient Harbor
Patchogue Bay
Pettys Bright
Pipes Cove
Port Jefferson Harbor
Oyster Bay
Reeves Bay
Sag Harbor Bay
Shelter Island Sound
Shinnecock Bay
Smith Cove
Smithtown Bay
Southold Bay
Stony Brook Harbor
Tobaccolot Bay
West Harbor
West Neck Harbor

Riverine
Northeast Branch Nissequogue River

The May 4, 1998, countywide FIS incorporates the determinations of the following Letters of Map Revision issued by FEMA on: August 24, 1995, for Sampawams Creek in the Towns of Babylon and Islip, and the Village of Babylon; and May 23, 1996, for Great Peconic Bay in the Town of Southold.

For this revision, all coastal flood hazards affecting the county were restudied. The coastal flood hazards for Nassau County have been revised concurrently with Suffolk County therefore the elevations and flood zones between the adjacent communities will be consistent.

The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction.

All or portions of numerous riverine flooding sources in the county were studied by approximate methods. Approximate analyses were used to study those areas having a low development potential or minimal flood hazards.

The scope and methods of study were proposed to, and agreed upon by, FEMA and Suffolk County.

2.2 Community Description

Suffolk County is located in the southeastern tip of New York on the eastern portion of Long Island and is bordered by Nassau County to the west, the Atlantic Ocean to the south and east, and Long Island Sound to the north. The county had an estimated population of 1,349,191 in 1994 (U.S. Department of Commerce, personal conversation). According to the 2000 U.S. Census, the population was 1,419,369.

Suffolk County has a moderate coastal climate with warm, humid summers and moderately cold winters. The temperature averages 51 degrees Fahrenheit (°F) annually, ranging from a low monthly average of 32°F in February to a high monthly average of 72°F in July. The average annual precipitation ranges from 40 to 45 inches and is fairly evenly distributed throughout the year.

The topography of Suffolk County is very irregular, consisting of extremely steep-sloping hills as well as relatively flat terrain. The elevations vary within the county from a maximum of 228 feet to sea level. The mid-island area of western Suffolk County is underlain with thick consolidated aquifers of moderate to high permeability. There is a line of hills within the county known as Harbor Hill Moraines, which are composed of poorly-sorted rock debris, consisting of boulders, gravel, sand, silt, and clay. Soils within the county are generally deep, well-draining, and covered with woods or grass which has low runoff potential.

2.3 Principal Flood Problems

Suffolk County is subject to coastal and tidal flooding caused by northeasters, hurricanes, severe storms, as well as riverine flood hazards. Northeasters can occur at any time of the year but are more prevalent in the winter, whereas hurricanes occur in the late summer and early fall. The prime hurricane season is from August to October, during which 80 percent of all hurricanes occur. September is the worst month for hurricane occurrence; during which 32 percent of the total occur. Typically, hurricanes are of shorter duration than northeasters and generally last through only one tidal cycle.

In meteorological terms, a hurricane is defined as a tropical cyclone which has a central barometric pressure of 29 inches or less of mercury, and wind velocities of 75 miles per hour or more. The low barometric pressures and high winds combine to produce abnormally high tides and accompanying tidal flooding. The high winds can generate large waves, provided there are no obstructions or barrier beaches to dissipate wave momentum. Storm waves as high as 30 feet have been reported in the vicinity of the south shore of Long Island (USACE, 1971). The winds of a hurricane in the Northern Hemisphere spiral inward in a counterclockwise direction towards the "eye" or center of low pressure. The eye of the hurricane (where winds are subdued) can vary in diameter. Normally, the "eye" can extend for 15 miles, although the eye of a mature hurricane can reach diameters of 20 to 30 miles or even greater (USACE, 1971).

A hurricane develops as a tropical storm either near the Cape Verde Islands off the African coast or in the western Caribbean Sea. Most hurricanes which reach Long Island approach from a southerly direction after recurving east of Florida and skirting the mid-Atlantic states. These hurricanes start their journey with a forward speed of approximately 10 miles per hour and after recurving towards Long Island may increase their speed to 20 to 30 miles per hour and up to 40 to 60 miles per hour as they reach the colder water temperatures found in the more northerly latitudes (USACE, 1973). Figure 1, "Tracks of Selected Hurricanes," shows the tracklines of Category 1 and greater landfalling hurricanes between 1858 to 2008.

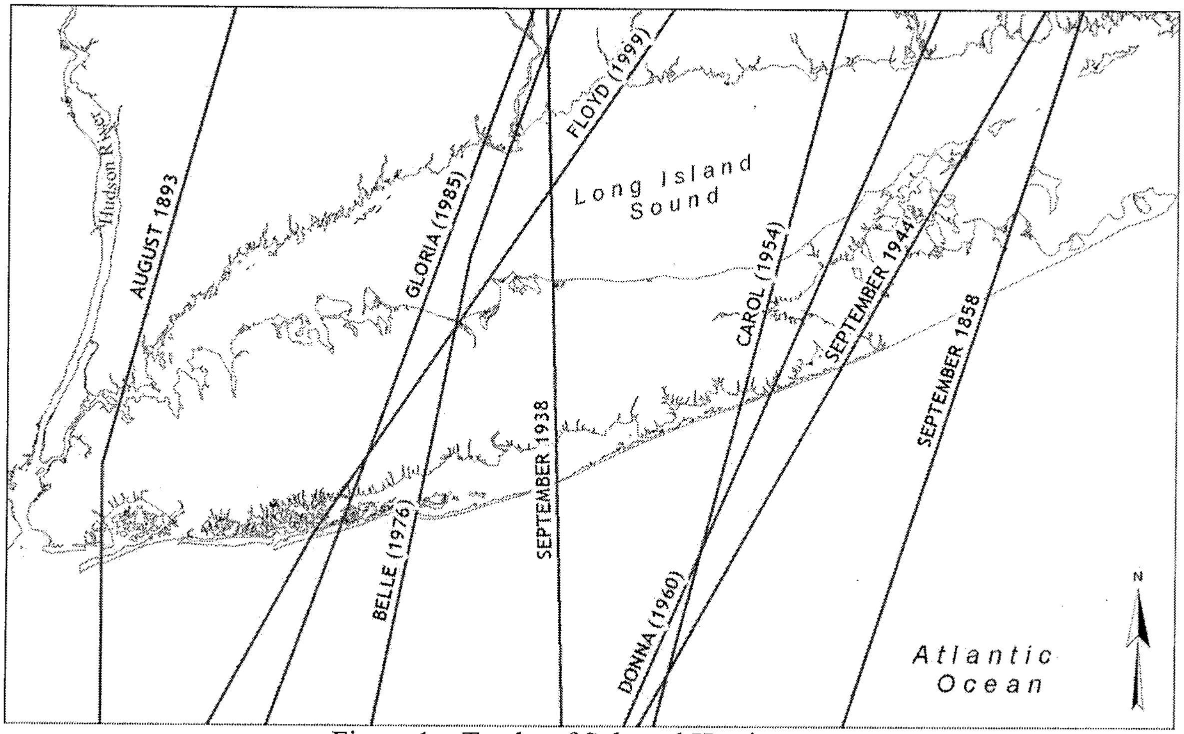


Figure 1 – Tracks of Selected Hurricanes

The storm of record for Suffolk County, New York, is the Great New England Hurricane of September 21, 1938. The synopsis of the storm and overall impact of the event described below are taken from Morang (1999), who provides one of the most comprehensive summaries of the event. The hurricane made landfall near Moriches Inlet, with a lowest observed pressure of 27.94 inches at the Bellport Coast Guard Station. Winds were estimated between 80 and 100 miles an hour, storm surge was on the order of 10 feet above mean sea level (MSL), with high-water marks up to 15 feet MSL. The barrier system east of Fire Island Inlet suffered the worst damage, with the greatest morphologic changes observed east of Davis Park and on the barrier fronting Moriches and Shinnecock Bays. Widespread overwash and breaching occurred, with 4 breaches observed to Shinnecock Bay, one of which is the modern-day Shinnecock Inlet. Post-storm assessments indicated that dunes less than 16-18 feet were typically completely destroyed or overwashed, and only dunes with heights greater than 18 feet survived. Impacts of the storm stretched over the entire New England region, with total property damages estimated at $600 million in 1938 dollars. Property damages for Long Island were estimated at $6 million in 1938 dollars, equivalent to approximately $92 million when adjusted to 2008 dollars. Over 1,000 homes from Fire Island to Southampton were severely damaged or destroyed. Of the 179 houses located on the Westhampton barrier prior to the storm, 153 were completely destroyed. Figure 2 shows the pre- and post-storm beach conditions typical of the Westhampton barrier island.

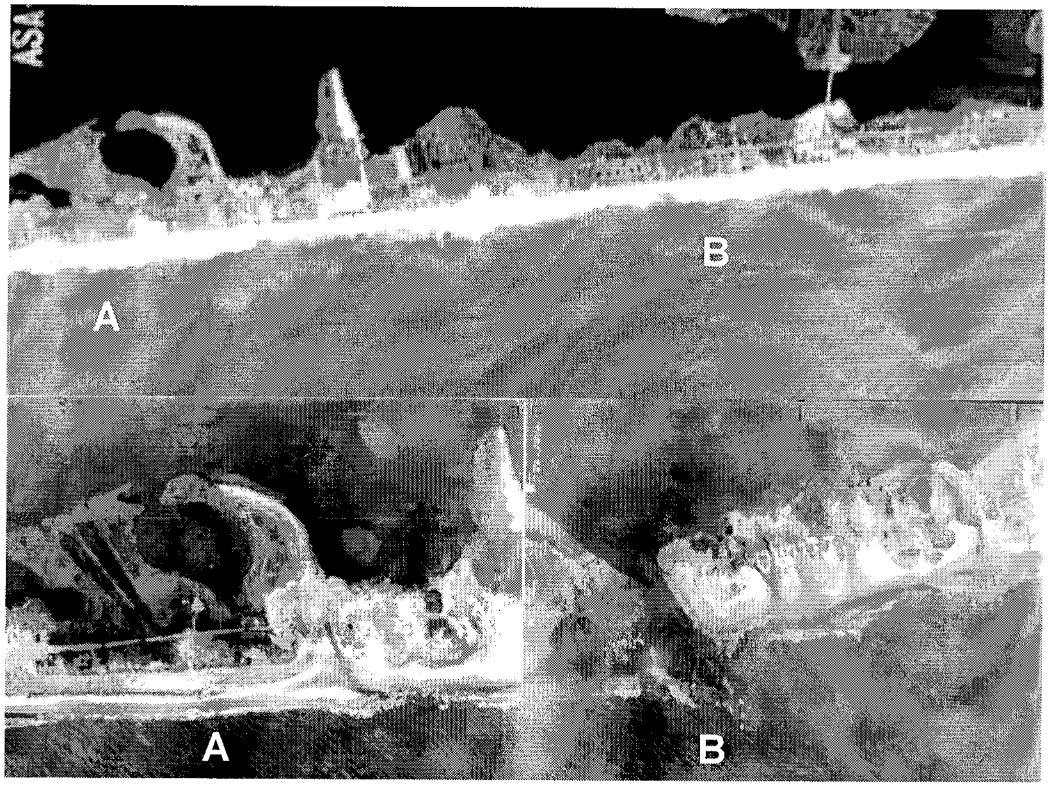


Figure 2 - Examples of overwash and breaching due to the 1938 hurricane along Westhampton Beach. Photographs courtesy of the USACE Beach Erosion Board.

Hurricane Carol passed over the eastern end of Suffolk County as a Category 3 hurricane on the 31st of August 1954. Wind gusts up to 130 mph were observed on Block Island, and the strongest wind speed over land of 95 mph was observed at Brookhaven National Laboratory. Anecdotal accounts reported waves of 4-5 feet in Noyack Bay leading up to storm landfall. Approximate crop and property damages of $460 million (in 1954 dollars) were reported for the event (Davis, 1954). Examples of breaching and overwash due to Carol are shown in Figure 3.

Hurricane Donna was another memorable hurricane for Suffolk County, making landfall as a Category 2 hurricane on September 12, 1960, near Westhampton Beach in Suffolk County. At LaGuardia Airport, 70 mph winds from the northeast were recorded, with gusts up to 97 mph. Anecdotal accounts report wind gusts up to 115 mph for eastern Long Island. Hurricane Donna produced the highest tide of record at Hewlett Harbor and the tidal gage at Fort Hamilton-Fort Wadsworth (at the Narrows between Brooklyn and Staten Island) recorded a maximum tide of 7.5 (NAVD) feet (USACE, 1971).

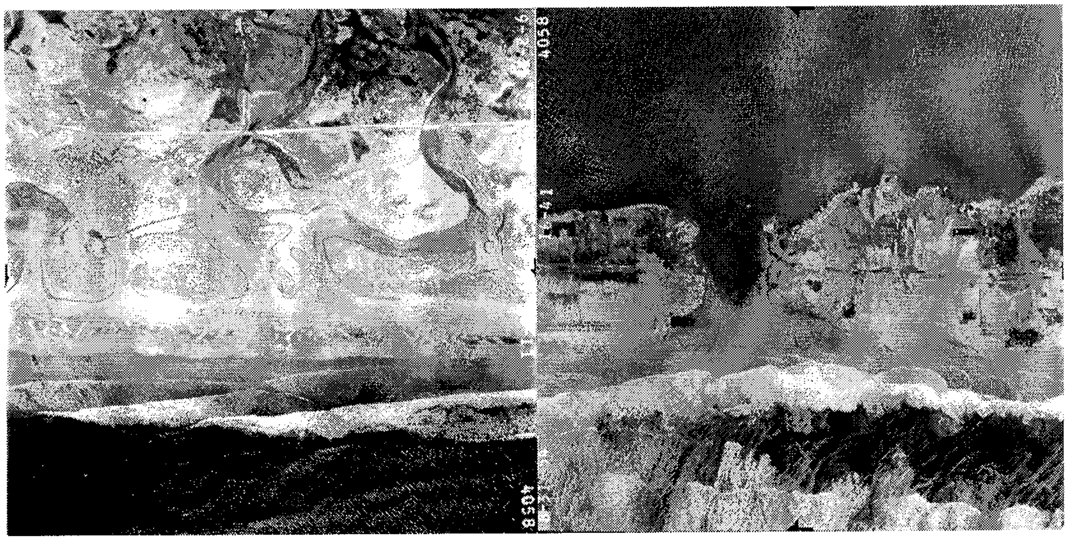


Figure 3 – Extensive overwash on Fire Island (left) and overwash and breaching in Westhampton (right) from Hurricane Carol. Photographs courtesy of the USACE Beach Erosion Board.

Hurricane Gloria was the most recent instance where Suffolk County has experienced the intensity of a hurricane. Gloria made landfall on September 27, 1985, approximately 10 miles east of Kennedy International Airport as a Category 2 hurricane. Wind gusts ranged from 51-mph in Central Park, 84-mph in Islip, 97-mph as recorded at Centerreach and 120-mph recorded at Fire Island Light. Peak storm surge ranged from 4 to 7 feet above tidal levels (Case, 1986), fortunately, the storm made landfall at low tide which greatly reduced the potential coastal flooding. Extensive wind and flooding damaged led to a Federal Disaster Declaration. Total damages from the storm were estimated at $900 million for Virginia, New Jersey, New York, and Connecticut (National Weather Service, 1985).

Coastal flooding is not limited to hurricane activity; in fact, northeasters have caused the majority of tidal flooding along the south shore of Long Island. Northeasters develop near the Atlantic Coast of North America and can potentially occur at any time of year, but most frequently in the winter and spring months. Typically, a northeaster has lower wind velocities and higher central pressures than a major hurricane; however, wind velocities associated with a northeaster can easily reach tropical storm and Category 1 hurricane levels. In addition, the high winds of a northeaster can last for several days, causing repeated flooding and excessive coastal erosion. The long exposure of property to high water, high winds, and pounding wave action can result in severe property damage.

Notable northeasters include the November 1950, November 1953, March 1962, December 1992, and March 1993 events. The November 1950 northeaster resulted in a storm surge above tidal levels of 7.9 feet at Sandy Hook, New Jersey, and 5.5 feet at New London, Connecticut. The northeaster of November 1953 produced storm surge levels of 4.7 feet at Sandy Hook, New Jersey, and 3.6 feet at New London, Connecticut, over tidal water levels. The March 1962 northeaster was known as the "Ash Wednesday" or locally as the "Five-High" storm because it lasted over five continuous high tides. The storm coincided with spring tides and caused severe erosion and property damage along the south shore of Long Island and along the eastern seaboard, with some of the worst damage along the New Jersey coast (USACE, 1963). The December 1992 northeaster carried hurricane-force winds and resulted in a storm surge in addition to tidal water levels of 5.9 feet at Sandy Hook, New Jersey, and 7.4 feet at Willets Point. The March 1993 northeaster, also known as the "Storm of the Century" caused extensive property damage along the Long Island coast, with a reported 18 homes falling to the sea. Wind gusts of 89 mph were recorded at Fire Island (NWS, 1993). Storm surge values in addition to tidal water levels of 6.1 feet and 4.9 feet were recorded at Willets Point and the Battery, respectively.

The best available verified historical records for water levels in the region are located at the NOAA stations for Sandy Hook, New Jersey, and New London, Connecticut. Annual water level maxima for the period of record at these gages are shown in Figure 4, "Annual Water Level Maxima at Sandy Hook," and Figure 5, "Annual Water Level Maxima at New London." These values represent the residual water level, or magnitude of the storm surge with the tidal water level removed. The five highest storm surge events of record at Sandy Hook, New Jersey, are: 1) March 1993 northeaster, 2) November 1950 northeaster, 3) Hurricane Gloria in 1985, 4) December 1992 northeaster, and 5) December 1974 northeaster. At New London, Connecticut, the five highest storm surge events of record are: 1) 1938 hurricane, 2) Hurricane Carol in 1954, 3) Hurricane Gloria in 1985, 4) November 1950 northeaster, and 5) September 1944 hurricane.

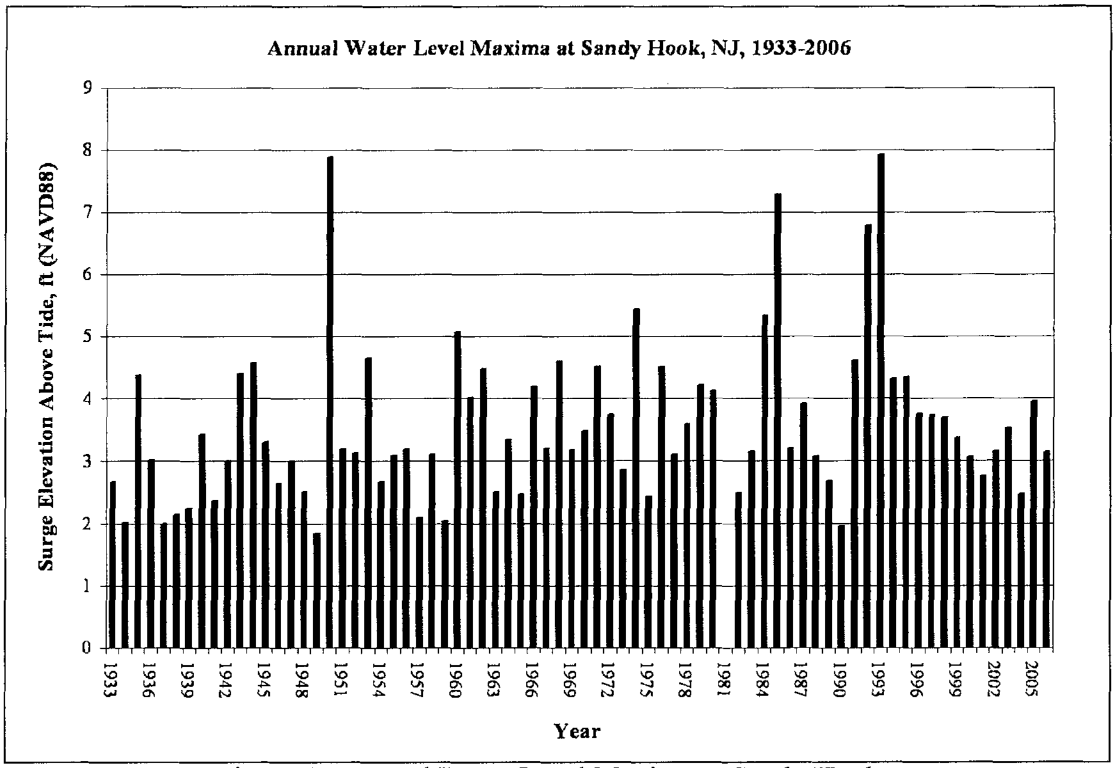


Figure 4 - Annual Water Level Maxima at Sandy Hook

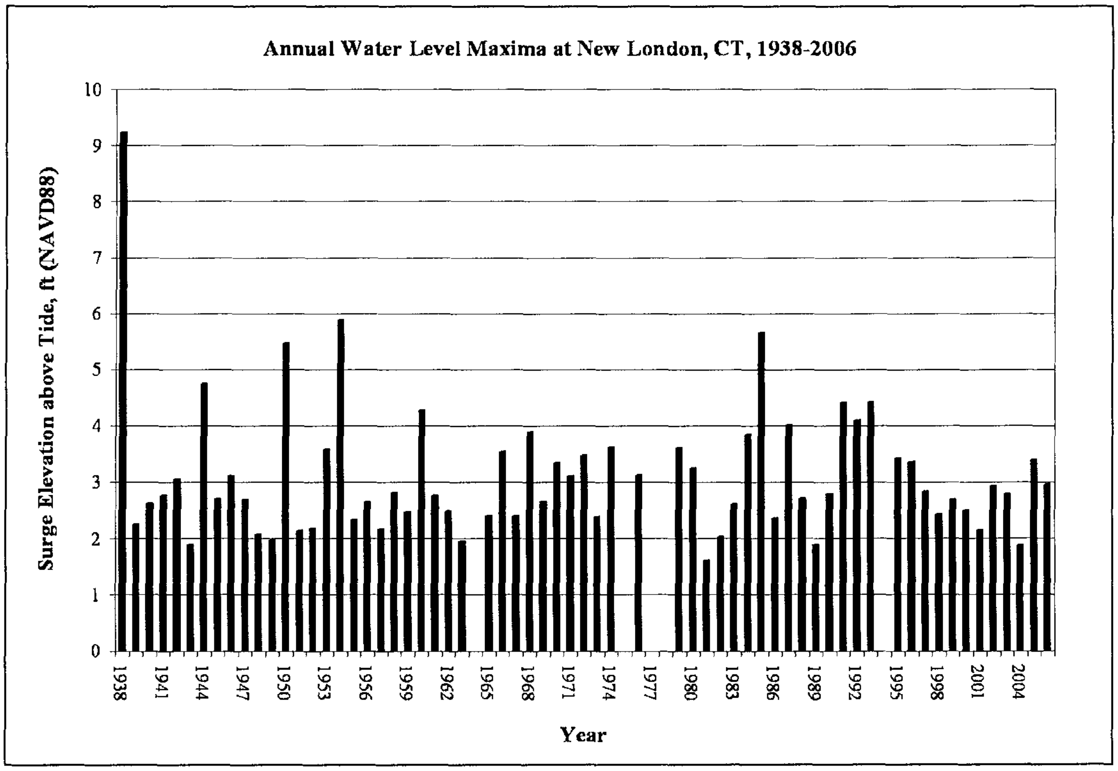


Figure 5 – Annual Water Level Maxima at New London

2.4 Flood Protection Measures

In many communities in Suffolk County, seawalls and bulkheads have been installed along shoreline areas and are used to prevent soil erosion and to minimize flood damage caused by minor (less than 1-percent annual chance [100-year]) tidal surges. There are no other flood protection measures substantial enough to protect against a 1-percent annual chance event within the county.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the county, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this FIS. Flood events of a magnitude which are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this FIS. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Riverine Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for the flooding source studied in detail affecting the county.

The Northeast Branch Nissequogue River is part of the Nissequogue River basin, which has a gage located on the main branch (USGS gage No. 01303800, located near Smithtown). The gage, now discontinued, is in the Nissequogue River State Park, 0.6 mile downstream of New Millpond and approximately 2.5 miles downstream of the Village of The Branch corporate limits at Maple Avenue. The drainage area is approximately 27 square miles with gaging records dating from 1948 to 1998 (U.S. Department of the Interior, 1978). For the pre-countywide, community-based FIS, using data until 1978, a log-Pearson Type III (LPIII) analysis, without the expected probability adjustment, was performed according to the Water Resources Council Bulletin 17A (Water Resources Council, 1977). The results of this analysis show the following discharge-frequency relationship for the gage:

Q_{10} - 160 cfs
Q_{50} - 235 cfs
Q_{100} - 272 cfs
Q_{500} - 377 cfs

The relationships used to transpose the gage discharge to obtain discharges at the Village of The Branch downstream corporate limits is shown in the following equation:

$$Q_{point}/Q_{gauge} = (A_{point}/A_{gage})^{x}$$

where the exponent "x" is commonly taken in the range between 0.50 and 0.75.

In estimating the proper "x" value, it is desirable to take into account the average stream slope, the storage characteristics of the stream reach, and the basin population. For the Nissequogue River, these variables are listed for the gage location and for the Village of The Branch limits as follows:

Variable	Nissequogue River at Nissequogue Gage	Northeast Branch Nissequogue River at downstream corporate limits
Drainage Area: A[1]	27 square miles	7.57 square miles
Stream Slope: S[1]	10.1 feet per mile	12.57 feet per mile

Variable	Nissequogue River at Nissequogue Gage	Northeast Branch Nissequogue River at downstream corporate limits
Surface Storage Index: St[1]	7.9 percent	4.29 percent
Impervious Cover Index: I	9.55	19.26
Population	631 persons per square mile	2,249 persons per square mile

Dimensionless rates [$Q1/Q2 = (A1^x/A2)(S1^y/S2)(St1^{-z}/St2)(I1^w/I2)$] were obtained from Special Report No. 38 and were used in computing the x, y, z, and w values (State of New Jersey, 1974). The dimensionless rates can be computed with the following results:

10-percent annual chance discharge	Q1/Q2 = 0.55
2-percent annual chance discharge	Q1/Q2 = 0.56
1-percent annual chance discharge	Q1/Q2 = 0.58

Using these results, the area exponent "x" in the relationship, $Q1/Q2 = A1^x/A2$, can be calculated with the following results:

Return Period	Exponent "x"
10-percent annual chance	0.47
2-percent annual chance	0.46
1-percent annual chance	0.43

Due to the proximity of the calculated values to the commonly used lower limit, an exponent "x" value of 0.50 was applied.

A summary of the drainage area-peak discharge relationships for the stream studied by detailed methods is shown in Table 3, "Summary of Discharges."

TABLE 3 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs)			
		10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
NORTHEAST BRANCH NISSEQUOGUE RIVER					
At Village of The Branch downstream corporate limits	7.57	85	124	144	200

Countywide Analyses

As part of this revision, updated hydrologic analyses were performed for the riverine flooding sources previously designated with an approximate flood zone (Zone A). The approach was based on published documents developed by various Federal agencies and develops a procedure to compute the 1-percent annual chance discharge for approximate flooding sources in Suffolk County.

Generally, streams on Long Island are groundwater drains, with groundwater continually discharging into the stream bed under natural conditions. Therefore, in relation to the ground water reservoir, the streams can be evaluated in terms of their groundwater discharge potential. The potential at a given point on the stream is dependent on the elevation of the stream at that point. Thus, the potential along the stream channel varies continuously from the elevation of the headwater of the stream to the elevation of the receiving body (i.e., bay or ocean) (Franke, 1972).

After evaluating available information, an LPIII analysis was performed for gaging stations in Nassau and Suffolk County that had at least 10 years of record and included data from 1959. Including only gages that had record from 1959, ensured that peak discharges associated with Hurricane Donna were included in the analyses. Although Seaburn (1969) reported the effects of urbanization for East Meadow Brook, due to lack of any other information regarding the recharge basins, it was assumed that the number of recharge basins in other watersheds did not change appreciably between 1959 and the end of the respective gage period of record.

Along the gaged streams, groundwater table elevations were estimated at two locations. Upstream, the elevation at which the ground water table elevation (peizometric head) equaled or exceeded the surface or ground elevation was determined. This was deemed the "start of flow" location where streamflow is fed by groundwater. Downstream, at the gage location, the groundwater table elevation was estimated. The difference in ground water table elevations between each location and the distance along the stream between these two locations were then used to calculated the groundwater table gradient in units of ft/mi. Then, using the LPIII analyses results, a relationship was proposed between 1-percent annual chance discharge per foot of stream fed by groundwater and the groundwater table gradient. A good correlation (R^2=0.99) was found for this relationship for those gages with little to no storage in the contributing drainage basin. 1-percent annual chance discharges for the approximate studied streams were calculated using the equation determined from this relationship and presented below.

$$y = 0.0018e^{0.2738x}$$

where, y = 1-percent annual chance discharge per foot length of the stream in cfs/ft
x = water table gradient in ft/mile

Finally, the 1-percent annual chance discharge value at a point of interest was calculated by multiplying the y value by the length of stream between the start of flow location and point of interest.

3.2 Riverine Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the source studied were performed to provide estimates of the elevations of floods of the selected recurrence intervals.

Below-water cross-section data for the Northeast Branch Nissequogue River were obtained from a survey completed specifically for the Village of The Branch study. Cross sections were located at close intervals above and below bridges and culverts in order to compute the significant backwater effects of these structures. All bridges and culverts were surveyed to obtain elevation data and structural geometry. Overbank topography was obtained from topographic maps compiled by aerial photographs flown in December 1978 along the river channel (Geod Aerial Mapping, Inc., 1978).

Water-surface elevations of floods of the selected recurrence intervals were computed using the USACE HEC-2 step-backwater computer program (USACE, 1977). The computer model was calibrated using the January 1979 flood high-water marks which were obtained from interviews with local residents and village officials. Starting water-surface elevations for the Northeast Branch Nissequogue River were determined using the slope/area method. The existing spillway at Millers Pond was modeled using data obtained from field surveys.

Roughness coefficients (Manning's "n") used in the hydraulic computations were determined from field observation. The channel "n" values for the Northeast Branch Nissequogue River ranged from 0.012 to 0.060, and the overbank "n" values ranged from 0.060 to 0.100.

Flood profiles were drawn showing computed water-surface elevations to an accuracy of 0.5 foot for floods of the selected recurrence intervals. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway is computed (Section 4.2), selected cross-section locations are also shown on the FIRM (Exhibit 2).

The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

Countywide Analyses

As part of this revision, an updated hydraulic analyses was performed for the riverine flooding sources previously identified with an approximate flood zone designation. Cross sections were developed from a 10-foot grid cell digital elevation model developed from Light Detection and Ranging (LiDAR) topographic data acquired for FEMA in 2006. HEC-RAS 3.1.3 was then used to perform the hydraulic analyses to calculate an approximate 1-percent annual chance flood elevation profile.

All elevations are referenced to the North American Vertical Datum of 1988 (NAVD 88). Elevation reference marks used in this FIS, and their descriptions, are shown on the FIRM.

Qualifying bench marks within a given jurisdiction that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS) as First or Second Order Vertical and have a vertical stability classification of A, B, or C are shown and labeled on the FIRM with their 6-character NSRS Permanent Identifier.

Bench marks cataloged by the NGS and entered into the NSRS vary widely in vertical stability classification. NSRS vertical stability classifications are as follows:

- Stability A: Monuments of the most reliable nature, expected to hold position/elevation well (e.g., mounted in bedrock)
- Stability B: Monuments which generally hold their position/elevation well (e.g., concrete bridge abutment)
- Stability C: Monuments which may be affected by surface ground movements (e.g., concrete monument below frost line)
- Stability D: Mark of questionable or unknown vertical stability (e.g., concrete monument above frost line, or steel witness post)

To obtain current elevation, description, and/or location information for bench marks shown on the FIRM for this jurisdiction, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their Web site at www.ngs.noaa.gov.

3.3 Coastal Hydrologic Analyses

Stillwater elevations for the south shore of Suffolk County, from Jones Beach Island to Montauk Point, were calculated based on numerical modeling by the USACE (USACE, 2006). Stillwater elevations for the north shore, from Oyster Bay to Orient Point, and coastline in the eastern fork embayments, from Orient Point to Montauk Point were based on previous FIS analysis and adjusted via an updated gage analysis at New London, Connecticut.

Two sub-sections follow: The Initial Countywide Analyses provides a compilation of information regarding stillwater surge elevation determination methodology from previous FISs for Suffolk County communities located along Long Island Sound and eastern fork embayments from Orient to Montauk Point. The Countywide Revised Analyses section provides details on the methodologies employed in the calculation of stillwater surge elevations for the south shore communities, and the gage analysis update for the north shore and eastern fork embayment communities.

Initial Countywide Analyses

For the May 4, 1998, FIS, stillwater elevations for coastal flooding sources studied by detailed methods, an LPIII analysis, without expected probability, was performed for the data of all long-term gages in the county (Water Resources Council, 1977). The results of this analysis were stage-related to each community through gage records in the particular community's vicinity.

In the Villages of Asharoken and Lloyd Harbor, stillwater elevations were taken from the gage records from Stamford and Bridgeport, Connecticut.

In the Village of Belle Terre, due to the complexity of the coastline, a numerical estuarine model was developed to study surge levels throughout Port Jefferson Harbor (FEMA, 1979). The results of the numerical model yielded lower elevations than the open coast in all but the 10-percent annual chance recurrence interval. Water level recurrence periods in the harbor were confirmed by an analysis of records from a tide gage located in Port Jefferson Harbor.

In the Town of Brookhaven and the Village of Shoreham, the stillwater elevations for Long Island Sound from the Brookhaven/Head of the Harbor corporate limits to the mouth of Port Jefferson Harbor, including Conscience Bay, were taken from the FIS for the Village of Old Field (FEMA, October 1982). The stillwater elevations for Long Island Sound from Mt. Sinai Harbor to the Brookhaven/Riverhead corporate limits were taken from the previous FIS for the Town of Brookhaven (FEMA, February 1987). The stillwater elevations for Long Island Sound from the mouth of Port Jefferson harbor to Mt. Sinai Harbor and for Port Jefferson Harbor were taken from the FIS for the Village of Port Jefferson (FEMA, September 1982).

In the Village of Dering Harbor and the Town of Shelter Island, stillwater elevations for North Shelter Island Sound were developed from tidal elevation-frequency relationships determined using known high-water elevations from the Eastern Forks area of Long Island.

In the Town of East Hampton, stillwater elevations for Gardiners Bay and Block Island Sound were developed from gage elevations of the Atlantic Ocean transposed to the East Hampton shoreline using tidal relationships developed by the USACE.

In the Village of Greenport, stillwater elevations were stage-related to the coastline of the community through gage records from Plum Gut.

In the Village of Head of the Harbor, due to the complexity of the coastline in the community, a numerical estuarine model was developed to study surge levels throughout Stony Brook Harbor (FEMA, October 1982). The results of the numerical model yielded the same elevations for the inner harbor regions as for the open coast.

In the Town of Huntington, stillwater elevations for Long Island Sound and Huntington Bay were taken from the FIS for the Village of Huntington Bay (FEMA, October 1982). For Northport Bay, the stillwater flood elevations were taken from the FIS for the Village of Northport, while for Cold Spring Harbor, they were obtained from the FIS for the Village of Laurel Hollow (FEMA, October 18, 1982; FEMA, 1997). The elevations did not agree with the elevations used in the previous FIS for the Town of Huntington due to a new and updated analysis performed on the local gages (FEMA, August 1982).

In the Village of Huntington Bay, stillwater surge elevations from the gages at Willets Point and Bridgeport were stage-related to the coastline of the community through gage records from Eaton's Neck. The lengths of operation for the Willets Point, Bridgeport, and Eaton's Neck gages are 1931-1976, 1964-1975, and August 1, 1957-December 31, 1958, respectively (Water Resources Council, 1977).

In the Village of Nissequogue, due to the complexity of the coastline, a numerical estuarine model was developed to study surge levels throughout the Northeast Branch Nissequogue River and Stony Brook Harbor (FEMA, October 1982). The results of the numerical model were used to verify the water level elevations along the coastline within the river and the harbor.

In the Village of Northport, stillwater surge elevations from the gage at Willets Point were stage related to the coastline of the community through gage records from Eaton's Neck.

In the Village of Old Field, due to the complexity of the coastline, a numerical estuarine model was developed to study surge levels throughout Conscience Bay (FEMA, October 1982). The results of the numerical model yielded lower elevations than the open coast.

In the Villages of Poquott and Port Jefferson, due to the complexity of the coastlines, a numerical estuarine model was developed to study surge levels throughout Poquott Harbor and Port Jefferson Harbor, respectively (FEMA, October 1982). For both studies, the results of the numerical model yielded lower elevations than the open coast in all but the 10-percent annual chance recurrence interval.

In the Village of Sag Harbor, stillwater elevations were developed by establishing a frequency-elevation curve from tidal elevation data taken at Gardiners Bay and Shelter Island Sound.

In the Town of Smithtown, tidal frequency-elevation relationships were determined from the north shore coastline of Long Island in the vicinity of the Town of Huntington. Relevant data from tidal gaging stations at Stamford and Bridgeport, Connecticut, and Port Jefferson, New York, were also used in the analysis of tidal frequency-elevations for the Town of Smithtown.

In the Town of Southold, for Long Island Sound, stillwater elevations were derived from the 1980 version of the USACE publication, Tidal Flood Profiles for the New England Coastline, and were modified using an analysis of the tidal gage at New London, Connecticut (USACE, 1980; Richard L. Umbarger, 1980). Stillwater elevations for Fishers Island and Block Island Sounds were also taken from this publication (Dewberry & Davis, 1980). Stillwater elevations for Plum Island were derived from the 1988 version of the aforementioned USACE publication (USACE, 1988). The stillwater elevations for Peconic and Gardiners Bays were developed on estimates of the maximum high tides and the use of the Standard Project Hurricane at a 0.2-percent annual chance frequency. Elevations varied due to the relationships of the different shorelines to the storm center and predominant wind direction. Stillwater elevations for Greenport Harbor were taken from the FIS for the Village of Greenport (FEMA, 1984).

The stillwater-surge elevation is the elevation of the water due solely to the effects of the astronomical tides, storm surges, and water setup on the water surface. The inclusion of wave heights, which is the distance from the trough to the crest of the wave, increases the water-surface elevations. The height of a wave is dependent upon wind speed and its duration, depth of water, and length of fetch. The wave crest elevation is the sum of the stillwater elevation and the portion of the wave height above the stillwater elevations.

The addition of wave heights to stillwater-storm surface elevation was performed using methodology recommended by the National Academy of Sciences (NAS) (National Academy of Sciences, 1977). This methodology considers maximum conditions associated with the 1-percent annual chance flood, and uses transects that are oriented perpendicularly to the average mean sea level shoreline to deduce wave crest elevations.

Countywide Revised Analyses

The increased period of record (25 years for the majority of communities) since the previous stillwater analyses was relatively quiescent, and analysis conducted by the National Oceanic and Atmospheric Administration (NOAA) suggested that stillwater elevations had generally decreased over previous values (Zervas, 2005). Based on this information, it was necessary to update stillwater elevations for Suffolk County. This was accomplished by implementing stage frequency analysis conducted by the USACE, New York District for the Atlantic coast and south shore bays, and conducting an updated gage analysis for the Long Island Sound coast and bays. The updated gage analysis for the Long Island Sound builds on the analyses conducted for the individual communities described above from a compilation of previous studies.

The New York District of the USACE conducted a baseline stage frequency elevation study for the south shore of Long Island (USACE, 2006) as part of the Fire Island to Montauk Point Reformulation Project (FIMP). The primary objective of the FIMP study is the development of a long-term regional strategy for the south shore of Long Island that will reduce risks to human life and property while maintaining, enhancing, and restoring ecosystem integrity and coastal biodiversity. The modeling method for the study involved simulation of historical hurricane events using the ADvanced CIRCulation (ADCIRC) and Delft3D hydrodynamic models. The ADCIRC model was used to simulate water levels along the open coast, whereas the Delft3D model was employed to simulate back-bay water levels. The models were calibrated to tidal water levels and model performance was extensively verified against historical events, including, but not limited to, the September 1938 hurricane, March 1962 northeaster, and December 1992 northeaster. Modeled results had excellent agreement with measured water levels for these events. A total of 14 historical tropical events and 22 extratropical storms were simulated to develop stillwater elevations. The Empirical Simulation Technique (EST) was used to calculate the combined stillwater frequency curves for the 10-, 2-, 1-, and 0.2-percent annual chance stillwater elevations. The results of the USACE FIMP study are preliminary at this time, but are considered best available data for this study. The USACE FIMP study represented the best available data and offered a significant improvement in data quality, resolution and accuracy over the 1998 FIS stillwater elevations for the south shore of Suffolk County (FEMA, 1998). The base stillwater elevations from the 1998 FIS were over 27 years old (conducted in 1981). Subsequent to that study, three surge events greater than the previous storm of record (Hurricane Donna) have occurred. For these reasons, the USACE stillwater elevations, which have been subject to independent technical review, were adopted for this study. The terms of use of this data are provided in a Memorandum of Understanding between USACE, New York District, and FEMA Region 2, executed on February 4, 2008.

In addition to the hydrodynamic models, two-dimensional wave modeling was carried out by the USACE for the FIMP study. Results from these models were not included in the updated stillwater levels, and wave effects were modeled separately for this study using standard FEMA methodologies.

A gage analysis at the New London, Connecticut, NOAA water level station was undertaken to update stillwater elevations for communities along the Long Island Sound coast, and eastern fork embayments of Suffolk County. The New London station was chosen based on the length and quality of water level record, in addition to representation of significant historical surge events. Gages at Willets Point, New York, and Port Jefferson, New York, have closer proximity to the study area, but lacked the quality and quantity of data present at the New London station. Stage frequency relationships were developed for the period of record between 1938 and 2006 using the L-moments Generalized Extreme Value (GEV) statistical method, recommended as a standard FEMA methodology (FEMA, 2007). The potential of maximum surge occurring at low or high tide during tropical events was accounted for by employing a mixed population sampling method. Comparison of results for the 1% return period against the NOAA value (Zervas, 2005) showed minimal difference and provided validation of the analysis. Results are reported in Table 4.

TABLE 4. STILLWATER ELEVATIONS AS DETERMINED FOR THE NEW LONDON, CONNECTICUT, GAGE

ELEVATION, FEET NAVD 88			
10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
5.18	6.73	7.45	9.28

Existing stillwater elevations (FEMA, 1998) were revised by applying the differences between the updated and existing analysis (FEMA, 1983) at New London, Connecticut, to the stillwater return period elevations at each study transect in Suffolk County. Differences at the 10-, 2-, 1-, and 0.2-percent annual chance floods at New London, Connecticut, are given in Table 5.

TABLE 5. DIFFERENCE BETWEEN PREVIOUS AND UPDATED STILLWATER ELEVATIONS AT NEW LONDON, CONNECTICUT

	ELEVATION, FEET			
	10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
PRE-EXISTING NGVD 1929	7.1	9	10	12.4
PRE-EXISTING NAVD 1988*	6.1	8	9	11.4
UPDATED NAVD 1988	5.18	6.73	7.45	9.28
DIFFERENCE:	-0.95	-1.3	-1.58	-2.15

*CONVERSION FACTOR OF 0.97 FT

The stillwater elevations for the 10-, 2-, 1-, and 0.2-percent annual chance floods have been determined for all of the flooding sources studied by detailed methods, and are summarized in Table 6, "Summary of Stillwater Elevations."

TABLE 6 - SUMMARY OF STILLWATER ELEVATIONS

FLOODING SOURCE AND LOCATION	ELEVATION (feet NAVD 88*)			
	10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
ATLANTIC OCEAN				
Shoreline from the county line to Cedar Beach	6.6	8.7-8.8	9.9-10.1	12.2-12.4
Shoreline from Cedar Beach to the entrance of Fire Island Inlet	5.8	7.6	8.6	10.2
Shoreline from the county line to Cedar Beach	6.6	8.7-8.8	9.9-10.1	12.2-12.4
Shoreline from Cedar Beach to the entrance of Fire Island Inlet	5.8	7.6	8.6	10.2
Shoreline from Democrat Point to Shinnecock Inlet	5.9-6.5	8.2-8.6	9.3-9.7	11.3-12.2
Shoreline from Shinnecock Inlet to Ditch Plains Park	5.4-5.9	7.8-8.6	9.4-10.3	12.1-13.4
Shoreline from Ditch Plains to Montauk Point	5.2-5.4	7.3-7.7	8.7-9.2	11.1-11.8
BARLEY FIELD COVE				
Entire shoreline	5.3	6.9	7.6	9.3
BELLPORT BAY				
Entire shoreline within the Village of Bellport	4	4.8	5.2	5.8-5.9

*North American Vertical Datum of 1988

TABLE 6 - SUMMARY OF STILLWATER ELEVATIONS - continued

FLOODING SOURCE AND LOCATION	ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
BLOCK ISLAND SOUND				
Eastern shoreline of Gardiners Island, from Bostwich Point to near Great Pond	3.5	4.9	5.3	7.2
South shoreline of Fishers Island	5.1-5.3	6.7-6.9	7.4-7.6	9.3
Culloden Point to Shagwong Point	3.5	4.9	5.3	7.2
Shagwong Point to Montauk Point	4.5	6.3	7.3	9.5
Southwest of East Point, on Plum Island	5.1	N/A	7.4	N/A
Southeast shoreline of Plum Island	3.9	N/A	6.7	N/A
CENTERPORT HARBOR				
Shoreline northeast of Crescent Beach Town Park and Centerport Beach.	7.1	8.2	8.9	10.5
CHOCOMOUNT COVE				
Entire shoreline	5.2	6.8	7.5	9.3
CONSCIENCE BAY				
Entire shoreline	6.7	7.6	8.1	9
CUTCHOGUE HARBOR				
Entire shoreline	4	5.2	5.5	9.6
DERING HARBOR				
Entire shoreline	4.2	5.1	5.3	9
FISHERS ISLAND SOUND				
Shoreline on the north side of Fishers Island	5.1-5.3	6.7-6.9	7.4-7.6	9.3
FLANDERS BAY				
Entire shoreline	4	5.2-5.3	5.9	9.6
FORT POND BAY				
Entire shoreline	3.5	4.9	5.3	7.2
GARDINERS BAY				
Long Beach Point to Orient Point	4	5.2	5.9	9.8
Shoreline from Cedar Point to Napeague Bay	3.5	4.9	5.3	7.2
Western shoreline of Gardiners Island, from Bostwich Point to near Great Pond	3.5	4.9	5.3	7.2

*North American Vertical Datum of 1988

TABLE 6 - SUMMARY OF STILLWATER ELEVATIONS - continued

FLOODING SOURCE AND LOCATION	ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
GREAT PECONIC BAY				
Shoreline from Simmons Point to Kimogener Point	4	5.2	5.5-5.9	9.6
Red Cedar Point to Cow Neck Point	4	5.2	5.5-5.8	9.6
Western shoreline of Robins Island	4	5.2	5.5	9.6
GREAT SOUTH BAY				
Shoreline from the county line to near the entrance of Carlls River	4.4	5	5.3	5.8
Shoreline from near the entrance of Carlls River to Nicoll Point	3.7-3.9	4-4.6	4.2-4.8	4.4-5.2
Green Point to Blue Point	4.1	4.6	4.8	5.2
Shoreline from the eastern limit of Patchogue Bay to Howells Point	4	4.8	5.1	5.8
Northern shoreline of Fire Island from Fire Island Inlet to the entrance of Narrow Bay	4-4.3	4.6-4.8	4.8-5.1	5.2-5.8
GREENPORT HARBOR				
Entire shoreline	4.2	5.4	5.8	6.7
HUNTINGTON BAY				
Entire shoreline	7-7.1	8.1-8.2	8.8-8.9	10.5
HUNTINGTON HARBOR				
Entire shoreline	7.1	8.2	8.9	10.5
LAKE MONTAUK				
Entire shoreline	3.5	4.9	5.3	7.2
LITTLE PECONIC BAY				
Entire shoreline	4	5.2	5.5	9.6
LLOYD HARBOR				
Entire shoreline	7	8.1	8.8	10.5
LONG ISLAND SOUND				
Shoreline from Lloyd Point to East Fort Point	7.2-7.3	8.4-8.6	9.2-9.3	10.8-10.9
Shoreline from Eatons Neck Point to the entrance of Port Jefferson Harbor	6.8-7.1	8.1-8.3	8.7-8.9	10.3-10.5

*North American Vertical Datum of 1988

TABLE 6 - SUMMARY OF STILLWATER ELEVATIONS - continued

FLOODING SOURCE AND LOCATION	ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
LONG ISLAND SOUND (continued)				
Shoreline from the entrance of Port Jefferson Harbor to the entrance of Wading River	6.5-6.6	7.8-8.2	8.3-8.8	9.6-10.4
Shoreline from of Wading River to the Mattituck Hills	5.9	7.4	8.2	10.8-10.9
Shoreline for the Mattituck Hills to Mulfod Point	5.5-6.2	7-7.5	7.6-8.1	9.3-9.4
Shoreline from the eastern limit of Petty's Bight and Orient Point	5.5	7	7.6	9.3
Northern shoreline of Plum Island	5.1	N/A	7.4	N/A
MAJORS HARBOR				
Entire shoreline	4.2	5.1	5.3	9
MORICHES BAY				
Southern shoreline of Moriches Bay	4.9-5.2	6.1-6.4	6.8	7.5-7.8
NAPEAGUE BAY				
Entire shoreline	3.5	4.9	5.3	7.2
NICOLL BAY				
Entire shoreline	4-4.2	4.4-4.6	4.6-4.8	4.9-5.2
NORTH RACE				
Entire shoreline	4	5.2	5.5	9.6
NORTHPORT BAY				
Entire shoreline	7.1	8.2	8.9	10.5
NORTHPORT HARBOR				
Entire shoreline	7.1	8.2	8.9	10.5
NORTHWEST HARBOR				
Entire shoreline	3.5	4.9	5.3	7.2
NOYACK BAY				
Shoreline from the entrance of Mill Creek to the entrance of Sag Harbor Cove	4	5.2	5.5	9.6
Shoreline from the entrance of Sag Harbor Cove to Gleason Point	4.2	5.1	5.3	9

*North American Vertical Datum of 1988

TABLE 6 - SUMMARY OF STILLWATER ELEVATIONS - continued

FLOODING SOURCE AND LOCATION	ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
ORIENT HARBOR				
Entire shoreline	4.2	5.4	5.8	6.7
OYSTER BAY				
Entire shoreline within the county	7.3	8.6	9.4	11
PATCHOGUE BAY				
Entire shoreline	4.2	4.7	4.9-5	5.4
PETTYS BIGHT				
Entire shoreline	5.5	7	7.6	9.3
PIPES COVE				
Entire shoreline	4	5.2	5.5	9.6
PORT JEFFERSON HARBOR				
Near the Village of Port Jefferson	6.8	7.7	8.2	9.0
REEVES BAY				
Western shoreline	4.8	6.1	6.5	9.6
SAG HARBOR BAY				
Entire shoreline	5.2	6.2	6.5	9.8
SHELTER ISLAND SOUND				
Shoreline from Young's Point to Cleaves Point	4.2	5.4	5.8	6.7
Shoreline from Dering Point to Cornelius Point	4.2	5.1	5.3	9
Northeastern and eastern shoreline of Shelter Island from Cornelius Point to Nichols Point	5.2	6.2	6.5	9.8
Southern, western, and northwestern shoreline of Shelter Island from Majors Point to Chequit Point	4.2	5.1	5.3	9
Shoreline from Conking Point to Cedar Beach Point	4	5.2	5.5	9.6
North and eastern shoreline of North Haven Peninsula from Gleason Point to Sag Harbor	4	5.2	5.9	9.4

*North American Vertical Datum of 1988

TABLE 6 - SUMMARY OF STILLWATER ELEVATIONS - continued

FLOODING SOURCE AND LOCATION	ELEVATION (feet NAVD 88*)			
	10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
SHINNECOCK BAY				
Shoreline between West Point and East Point	5.6	7.2	8	9.2
Shoreline between Sedge Island and Lanes Island	5.6	7.1	7.9	9.1
Northern shoreline of Southampton Beach from Shinnecock inlet to the entrance of Heady Creek	5.4	7.3	8.3	9.8
SMITH COVE				
Entire Shoreline	4.2	5.1	5.3	9
WEST HARBOR				
Entire Shoreline	5.1-5.2	6.7-6.8	7.4-7.5	9.3
WEST NECK HARBOR				
Entire Shoreline	4.2	5.1	5.3	9

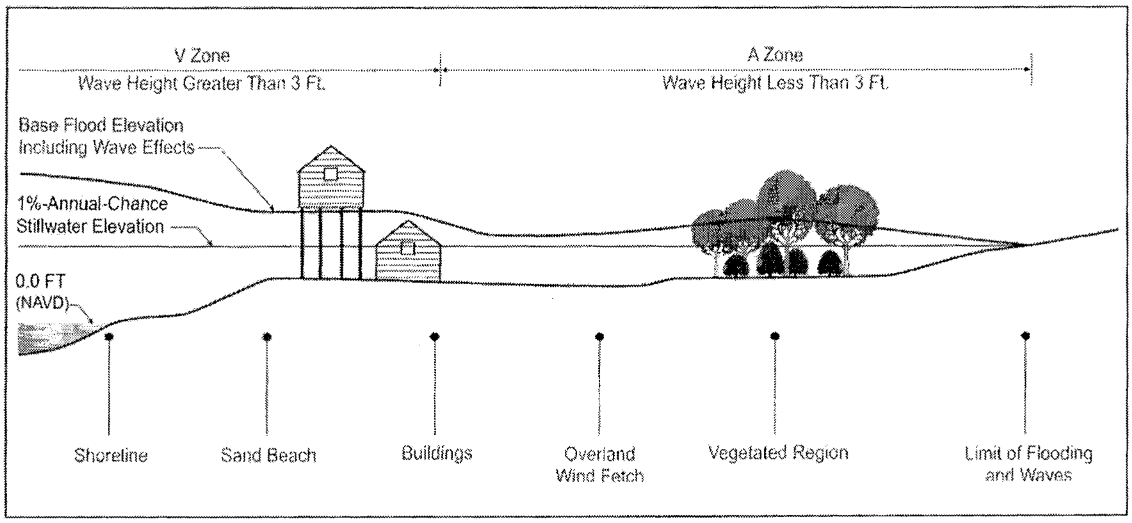
*North American Vertical Datum of 1988

3.4 Coastal Hydraulic Analyses

Areas of coastline subject to significant wave attack are referred to as coastal high hazard zones. The USACE has established the 3-foot breaking wave as the criterion for identifying the limit of coastal high hazard zones (USACE, 1975). The 3-foot wave has been determined as the minimum size wave capable of causing major damage to conventional wood frame veneer structures.

The methodology for analyzing the effects of wave heights associated with coastal storm surge flooding is described in the NAS report (National Academy of Sciences, 1977). This method is based on three major concepts. First, depth-limited waves in shallow water reach a maximum breaking height that is equal to 0.78 times the stillwater depth, and the wave crest is 70 percent of the total wave height above the stillwater level. The second major concept is that the wave height may be diminished by the dissipation of energy due to the presence of obstructions such as sand dunes, dikes, seawalls, buildings, and vegetation. The amount of energy dissipation is a function of the physical characteristics of the obstruction and is determined by procedures described in the report titled Methodology for Calculating Wave Action Effects Associated with Storm Surges (National Academy of Sciences, 1977). The third major concept is that wave height can be regenerated in open fetch areas due to the transfer of wind energy to the water. This added energy is related to fetch length and depth.

Figure 6, "Transect Schematic," illustrates a profile for a typical transect along with the effects of energy dissipation and regeneration on a wave as it moves inland. This figure shows the wave crest elevations being decreased by obstructions, such as buildings, vegetation, and rising ground elevations, and being increased by open, unobstructed wind fetches. The figure also illustrates the relationship between the local still water elevation, the ground profile and the location of the V/A boundary. This inland limit of the coastal high hazard area is delineated to ensure that adequate insurance rates apply and appropriate construction standards are imposed, should local agencies permit building in this coastal high hazard area.



TRANSECT SCHEMATIC Figure 6

For the south shore of Suffolk County the deepwater wave conditions associated with the 1-percent annual chance storm were developed using the Automated Coastal Engineering System (ACES) Extreme Significant Wave Heights technique. The approach developed by Goda (1998) fits a probability distribution to an array of extreme significant wave heights. Data from seventeen Wave Information Study (WIS) hindcast stations and one NOAA buoy, located along Nassau and Suffolk County south shores, were selected to represent the storms climatology (accounting for both tropical and extratropical storms). The maximum wave height was extracted from the record at each selected station and fit into a Weibull distribution. The results at the NOAA buoy (# 44025) were selected to be representative of the 1-percent annual chance wave conditions based on the quality of data fit and comparison with historical observational data. The extreme analysis technique returns only a wave height. The associated wave period was determined based on observed deepwater wave steepness of tropical and extratropical storms (H/L = 0.035 as average between wave steepness of the two type of events - as per FEMA, 2007). The wave calculated at the NOAA station was then adjusted in order to be representative of deepwater conditions, and then applied at each transect location along the Suffolk County shoreline exposed to the Atlantic Ocean.

For the coastline along the Long Island Sound, eastern fork embayments, and in bays and harbors where restricted fetch limits wave development, a fetch analysis was performed using the Automated Coastal Engineering System (ACES) Wave Prediction technique to determine the starting wave condition at each transect location. Wind direction, length of fetch and decay in wind intensity due to land friction were accounted for at each calculation location.

FEMA guidelines for V Zone mapping define H_s as the significant wave height or the average over the highest one third of waves and T_s as the significant wave period associated with the significant wave height. Mean wave conditions are described as:

$$\overline{H} = H_s \times 0.626$$
$$\overline{T} = T_s \times 0.85$$

where $\overline{H}$ is the average wave height of all waves and $\overline{T}$ is the average wave period.

The transects were located with consideration given to the physical and cultural characteristics of the land so that they would closely represent conditions in their locality. Transects were spaced in closer proximity in areas of complex topography, shoreline orientation, and dense development. In areas having more uniform characteristics, transects were spaced at larger intervals. It was also necessary to locate transects in areas where unique flooding existed, and in areas where computed wave heights varied significantly between adjacent transects. Transects are shown on the FIRM panels for Suffolk County, New York.

The transect profiles were obtained using bathymetric and topographic data from various sources. The topographic dataset is comprised of LiDAR data collected by Terrapoint USA under contract to Dewberry & Davis. Data were collected during fall 2006 in leaf-free conditions, and delivered in LAS format during July 2007. Data, as delivered, were in the North American Datum (NAD) of 1983, projected to New York State Plane coordinates, Long Island Zone, in units of feet. The vertical datum was relative to North American Vertical Datum (NAVD) of 1988 in units of feet. Quality control of the data found that the vertical accuracy of the dataset fully met and exceeded the FEMA specifications and National Digital Elevation Program guidelines. The topographic dataset was gridded to a 10-foot cell size, combined with bathymetric data (described below), and then converted into seamless digital elevation models to facilitate flood hazard modeling and floodplain delineation.

Bathymetric data was primarily sourced from NOAA National Ocean Service (NOS) hydrographic surveys dating from 1884-2000. Vertical datum varied by NOS survey, usually in mean lower low water (MLLW), although a portion of the surveys were in mean low water (MLW). All depths were converted to mean sea level (MSL) using datum relationships established from NOAA water level stations. Data in Long Island Sound (LIS), the south shore bays (i.e., Great South Bay), and the open ocean were treated with the appropriate conversion factors from gages available within each basin. Review of NGS available datum relationships between MSL and NAVD 88 showed that the average difference in the region was 0.18 foot, with a standard deviation of 0.08 foot. This value was considered within the vertical accuracy of the datasets and a passive conversion was assumed. Data were then reprojected to the NAD 83 New York State Plane East, Long Island, coordinates in units of feet.

Voids in the base bathymetry were filled with the best available supplemental data. These data consisted of NOAA Electronic Navigation Chart (ENC) soundings, and the NOAA National Geophysical Data Center coastal relief model. Data were reprojected and the vertical datum and units were converted as necessary for implementation into the main bathymetric dataset.

For the south shore, the NOS soundings in the nearshore dated to 1933. The next best bathymetric dataset available was long beach profiles collected by the Atlantic Coast of New York Monitoring Program (ACNYMP). The April 2001 long profiles from the ACNYMP were processed to removal all topographic elevations and a vertical datum conversion from NGVD 1929 to NAVD 1998 was applied using Corpscon 6.0. The profiles were then incorporated into the bathymetric dataset and any overlapping data from the older NOS hydrographic surveys were removed.

Storm-induced beach erosion is well documented along the Atlantic and Long Island Sound coastlines of Suffolk County. Where dunes were identified and delineated, the VE Zone was mapped up to the extent of the Primary Frontal Dune (PFD). Non-standard erosion techniques were applied along the barrier island from Southampton to Fire Island Inlet. Glacial cliffs and bluffs on the north shore and eastern fork shorelines were also treated with non-standard techniques. These techniques are summarized below.

Application of non-standard erosion techniques to the barrier island from Southampton to Fire Island Inlet are reflective of post-storm conditions observed in historical data, particularly aerial photography from the 1938 hurricane, Hurricane Carol (1954), and 1962 northeaster. Two non-standard techniques were employed: First, transects with frontal dune reservoirs less than 540 square feet were completely removed from the seaward to landward dune toe, whereas the standard methodology calls for a 1/50 slope beginning at the seaward dune toe. It was determined that the standard slope underestimated the potential erosion due to barrier inundation, wave overtopping and overwash processes which rapidly erode the remainder of an overtopped dune feature. Second, dune retreat cases with frontal dune reservoirs less than 1,080 square feet were re-evaluated for dune failure. In cases where removal was justified, the eroded volume was allowed to exceed 1,080 square feet by a marginal amount. This rule was not applied to retreat cases. Application of this non-standard methodology was limited and applied only to dunes that were borderline retreat cases in the initial standard evaluation and adjacent to areas of dune removal. These methodologies were discussed with and approved by the FEMA regional office and FEMA Headquarters.

Erosion methodologies for glacial cliffs and bluffs were guided by literature review and observed historical storm-induced erosion. For glacial cliffs, the standard area of 540 square feet was eroded. This value was found to result in retreat similar to historical data. For bluff morphologies, the standard area of 540 square feet resulted in excessive erosion. The erosion area was decreased to 175 square feet, a value similar to methodologies adopted for the Great Lakes. The standard geometry was also adjusted by modifying the standard inflection point for the eroded profile transition from the middle to steep slopes was changed from the 100-yr stillwater elevation to an elevation of 4.5 feet. This was affected for cliffs and bluffs along the Long Island Sound and eastern fork sheltered bay coastlines. The change in elevation for the inflection point resulted in an eroded profile more representative of the erosion response observed in historical events and prevented excessive retreat areas due to improper profile geometry. Standard erosion geometries and area were found to agree well with documented recession of the Atlantic coast glacial cliffs and bluffs.

Beach nourishment projects were reviewed within the study area. Two federal projects were identified and considered for potential impacts on hazard mapping: Westhampton Dunes and west of Shinnecock Inlet. The Westhampton Dunes Interim Project had a clearly defined nourishment interval and guaranteed project maintenance until 2027. Due to these conditions, the reach of the project was mapped in existing condition. The second site, a 4,000 ft reach of coast immediately west of Shinnecock Inlet had fill placement a short time prior to topographic LiDAR surveys conducted for the study. It has been documented that nourishment placed at this location rapidly erodes to a quasi-equilibrium condition (Batten, 2003). Beach monitoring data provided by the Marine Sciences Research Center at SUNY Stony Brook were used to determine a representative post-nourishment adjusted cross section for hazard modeling.

Wave height calculation used in this study follows the methodology described in the FEMA (2003 and 2007) Guidelines and Specifications for Flood Hazard Mapping Partners, including the calculation of wave setup using the Direct Integrated Method (FEMA, 2007).

RUNUP 2.0 was used to predict wave runup value on natural shore then adjusted to follow the FEMA (2007) guidelines that recommend the use of the 2-percent annual chance wave runup for determining base flood elevations. Wave runup on vertical structures, withstanding the 1-percent annual chance event, was computed using the Shore Protection Manual (SPM) Method. For wave run-up at the crest of a slope that transitions to a plateau or downslope, runup values were determined using the "Methodology for Wave Runup on a Hypothetical Slope" as described in the FEMA (2003) and the FEMA (2007) Guidelines and Specifications for Flood Hazard Mapping Partners.

Figure 7, "Transect Location Map," illustrates the location of each transect. The transect data for the county are presented in Table 7, "Transect Descriptions," which describes the location of each transect. In addition, Table 7, provides the 1-percent annual chance stillwater, wave setup and maximum wave crest elevations for each transect along the island coastline. In Table 8, "Transect Data," the flood hazard zone and base flood elevations for each transect flooding source is provided, along with the 10-, 2-, 1-, and 0.2-percent annual chance stillwater elevations for the respective flooding source.

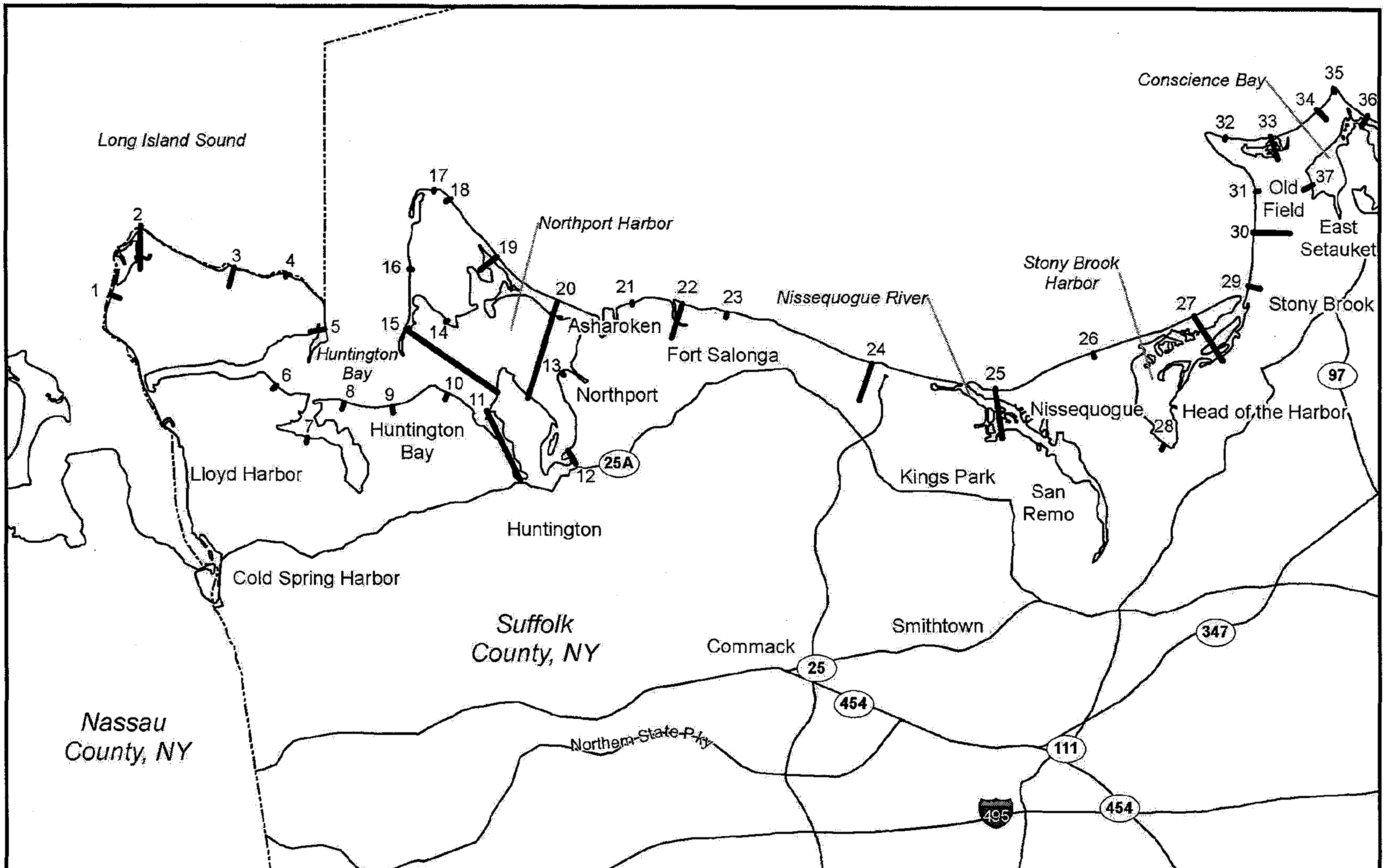


Figure 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

Approximate Scale

0 0.5 1 2 3 4 Miles

TRANSECT LOCATION MAP

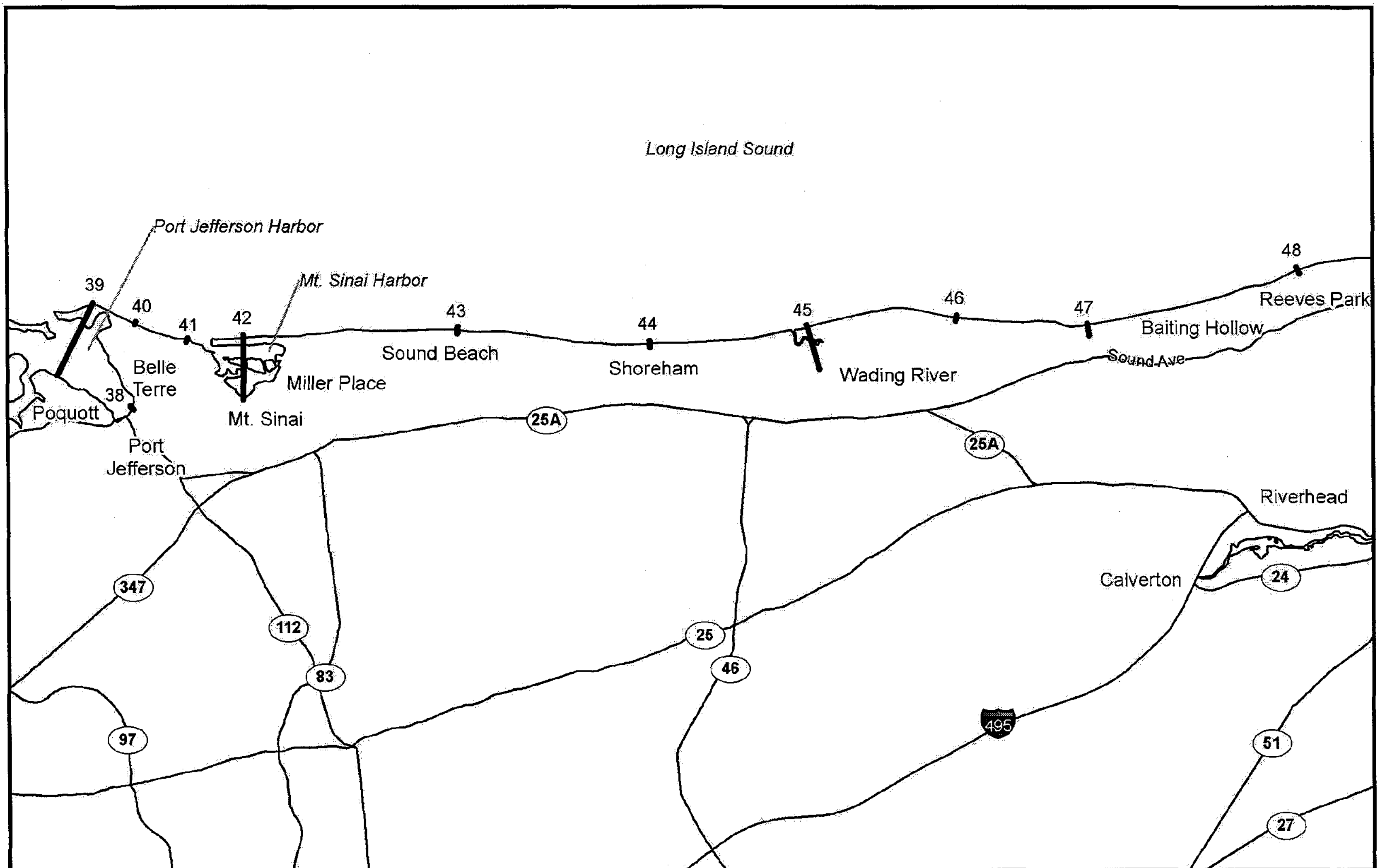


Figure 7

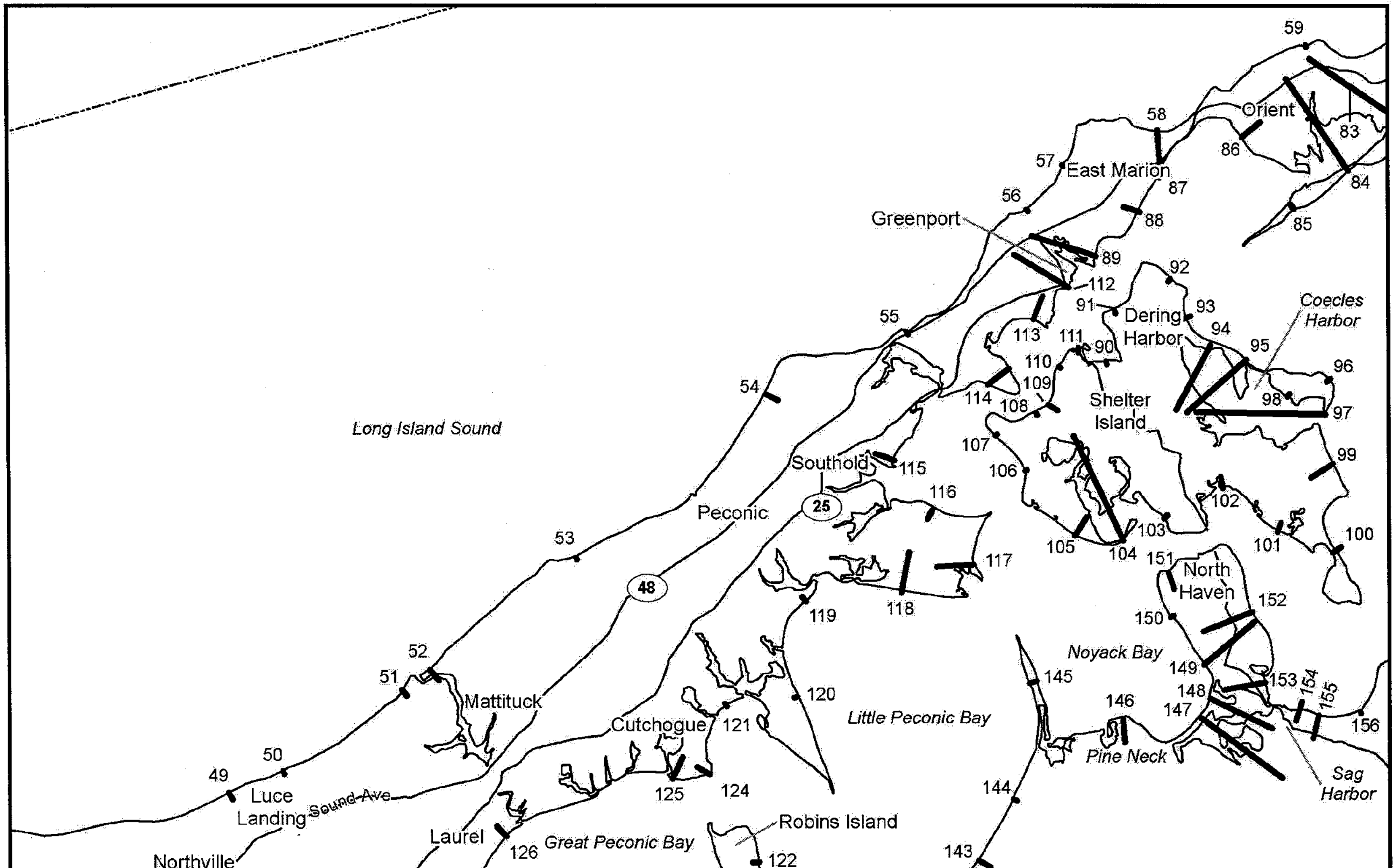
FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

Approximate Scale

0 0.5 1 2 3 4 Miles

TRANSECT LOCATION MAP



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FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

Approximate Scale

0 0.5 1 2 3 4 Miles

TRANSECT LOCATION MAP

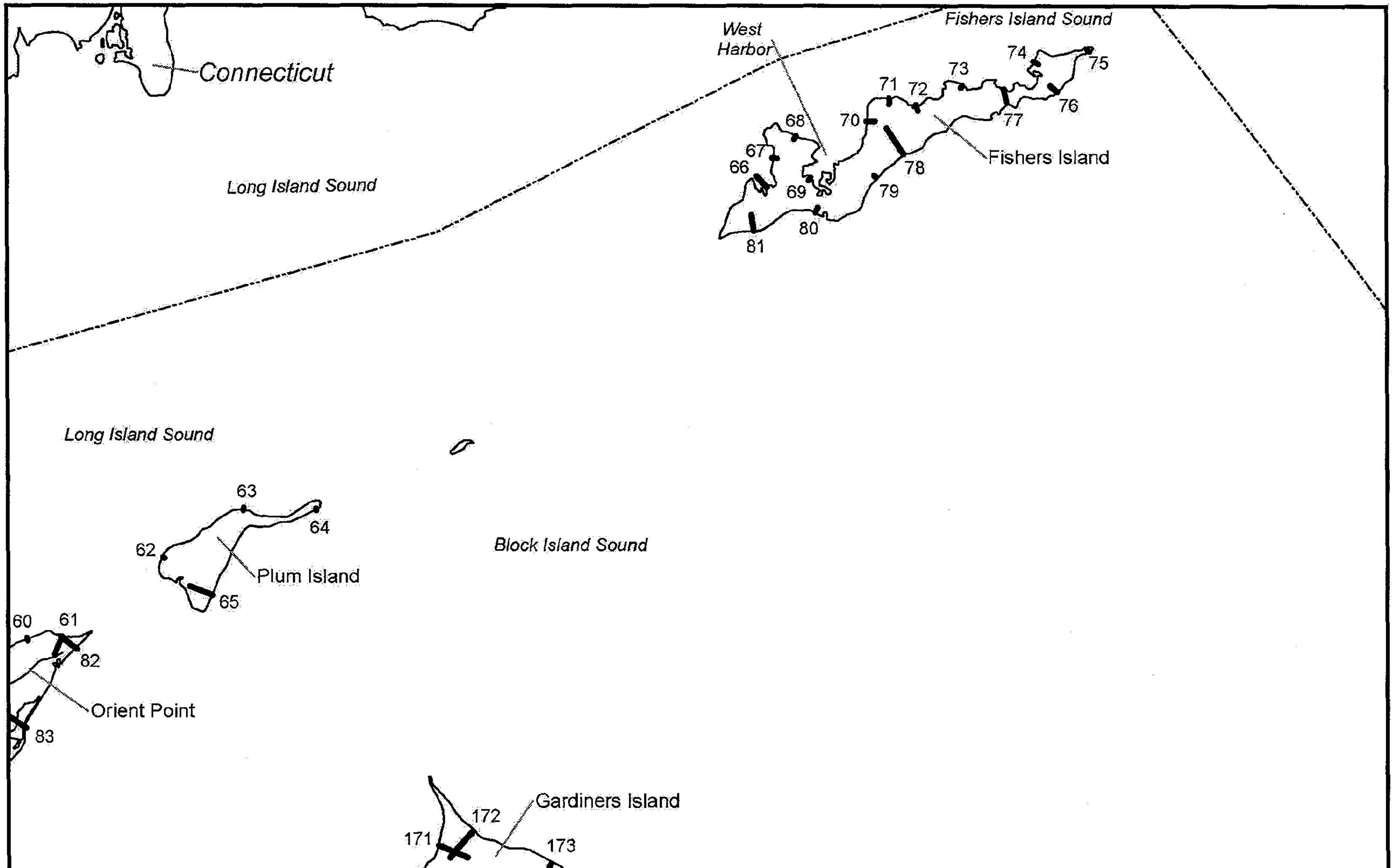

Figure 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

TRANSECT LOCATION MAP

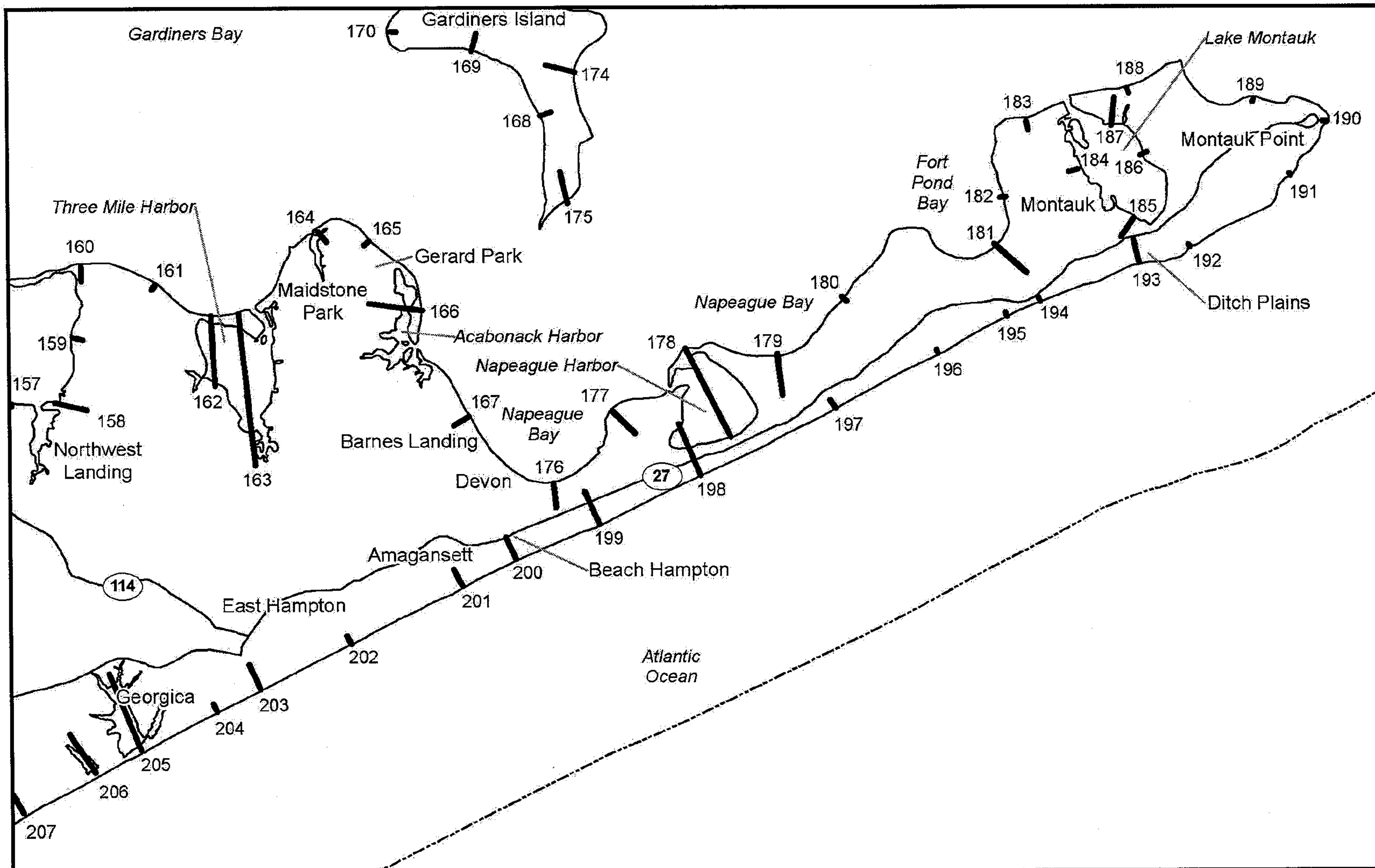

Figure 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

Approximate Scale

0 0.5 1 2 3 4 Miles

TRANSECT LOCATION MAP

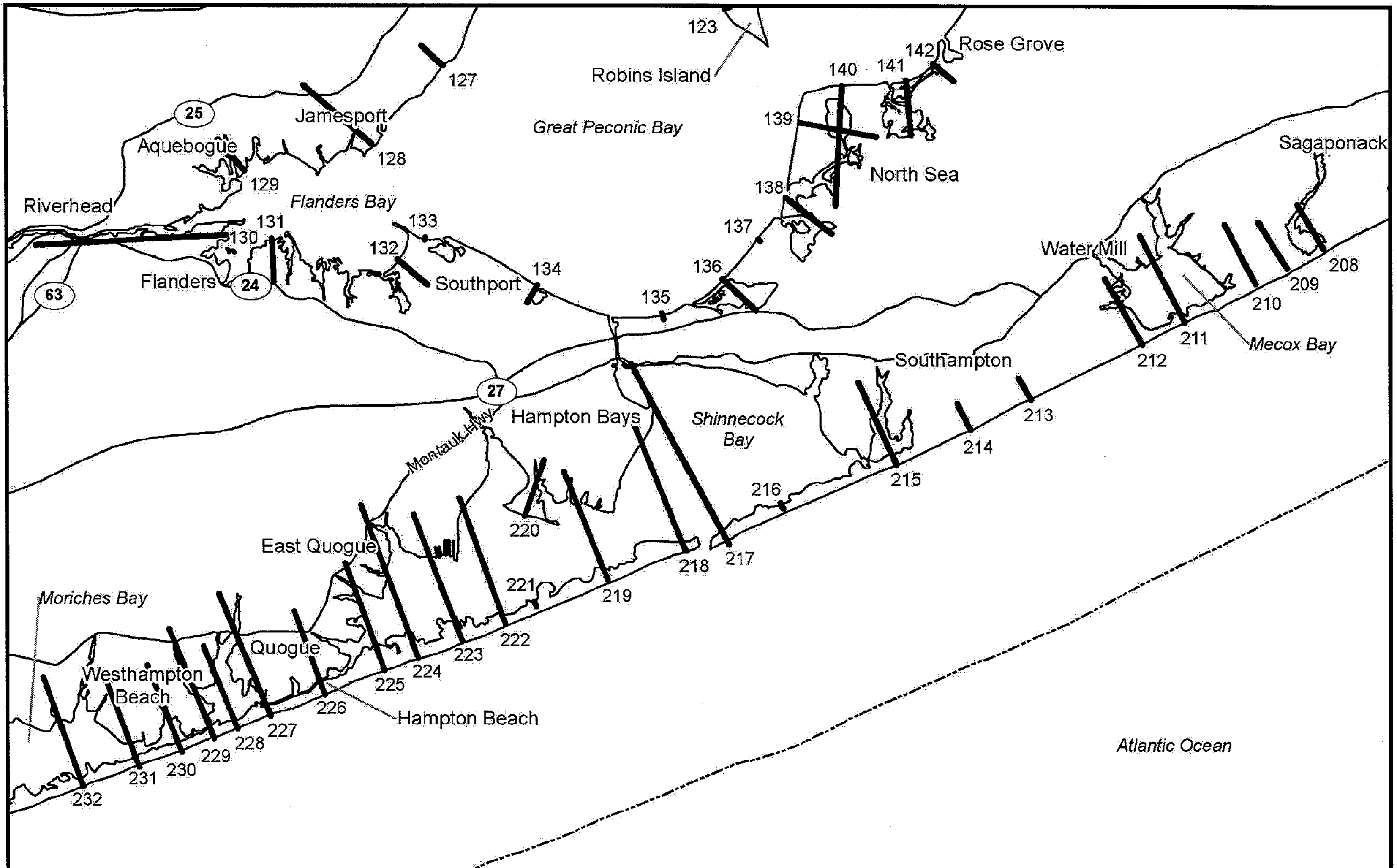

Figure 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

Approximate Scale

0 0.5 1 2 3 4 Miles

TRANSECT LOCATION MAP

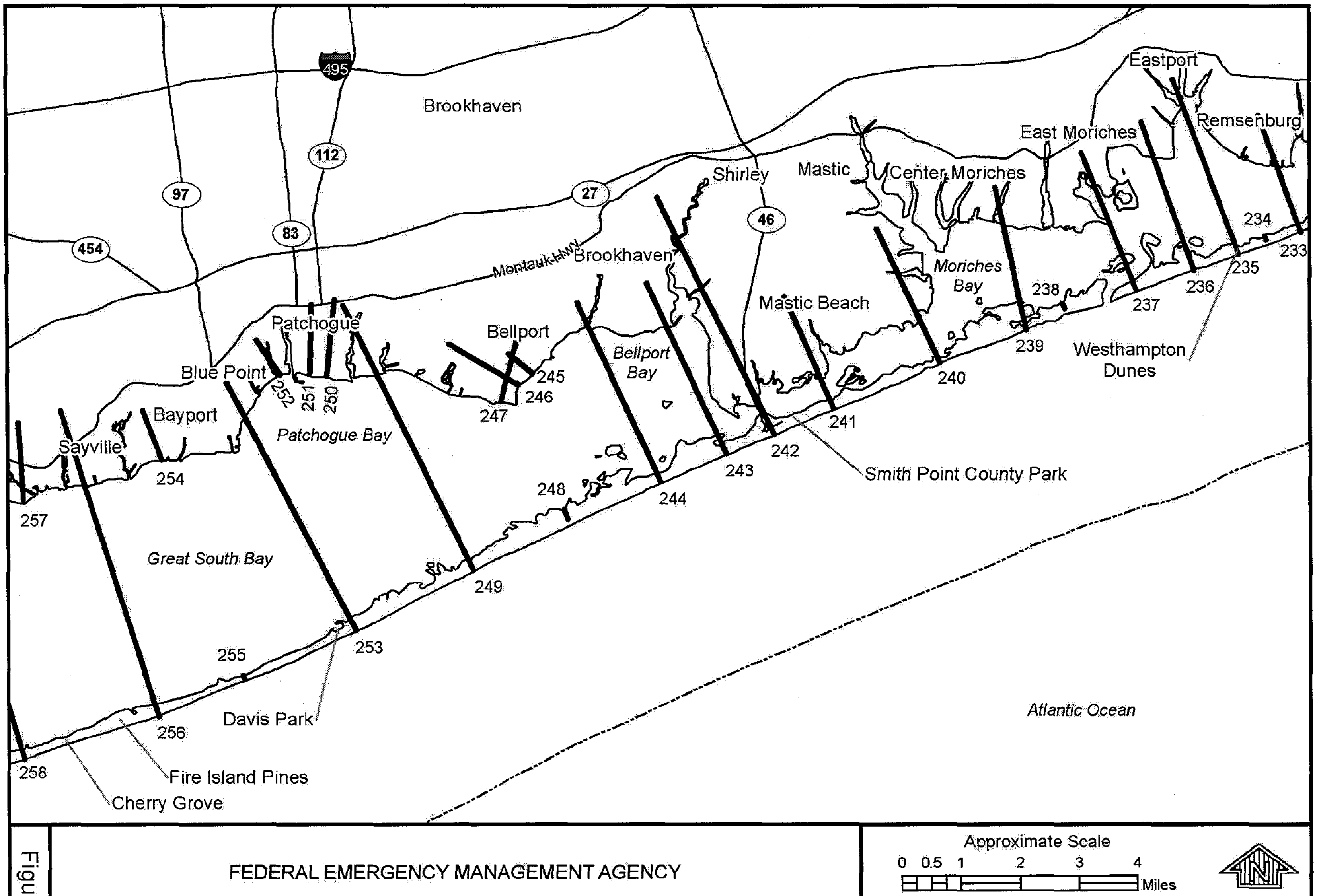

Figure 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

TRANSECT LOCATION MAP

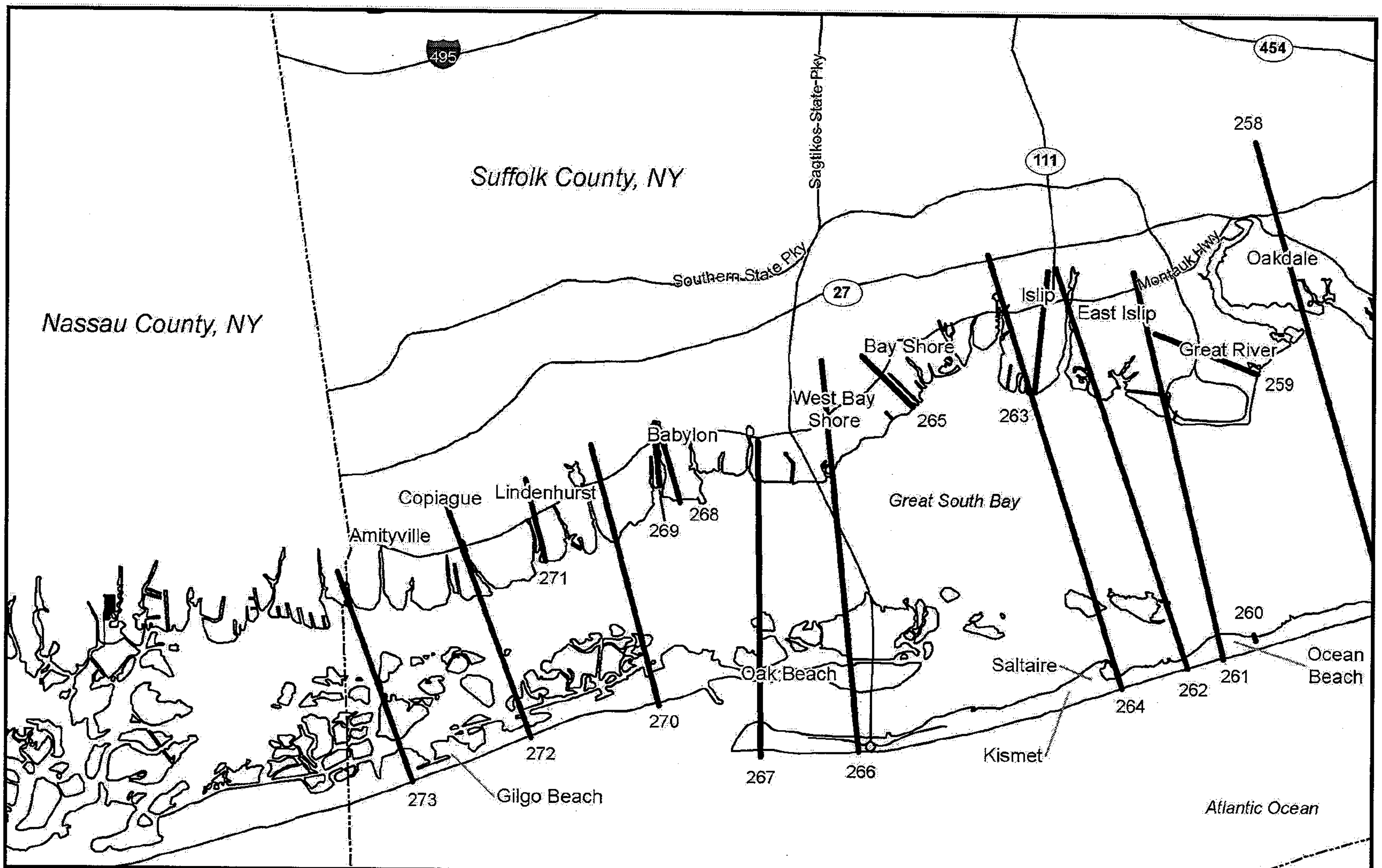

Figure 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS)

Approximate Scale

0 0.5 1 2 3 4 Miles

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TRANSECT LOCATION MAP

TABLE 7 - TRANSECT DESCRIPTIONS

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
1	On the Oyster Bay coastline, on the north side of Long Island, approximately 2,280 feet northwest of intersection of Spring Bay Lane and Watch Way, located in Huntington, at N 40.930694°, W 73.494681°	9.4	1.5	16.3
2	On the Long Island Sound coastline, on the north side of Long Island, approximately 1.2 miles north of intersection of Lloyd Lane and Burma Road, located in Huntington, at N 40.947050°, W 73.485558°	9.3	1.9	17.0
3	On the Long Island Sound coastline, on the north side of Long Island, approximately 2,620 feet northwest of intersection of Horse Shoe Path and Fiddlers Green Drive, located in Huntington, at N 40.937117°, W 73.456952°	9.3	1.9	16.9
4	On the Long Island Sound coastline, on the north side of Long Island, approximately 370 feet northeast of intersection of Beach Drive and Target Rock Drive, located in Huntington, at N 40.935432°, W 73.441134°	9.2	1.7	16.5
5	On the Huntington Bay coastline, on the north side of Long Island, approximately 2,620 feet east of intersection of Hawk Drive and Gerry Lane, located in Huntington, at N 40.922585°, W 73.429351°	8.8	1.4	15.4
6	On the Lloyd Harbor coastline, on the north side of Long Island, approximately 1,260 feet north of intersection of Oak Hill Road and Oak Hill Lane, located in Huntington, at N 40.909538°, W 73.444403°	8.8	0.9	14.1
7	On the Huntington Harbor coastline, on the north side of Long Island, approximately 170 feet northwest of intersection of Browns Road and Shore Road, located in Huntington, at N 40.897496°, W 73.434923°	8.9	0.0	11.1
8	On the Huntington Bay coastline, on the north side of Long Island, approximately 990 feet northwest of intersection of Bay Avenue and Beach Road, located in Huntington, at N 40.905484°, W 73.423495°	8.9	1.2	15.2

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
9	On the Huntington Bay coastline, on the north side of Long Island, approximately 580 feet north of intersection of Sydney Road and Locust Lane, located in Huntington, at N 40.904477°, W 73.408771°	8.9	1.3	15.3
10	On the Huntington Bay coastline, on the north side of Long Island, approximately 870 feet northeast of intersection of Lecluse Lane and Crest Road, located in Huntington, at N 40.907185°, W 73.391902°	8.9	0.5	20.6[1]
11	On the Centerport Harbor coastline, on the north side of Long Island, approximately 1,950 feet southwest of intersection of Gina Drive and Little Neck Road, located in Huntington, at N 40.903509°, W 73.379938°	8.9	0.5	13.3
12	On the Northport Harbor coastline, on the north side of Long Island, approximately 690 feet north of intersection of North Road and Woodbine Avenue, located in Huntington, at N 40.894117°, W 73.355274°	8.9	0.0	12.0
13	On the Northport Bay coastline, on the north side of Long Island, approximately 1,330 feet north of intersection of Bluff Point Road and Duffy Road, located in Huntington, at N 40.912183°, W 73.357043°	8.9	0.5	16.4[1]
14	On the Northport Bay coastline, on the north side of Long Island, approximately 2,070 feet southwest of intersection of Beach Road and Cherry Lawn Lane, located in Huntington, at N 40.924323°, W 73.392227°	8.9	0.5	19.9[1]
15	On the Huntington Bay coastline, on the north side of Long Island, approximately 0.54 mile south of intersection of Argyle Drive and Birmingham Drive, located in Huntington, at N 40.922485°, W 73.404526°	8.9	1.3	15.2
16	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,000 feet northwest of intersection of Carlisle Drive and Canterbury Drive, located in Huntington, at N 40.936593°, W 73.403309°	8.9	1.3	15.3

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
17	On the Long Island Sound coastline, on the north side of Long Island, approximately 2,020 feet north of intersection of Lighthouse Road and Winkle Point Drive, located in Huntington,at N 40.955075°, W 73.395484°	8.9	2.6	17.4
18	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,440 feet northeast of intersection of Lighthouse Road and Winkle Point Drive, located in Huntington, at N 40.953021°, W 73.390424°	8.9	2.8	17.7
19	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,470 feet southeast of intersection of Pheasant Lane and Bevin Road, located in Huntington, at N 40.939379°, W 73.376462°	8.9	3.4	18.7
20	On the Long Island Sound coastline, on the north side of Long Island, approximately 620 feet northeast of intersection of Asharoken Avenue and Beach Plumb Drive, located in Huntington, at N 40.928690°, W 73.358250°	8.9	2.7	17.6
21	On the Long Island Sound coastline, on the north side of Long Island, approximately 870 feet northwest of intersection of Waterview Street and Hewitt Drive, located in Huntington, at N 40.928611°, W 73.335266°	8.9	2.3	17.0
22	On the Long Island Sound coastline, on the north side of Long Island, approximately 0.52 mile west of intersection of Mystic Lane and Makamah Beach Road, located in Huntington, at N 40.928192°, W 73.319996°	8.9	2.4	17.2
23	On the Long Island Sound coastline, on the north side of Long Island, approximately 400 feet northeast of intersection of Mystic Lane and Hayes Hill Drive, located in Huntington, at N 40.925947°, W 73.306369°	8.9	2.3	17.0
24	On the Smithtown Bay coastline, on the north side of Long Island, approximately 2,020 feet northwest of intersection of Sunken Meadow State Parkway and Naples Avenue, located in Smithtown, at N 40.914030°, W 73.262221°	8.7	2.4	16.9

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

		ELEVATION (ft NAVD 88*)		
TRANSECT	LOCATION	1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
25	On the Smithtown Bay coastline, on the north side of Long Island, approximately 0.86 mile west of intersection of Boney Lane and James Neck Road, located in Smithtown, at N 40.908081°, W 73.224729°	8.8	2.3	16.9
26	On the Smithtown Bay coastline, on the north side of Long Island, approximately 960 feet northwest of intersection of Fox Point Drive and Hunter's Way, located in Smithtown, at N 40.916143°, W 73.194608°	8.7	2.1	16.5
27	On the Smithtown Bay coastline, on the north side of Long Island, approximately 660 feet northwest of intersection of Penny Lane and East Long Beach Road, located in Smithtown, at N 40.924531°, W 73.163274°	8.7	2.1	16.4
28	On the Stony Brook Harbor coastline, on the north side of Long Island, approximately 1,200 feet northeast of intersection of Cordwood Path and Carman Lane, located in Smithtown, at N 40.894628°, W 73.173088°	8.7	0.0	11.7
29	On the Smithtown Bay coastline, on the north side of Long Island, approximately 1,810 feet northwest of intersection of Meadow Lane and Erland Avenue, located in Brookhaven, at N 40.931708°, W 73.146539°	8.7	2.1	16.4
30	On the Smithtown Bay coastline, on the north side of Long Island, approximately 2,490 feet west of intersection of Waterview Lane and Mount Grey Road, located in Brookhaven, at N 40.944211°, W 73.144822°	8.7	2.4	16.9
31	On the Smithtown Bay coastline, on the north side of Long Island, approximately 2,100 feet west of intersection of West Gate Lane and Mount Grey Road, located in Brookhaven, at N 40.953760°, W 73.143970°	8.7	2.4	16.8
32	On the Long Island Sound coastline, on the north side of Long Island, approximately 930 feet northwest of intersection of Woodcock Lane and Crane Neck Road, located in Brookhaven, at N 40.966560°, W 73.153033°	8.7	2.7	17.3

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
33	On the Long Island Sound coastline, on the north side of Long Island, approximately 0.53 mile northwest of intersection of Brambletye Lane and Wheeler Road, located in Brookhaven, at N 40.966558°, W 73.139093°	8.7	2.4	16.9
34	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,330 feet northwest of intersection of Evans Lane and Old Field Woods Roads, located in Brookhaven, at N 40.972824°, W 73.124800°	8.7	2.6	17.2
35	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,400 feet north of intersection of Old Field Road and Old Field Place, located in Brookhaven, at N 40.977234°, W 73.119228°	8.7	2.7	17.4
36	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,310 feet northeast of intersection of Bluff Lane and Oak Road, located in Brookhaven, at N 40.971303°, W 73.108831°	8.7	2.5	17.0
37	On the Conscience Bay coastline, on the north side of Long Island, approximately 1,220 feet north of intersection of Old Field Road and Quaker Path, located in Brookhaven, at N 40.955121°, W 73.126217°	8.1	0.0	11.0
38	On the Port Jefferson Harbor coastline, on the north side of Long Island, approximately 780 feet west of intersection of Broadway and Grant Street, located in Brookhaven, at N 40.948889°, W 73.068023°	8.2	0.9	14.4
39	On the Long Island Sound coastline, on the north side of Long Island, approximately 0.76 mile northwest of intersection of Cliff Road and Hemlock Path, located in Brookhaven, at N 40.973161°, W 73.079115°	8.8	2.4	17.0
40	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,590 feet northeast of intersection of Cliff Road and Cliffside Drive, located in Brookhaven, at N 40.968714°, W 73.065931°	8.8	2.3	16.8

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
41	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,480 feet north of intersection of Winston Drive and Rosita Lane, located in Brookhaven, at N 40.964720°, W 73.050213°	8.8	2.5	17.2
42	On the Long Island Sound coastline, on the north side of Long Island, approximately 0.73 mile west of intersection of Manor Drive and Pipe Stave Hollow Road, located in Brookhaven, at N 40.965256°, W 73.033073°	8.8	2.4	17.1
43	On the Long Island Sound coastline, on the north side of Long Island, approximately 300 feet northeast of intersection of Sound Beach Boulevard and Shore Drive, located in Brookhaven, at N 40.966585°, W 72.966890°	8.6	2.1	16.2
44	On the Long Island Sound coastline, on the north side of Long Island, approximately 750 feet northwest of intersection of Locust Street and Briarcliff Road, located in Brookhaven, at N 40.962722°, W 72.907991°	8.3	2.3	16.1
45	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,960 feet west of intersection of Sound Road and Side Road, located in Riverhead, at N 40.965895°, W 72.859375°	8.2	2.3	15.9
46	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,340 feet northwest of intersection of Hulse Landing Road and Wading River Road, located in Riverhead, at N 40.967793°, W 72.813310°	8.2	2.5	16.2
47	On the Long Island Sound coastline, on the north side of Long Island, approximately 500 feet west of intersection of Edwards Avenue and Beach Way, located in Riverhead, at N 40.965353°, W 72.773297°	8.2	2.5	16.2
48	On the Long Island Sound coastline, on the north side of Long Island, approximately 720 feet north of intersection of Roanoke Avenue and Waterview Court, located in Riverhead, at N 40.977786°, W 72.707831°	8.2	2.2	15.8

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
49	On the Long Island Sound coastline, on the north side of Long Island, approximately 730 feet northwest of intersection of Pier Avenue and Sound Shore Road, located in Riverhead, at N 40.987529°, W 72.617293°	8.2	2.8	16.7
50	On the Long Island Sound coastline, on the north side of Long Island, approximately 0.81 mile northwest of intersection of Sound Avenue and Herricks Lane, located in Riverhead, at N 40.992381°, W 72.600706°	8.2	2.7	16.5
51	On the Long Island Sound coastline, on the north side of Long Island, approximately 960 feet northwest of intersection of Summit Drive and Miriam Road, located in Southold, at N 41.010770°, W 72.564098°	8.1	3.0	16.9
52	On the Long Island Sound coastline, on the north side of Long Island, approximately 1,970 feet west of intersection of East Side Avenue and Bailie Beach Road, located in Southold, at N 41.015327°, W 72.555305°	8.1	2.7	16.4
53	On the Long Island Sound coastline, on the north side of Long Island, approximately 2,280 feet northwest of intersection of Oregon Road and Cox Lane, located in Southold, at N 41.040823°, W 72.510080°	8.0	2.6	16.2
54	On the Long Island Sound coastline, on the north side of Long Island, approximately 530 feet southwest of intersection of Horton Lane and Sunset Drive, located in Southold, at N 41.078068°, W 72.451317°	7.9	3.0	16.4
55	On the Long Island Sound coastline, on the north side of Long Island, approximately 810 feet northeast of intersection of North Road and Bayberry Way, located in Southold, at N 41.092090°, W 72.408182°	7.8	2.7	16.0
56	On the Long Island Sound coastline, on the north side of Long Island, approximately 820 feet northeast of intersection of Sound Drive and Sound Road, located in Southold, at N 41.119921°, W 72.370701°	7.7	2.5	15.6

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
57	On the Long Island Sound coastline, on the north side of Long Island, approximately 0.47 foot northwest of intersection of The Cross Way Lane and The Long Way, located in Southold, at N 41.130078°, W 72.359444°	7.7	2.7	15.8
58	On the Long Island Sound coastline, on the north side of Long Island, approximately 0.65 foot north of intersection of Main Road and Cove Beach Road, located in Southold, at N 41.137764°, W 72.329956°	7.7	1.9	14.5
59	On the Long Island Sound coastline, on the north side of Long Island, approximately 2,220 feet northwest of intersection of North Road and Beach Lane Road, located in Southold, at N 41.157126°, W 72.283645°	7.6	3.0	16.2
60	On the Long Island Sound coastline, on the north side of Long Island, approximately 610 feet north of intersection of North Sea Drive and Ryder Farm Lane, located in Southold, at N 41.159461°, W 72.252991°	7.6	3.2	16.4
61	On the Long Island Sound coastline, on the north side of Long Island, approximately 570 feet east of intersection of Point Road and Latham Lane, located in Southold, at N 41.159607°, W 72.242205°	7.6	2.3	15.0
62	On the Long Island Sound coastline, on the north side of the Plum Island, approximately 1,350 feet north of Plum Island Lighthouse at west point, located in Southold, at N 41.177449°, W 72.210795°	7.4	3.4	16.6[1]
63	On the Long Island Sound coastline, on the north side of the Plum Island, approximately 1,551 feet northeast of Plum Island Animal Disease Center, located in Southold, at N 41.188801°, W 72.185679°	7.4	3.7	41.6[1]
64	On the Block Island Sound coastline, on the south side of the Plum Island, approximately 1.3 miles east of Plum Island Animal Disease Center, located in Southold, at N 41.187775°, W 72.163603°	7.4	2.7	15.4

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
65	On the Block Island Sound coastline, on the south side of the Plum Island, approximately 0.9 mile southeast of Plum Island Lighthouse at west point, located in Southold, at N 41.168477°, W 72.195712°	6.7	3.2	15.1
66	On the Hay Harbor coastline, on the north side of the Fishers Island, approximately 1,980 feet northwest of intersection of Equestrian Avenue and Ocean View Avenue, located in Southold, at N 41.263399°, W 72.026754°	7.4	1.2	12.9
67	On the Fishers Island Sound coastline, on the north side of the Fishers Island, approximately 1,290 feet northwest of intersection of Fox Avenue and Bell Hill Drive, located in Southold, at N 41.267630°, W 72.021760°	7.4	3.0	15.9
68	On the Fishers Island Sound coastline, on the north side of the Fishers Island, approximately 1,150 feet northwest of intersection of Fox Avenue and Crescent Avenue, located in Southold, at N 41.272576°, W 72.014411°	7.4	1.2	13.0
69	On the West Harbor coastline, on the north side of the Fishers Island, approximately 740 feet northeast of intersection of Montauk Avenue and Hedge Street, located in Southold, at N 41.262886°, W 72.010235°	7.4	0.9	13.5[1]
70	On the Fishers Island Sound coastline, on the north side of the Fishers Island, approximately 1,860 feet north of intersection of Clay Point Road and Barlow Pond Lane, located in Southold, at N 41.275708°, W 71.992801°	7.5	1.6	13.8
71	On the Fishers Island Sound coastline, on the north side of the Fishers Island, approximately 2,050 feet northwest of intersection of Clay Point Road and East End Road, located in Southold, at N 41.281005°, W 71.985621°	7.5	1.4	13.4
72	On the Fishers Island Sound coastline, on the north side of the Fishers Island, approximately 940 feet northeast of intersection of Clay Point Road and East End Road, located in Southold, at N 41.279264°, W 71.977526°	7.5	1.0	12.6

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
73	On the Fishers Island Sound coastline, on the north side of the Fishers Island, approximately 1,910 feet northwest of intersection of Brooks Point Road and East End Road, located in Southold, at N 41.283636°, W 71.963060°	7.6	1.1	13.0
74	On the Fishers Island Sound coastline, on the north side of the Fishers Island, approximately 2,370 feet north of intersection of Castle Road and East End Road, located in Southold, at N 41.288913°, W 71.941280°	7.6	3.2	16.4
75	On the Block Island Sound coastline, on the east side of the Fishers Island, approximately 1.04 miles northeast of intersection of Castle Road and East End Road, located in Southold, at N 41.290896°, W 71.923802°	7.6	2.7	15.6
76	On the Block Island Sound coastline, on the south side of the Fishers Island, approximately 1,721 feet east of intersection of Castle Road and East End Road, located in Southold, at N 41.281587°, W 71.934101°	7.6	2.8	15.9
77	On the Block Island Sound coastline, on the south side of the Fishers Island, approximately 1,420 feet southeast of intersection of Hungry Point Road and East End Road, located in Southold, at N 41.279252°, W 71.949725°	7.6	2.6	15.4
78	On the Block Island Sound coastline, on the south side of the Fishers Island, approximately 2,520 feet east of intersection of Clay Point Road and East End Road, located in Southold, at N 41.267732°, W 71.981557°	7.5	2.8	15.7
79	On the Block Island Sound coastline, on the south side of the Fishers Island, approximately 1,860 feet south of intersection of Clay Point Road and East End Road, located in Southold, at N 41.262539°, W 71.990149°	7.5	3.0	15.9
80	On the Block Island Sound coastline, on the south side of the Fishers Island, approximately 1,040 feet southeast of intersection of Montauk Avenue and Oriental Avenue, located in Southold, at N 41.254715°, W 72.009046°	7.4	2.5	15.1

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
81	On the Block Island Sound coastline, on the south side of the Fishers Island, approximately 1,770 feet south of intersection of Whistler Avenue and Greenwood Road, located in Southold, at N 41.250748°, W 72.027973°	7.4	2.8	15.5
82	On the Gardiners Bay coastline, on the east side of Long Island, approximately 1,250 feet east of intersection of Dock Road and North Road, located in Southold, at N 41.156659°, W 72.237713°	5.9	2.4	12.6
83	On the Gardiners Bay coastline, on the east side of Long Island, approximately 0.79 mile south of intersection of Rackets Court and North Road, located in Southold, at N 41.138398°, W 72.253722°	5.9	2.2	12.4
84	On the Gardiners Bay coastline, on the east side of Long Island, approximately 1.72 miles southwest of intersection of Rackets Court and North Road, located in Southold, at N 41.127589°, W 72.271228°	5.9	2.1	12.3
85	On the Gardiners Bay coastline, on the east side of Long Island, approximately 1.03 miles south of intersection of Narrow River Road and Peters Neck Road, located in Southold, at N 41.118888°, W 72.288354°	5.9	2.2	12.4
86	On the Orient Harbor coastline, on the east side of Long Island, approximately 1,120 feet south of intersection of Orchard Street and Navy Street, located in Southold, at N 41.135841°, W 72.303861°	5.8	0.0	8.8
87	On the Orient Harbor coastline, on the east side of Long Island, approximately 1,450 feet southeast of intersection of Main Road and Cove Beach Road, located in Southold, at N 41.126765°, W 72.329691°	5.8	0.0	8.8
88	On the Orient Harbor coastline, on the east side of Long Island, approximately 650 feet southeast of intersection of Old Orchard Lane and Bayview Drive, located in Southold, at N 41.118821°, W 72.335894°	5.8	0.0	8.9

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
89	On the Shelter Island Sound coastline, on the east side of Long Island, approximately 690 feet southeast of intersection of Manhanset Avenue and Inlet Lane, located in Southold, at N 41.108818°, W 72.349629°	5.8	0.0	8.8
90	On the Dering Harbor coastline, on the northwest side of Shelter Island, approximately 1,040 feet northeast of intersection of State Highway 114 and Winthrop Road, located in Shelter Island, at N 41.084402°, W 72.347372°	5.3	0.0	17.1[1]
91	On the Shelter Island Sound coastline, on the north side of Shelter Island, approximately 550 feet north of intersection of Manhansett Road and Locust Road, located in Shelter Island, at N 41.095902°, W 72.344341°	5.3	0.0	14.0[1]
92	On the Gardiners Bay coastline, on the north side of Shelter Island, approximately 1,050 feet southeast of intersection of Gardiners Bay Drive and Orient Lane, located in Shelter Island, at N 41.103134°, W 72.326998°	5.3	2.5	11.9
93	On the Gardiners Bay coastline, on the north side of Shelter Island, approximately 1,030 feet southeast of intersection of Gardiners Bay Drive and Menhadden Lane, located in Shelter Island, at N 41.094441°, W 72.320958°	6.5	2.7	14.0
94	On the Gardiners Bay coastline, on the north side of Shelter Island, approximately 0.51 mile southeast of intersection of Gardiners Bay Drive and Ram Island Drive, located in Shelter Island, at N 41.087642°, W 72.315028°	6.5	2.7	14.0
95	On the Gardiners Bay coastline, on the northeast side of Shelter Island, approximately 630 feet northeast of intersection of Little Ram Island Drive and Ram Island Drive, located in Shelter Island, at N 41.084037°, W 72.304100°	6.5	2.3	13.4
96	On the Gardiners Bay coastline, on the east side of Shelter Island, approximately 1.49 miles east of intersection of Little Ram Island Drive and Ram Island Drive, located in Shelter Island, at N 41.079205°, W 72.278216°	6.5	2.1	13.2

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
97	On the Gardiners Bay coastline, on the east side of Shelter Island, approximately 1,430 feet south of intersection of Tuthill Drive and Club Drive, located in Shelter Island, at N 41.070961°, W 72.279839°	6.5	2.2	13.3
98	On the Coecles Inlet coastline, on the east side of Shelter Island, approximately 3,620 ft west of intersection of Tuthill Drive and Ram Island Drive, located in Shelter Island, at N 41.075204°, W 72.291775°	6.5	0.0	10.0[1]
99	On the Gardiners Bay coastline, on the east side of Shelter Island, approximately 2.45 miles east of intersection of Ferry Road and Valley Road, located in Shelter Island, at N 41.059264°, W 72.278010°	6.5	2.4	13.6
100	On the Majors Harbor coastline, on the southeast side of Shelter Island, approximately 2.62 miles southeast of intersection of Ferry Road and Valley Road, located in Shelter Island, at N 41.038633°, W 72.278705°	5.3	0.0	8.0
101	On the Shelter Island Sound coastline, on the southeast side of Shelter Island, approximately 1.67 miles southeast of intersection of Ferry Road and Valley Road, located in Shelter Island, at N 41.043690°, W 72.295652°	5.3	0.0	8.0
102	On the Smith Cove coastline, on the southeast side of Shelter Island, approximately 0.63 mile east of intersection of Ferry Road and Valley Road, located in Shelter Island, at N 41.054059°, W 72.312275°	5.3	0.0	8.0
103	On the Shelter Island Sound coastline, on the south side of Shelter Island, approximately 570 feet west of intersection of Heron Lane and Sandpiper Road, located in Shelter Island, at N 41.047410°, W 72.330741°	5.3	0.0	9.1[1]
104	On the Shelter Island Sound coastline, on the south side of Shelter Island, approximately 2,280 feet east of intersection of Oak Tree Lane and Brander Parkway, located in Shelter Island, at N 41.042371°, W 72.343274°	5.3	0.0	9.9[1]

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
105	On the Shelter Island Sound coastline, on the south side of Shelter Island, approximately 200 feet southeast of intersection of Peconic Avenue and Silver Beach Road, located in Shelter Island, at N 41.043739°, W 72.358139°	5.3	0.0	8.1
106	On the Shelter Island Sound coastline, on the west side of Shelter Island, approximately 920 feet northwest of intersection of Nostrand Parkway and West Neck Road, located in Shelter Island, at N 41.059067°, W 72.372793°	5.3	0.0	11.4[1]
107	On the Shelter Island Sound coastline, on the west side of Shelter Island, approximately 820 feet south of intersection of Nostrand Parkway and Rocky Point Avenue, located in Shelter Island, at N 41.067462°, W 72.381705°	5.3	0.0	18.4[1]
108	On the Shelter Island Sound coastline, on the west side of Shelter Island, approximately 1,310 feet northwest of intersection of Stearns Point Road and Behringer Lane, located in Shelter Island, at N 41.072518°, W 72.369167°	5.3	0.0	8.0
109	On the Shelter Island Sound coastline, on the west side of Shelter Island, approximately 1,180 feet west of intersection of Serpentine Drive and Sunnyside Drive, located in Shelter Island, at N 41.074438°, W 72.365315°	5.3	0.0	7.9
110	On the Shelter Island Sound coastline, on the northwest side of Shelter Island, approximately 460 feet northwest of intersection of St John's Street and Prospect Avenue, located in Shelter Island, at N 41.083137°, W 72.361798°	5.3	0.0	15.4[1]
111	On the Shelter Island Sound coastline, on the northwest side of Shelter Island, approximately 290 feet north of intersection of Summerfield Place and Clinton Avenue, located in Shelter Island, at N 41.087650°, W 72.355840°	5.3	0.0	12.4[1]
112	On the Shelter Island Sound coastline, on the east side of Long Island, approximately 850 feet southeast of intersection of South Street and Main Steet, located in Southold, at N 41.101593°, W 72.358217°	5.8	0.0	8.7

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
113	On the Pipes Cove coastline, on the east side of Long Island, approximately 740 feet southwest of intersection of 7th Street and Brown Street, located in Southold, at N 41.094381°, W 72.369261°	5.5	0.0	8.2
114	On the Pipes Cove coastline, on the east side of Long Island, approximately 1,180 feet east of intersection of August Lane and Pheasant Place, located in Southold, at N 41.083101°, W 72.377151°	5.5	0.0	12.9[1]
115	On the Shelter Island Sound coastline, on the east side of Long Island, approximately 560 feet southeast of intersection of Terry Lane and Town Harbor Road, located in Southold, at N 41.062098°, W 72.412714°	5.5	0.0	8.3
116	On the Shelter Island Sound coastline, on the east side of Long Island, approximately 560 feet northwest of intersection of Shore Drive and Oak Drive, located in Southold, at N 41.050373°, W 72.401450°	5.5	0.0	11.3[1]
117	On the Shelter Island Sound coastline, on the east side of Long Island, approximately 880 feet east of intersection of Cedar Beach Road and Paradise Point Road, located in Southold, at N 41.037478°, W 72.389309°	5.5	0.0	8.3
118	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 630 feet south of intersection of Pleasant Place and Longview Lane, located in Southold, at N 41.031259°, W 72.411467°	5.5	0.0	9.7[1]
119	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 760 feet southeast of intersection of Road B and Indian Neck Lane, located in Southold, at N 41.029587°, W 72.440463°	5.5	0.0	15.6[1]
120	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 430 feet east of intersection of Nassau Point Road and Old Menhaden Road, located in Southold, at N 41.007570°, W 72.443939°	5.5	0.0	10.5[1]

[1]Wave runup elevation

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
121	On the Cutchogue Harbor coastline, on the east side of Long Island, approximately 770 feet southeast of intersection of Pequash Avenue and Glenwood Road, located in Southold, at N 41.005510°, W 72.465272°	5.5	0.0	8.8[1]
122	On the Little Peconic Bay coastline, on the east side of Robins Island, approximately 0.7 mile southeast of the ferry slip, located in Southold, at N 40.969397°, W 72.456464°	5.5	0.0	8.9[1]
123	On the Great Peconic Bay coastline, on the west side of Robins Island, approximately 0.71 mile south of the ferry slip, located in Southold, at N 40.966172°, W 72.466496°	5.5	0.0	8.4
124	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 1,134 feet southeast of intersection of Main Street and 4th Street, located in Southold, at N 40.989820°, W 72.470944°	5.5	0.0	8.4
125	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 580 feet south of intersection of Kimogener Point Road and Jackson Street, located in Southold, at N 40.988933°, W 72.482057°	5.5	0.0	8.4
126	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 500 feet southeast of intersection of Peconic Bay Boulevard and Sigsbee Road, located in Southold, at N 40.976332°, W 72.532915°	5.5	0.0	8.3
127	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 610 feet south of intersection of Peconic Bay Boulevard and Road I, located in Southold, at N 40.953877°, W 72.552082°	5.5	0.0	8.3
128	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 170 feet southeast of intersection of Dunlookin Lane and Green Street, located in Riverhead, at N 40.935785°, W 72.574081°	5.9	0.0	8.9

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
129	On the Flanders Bay coastline, on the east side of Long Island, approximately 370 feet east of intersection of Beach Avenue and Harbor Road, located in Riverhead, at N 40.930025°, W 72.612877°	5.9	0.0	9.4[1]
130	On the Reeves Bay coastline, on the east side of Long Island, approximately 2,170 feet east of intersection of Priscilla Avenue and Short Avenue, located in Southampton, at N 40.915324°, W 72.618815°	6.6	0.0	10.0
131	On the Flanders Bay coastline, on the east side of Long Island, approximately 750 feet northeast of intersection of Long Neck Boulevard and Oaks Avenue, located in Southampton, at N 40.914450°, W 72.605055°	5.9	0.0	8.9
132	On the Flanders Bay coastline, on the east side of Long Island, approximately 2,460 feet northwest of intersection of Upper Red Creek Road and Lower Red Creek Road, located in Southampton, at N 40.909126°, W 72.567020°	5.9	0.0	8.7
133	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 980 feet northeast of intersection of Robins Nest Road and Hilltop Road, located in Southampton, at N 40.914042°, W 72.558417°	5.8	0.0	8.8
134	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 1,890 feet northeast of intersection of Red Creek Road and Squires Pond Road, located in Southampton, at N 40.902690°, W 72.524673°	5.5	0.0	8.4
135	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 1,000 feet northwest of intersection of Cypress Lane and North Road, located in Southampton, at N 40.895588°, W 72.487085°	5.5	0.0	8.8[1]
136	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 1,130 feet northeast of intersection of Cold Spring Point Road and Lynton Lane, located in Southampton, at N 40.903252°, W 72.468740°	5.5	0.0	8.4

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
137	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 0.51 mile west of intersection of Ram Island Drive and Sebonac Inlet Road, located in Southampton, at N 40.912427°, W 72.457658°	5.5	0.0	8.4
138	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 0.69 mile west of intersection of Neck Road and West Neck Point Road, located in Southampton, at N 40.921918°, W 72.448897°	5.5	0.0	8.3
139	On the Great Peconic Bay coastline, on the east side of Long Island, approximately 1,910 feet southwest of intersection of F Road and Road D, located in Southampton, at N 40.939216°, W 72.443873°	5.5	0.0	8.4
140	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 1,550 feet northwest of intersection of West Street and South Street, located in Southampton, at N 40.947795°, W 72.431168°	5.5	0.0	8.4
141	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 2,120 feet north of intersection of Towd Point Road and Norton Place, located in Southampton, at N 40.948792°, W 72.411798°	5.5	0.0	8.3
142	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 810 feet west of intersection of Beach Drive and Scotts Landing Road, located in Southampton, at N 40.952649°, W 72.403584°	5.5	0.0	8.4
143	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 290 feet west of intersection of Lake Drive and Shore Road, located in Southampton, at N 40.968871°, W 72.389670°	5.5	0.0	8.4
144	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 480 feet north of intersection of Dogwood Lane and Clearview Drive, located in Southampton, at N 40.982752°, W 72.378610°	5.5	0.0	8.4

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
145	On the Little Peconic Bay coastline, on the east side of Long Island, approximately 1.61 miles northwest of intersection of Cedar Point Lane and Noyac Harbor Road, located in Southampton, at N 41.009606°, W 72.373023°	5.5	0.0	9.1[1]
146	On the Noyack Bay coastline, on the east side of Long Island, approximately 260 feet northeast of intersection of Pine Road and Hampton Road, located in Southampton, at N 41.000967°, W 72.344613°	5.5	0.0	8.3
147	On the Noyack Bay coastline, on the east side of Long Island, approximately 310 feet southwest of intersection of Park Access Road and A Road, located in Southampton, at N 41.000892°, W 72.320818°	5.5	0.0	8.3
148	On the Noyack Bay coastline, on the east side of Long Island, approximately 600 feet southwest of intersection of Cliff Drive and Harbor Drive, located in Southampton, at N 41.005180°, W 72.317611°	5.5	0.0	9.3[1]
149	On the Noyack Bay coastline, on the east side of Long Island, approximately 460 feet southwest of intersection of Sunset Beach Road and Meadow Brook Way, located in Southampton, at N 41.013091°, W 72.319230°	5.3	0.0	8.0
150	On the Noyack Bay coastline, on the east side of Long Island, approximately 0.53 mile southwest of intersection of Haven Way and Saltmeadow Lane, located in Southampton, at N 41.024396°, W 72.329231°	5.3	0.0	12.2[1]
151	On the Shelter Island Sound coastline, on the east side of Long Island, approximately 1,680 feet northwest of intersection of Haven Way and Seaponie Drive, located in Southampton, at N 41.034761°, W 72.329564°	5.9	0.0	8.9
152	On the Shelter Island Sound coastline, on the east side of Long Island, approximately 0.49 mile east of intersection of Sunset Beach Road and Haven Way, located in Southampton, at N 41.025250°, W 72.303969°	5.9	0.0	18.3[1]

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
153	On the Sag Harbor Bay coastline, on the east side of Long Island, approximately 970 feet east of intersection of R Road and Ferry Road, located in Southampton, at N 41.008690°, W 72.300518°	5.9	0.0	8.9
154	On the Sag Harbor Bay coastline, on the east side of Long Island, approximately 1,280 feet northeast of intersection of Bay Street and Burke Street, located in Hampton, at N 41.004137°, W 72.289278°	6.5	0.0	9.9
155	On the Sag Harbor Bay coastline, on the east side of Long Island, approximately 950 feet north of intersection of Bay Street and Havens Beach Road, located in Hampton, at N 41.000798°, W 72.284087°	6.5	0.0	9.8
156	On the Sag Harbor Bay coastline, on the east side of Long Island, approximately 720 feet northeast of intersection of Lincoln Street and Wilson Place, located in Hampton, at N 41.001435°, W 72.271457°	6.5	0.0	9.8
157	On the Northwest Harbor coastline, on the east side of Long Island, approximately 1.07 miles northeast of intersection of Lincoln Street and Wilson Place, located in Hampton, at N 41.012896°, W 72.261825°	5.3	0.0	7.6[1]
158	On the Northwest Harbor coastline, on the east side of Long Island, approximately 2,290 feet west of intersection of Mile Hill Road and Phoebe Scoy Highway, located in Hampton, at N 41.012979°, W 72.248424°	5.3	0.0	8.0
159	On the Northwest Harbor coastline, on the east side of Long Island, approximately 380 feet west of intersection of Kirks Place and Bay Lane, located in Hampton, at N 41.028253°, W 72.242697°	5.3	0.0	14.0[1]
160	On the Gardiners Bay coastline, on the east side of Long Island, approximately 1.03 miles north of intersection of Terrys Trail and Alewife Brook Road, located in Hampton, at N 41.044682°, W 72.239496°	5.3	2.2	11.4

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
161	On the Gardiners Bay coastline, on the east side of Long Island, approximately 330 feet northeast of intersection of Hedge Banks Drive and Semaphore Road, located in Hampton, at N 41.039909°, W 72.216805°	5.3	2.0	11.1
162	On the Gardiners Bay coastline, on the east side of Long Island, approximately 2,280 feet east of intersection of Old House Landing Road and Sammys Beach Road, located in Hampton, at N 41.032300°, W 72.200138°	5.3	2.2	11.4
163	On the Gardiners Bay coastline, on the east side of Long Island, approximately 0.88 mile east of intersection of Old House Landing Road and Sammys Beach Road, located in Hampton, at N 41.032743°, W 72.191535°	5.3	2.4	11.7
164	On the Gardiners Bay coastline, on the east side of Long Island, approximately 1,480 feet west of intersection of Hog Creek Lane and Water Hole Road, located in Hampton, at N 41.051388°, W 72.166499°	5.3	1.8	10.9
165	On the Gardiners Bay coastline, on the east side of Long Island, approximately 0.56 mile east of intersection of Hog Creek Lane and Water Hole Road, located in Hampton, at N 41.048926°, W 72.150875°	5.3	1.9	10.9
166	On the Gardiners Bay coastline, on the east side of Long Island, approximately 0.61 mile east of intersection of Springs Road and Sycarmore Drive, located in Hampton, at N 41.032488°, W 72.135215°	5.3	3.1	12.8
167	On the Napeague Bay coastline, on the east side of Long Island, approximately 200 feet west of intersection of Beach Way and Watersedge Road, located in Hampton, at N 41.007402°, W 72.122000°	5.3	2.4	11.8
168	On the Gardiners Bay coastline, on the west side of the Gardiners Island, approximately 4,521 feet northwest of Gardiners Island Airport Landing Field, located in East Hampton, at N 41.077141°, W 72.097743°	5.3	1.7	10.7

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
169	On the Cherry Harbor coastline, on the west side of the Gardiners Island, approximately 1,010 feet northwest of entrance of Home Pond, located in East Hampton, at N 41.092706°, W 72.118175°	5.3	1.5	10.3
170	On the Gardiners Bay coastline, on the west side of the Gardiners Island, approximately 1,130 feet northwest of Cherry Hill Pond, located in East Hampton, at N 41.097761°, W 72.142462°	5.3	2.0	11.2
171	On the Gardiners Bay coastline, on the west side of the Gardiners Island, approximately 1,936 feet northeast of entrance of Bostwick Creek, located in Suffolk, at N 41.109249°, W 72.128669°	5.3	2.4	11.7
172	On the Block Island Sound coastline, on the east side of the Gardiners Island, approximately 3.52 miles northwest of the intersection of landing strips at Gardiners Island Airport Landing Field, located in East Hampton, at N 41.112232°, W 72.118216°	5.3	2.4	11.7
173	On the Block Island Sound coastline, on the east side of the Gardiners Island, approximately 2.71 miles north of the intersection of landing strips at Gardiners Island Airport Landing Field, located in East Hampton, at N 41.104254°, W 72.094600°	5.3	2.3	11.7
174	On the Tobaccolot Bay coastline, on the east side of the Gardiners Island, approximately 1.54 miles north of the intersection of landing strips at Gardiners Island Airport Landing Field, located in East Hampton, at N 41.087179°, W 72.086825°	5.3	2.2	11.4
175	On the Block Island Sound coastline, on the south side of the Gardiners Island, approximately 0.61 foot south of the intersection of landing strips at Gardiners Island Airport Landing Field, located in East Hampton, at N 41.056598°, W 72.090117°	5.3	2.3	11.7
176	On the Napeague Bay coastline, on the east side of Long Island, approximately 1,870 feet northeast of intersection of Bendigo Road and Cranberry Hole Road, located in Hampton, at N 40.991295°, W 72.096957°	5.3	2.4	11.8

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
177	On the Napeague Bay coastline, on the east side of Long Island, approximately 0.53 mile northwest of intersection of Lazy Point Road and Bay View Avenue, located in Hampton, at N 41.007851°, W 72.078386°	5.3	2.8	12.4
178	On the Napeague Bay coastline, on the east side of Long Island, approximately 1.83 miles northwest of intersection of Napeague Harbor Road and Montauk Point State Parkway, located in Hampton, at N 41.022156°, W 72.055446°	5.3	2.7	12.2
179	On the Napeague Bay coastline, on the east side of Long Island, approximately 0.95 mile northwest of intersection of Cemetery Road and Montauk Point State Parkway, located in Hampton, at N 41.020282°, W 72.027404°	5.3	2.8	12.4
180	On the Napeague Bay coastline, on the east side of Long Island, approximately 1.17 miles southeast of intersection of Laurel Drive and Birch Drive, located in Hampton, at N 41.033360°, W 72.007191°	5.3	2.4	11.7
181	On the Fort Pond Bay coastline, on the east side of Long Island, approximately 1,560 feet north of intersection of North Shore Road and Second House Road, located in Hampton, at N 41.044717°, W 71.960384°	5.3	3.4	13.2
182	On the Fort Pond Bay coastline, on the east side of Long Island, approximately 740 feet northwest of intersection of Firestone Road and Fleming Road, located in Hampton, at N 41.055483°, W 71.958069°	5.3	2.6	12.1
183	On the Block Island Sound coastline, on the east side of Long Island, approximately 320 feet northwest of intersection of Soundview Drive and Gull Road, located in Hampton, at N 41.072982°, W 71.949335°	5.3	2.5	11.9
184	On the Lake Montauk coastline, on the east side of Long Island, approximately 1,020 feet northeast of intersection of Fairfax Road and Greenwich Street, located in Hampton, at N 41.061565°, W 71.933802°	5.3	0.0	7.8

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
185	On the Lake Montauk coastline, on the east side of Long Island, approximately 630 feet east of intersection of Old West Lake Drive and Fulton Drive, located in Hampton, at N 41.049720°, W 71.917265°	5.3	0.0	8.0
186	On the Lake Montauk coastline, on the east side of Long Island, approximately 1,670 feet northwest of intersection of East Lake Drive and Homeward Lane, located in Hampton, at N 41.064443°, W 71.914551°	5.3	0.0	9.1[1]
187	On the north shore of Lake Montauk, on the southern tip of Long Island, approximately 1,880 feet west of intersection of East Lake Drive and Big Reed Path, located in East Hampton, at N 41.071391°, W 71.923235°	5.3	0.0	7.8
188	On the Block Island Sound coastline, on the east side of Long Island, approximately 0.65 mile northeast of intersection of Lake Drive and Road H, located in Hampton, at N 41.080297°, W 71.918031°	5.3	2.6	12.1
189	On the Block Island Sound coastline, on the east side of Long Island, approximately 1.06 miles northwest of intersection of Montauk Point State Parkway and Old Montauk Highway, located in Hampton, at N 41.076839°, W 71.878761°	7.3	2.3	14.5
190	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,380 feet southeast of intersection of North Road and Montauk Point State Parkway, located in East Hampton, at N 41.071222°, W 71.856207°	8.7	5.1	21.1
191	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,650 feet east of intersection of Camp Hero Road and Old Montauk Highway, located in East Hampton, at N 41.058718°, W 71.867913°	8.9	5.3	21.8
192	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.55 mile southeast of intersection of East Lake Drive and Montauk Point Street Parkway, located in East Hampton, at N 41.042844°, W 71.899761°	9.2	4.9	21.7

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
193	On the Atlantic Ocean coastline, on the south side of the island, approximately 560 feet southwest of intersection of Otis Road and Deforest Road, located in East Hampton, at N 41.039467°, W 71.915821°	9.4	5.0	22.1
194	On the Atlantic Ocean coastline, on the south side of the island, approximately 270 feet south of intersection of Emery Street and Emerson Avenue, located in East Hampton, at N 41.030959°, W 71.946711°	9.5	5.0	22.3
195	On the Atlantic Ocean coastline, on the south side of the island, approximately 610 feet southeast of intersection of Twin Pond Lane and Old Montauk Highway, located in East Hampton, at N 41.027602°, W 71.956898°	9.6	5.1	22.5
196	On the Atlantic Ocean coastline, on the south side of the island, approximately 480 feet south of intersection of Taft Drive and Old Montauk Highway, located in East Hampton, at N 41.019436°, W 71.978471°	9.7	4.8	22.4
197	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.61 mile east of intersection of Montauk Point Street State Parkway and Old Montauk Highway, located in East Hampton, at N 41.007196°, W 72.010140°	10.0	4.7	22.4
198	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,410 feet south of intersection of Montauk Point Street State Parkway and Marlin Drive, located in East Hampton, at N 40.992267°, W 72.051873°	10.2	4.2	22.1
199	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.54 mile southeast of intersection of Montauk Point State Parkway and Ship Wreck Drive, located in East Hampton, at N 40.981529°, W 72.083285°	10.3	4.7	22.9
200	On the Atlantic Ocean coastline, on the south side of the island, approximately 380 feet south of intersection of Jacqueline Drive and Marine Boulevard, located in East Hampton, at N 40.973810°, W 72.109002°	10.3	4.7	22.9

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
201	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,720 feet south of intersection of Atlantic Avenue and Bluff Road, located in East Hampton, at N 40.967915°, W 72.125409°	10.3	4.6	22.8
202	On the Atlantic Ocean coastline, on the south side of the island, approximately 2,284 feet south of intersection of Further Lane and Cross Highway, located in East Hampton, at N 40.954946°, W 72.159740°	10.3	4.6	22.9
203	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.48 mile southeast of intersection of Ocean Avenue and Lee Avenue, located in East Hampton, at N 40.944852°, W 72.187994°	10.3	4.5	22.7
204	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,860 feet southeast of intersection of Lee Avenue and Hedges Lane, located in East Hampton, at N 40.939899°, W 72.201434°	10.3	4.5	22.8
205	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.55 mile southeast of intersection of Pierson Lane and Eel Cove, located in East Hampton, at N 40.931472°, W 72.224943°	10.3	4.6	22.9
206	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.72 mile southeast of intersection of Main Street and Beach Lane, located in East Hampton, at N 40.926432°, W 72.239177°	10.3	4.5	22.7
207	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.55 mile southeast of intersection of Fairfield Pond Road and Daniels Lane, located in Southampton, at N 40.917431°, W 72.261507°	10.3	4.5	22.6
208	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,480 feet south of intersection of Sagg Main Street and Sandune Court, located in Southampton, at N 40.907876°, W 72.285305°	10.2	4.5	22.6

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
209	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,120 feet southwest of intersection of Surfside Drive and Meadowlark Lane, located in Southampton, at N 40.903462°, W 72.296651°	10.2	4.6	22.7
210	On the Atlantic Ocean coastline, on the south side of the island, approximately 2,670 feet southeast of intersection of Rose Way and Jobs Lane, located in Southampton, at N 40.900026°, W 72.306354°	10.2	4.5	22.6
211	On the Atlantic Ocean coastline, on the south side of the island, approximately 950 feet east of intersection of Burnetts Cove and Flying Point Road, located in Southampton, at N 40.891385°, W 72.328287°	10.2	4.5	22.4
212	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.47 mile south of intersection of Julis Pond Drive and Flying Point Road, located in Southampton, at N 40.886271°, W 72.341509°	10.2	4.6	22.6
213	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,080 feet southwest of intersection of Wyandanch Lane and Gin Lane, located in Southampton, at N 40.873942°, W 72.375912°	10.0	4.5	22.3
214	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,070 feet southeast of intersection of Dune Road and Meadow Lane, located in Southampton, at N 40.867105°, W 72.394309°	10.0	4.5	22.1
215	On the Atlantic Ocean coastline, on the south side of the island, approximately 2,100 feet southwest of intersection of Halsey Neck Lane and Meadow Lane, located in Southampton, at N 40.859427°, W 72.416870°	9.9	4.4	21.9
216	On the south shore of Shinnecock Bay, in southern Long Island, approximately 2,280 feet west of intersection of Meadow Lane and Road D, located in Southampton, at N 40.851041°, W 72.452351°	8.3	0.0	12.2

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
217	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,570 feet south of intersection of Meadow Lane and Road G, located in Southampton, at N 40.841632°, W 72.468344°	9.7	4.5	21.8
218	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,020 feet southwest of intersection of Beach Road and Road H, located in Southampton, at N 40.840311°, W 72.481455°	9.7	4.8	22.1
219	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,560 feet east of intersection of K Road and Dune Road, located in Southampton, at N 40.833402°, W 72.504976°	9.6	4.5	21.6
220	On the north shore of Shinnecock Bay, in southern Long Island, approximately 480 feet south of intersection of Rampasture Road and Last Lane, located in Southampton, at N 40.848930°, W 72.529916°	8.0	0.0	12.3
221	On the south shore of Shinnecock Bay, in southern Long Island, approximately 2,480 feet northeast of intersection of Dune Road and Mermaid Lane, located in Southampton, at N 40.829021°, W 72.527522°	7.9	0.0	11.4
222	On the Atlantic Ocean coastline, on the south side of the island, approximately 710 feet southwest of intersection of Mermaid Lane and Dune Road, located in Southampton, at N 40.824058°, W 72.536513°	9.5	4.6	21.6
223	On the Atlantic Ocean coastline, on the south side of the island, approximately 820 feet southeast of intersection of Road C and Dune Road, located in Southampton, at N 40.820248°, W 72.549738°	9.4	4.4	21.3
224	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,240 feet southwest of intersection of Dolphin Lane and Dune Road, located in Southampton, at N 40.816251°, W 72.563043°	9.4	4.4	21.2
225	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.57 mile west of intersection of Dolphin Lane and Dune Road, located in Southampton, at N 40.813516°, W 72.573260°	9.4	4.4	21.1

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
226	On the Atlantic Ocean coastline, on the south side of the island, approximately 840 feet southeast of intersection of Dune Road and Post Lane, located in Southampton, at N 40.808055°, W 72.591509°	9.3	4.5	21.1
227	On the Atlantic Ocean coastline, on the south side of the island, approximately 960 feet southeast of intersection of Dune Road and Watersedge Drive, located in Southampton, at N 40.803354°, W 72.608039°	9.3	4.6	21.3
228	On the Atlantic Ocean coastline, on the south side of the island, approximately 2,330 feet southeast of intersection of Dune Road and Watersedge Drive, located in Southampton, at N 40.800601°, W 72.618128°	9.3	4.4	21.0
229	On the Atlantic Ocean coastline, on the south side of the island, approximately 800 feet southeast of intersection of Dune Road and Beach Lane, located in Southampton, at N 40.798275°, W 72.625244°	9.3	4.6	21.2
230	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.51 mile east of intersection of Dune Road and Jessup Lane, located in Southampton, at N 40.795293°, W 72.635209°	9.3	4.8	21.5
231	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,380 feet southwest of intersection of Dune Road and Jessup Lane, located in Southampton, at N 40.792057°, W 72.648305°	9.3	4.6	21.3
232	On the Atlantic Ocean coastline, on the south side of the island, approximately 980 feet southeast of intersection of Dune Road and Point Road, located in Southampton, at N 40.787722°, W 72.665334°	9.3	4.5	21.2
233	On the Atlantic Ocean coastline, on the south side of the island, approximately 1.32 miles east of intersection of Dune Road and Cove Lane, located in Southampton, at N 40.780712°, W 72.690892°	9.3	4.6	21.4
234	On the south shore of Moriches Bay, in southern Long Island, approximately 0.72 mile east of intersection of Dune Road and Cove Lane, located in Southampton, at N 40.779985°, W 72.702521°	6.8	0.5	10.7

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
235	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,100 feet east of intersection of Dune Road and Cove Lane, located in Southampton, at N 40.775538°, W 72.711250°	9.3	4.6	21.2
236	On the Atlantic Ocean coastline, on the south side of the island, approximately 550 feet south of intersection of Dune Road and Widgeon Way, located in Southampton, at N 40.771699°, W 72.725895°	9.3	4.6	21.3
237	On the Atlantic Ocean coastline, on the south side of the island, approximately 1.05 miles southwest of intersection of Dune Road and Widgeon Way, located in Brookhaven, at N 40.766980°, W 72.744685°	9.3	4.4	21.0
238	On the south shore of Moriches Bay, in southern Long Island, approximately 2.31 miles west of intersection of Dune Road and Widgeon Way, located in Brookhaven, at N 40.764081°, W 72.768907°	6.8	0.4	10.5
239	On the Atlantic Ocean coastline, on the south side of the island, approximately 4.75 miles east of intersection of Fire Island Beach Road and Suffolk Boulevard, located in Brookhaven, at N 40.757527°, W 72.780812°	9.3	4.5	21.2
240	On the Atlantic Ocean coastline, on the south side of the island, approximately 3.2 miles east of intersection of Fire Island Beach Road and Suffolk Boulevard, located in Brookhaven, at N 40.749760°, W 72.808575°	9.3	4.4	21.0
241	On the Atlantic Ocean coastline, on the south side of the island, approximately 1.23 miles east of intersection of Fire Island Beach Road and Suffolk Boulevard, located in Brookhaven, at N 40.738777°, W 72.843173°	9.3	4.5	21.0
242	On the Atlantic Ocean coastline, on the south side of the island, approximately 910 feet southeast of intersection of Fire Island Beach Road and Suffolk Boulevard, located in Brookhaven, at N 40.732579°, W 72.862466°	9.3	4.6	21.2

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
243	On the Atlantic Ocean coastline, on the south side of the island, approximately 0.75 mile southwest of intersection of Fire Island Beach Road and Suffolk Boulevard, located in Brookhaven, at N 40.727901°, W 72.877925°	9.3	4.5	21.2
244	On the Atlantic Ocean coastline, on the south side of the island, approximately 1.94 miles southwest of intersection of Fire Island Beach Road and Suffolk Boulevard, located in Brookhaven, at N 40.721263°, W 72.899001°	9.3	4.5	21.1
245	On the Great South Bay coastline, on the south side of the island, approximately 680 feet southeast of intersection of Oak Meadow Lane and Peathole Lane, located in Brookhaven, at N 40.748250°, W 72.939393°	5.2	0.0	7.7
246	On the Great South Bay coastline, on the south side of the island, approximately 540 feet southeast of intersection of Otis Lane and Baycrest Avenue, located in Brookhaven, at N 40.745549°, W 72.944006°	5.2	0.0	7.7
247	On the Great South Bay coastline, on the south side of the island, approximately 710 feet south of intersection of Howells Point Road and Beach Road, located in Brookhaven, at N 40.741527°, W 72.949708°	5.1	0.0	7.8
248	On the south shore of Great South Bay, in southern Long Island, approximately 3.68 miles southwest of intersection of Dune Road and Fire Island Road, located in Brookhaven, at N 40.714734°, W 72.930025°	5.1	0.4	8.2
249	On the Atlantic Ocean coastline, on the south side of the island, approximately 2.16 miles northeast of intersection of Dune Walk and Whale Bone Walk, located in Brookhaven, at N 40.699924°, W 72.959448°	9.3	4.4	21.0
250	On the Great South Bay coastline, on the south side of the island, approximately 880 feet southeast of intersection of Smith Street and Rider Avenue, located in Brookhaven, at N 40.748288°, W 73.005892°	5.0	0.0	7.4

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
251	On the Great South Bay coastline, on the south side of the island, approximately 380 feet southwest of intersection of Maiden Lane and Ocean Avenue, located in Brookhaven, at N 40.748796°, W 73.011294°	4.9	0.0	7.4
252	On the Great South Bay coastline, on the south side of the island, approximately 310 feet southeast of intersection of Sunset Lane and River Avenue, located in Brookhaven, at N 40.748632°, W 73.020816°	4.9	0.0	7.4
253	On the Atlantic Ocean coastline, on the south side of the island, approximately 570 feet southwest of intersection of Dune Walk and Whale Bone Walk, located in Brookhaven, at N 40.685493°, W 72.997645°	9.4	4.5	21.2
254	On the Great South Bay coastline, on the south side of the island, approximately 830 feet southwest of intersection of Harriet Road and Edgewater Avenue, located in Islip, at N 40.728105°, W 73.059145°	4.8	0.0	7.3
255	On the south shore of Great South Bay, in southern Long Island, approximately 1,630 feet west of intersection of Center Walk and East Walk, located in Brookhaven, at N 40.674587°, W 73.033975°	4.8	0.0	7.8[1]
256	On the Atlantic Ocean coastline, on the south side of the island, approximately 450 feet south of intersection of Sky Walk and Ocean Walk, located in Brookhaven, at N 40.664665°, W 73.061125°	9.4	4.3	21.0
257	On the Great South Bay coastline, on the south side of the island, approximately 0.59 mile south of intersection of Munson Lane and Montauk Highway, located in Islip, at N 40.718800°, W 73.103890°	4.8	0.0	7.3
258	On the Atlantic Ocean coastline, on the south side of the island, approximately 4,503 feet southwest of intersection of Bayview Walk and Main Walk, located in Brookhaven, at N 40.654689°, W 73.104825°	9.5	4.2	21.1
259	On the north shore of Great South Bay, in southern Long Island, approximately 1.07 miles east of intersection of Southern State Parkway and Heckscher State Parkway, located in Islip, at N 40.710475°, W 73.144823°	4.6	0.0	7.0

[1]Wave runup elevation
*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
260	On the south shore of Great South Bay, in southern Long Island, approximately 245 feet northwest of intersection of Bay View Walk and Kelp Avenue, located in Brookhaven, at N 40.649181°, W 73.146341°	4.9	0.0	7.4
261	On the Atlantic Ocean coastline, on the south side of the island, approximately 1,340 feet south of intersection of Midway and Dehnhoff Walk, located in Islip, at N 40.643351°, W 73.155951°	9.5	4.6	21.6
262	On the Atlantic Ocean coastline, on the south side of the island, approximately 716 feet southwest of intersection of Midway and Compass Avenue, located in Islip, at N 40.641182°, W 73.167089°	9.6	4.5	21.7
263	On the north shore of Great South Bay, in southern Long Island, approximately 1,740 feet southeast of intersection of Beech Road and Elder Road, located in Islip, at N 40.706212°, W 73.213844°	4.2	0.0	6.3
264	On the Atlantic Ocean coastline, on the south side of the island, approximately 860 feet southeast of intersection of Crest Walk and Lighthouse Road, located in Islip, at N 40.636496°, W 73.187403°	9.6	4.5	21.6
265	On the north shore of Great South Bay, in southern Long Island, approximately 550 feet south of intersection of Bay Avenue and Shore Road, located in Islip, at N 40.702740°, W 73.251175°	4.3	0.0	6.6
266	On the Atlantic Ocean coastline, on the south side of the island, approximately 1.25 miles south of intersection of Robert Moses State Parkway and Ocean State Parkway, located in Babylon, at N 40.621609°, W 73.268087°	9.7	4.7	22.1
267	On the Atlantic Ocean coastline, on the south side of the island, approximately 2.17 miles southwest of intersection of Robert Moses State Parkway and Ocean State Parkway, located in Babylon, at N 40.620535°, W 73.298084°	9.7	4.6	22.0
268	On the Great South Bay coastline, on the south side of the island, approximately 2,030 feet south of intersection of Green Avenue and Lighthouse Road, located in Babylon, at N 40.680428°, W 73.322466°	4.8	0.0	7.2

*North American Vertical Datum of 1988

TABLE 7 - TRANSECT DESCRIPTIONS – continued

TRANSECT	LOCATION	ELEVATION (ft NAVD 88*) 1-PERCENT ANNUAL CHANCE STILLWATER	WAVE SETUP	MAXIMUM 1-PERCENT ANNUAL CHANCE WAVE CREST
269	On the Great South Bay coastline, on the south side of the island, approximately 0.55 foot south of intersection of Melbury Road and Peninsula Drive, located in Babylon, at N 40.684327°, W 73.328617°	4.8	0.0	7.2
270	On the Atlantic Ocean coastline, on the south side of the island, approximately 1.78 miles west of intersection of Brilliant Way and Fire Road, located in Babylon, at N 40.632633°, W 73.328994°	8.6	4.3	19.7
271	On the Great South Bay coastline, on the south side of the island, approximately 230 feet southwest of intersection of Bayview Avenue and South Bay Street, located in Babylon, at N 40.666557°, W 73.363442°	5.3	0.0	8.0
272	On the Atlantic Ocean coastline, on the south side of the island, approximately 3.9 miles west of intersection of Brilliant Way and Fire Road, located in Babylon, at N 40.625034°, W 73.368106°	10.0	3.9	21.3
273	On the Atlantic Ocean coastline, on the south side of the island, approximately 3 miles south of intersection of Bayview Avenue and Victoria Drive, located in Babylon, at N 40.614743°, W 73.404325°	10.1	4.2	21.8

*North American Vertical Datum of 1988

TABLE 8 - TRANSECT DATA

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Oyster Bay	1	7.3	8.6	10.9[1]	11.0	VE	12-16
						AE	11-12
		7.3	8.6	10.0[1]	11.0	AE	10
Long Island Sound	2	7.3	8.6	11.2[1]	10.9	VE	13-17
						AE	11-13
		7.3	8.6	9.4	10.9	AE	9-10
Long Island Sound	3	7.2	8.5	11.2[1]	10.9	VE	13-17
						AE	11-13
		7.2	8.5	9.3	10.9	AE	9-10
Long Island Sound	4	7.2	8.4	10.9[1]	10.8	VE	14-16
		7.2	8.4	9.2	10.8	VE	13[2]
						AE	13[2]
Huntington Bay	5	7.0	8.1	10.2[1]	10.5	VE	12-15
						AE	10-12
		7.0	8.1	8.8	10.5	AE	9
Lloyd Harbor	6	7.0	8.1	9.7[1]	10.5	VE	12-14
						AE	10-12
Huntington Harbor	7	7.1	8.2	8.9	10.5	VE	11
						AE	10-11
						AE	9[2]
Huntington Bay	8	7.1	8.2	10.1[1]	10.5	VE	12-15
						AE	10-12
Huntington Bay	9	7.1	8.2	10.2[1]	10.5	VE	14-15
		7.1	8.2	8.9	10.5	VE	13[2]
						AE	13[2]
Huntington Bay	10	7.1	8.2	8.9	10.5	VE	21[2]
						AE	21[2]
Centerport Harbor	11	7.1	8.2	9.4[1]	10.5	VE	11-13
						AE	10-11
		7.1	8.2	8.9	10.5	AE	9

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Northport Harbor	12	7.1	8.2	8.9	10.5	VE	11-12
						AE	9-11
Northport Bay	13	7.1	8.2	8.9	10.5	VE	16[2]
						AE	16[2]
Northport Bay	14	7.1	8.2	8.9	10.5	VE	20[2]
						AE	20[2]
Huntington Bay	15	7.1	8.2	10.2[1]	10.5	VE	12-15
		7.1	8.2	8.9	10.5	VE	17[2]
						AE	17[2]
Long Island Sound	16	7.1	8.2	10.2[1]	10.5	VE	15
		7.1	8.2	8.9	10.5	VE	14[2]
						AE	14[2]
Long Island Sound	17	7.1	8.2	11.5[1]	10.5	VE	14-17
						AE	13-14
		7.1	8.2	8.9	10.5	AE	12[2]
Long Island Sound	18	7.1	8.2	11.7[1]	10.5	VE	14-18
						AE	13-14
		7.1	8.2	8.9	10.5	AE	12[2]
Long Island Sound	19	7.1	8.2	12.3[1]	10.5	VE	14-19
						AE	12-14
		7.1	8.2	9.7[1]	10.5	AE	10-11
Long Island Sound	20	7.1	8.2	11.6[1]	10.5	VE	14-18
						AE	12-14
		7.1	8.2	8.9	10.5	VE	11-13
						AE	9-11
Long Island Sound	21	7.1	8.2	11.2[1]	10.5	VE	13-17
						AE	11-13
Long Island Sound	22	7.1	8.2	11.3[1]	10.5	VE	13-17
						AE	11-13
		7.1	8.2	8.9	10.5	AE	9-10

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Long Island Sound	23	7.1	8.2	11.2[1]	10.5	VE	13-17
						AE	11-13
Long Island Sound	24	7.0	8.1	11.1[1]	10.5	VE	13-17
						AE	11-13
		7.0	8.1	8.7	10.5	AE	9-10
Smithtown Bay	25	6.9	8.3	11.1[1]	10.4	VE	13-17
						AE	11-13
		6.9	8.3	8.8	10.4	VE	11
						AE	9-11
Smithtown Bay	26	6.8	8.2	10.9[1]	10.3	VE	13-17
						AE	13
		6.8	8.2	8.7	10.3	AE	12[2]
Smithtown Bay	27	6.8	8.2	10.8[1]	10.3	VE	13-16
						AE	11-13
		6.8	8.2	8.7	10.3	VE	11
						AE	9-11
Stony Brook Harbor	28	6.8	8.2	8.7	10.3	VE	11-12
						AE	10-11
						AE	9[2]
Smithtown Bay	29	6.9	8.3	10.8[1]	10.3	VE	13-16
						AE	11-13
		6.9	8.3	9.4[1]	10.3	AE	9-10
Smithtown Bay	30	6.9	8.3	11.1[1]	10.3	VE	13-17
						AE	11-13
		6.9	8.3	8.7	10.3	AE	9-10
Smithtown Bay	31	6.9	8.3	11.1[1]	10.3	VE	13-17
						AE	12-13
		6.9	8.3	8.7	10.3	AE	11[2]
Long Island Sound	32	6.9	8.3	11.4[1]	10.3	VE	14-17
						AE	11-14

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Long Island Sound	33	6.9	8.3	11.1[1]	10.3	VE	13-17
						AE	12-13
		6.9	8.3	8.7	10.3	VE	11
						AE	9-11
Long Island Sound	34	6.9	8.3	11.3[1]	10.3	VE	13-17
						AE	11-13
		6.9	8.3	9.9[1]	10.3	AE	10
Long Island Sound	35	6.9	8.3	11.4[1]	10.3	VE	15-17
		6.9	8.3	8.7	10.3	VE	14[2]
						AE	14[2]
Long Island Sound	36	6.9	8.3	11.2[1]	10.3	VE	13-17
						AE	12-13
		6.9	8.3	10.6[1]	10.3	AE	11
Conscience Bay	37	6.7	7.6	8.1	9.0	VE	10-11
						AE	8-10
Port Jefferson Harbor	38	6.8	7.7	8.2	9.0	VE	14[2]
						AE	14[2]
Long Island Sound	39	6.5	8.2	11.2[1]	10.4	VE	14-17
		6.5	8.2	8.8	10.4	VE	13[2]
						AE	13[2]
		6.7	7.6	8.1	9.0	VE	10-12
						AE	8-10
Long Island Sound	40	6.5	8.2	11.1[1]	10.4	VE	16-17
		6.5	8.2	8.8	10.4	VE	15[2]
						AE	15[2]
Long Island Sound	41	6.5	8.2	11.3[1]	10.4	VE	13-17
						AE	13
		6.5	8.2	8.8	10.4	AE	12[2]
Long Island Sound	42	6.5	8.2	11.2[1]	10.4	VE	13-17
						AE	12-13
		6.5	8.2	8.8	10.4	VE	11-12
						AE	9-11

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Long Island Sound	43	6.5	8.0	10.6[1]	10.0	VE	13-16
						AE	11-13
Long Island Sound	44	6.6	7.8	10.6[1]	9.6	VE	13-16
						AE	13
		6.6	7.8	8.3	9.6	AE	12[2]
Long Island Sound	45	5.9	7.4	10.5[1]	10.8	VE	13-16
						AE	11-13
		5.9	7.4	8.2	10.8	AE	8-10
Long Island Sound	46	5.9	7.4	10.7[1]	10.9	VE	14-16
		5.9	7.4	8.2	10.9	VE	13[2]
						AE	13[2]
Long Island Sound	47	5.9	7.4	10.7[1]	10.9	VE	13-16
						AE	11-13
Long Island Sound	48	5.9	7.4	10.4[1]	10.9	VE	15-16
		5.9	7.4	8.2	10.9	VE	14[2]
						AE	14[2]
Long Island Sound	49	5.9	7.4	11.0[1]	10.9	VE	14-17
		5.9	7.4	8.2	10.9	VE	13[2]
						AE	13[2]
Long Island Sound	50	5.9	7.4	10.9[1]	10.9	VE	14-17
		5.9	7.4	8.2	10.9	VE	13[2]
						AE	13[2]
Long Island Sound	51	6.2	7.5	11.1[1]	9.4	VE	13-17
						AE	11-13
Long Island Sound	52	6.2	7.5	10.8[1]	9.4	VE	13-16
						AE	11-13
		6.2	7.5	9.2[1]	9.4	AE	9-10
Long Island Sound	53	6.1	7.4	10.6[1]	9.4	VE	14-16
		6.1	7.4	8.0	9.4	VE	13[2]
						AE	13[2]

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Long Island Sound	54	5.8	7.2	10.8[1]	9.3	VE	13-16
						AE	11-13
		5.8	7.2	9.2[1]	9.3	AE	9-10
Long Island Sound	55	5.7	7.1	10.5[1]	9.3	VE	13-16
						AE	12-13
		5.7	7.1	7.8	9.3	AE	11[2]
Long Island Sound	56	5.6	7.1	10.3[1]	9.3	VE	12-16
						AE	11-12
		5.6	7.1	7.7	9.3	AE	10[2]
Long Island Sound	57	5.6	7.1	10.4[1]	9.3	VE	13-16
		5.6	7.1	7.7	9.3	VE	12[2]
						AE	12[2]
Long Island Sound	58	5.6	7.1	9.6[1]	9.3	VE	12-15
		5.6	7.1	7.7	9.3	AE	10-11
		4.2	5.4	5.8	6.7	AE	6-9
Long Island Sound	59	5.5	7.0	10.6[1]	9.3	VE	14-16
		5.5	7.0	7.6	9.3	VE	13[2]
						AE	13[2]
Long Island Sound	60	5.5	7.0	10.8[1]	9.3	VE	16
		5.5	7.0	7.6	9.3	VE	15[2]
						AE	15[2]
Long Island Sound	61	5.5	7.0	9.9[1]	9.3	VE	15
		5.5	7.0	7.6	9.3	VE	14[2]
						AO	Depth 2
Long Island Sound	62	5.1	**	7.4	**	VE	17[2]
						AE	17[2]
Long Island Sound	63	5.1	**	7.4	**	VE	42[2]
						AE	42[2]
Block Island Sound	64	5.1	**	10.1[1]	**	VE	14-15
		5.1	**	7.4	**	VE	13[2]
						AE	13[2]

*North American Vertical Datum of 1988
**Data not available
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Block Island Sound	65	3.9	**	9.9[1]	**	VE	13-15
		3.9	**	6.7	**	VE	12[2]
						AE	12[2]
Hay Harbor	66	5.1	6.7	8.6[1]	9.3	VE	11-13
						AE	9-11
Fishers Island Sound	67	5.1	6.7	10.4[1]	9.3	VE	14-16
		5.1	6.7	7.4	9.3	VE	13[2]
						AE	13[2]
Fishers Island Sound	68	5.1	6.7	8.6[1]	9.3	VE	11-13
						AE	11
		5.1	6.7	7.4	9.3	AE	10[2]
West Harbor	69	5.1	6.7	7.4	9.3	VE	14[2]
						AE	14[2]
Fishers Island Sound	70	5.2	6.8	9.1[1]	9.3	VE	11-14
						AE	9-10
Fishers Island Sound	71	5.2	6.8	8.9[1]	9.3	VE	12-13
		5.2	6.8	7.5	9.3	VE	11[2]
						AE	11[2]
Fishers Island Sound	72	5.2	6.8	8.5[1]	9.3	VE	11-13
		5.2	6.8	7.5	9.3	AE	10-11
						AE	9[2]
Fishers Island Sound	73	5.3	6.9	8.7[1]	9.3	VE	11-13
						AE	11
		5.3	6.9	7.6	9.3	AE	10[2]
Fishers Island Sound	74	5.3	6.9	10.8[1]	9.3	VE	16
		5.3	6.9	7.6	9.3	VE	15[2]
						AE	15[2]
Block Island Sound	75	5.3	6.9	10.3[1]	9.3	VE	14-16
		5.3	6.9	7.6	9.3	VE	13[2]
						AE	13[2]

*North American Vertical Datum of 1988
**Data not available
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Block Island Sound	76	5.3	6.9	10.4[1]	9.3	VE	13-16
						AE	10-13
Block Island Sound	77	5.3	6.9	10.2[1]	9.3	VE	12-15
						AE	10-12
		5.3	6.9	9.4[1]	9.3	AE	9
Block Island Sound	78	5.2	6.8	10.3[1]	9.3	VE	12-16
						AE	10-12
		5.2	6.8	7.5	9.3	AE	8-9
Block Island Sound	79	5.2	6.8	10.4[1]	9.3	VE	14-16
		5.2	6.8	7.5	9.3	VE	13[2]
						AE	13[2]
Block Island Sound	80	5.1	6.7	9.9[1]	9.3	VE	12-15
						AE	12
		5.1	6.7	7.4	9.3	AE	11[2]
Block Island Sound	81	5.1	6.7	10.2[1]	9.3	VE	11-16
						AE	10-11
		5.1	6.7	7.4	9.3	AE	8-9
Gardiners Bay	82	4.0	5.2	8.3[1]	9.8	VE	10-13
						AE	9-10
		4.0	5.2	5.9	9.8	AE	8[2]
Gardiners Bay	83	4.0	5.2	8.1[1]	9.8	VE	10-12
						AE	8-10
		4.2	5.4	5.9	6.7	AE	6-7
Gardiners Bay	84	4.0	5.2	8.0[1]	9.8	VE	10-12
						AE	8-10
		4.0	5.4	5.9	6.7	VE	8-10
						AE	6-8
Gardiners Bay	85	4.0	5.2	8.1[1]	9.8	VE	10-12
		4.0	5.2	7.0[1]	9.8	AE	8-10
Orient Harbor	86	4.2	5.4	5.8	6.7	VE	8-9
						AE	6-8

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Orient Harbor	87	4.2	5.4	5.8	6.7	VE	9
						AE	9[2]
Orient Harbor	88	4.2	5.4	5.8	6.7	VE	8-9
						AE	7[2]
						AO	Depth 1
						AE	6
Shelter Island Sound	89	4.2	5.4	5.8	6.7	VE	8-9
						AE	6-8
Dering Harbor	90	4.2	5.1	5.3	9.0	VE	17[2]
						AE	17[2]
Shelter Island Sound	91	4.2	5.1	5.3	9.0	VE	14[2]
						AE	14[2]
Gardiners Bay	92	4.2	5.1	7.8[1]	9.0	VE	10-12
						AE	8-10
Gardiners Bay	93	5.2	6.2	9.2[1]	9.8	VE	11-14
						AE	9-11
		5.2	6.2	8.1[1]	9.8	AE	8
Gardiners Bay	94	5.2	6.2	9.2[1]	9.8	VE	11-14
						AE	9-11
		5.2	6.2	6.5	9.8	VE	9-10
						AE	7-9
Gardiners Bay	95	5.2	6.2	8.8[1]	9.8	VE	11-14
						AE	9-11
		5.2	6.2	6.5	9.8	VE	9-10
						AE	7-9
Gardiners Bay	96	5.2	6.2	8.6[1]	9.8	VE	11-13
						AE	10-11
		5.2	6.2	6.5	9.8	AE	9[2]
Gardiners Bay	97	5.2	6.2	8.7[1]	9.8	VE	11-13
						AE	10-11
		5.2	6.2	6.5	9.8	VE	9-10
						AE	7-9

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Coecles Inlet	98	5.2	6.2	6.5	9.8	VE	10[2]
						AE	10[2]
Gardiners Bay	99	5.2	6.2	8.9[1]	9.8	VE	11-13
						AE	9-11
		5.2	6.2	6.5	9.8	AE	7
Majors Harbor	100	4.2	5.1	5.3	9.0	VE	7-8
						AE	5-7
Shelter Island Sound	101	4.2	5.1	5.3	9.0	VE	7-8
						AE	5-7
Smith Cove	102	4.2	5.1	5.3	9.0	VE	8
						VE	7[2]
						AE	7[2]
						AO	Depth 1
						AE	5-6
Shelter Island Sound	103	4.2	5.1	5.3	9.0	VE	9[2]
						AE	9[2]
Shelter Island Sound	104	4.2	5.1	5.3	9.0	VE	10[2]
						AE	10[2]
						AO	Depth 1
						VE	7-8
						AE	5-7
Shelter Island Sound	105	4.2	5.1	5.3	9.0	VE	8
						AE	8[2]
						AE	5-7
Shelter Island Sound	106	4.2	5.1	5.3	9.0	VE	11[2]
						AE	11[2]
Shelter Island Sound	107	4.2	5.1	5.3	9.0	VE	18[2]
						AE	18[2]
Shelter Island Sound	108	4.2	5.1	5.3	9.0	VE	8
						VE	7[2]
						AE	7[2]

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Shelter Island Sound	109	4.2	5.1	5.3	9.0	VE AE	7-8 5-7
Shelter Island Sound	110	4.2	5.1	5.3	9.0	VE AE	15[2] 15[2]
Shelter Island Sound	111	4.2	5.1	5.3	9.0	VE AE	12[2] 12[2]
Shelter Island Sound	112	4.2	5.4	5.8	6.7	VE AE	8-9 6-8
Pipes Cove	113	4.0	5.2	5.5	9.6	VE AE	8 6-8
Pipes Cove	114	4.0	5.2	5.5	9.6	VE AO	13[2] Depth 2
Shelter Island Sound	115	4.0	5.2	5.5	9.6	VE AE	8 8[2]
Shelter Island Sound	116	4.0	5.2	5.5	9.6	VE AE	11[2] 11[2]
Shelter Island Sound	117	4.0	5.2	5.5	9.6	VE AE	8 6-8
Little Peconic Bay	118	4.0	5.2	5.5	9.6	VE AE	10[2] 10[2]
Little Peconic Bay	119	4.0	5.2	5.5	9.6	VE AE	16[2] 16[2]
Little Peconic Bay	120	4.0	5.2	5.5	9.6	VE AE	11[2] 11[2]
Cutchogue Harbor	121	4.0	5.2	5.5	9.6	VE AE	9[2] 9[2]

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Little Peconic Bay	122	4.0	5.2	5.5	9.6	VE	9[2]
						AE	9[2]
Great Peconic Bay	123	4.0	5.2	5.5	9.6	VE	8
						AE	8[2]
Little Peconic Bay	124	4.0	5.2	5.5	9.6	VE	8
						VE	7[2]
						AO	Depth 2
						AE	6
Great Peconic Bay	125	4.0	5.2	5.5	9.6	VE	8
						AE	8
						AE	7[2]
						AE	6
Great Peconic Bay	126	4.0	5.2	5.5	9.6	VE	8
						AE	8
						AE	7[2]
						AO	Depth 1
						AE	6
Great Peconic Bay	127	4.0	5.2	5.5	9.6	VE	8
						AE	8
						AE	7[2]
Great Peconic Bay	128	4.0	5.2	5.9	9.6	VE	8-9
						AE	8
						AE	7[2]
						AE	6
Flanders Bay	129	4.0	5.3	5.9	9.6	VE	9[2]
						AE	9[2]
						AO	Depth 2
		4.0	5.3	6.3	9.6	AE	6-8
Reeves Bay	130	4.8	6.1	6.5	9.6	VE	9-10
		4.8	6.1	6.7	9.6	AE	7-9
Flanders Bay	131	4.0	5.2	5.9	9.6	VE	8-9
						AE	6-8

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION[†] (feet NAVD 88*)
Flanders Bay	132	4.0	5.2	5.9	9.6	VE	8-9
						AE	6-8
Great Peconic Bay	133	4.0	5.2	5.8	9.6	VE	8-9
						AE	8
						AE	7[2]
Great Peconic Bay	134	4.0	5.2	5.5	9.6	VE	8
						AE	6-8
Great Peconic Bay	135	4.0	5.2	5.5	9.6	VE	9[2]
						AE	9[2]
Great Peconic Bay	136	4.0	5.2	5.5	9.6	VE	8
						AE	6-8
Great Peconic Bay	137	4.0	5.2	5.5	9.6	VE	8
						AE	8[2]
Great Peconic Bay	138	4.0	5.2	5.5	9.6	VE	8
						AE	6-8
Great Peconic Bay	139	4.0	5.2	5.5	9.6	VE	8
						AE	8
						AE	7[2]
						AE	6-7
Little Peconic Bay	140	4.0	5.2	5.5	9.6	VE	8
						AE	8[2]
						AE	6-8
Little Peconic Bay	141	4.0	5.2	5.5	9.6	VE	8
						AE	8[2]
						AE	6-7
Little Peconic Bay	142	4.0	5.2	5.5	9.6	VE	8
						AE	6-8
Little Peconic Bay	143	4.0	5.2	5.5	9.6	VE	8
						AE	8
						AE	72
						AE	6

*North American Vertical Datum of 1988
[†]Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Little Peconic Bay	144	4.0	5.2	5.5	9.6	VE	8
						VE	8[2]
Little Peconic Bay	145	4.0	5.2	5.5	9.6	VE	9[2]
						AE	9[2]
Noyack Bay	146	4.0	5.2	5.5	9.6	VE	8
						AE	6-8
Noyack Bay	147	4.0	5.2	5.5	9.6	VE	8
						AE	6-8
Noyack Bay	148	4.0	5.2	5.5	9.6	VE	9[2]
						AE	9[2]
						AE	6-8
Noyack Bay	149	4.2	5.1	5.3	9.0	VE	7-8
						AE	5-7
Noyack Bay	150	4.2	5.1	5.3	9.0	VE	12[2]
						AE	12[2]
Shelter Island Sound	151	4.0	5.2	5.9	9.4	VE	8-9
						AE	6-8
		4.2	5.1	5.3	9.4	AE	5
Shelter Island Sound	152	4.0	5.2	5.9	9.4	VE	18[2]
						AO	Depth 2
						AE	6
Sag Harbor Bay	153	4.0	5.2	5.9	9.4	VE	9
						VE	82
						AE	82
						AE	6
Sag Harbor Bay	154	5.2	6.2	6.5	9.8	VE	9-10
						AE	7-9
Sag Harbor Bay	155	5.2	6.2	6.5	9.8	VE	9-10
						AE	7-9

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Sag Harbor Bay	156	5.2	6.2	6.5	9.8	VE	9-10
						AE	9
						AE	8[2]
Northwest Harbor	157	3.5	4.9	5.3	7.2	VE	8
						AE	8[2]
Northwest Harbor	158	3.5	4.9	5.3	7.2	VE	7-8
						AE	5-7
Northwest Harbor	159	3.5	4.9	5.3	7.2	VE	14[2]
						AE	14[2]
Gardiners Bay	160	3.5	4.9	7.5[1]	7.2	VE	10-11
						AE	8-10
		3.5	4.9	5.3	7.2	AE	6-7
Gardiners Bay	161	3.5	4.9	7.3[1]	7.2	VE	9-11
						AE	8-9
		3.5	4.9	5.3	7.2	AE	7[2]
Gardiners Bay	162	3.5	4.9	7.5[1]	7.2	VE	10-11
						AE	9-10
		3.5	4.9	5.3	7.2	AE	8[2]
						VE	7-9
						AE	5-7
Gardiners Bay	163	3.5	4.9	7.7[1]	7.2	VE	10-12
						AE	8-10
		3.5	4.9	5.3	7.2	VE	7-10
						AE	5-7
Gardiners Bay	164	3.5	4.9	7.1[1]	7.2	VE	10-11
		3.5	4.9	5.3	7.2	VE	9[2]
						AE	9[2]
						AE	5-6
Gardiners Bay	165	3.5	4.9	7.2[1]	7.2	VE	9-11
						AE	7-9

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Gardiners Bay	166	3.5	4.9	8.4[1]	7.2	VE	11-13
						AE	8-11
		3.5	4.9	6.0[1]	7.2	VE	8
						AE	8
		3.5	4.9	5.3	7.2	AE	5-7
Napeague Bay	167	3.5	4.9	7.7[1]	7.2	VE	10-12
						AE	9-10
		3.5	4.9	5.3	7.2	AE	8[2]
						AE	5-6
Gardiners Bay	168	3.5	4.9	7.0[1]	7.2	VE	10-11
		3.5	4.9	5.3	7.2	VE	9[2]
Cherry Harbor	169	3.5	4.9	6.8[1]	7.2	VE	9-10
						AE	7-9
		3.5	4.9	5.3	7.2	AE	5-6
Gardiners Bay	170	3.5	4.9	7.4[1]	7.2	VE	9-11
						AE	9
		3.5	4.9	5.3	7.2	AE	8[2]
Gardiners Bay	171	3.5	4.9	7.7[1]	7.2	VE	10-12
						AE	8-10
		3.5	4.9	5.3	7.2	AE	5-7
Block Island Sound	172	3.5	4.9	7.7[1]	7.2	VE	10-12
						AE	8-10
		3.5	4.9	5.3	7.2	VE	7-8
						AE	5-7
Block Island Sound	173	3.5	4.9	7.7[1]	7.2	VE	10-12
						AE	8-10
Tobaccolot Bay	174	3.5	4.9	7.51	7.2	VE	10-11
						AE	9-10
		3.5	4.9	5.3	7.2	AE	82
						AE	5-6
Block Island Sound	175	3.5	4.9	7.61	7.2	VE	10-12
						AE	8-10
		3.5	4.9	5.3	7.2	VE	7-9
						AE	5-7

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Napeague Bay	176	3.5	4.9	7.7[1]	7.2	VE	10-12
						AE	9-10
Napeague Bay	177	3.5	4.9	8.2[1]	7.2	VE	11-12
		3.5	4.9	5.3	7.2	VE	10[2]
						AE	10[2]
Napeague Bay	178	3.5	4.9	8.0[1]	7.2	VE	10-12
						AE	9-10
Napeague Bay	179	3.5	4.9	8.1[1]	7.2	VE	10-12
						AE	9-10
		3.5	4.9	5.3	7.2	AE	8[2]
						AE	5
Napeague Bay	180	3.5	4.9	7.7[1]	7.2	VE	10-12
						AE	9-10
		3.5	4.9	5.3	7.2	AE	8[2]
Fort Pond Bay	181	3.5	4.9	8.7[1]	7.2	VE	11-13
						AE	9-11
		3.5	4.9	5.3	7.2	AE	6-8
Fort Pond Bay	182	3.5	4.9	7.9[1]	7.2	VE	10-12
						AE	8-10
Block Island Sound	183	3.5	4.9	7.8[1]	7.2	VE	10-12
						AE	9-10
		3.5	4.9	5.3	7.2	AE	8[2]
Lake Montauk	184	3.5	4.9	5.3	7.2	VE	8
						VE	7[2]
						AE	7[2]
Lake Montauk	185	3.5	4.9	5.3	7.2	VE	7-8
						AE	5-7
Lake Montauk	186	3.5	4.9	5.3	7.2	VE	9[2]
						AE	9[2]

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Lake Montauk	187	3.5	4.9	5.3	7.2	VE	8
						VE	7[2]
						AE	7[2]
						AE	5
Block Island Sound	188	3.5	4.9	7.9[1]	7.2	VE	10-12
						AE	10
		3.5	4.9	5.3	7.2	AE	9[2]
						AE	5
Block Island Sound	189	4.5	6.3	9.5[1]	9.5	VE	12-15
						AE	11-12
		4.5	6.3	7.3	9.5	AE	10[2]
Atlantic Ocean	190	5.2	7.3	13.8[1]	11.1	VE	18-21
		5.2	7.3	8.7	11.1	VE	17[2]
						AE	17[2]
Atlantic Ocean	191	5.3	7.5	14.2[1]	11.4	VE	16-22
						AE	14-16
Atlantic Ocean	192	5.4	7.7	14.1[1]	11.8	VE	16-22
						AE	15-16
		5.4	7.7	9.2	11.8	AE	14[2]
Atlantic Ocean	193	5.4	7.8	14.4[1]	12.1	VE	17-22
						AE	14-17
		5.4	7.8	11.5[1]	12.1	AE	12-13
Atlantic Ocean	194	5.4	7.9	14.5[1]	12.3	VE	17-22
						AE	16-17
		5.4	7.9	9.5	12.3	AE	15[2]
Atlantic Ocean	195	5.4	7.9	14.7[1]	12.4	VE	17-23
						AE	17
		5.4	7.9	9.6	12.4	AE	16[2]
Atlantic Ocean	196	5.5	8.0	14.6[1]	12.6	VE	17-22
						AE	17
		5.5	8.0	9.7	12.6	AE	16[2]

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Atlantic Ocean	197	5.5	8.2	14.6[1]	13.0	VE	17-22
						AE	16-17
		5.5	8.2	10.0	13.0	AE	15[2]
Atlantic Ocean	198	5.6	8.4	14.4[1]	13.4	VE	17-22
						AE	16-17
		5.6	8.4	10.2	13.4	AE	15[2]
Atlantic Ocean	199	5.6	8.4	15.0[1]	13.4	VE	17-23
						AE	16-17
		5.6	8.4	10.3	13.4	AE	15[2]
						AE	10
Atlantic Ocean	200	5.6	8.5	15.0[1]	13.4	VE	17-23
						AE	16-17
		5.6	8.5	10.3	13.4	AE	15[2]
						AE	10-11
Atlantic Ocean	201	5.7	8.5	14.9[1]	13.4	VE	16-23
						AE	15-16
		5.7	8.5	12.4[1]	13.4	AE	12-14
Atlantic Ocean	202	5.7	8.5	14.9[1]	13.4	VE	17-23
						AE	16-17
		5.7	8.5	10.3	13.4	AE	15[2]
						AE	10
Atlantic Ocean	203	5.7	8.5	14.8[1]	13.4	VE	17-23
						AE	17
		5.7	8.5	10.3	13.4	AE	16[2]
						AE	10-12
Atlantic Ocean	204	5.7	8.6	14.9[1]	13.4	VE	17-23
						AE	16-17
		5.7	8.6	10.3	13.4	AE	15[2]

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Atlantic Ocean	205	5.7	8.6	15.0[1]	13.3	VE	17-23
						AE	16-17
		5.7	8.6	10.3	13.3	AE	15[2]
						VE	12-13
						AE	10-12
Atlantic Ocean	206	5.8	8.6	14.8[1]	13.3	VE	15-23
		5.8	8.6	10.3	13.3	VE	13-14
						AE	10-13
Atlantic Ocean	207	5.8	8.5	14.7[1]	13.3	VE	15-23
		5.8	8.5	12.4[1]	13.3	AE	12-15
Atlantic Ocean	208	5.8	8.5	14.8[1]	13.2	VE	17-23
						AE	15-17
		5.8	8.5	10.2	13.2	VE	12-16
						AE	10-12
Atlantic Ocean	209	5.8	8.5	14.8[1]	13.2	VE	17-23
						AE	16-17
		5.8	8.5	10.2	13.2	AE	15[2]
						AE	10
Atlantic Ocean	210	5.8	8.5	14.8[1]	13.2	VE	15-23
		5.8	8.5	11.2[1]	13.2	VE	14
		5.8	8.5	10.2	13.2	AE	10-14
Atlantic Ocean	211	5.8	8.5	14.7[1]	13.1	VE	15-22
		5.8	8.5	10.2	13.1	VE	12-14
						AE	10-12
Atlantic Ocean	212	5.8	8.5	14.7[1]	13.1	VE	17-23
						AE	16-17
		5.8	8.5	10.2	13.1	AE	15[2]
						AE	10-14
Atlantic Ocean	213	5.9	8.5	14.6[1]	12.8	VE	17-22
						AE	16-17
		5.9	8.5	10.0	12.8	AE	15[2]

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION[†] (feet NAVD 88*)
Atlantic Ocean	214	5.9	8.4	14.4[1]	12.7	VE	17-22
						AE	14-17
		5.3	7.4	11.2[1]	10.3	AE	11-13
Atlantic Ocean	215	5.9	8.4	14.3[1]	12.5	VE	16-22
						AE	14-16
		5.3	7.4	8.6	10.3	VE	11-12
						AE	9-11
Shinnecock Bay	216	5.4	7.3	8.3	9.8	VE	10-12
		5.4	7.3	8.8	9.8	AE	9-11
Atlantic Ocean	217	5.9	8.3	14.2[1]	12.2	VE	16-22
						AE	16
		5.9	8.3	9.7	12.2	AE	15[2]
		5.5	7.4	8.4	9.9	VE	10-13
						AE	8-10
Atlantic Ocean	218	5.9	8.3	14.4[1]	12.2	VE	15-22
						AE	14-15
		5.5	7.1	11.6[1]	9.3	AE	13
		5.5	7.1	8.3	9.3	VE	10-13
						AE	8-10
Atlantic Ocean	219	6.0	8.3	14.1[1]	12.0	VE	14-22
						AE	14
		5.5	7.1	11.0[1]	9.3	AE	11-13
		5.5	7.1	8.0	9.3	VE	10-11
						AE	8-10
Shinnecock Bay	220	5.6	7.2	8.0	9.2	VE	10-12
						AE	8-10
Shinnecock Bay	221	5.6	7.1	7.9	9.1	VE	10-11
						AE	10
						AE	9[2]
Atlantic Ocean	222	6.0	8.3	14.11	11.8	VE	14-22
						AE	14
		5.7	7.3	12.01	9.3	AE	12-13
		5.7	7.3	8.1	9.3	VE	10-12
						AE	8-10

*North American Vertical Datum of 1988
[†]Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*)				ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
		10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT		
Atlantic Ocean	223	6.0	8.3	13.9[1]	11.7	VE	14-21
						AE	14
		5.8	7.3	11.0[1]	9.1	AE	11-13
		5.8	7.3	8.0	9.1	VE	10-12
						AE	8-10
Atlantic Ocean	224	6.0	8.2	13.8[1]	11.6	VE	16-21
						AE	14-16
		6.0	7.6	11.0[1]	9.1	AE	11-12
		6.0	7.6	8.2	9.1	VE	10-11
						AE	8-10
Atlantic Ocean	225	6.0	8.2	13.8[1]	11.5	VE	16-21
						AE	14-16
		6.1	7.7	11.0[1]	9.2	AE	11-13
		6.1	7.7	8.3	9.2	VE	10-11
						AE	8-10
Atlantic Ocean	226	6.0	8.2	13.8[1]	11.4	VE	16-21
						AE	14-16
		6.0	7.6	8.1	9.1	AE	8-9
Atlantic Ocean	227	6.1	8.2	13.9[1]	11.3	VE	16-21
						AE	14-16
		5.7	7.2	7.9	8.9	AE	8-9
Atlantic Ocean	228	6.1	8.2	13.7[1]	11.3	VE	16-21
						AE	14-16
		5.6	7.1	7.7	8.7	VE	10
						AE	8-10
Atlantic Ocean	229	6.1	8.2	13.8[1]	11.3	VE	16-21
						AE	14-16
		5.4	6.9	7.6	8.7	AE	8-9
Atlantic Ocean	230	6.1	8.2	14.1[1]	11.3	VE	17-22
		5.3	6.7	7.4	8.5	AE	7-10
Atlantic Ocean	231	6.1	8.2	13.91	11.3	VE	16-21
						AE	14-16
		5.1	6.5	7.2	8.4	AE	7-9

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Atlantic Ocean	232	6.1	8.2	13.8[1]	11.3	VE	16-21
						AE	14-16
		4.8	6.1	7.0	8.2	VE	9-10
						AE	7-9
Atlantic Ocean	233	6.1	8.2	13.9[1]	11.3	VE	16-21
						AE	14-16
		4.8	6.0	6.9	8.1	VE	9-10
						AE	7-9
Moriches Bay	234	4.9	6.1	7.3[1]	7.8	VE	9-11
						AE	9
		4.9	6.1	6.8	7.8	AE	8[2]
Atlantic Ocean	235	6.1	8.2	13.8[1]	11.3	VE	15-21
						AE	14-15
		4.9	6.1	11.0[1]	7.9	AE	11-13
		4.9	6.1	6.9	7.9	VE	9-11
						AE	7-9
Atlantic Ocean	236	6.2	8.3	13.9[1]	11.3	VE	14-21
						AE	14
		4.9	6.1	10.0[1]	7.9	VE	13
						AE	10-13
		4.9	6.1	6.8	7.9	VE	9-11
						AE	7-9
Atlantic Ocean	237	6.2	8.3	13.7[1]	11.3	VE	15-21
						AE	14-15
		5.0	6.2	11.0[1]	7.8	AE	11-13
		5.0	6.2	6.8	7.8	VE	9-11
						AE	7-9
Moriches Bay	238	5.2	6.4	7.2[1]	7.5	VE	9-11
						AE	7-9
Atlantic Ocean	239	6.2	8.3	13.8[1]	11.3	VE	16-21
						AE	14-16
		5.2	6.5	11.0[1]	7.7	AE	11-12
		5.2	6.5	6.9	7.7	VE	9-11
						AE	7-10

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Atlantic Ocean	240	6.2	8.3	13.7[1]	11.3	VE	14-21
		5.2	6.5	11.0[1]	7.5	VE	13
						AE	11-13
		5.2	6.5	6.9	7.5	VE	9-12
						AE	7-9
Atlantic Ocean	241	6.3	8.3	13.7[1]	11.3	VE	16-21
						AE	14-16
		6.3	8.3	13.2[1]	11.3	AE	13
		4.8	6.0	11.0[1]	7.0	AE	11
		4.8	6.0	6.4	7.0	VE	8-9
						AE	6-8
Atlantic Ocean	242	6.3	8.3	13.9[1]	11.3	VE	15-21
						AE	14-15
		5.9	7.6	12.0[1]	9.6	AE	12-14
		4.4	5.5	9.0[1]	6.6	AE	9-10
		4.4	5.5	5.4	6.6	VE	8
						AE	5-8
Atlantic Ocean	243	6.3	8.3	13.8[1]	11.3	VE	14-21
		3.9	4.9	8.0[1]	6.2	VE	11-13
						AE	8-11
		3.9	4.9	5.4	6.2	VE	7-8
						AE	5-7
Atlantic Ocean	244	6.3	8.3	13.7[1]	11.3	VE	14-21
		4.0	4.8	8.0[1]	6.0	VE	11-13
						AE	10-11
		4.0	4.8	5.3	6.0	VE	7-10
						AE	5-7
Bellport Bay	245	4.0	4.8	5.2	5.9	VE	7-8
						AE	5-7
Bellport Bay	246	4.0	4.8	5.2	5.8	VE	7-8
						AE	7
						AE	6[2]
		4.0	4.8	5.1	5.8	AE	5
Great South Bay	247	4.0	4.8	5.1	5.8	VE	7-8
						AE	5-7

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Great South Bay	248	4.0	4.8	5.5[1]	5.8	VE	8
		4.0	4.8	5.1	5.8	AE	5-8
Atlantic Ocean	249	6.3	8.3	13.7[1]	11.4	VE	15-21
						AE	14-15
		5.6	7.3	12.0[1]	9.8	AE	12-13
		4.1	4.7	8.0[1]	5.5	AE	8-10
		4.1	4.7	5.0	5.5	VE	7-8
						AE	5-7
Patchogue Bay	250	4.2	4.7	5.0	5.4	VE	7
						AE	5-7
Patchogue Bay	251	4.2	4.7	4.9	5.4	VE	7
						AE	5-7
Patchogue Bay	252	4.2	4.7	4.9	5.4	VE	7
						AE	5-7
Atlantic Ocean	253	6.3	8.4	13.8[1]	11.4	VE	14-21
		4.2	4.7	8.0[1]	5.3	VE	13
						AE	8-13
		4.2	4.7	4.9	5.3	VE	7-9
						AE	5-7
Great South Bay	254	4.1	4.6	4.8	5.2	VE	7
						AE	5-7
Great South Bay	255	4.1	4.6	4.8	5.2	VE	8[2]
						AE	8[2]
Atlantic Ocean	256	6.4	8.4	13.7[1]	11.5	VE	16-21
						AE	14-16
		6.4	8.4	13.1[1]	11.5	AE	13
		4.2	4.6	4.8	5.2	VE	7-9
						AE	5-8
Nicoll Bay	257	4.2	4.6	4.8	5.2	VE	7
						AE	5-7

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup
[2]Wave runup elevation

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Atlantic Ocean	258	6.4	8.5	13.7[1]	11.5	VE	14-21
		5.4	6.8	11.0[1]	8.8	AE	11-14
		4.2	4.6	4.8	5.2	VE	7-9
						AE	5-8
Nicoll Bay	259	4.0	4.4	4.6	4.9	VE	7
						AE	5-7
Great South Bay	260	4.3	4.8	4.9	5.2	VE	7
						AE	5-7
Atlantic Ocean	261	6.5	8.5	14.1[1]	11.5	VE	16-22
						AE	14-16
		5.9	7.8	12.7[1]	10.4	AE	13
		4.3	4.8	7[1]	5.2	AE	7-10
		4.3	4.8	4.3	5.2	VE	6-7
						AE	4-6
Atlantic Ocean	262	6.5	8.5	14.11	11.5	VE	14-22
		4.2	4.7	9.01	5.2	VE	11-13
						AE	11
		3.6	4.0	4.3	4.4	VE	6-8
						AE	4-6
Great South Bay	263	3.7	4.0	4.2	4.4	VE	6
						AE	4-6
Atlantic Ocean	264	6.5	8.5	14.11	11.6	VE	14-22
		4.3	4.8	81	5.2	VE	13
						AE	8-13
		3.7	4.1	4.2	4.4	VE	6-8
						AE	4-6
Great South Bay	265	3.7	4.2	4.3	4.6	VE	6-7
						AE	4-6
Atlantic Ocean	266	6.5	8.6	14.41	11.8	VE	16-22
						AE	14-16
		6.0	7.8	13.21	10.8	AE	13
		3.7	4.3	4.5	4.8	VE	7-8
						AE	4-7

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup

TABLE 8 - TRANSECT DATA - continued

FLOODING SOURCE	TRANSECT	STILLWATER ELEVATION (feet NAVD 88*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT	ZONE	BASE FLOOD ELEVATION† (feet NAVD 88*)
Atlantic Ocean	267	6.5	8.6	14.4[1]	11.9	VE	16-22
						AE	14-16
		4.8	6.0	12.0[1]	9.1	AE	12-13
		4.8	6.0	6.6[1]	7.8	VE	9-10
						AE	8-9
		3.7	4.4	4.6	4.9	VE	7-8
						AE	5-7
Great South Bay	268	3.8	4.5	4.8	5.2	VE	7
						AE	5-7
Great South Bay	269	3.9	4.6	4.8	5.2	VE	7
						AE	5-7
Atlantic Ocean	270	5.8	7.6	12.8[1]	10.2	VE	15-20
						AE	13-15
		5.8	7.6	8.0[1]	10.2	AE	8-12
		4.1	4.8	5.0	5.5	VE	7
						AE	5-7
Great South Bay	271	4.4	5.0	5.3	5.8	VE	7-8
						AE	5-7
Atlantic Ocean	272	6.6	8.7	13.9[1]	12.2	VE	16-21
						AE	14-16
		4.6	5.4	5.7	6.2	VE	8-9
						AE	6-8
Atlantic Ocean	273	6.6	8.8	14.2[1]	12.4	VE	16-22
						AE	14-16
		5.0	6.0	6.3	6.8	VE	8-11
						AE	6-8

*North American Vertical Datum of 1988
†Full range of BFEs may not appear on map due to scale limitations and/or flooding from other sources
[1]Includes wave setup

Users of the FIRM should also be aware that coastal flood elevations are provided in the Summary of Stillwater Elevations table in this report. If the elevation on the FIRM is higher than the elevation shown in this table, a wave height, wave runup, and/or wave setup component likely exists, in which case, the higher elevation should be used for construction and/or floodplain management purposes.

As defined in the July 1989 *Guidelines and Specifications for Wave Elevation Determination and V Zone Mapping,* the coastal high hazard area (Zone VE) is the area where wave action and/or high velocity water can cause structural damage (*Guidelines and Specifications for Wave Elevation Determination and V-Zone Mapping*, Federal Emergency Management Agency [FEMA], 1989). It is designated on the FIRM as the most landward of the following three points:

1) The point where the 3.0-foot or greater wave height could occur;
2) The point where the eroded ground profile is 3.0 feett or more below the maximum runup elevation; and
3) The primary frontal dune as defined in the NFIP regulations.

These three points are used to locate the inland limit of the coastal high hazard area to ensure that adequate insurance rates apply and appropriate construction standards are imposed, should local agencies permit building in this area.

Along each transect, wave heights and wave crest elevations were computed considering the combined effects of changes in ground elevation, vegetation, and physical features. Wave heights were calculated to the nearest 0.1 foot, and wave crest elevations were determined at whole-foot increments along the transects. The calculations were carried inland along the transect until the wave crest elevation was permanently less than 0.5 foot above the stillwater-surge elevation or the coastal flooding met another flooding source (i.e. riverine) with an equal water-surface elevation. Between transects, elevations were interpolated using topographic maps, land-use and land-cover data, and engineering judgment to determine the aerial extent of flooding. The results of the calculations are accurate until local topography, vegetation, or cultural development of the community, undergo any major changes.

It has been shown in laboratory tests and observed in field investigations that wave heights as little as 1.5 feet can cause damage to and failure of typical Zone AE construction. Therefore, for advisory purposes only, a Limit of Moderate Wave Action (LiMWA) boundary has been added in coastal areas subject to wave action. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave.

The effects of wave hazards in the Zone AE between the Zone VE (or shoreline in areas where VE Zones are not identified) and the limit of the LiMWA boundary are similar to, but less severe than, those in Zone VE where 3-foot breaking waves are projected during a 1-percent annual chance flooding event.

In areas where wave runup elevations dominate over wave heights, such as areas with steeply sloped beaches, bluffs, and/or shore-parallel flood protection structures, there is no evidence to date of significant damage to residential structures by runup depths less than 3 feet. However, to simplify representation, the LiMWA was continued immediately landward of the VE/AE boundary in areas where wave runup elevations dominate. Similarly, in areas where the Zone VE designation is based on the presence of a primary frontal dune or wave overtopping, the LiMWA was also delineated immediately landward of the Zone VE/AE boundary.

3.5 Vertical Datum

All FISs and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FISs and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FIS reports and FIRMs are being prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NGVD 29. Structure and ground elevations in the community must, therefore, be referenced to NAVD 88. It is important to note that adjacent communities may be referenced to NGVD 29. This may result in differences in base flood elevations across the corporate limits between the communities.

Prior versions of the FIS report and FIRM were referenced to NGVD 29. When a datum conversion is effected for an FIS report and FIRM, the Flood Profiles, base flood elevations (BFEs) and ERMs reflect the new datum values. To compare structure and ground elevations to 1-percent annual chance flood elevations shown in the FIS and on the FIRM, the subject structure and ground elevations must be referenced to the new datum values.

As noted above, the elevations shown in the FIS report and on the FIRM for Suffolk County are referenced to NAVD 88. Ground, structure, and flood elevations may be compared and/or referenced to NGVD 29 by applying a standard conversion factor. The conversion factor to NGVD 29 is +1.0 foot.

NGVD 29 = NAVD 88 + 1.0 ft

The BFEs shown on the FIRM represent whole-foot rounded values. For example, a BFE of 102.4 will appear as 102 on the FIRM and 102.6 will appear as 103. Therefore, users that wish to convert the elevations in this FIS to NGVD 29 should apply the stated conversion factor(s) to elevations shown on the Flood Profiles and supporting data tables in the FIS report, which are shown at a minimum to the nearest 0.1 foot.

For more information on NAVD 88, see Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, FEMA Publication FIA-20/June 1992, or contact the Spatial Reference System Division, National Geodetic Survey, NOAA, Silver Spring Metro Center, 1315 East-West Highway, Silver Spring, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS provides 1-percent annual chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent annual chance flood elevations; delineations of the 1- and 0.2-percent annual chance floodplains; and 1-percent annual chance floodway. This information is presented on the FIRM and in many components of the FIS, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance flood is employed to indicate additional areas of flood risk in the community.

The 1- and 0.2-percent annual chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the 1-percent annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, V, AE, AO, and VE), and the 0.2-percent annual chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent annual chance floodplain boundaries are close together, only the 1-percent annual chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

In areas where a wave height analysis was performed, the A and V zones were divided into whole-foot elevation zones based on the average wave crest elevation in that zone. Where the map scale did not permit delineating zones at 1 foot intervals, larger increments were used.

For the streams studied by approximate methods, only the 1-percent annual chance floodplain boundary is shown on the FIRM (Exhibit 2).

Countywide Revised Analyses

The topographic dataset used to delineate the coastal floodplain boundaries was comprised of LiDAR data collected in Suffolk County by Terrapoint USA under contract to Leonard Jackson Associates. Data were collected during fall 2006 in leaf-free conditions, and delivered in LAS format during July 2007. Data, as delivered, were in the North American Datum (NAD) of 1983, projected to New York State Plane coordinates, Long Island Zone, in units of feet. The vertical datum was relative to North American Vertical Datum (NAVD) of 1988 in units of feet. Quality control of the data found that the vertical accuracy of the dataset fully met and exceeded the FEMA specifications and National Digital Elevation Program guidelines. This LiDAR data was used to create 2-foot contours use to delineate coastal gutters and boundaries.

Riverine floodplain boundaries for both detailed and approximate special flood hazard areas were refined using the aforementioned Suffolk County LiDAR data.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent annual chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1-percent annual chance flood can be carried without substantial increases in flood heights. Minimum federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodway in this FIS is presented to local agencies as a minimum standard that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodway presented in this FIS was computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (Table 9). The computed floodways are shown on the FIRM (Exhibit 2). In cases where the floodway and 1-percent annual chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. A listing of stream velocities at selected cross sections is provided in Table 9, "Floodway Data." To reduce the risk of property damage in areas where the stream velocities are high, the county may wish to restrict development in areas outside the floodway.

The area between the floodway and 1-percent annual chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 1-percent annual chance flood by more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 8.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Northeast Branch Nissequogue River								
A	40	12	54	2.7	33.9	33.9	34.7	0.8
B	755	478	5,712	0.0	35.4	35.4	35.4	0.0
C	2,495	28	26	5.5	36.7	36.7	36.7	0.0
D	3,646	28	77	1.9	39.8	39.8	40.3	0.5
E	3,807	19	78	1.8	39.9	39.9	40.5	0.6
F	5,185	20	90	1.6	42.6	42.6	43.0	0.6
G	6,765	13	52	2.8	44.4	44.4	45.1	0.7

[1]Feet above Maple Avenue

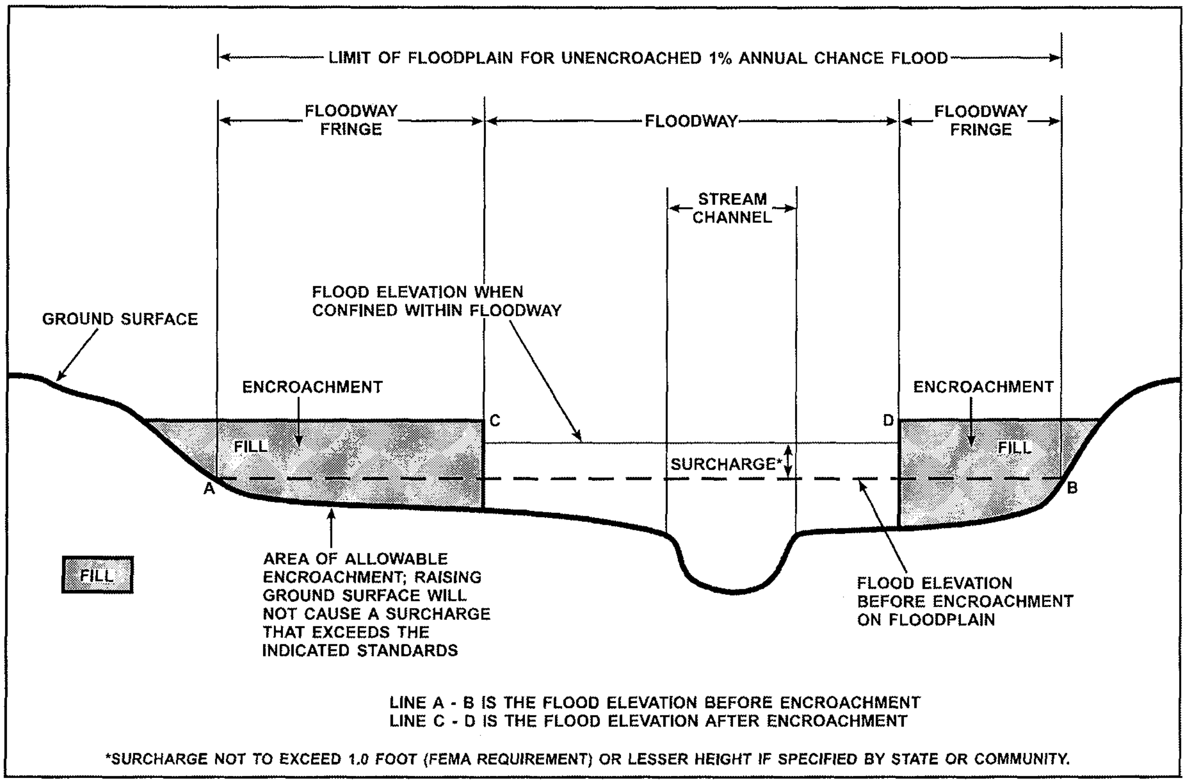
TABLE 9

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

NORTHEAST BRANCH NISSEQUOGUE RIVER



FLOODWAY SCHEMATIC Figure 8

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. The zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone.

Zone AR

Area of special flood hazard formerly protected from the 1-percent annual chance flood event by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1-percent annual chance or greater flood event.

Zone A99

Zone A99 is the flood insurance rate zone that corresponds to areas of the 1-percent annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or depths are shown within this zone.

Zone V

Zone V is the flood insurance rate zone that corresponds to the 1-percent annual chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no base flood elevations are shown within this zone.

Zone VE

Zone VE is the flood insurance rate zone that corresponds to the 1-percent annual chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent annual chance floodplain, areas within the 0.2-percent annual chance floodplain, and to areas of 1-percent annual chance flooding where average depths are less than 1 foot, areas of 1-percent annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent annual chance flood by levees. No base flood elevations or depths are shown within this zone.

Zone D

Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent annual chance floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent annual chance floodplains. Floodways and the locations of selected cross sections used in the hydraulic analyses and floodway computations are shown where applicable.

The current FIRM presents flooding information for the entire geographic area of Suffolk County. Previously, separate Flood Hazard Boundary Maps and/or FIRMs were prepared for each identified flood-prone community. This countywide FIRM also includes flood hazard information that was presented separately on Flood Boundary and Floodway Maps, where applicable. Historical data relating to the maps prepared for each community, up to and including the May 4, 1998, countywide FIS, are presented in Table 10, "Community Map History."

7.0 OTHER STUDIES

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Suffolk County has been compiled into this FIS. Therefore, this FIS supersedes all previously printed FIS reports, FIRMs, and Supplemental Wave Height Analysis reports for all of the incorporated jurisdictions within Suffolk County.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Amityville, Village of	April 25, 1975	None	September 1, 1977	September 26, 1980 July 16, 1987 May 4, 1998 September 25, 2009
Asharoken, Village of	August 20, 1971	None	August 20, 1971	July 1, 1974 October 10, 1975 April 4, 1983 October 1, 1983 June 2, 1992 May 4, 1998 September 25, 2009
Babylon, Town of	July 26, 1974	January 30, 1976	July 16, 1979	March 2, 1983 June 4, 1987 May 18, 1992 May 4, 1998 September 25, 2009
Babylon, Village of	December 7, 1973	June 11, 1976 June 3, 1977	August 1, 1977	September 26, 1980 July 16, 1987 May 4, 1998 September 25, 2009
Belle Terre, Village of	December 27, 1974	June 18, 1976	March 16, 1983	June 2, 1992 May 4, 1998 September 25, 2009

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Bellport, Village of	November 1, 1974	May 21, 1976	October 15, 1982	June 18, 1987 May 4, 1998 September 25, 2009
Brightwaters, Village of	October 18, 1974	June 11, 1976	September 2, 1982	July 16, 1987 May 4, 1998 September 25, 2009
Brookhaven, Town of	August 31, 1972	None	August 31, 1972	July 1, 1974 June 11, 1976 June 1, 1983 October 1, 1983 February 19, 1987 June 2, 1992 May 4, 1998 September 25, 2009
Dering Harbor, Village of	December 20, 1974	August 6, 1976	August 11, 1978	June 15, 1988 May 4, 1998 September 25, 2009
East Hampton, Town of	August 29, 1975	None	September 30, 1976	March 16, 1983 October 1, 1983 February 19, 1987 May 18, 1992 May 4, 1998 September 25, 2009

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
East Hampton, Village of	December 28, 1973	October 15, 1976	September 30, 1980	June 1, 1983 March 4, 1987 June 2, 1992 May 4, 1998 September 25, 2009
Greenport, Village of	May 24, 1974	July 2, 1976	June 15, 1983	October 16, 1984 May 4, 1998 September 25, 2009
Head of the Harbor, Village of	November 15, 1974	July 2, 1976	August 1, 1983	June 2, 1992 May 4, 1998 September 25, 2009
Huntington, Town of	August 2, 1974	February 20, 1976 January 28, 1977	November 1, 1978	February 16, 1983 June 2, 1992 May 4, 1998 September 25, 2009
Huntington Bay, Village of	February 7, 1975	December 12, 1980	April 18, 1983	June 2, 1992 May 4, 1998 September 25, 2009

[1]Formerly shown on the Town of Islip Flood Insurance Rate Map

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Islandia, Village of	October 16, 1970[1]	None[1]	October 16, 1970[1]	November 17, 1972[1] July 1, 1974[1] March 26, 1976[1] June 12, 1981[1] July 18, 1983[1] May 4, 1998 September 25, 2009
Islip, Town of	October 16, 1970	None	October 16, 1970	November 17, 1972 July 1, 1974 March 26, 1976 June 12, 1981 July 18, 1983 July 2, 1987 June 2, 1992 May 4, 1998 September 25, 2009
Lake Grove, Village of	May 4, 1998	None	May 4, 1998	September 25, 2009
Lindenhurst, Village of	November 9, 1973	June 18, 1976	August 15, 1977	June 19, 1981 July 16, 1987 May 4, 1998 September 25, 2009
Lloyd Harbor, Village of	April 12, 1974	September 24, 1976	February 15, 1978	April 18, 1983 June 2, 1992 May 4, 1998 September 25, 2009

[1]Formerly shown on the Town of Islip Flood Insurance Rate Map

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Nissequogue, Village of	November 22, 1974	July 16, 1976	May 16, 1983	June 2, 1992 May 4, 1998 September 25, 2009
North Haven, Village of	March 22, 1974	None	September 30, 1977	May 25, 1979 April 4, 1983 June 2, 1992 May 4, 1998 September 25, 2009
Northport, Village of	April 12, 1974	June 4, 1976	April 18, 1983	May 4, 1998 September 25, 2009
Ocean Beach, Village of	May 5, 1970	None	May 5, 1970	July 1, 1974 October 17, 1975 February 16, 1983 March 4, 1987 May 4, 1998 September 25, 2009
Old Field, Village of	July 25, 1975	None	April 18, 1983	October 1, 1983 June 2, 1992 May 4, 1998 September 25, 2009
Patchogue, Village of	June 28, 1974	July 16, 1976 June 3, 1977	November 3, 1982	June 18, 1987 May 4, 1998 September 25, 2009

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Poospatuck Indian Reservation	August 31, 1972[1]	None[1]	August 31, 1972[1]	September 25, 2009
Poquott, Village of	November 15, 1974	June 25, 1976	August 1, 1983	June 2, 1992 May 4, 1998 September 25, 2009
Port Jefferson, Village of	June 14, 1974	June 11, 1976	March 2, 1983	June 2, 1992 May 4, 1998 September 25, 2009
Quogue, Village of	January 9, 1974	June 25, 1976	May 16, 1977	February 16, 1983 March 4, 1987 May 4, 1998 September 25, 2009
Riverhead, Town of	July 26, 1974	July 16, 1976	March 1, 1978	December 1, 1982 June 2, 1992 May 4, 1998 September 25, 2009
Sagaponack, Village of	September 28, 1973[2]	None[2]	September 28, 1973[2]	September 25, 2009
Sag Harbor, Village of	May 3, 1974	July 9, 1976	January 5, 1978	November 17, 1982 May 4, 1998 September 25, 2009

[1]Formerly shown on the Town of Brookhaven Flood Insurance Rate Map
[2]Formerly shown on the Town of Southampton Flood Insurance Rate Map

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Saltaire, Village of	May 22, 1970	None	August 6, 1971	August 25, 1972 February 6, 1976 January 19, 1983 June 4, 1987 June 2, 1992 May 4, 1998 September 25, 2009
Shelter Island, Town of	May 3, 1974	July 30, 1976	February 1, 1978	January 19, 1983 October 1, 1983 June 2, 1992 May 4, 1998 September 25, 2009
Shinnecock Indian Reservation	September 28, 1973[1]	None[1]	September 25, 2009[1]	
Shoreham, Village of	November 15, 1974	None	March 16, 1983	May 4, 1998 September 25, 2009
Smithtown, Town of	October 18, 1974	September 24, 1976	December 1, 1978	February 16, 1983 June 2, 1992 May 4, 1998 September 25, 2009

[1]Formerly shown on the Town of Southampton Flood Insurance Rate Map

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Southampton, Town of	September 28, 1973	None	September 28, 1973	July 1, 1974 September 3, 1976 June 1, 1983 October 1, 1983 July 2, 1987 June 2, 1992 May 4, 1998 September 25, 2009
Southampton, Village of	March 9, 1973	July 1, 1974	September 12, 1975	February 2, 1983 October 1, 1983 June 4, 1987 June 2, 1992 May 4, 1998 September 25, 2009
Southold, Town of	November 29, 1974	None	March 18, 1980	June 3, 1980 June 15, 1983 October 1, 1983 April 17, 1985 June 18, 1987 August 16, 1993 May 4, 1998 September 25, 2009
The Branch, Village of	January 24, 1975	None	November 17, 1982	May 4, 1998 September 25, 2009

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Westhampton Beach, Village of	July 1, 1972	None	July 1, 1974	October 10, 1975 February 6, 1976 May 2, 1983 May 19, 1987 May 4, 1998 September 25, 2009
West Hampton Dunes, Village of	September 28, 1973[1]	None[1]	September 28, 1973[1]	July 1, 1974[1] September 3, 1976[1] June 1, 1983[1] July 2, 1987[1] May 4, 1998 September 25, 2009

[1]Formerly shown on the Town of Southampton Flood Insurance Rate Map

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY
(ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

The Long Island Regional Planning Board publication, Hurricane Damage Mitigation Plan for the South Shore of Nassau and Suffolk Counties, New York, was developed to help minimize the loss of life and property due to hurricanes and northeasters in flood-prone areas (Long Island Regional Planning Board, 1984).

8.0 LOCATION OF DATA

Information concerning the pertinent data used in preparation of this FIS can be obtained by contacting FEMA, Federal Insurance and Mitigation Division, 26 Federal Plaza, Room 1337, New York, New York 10278.

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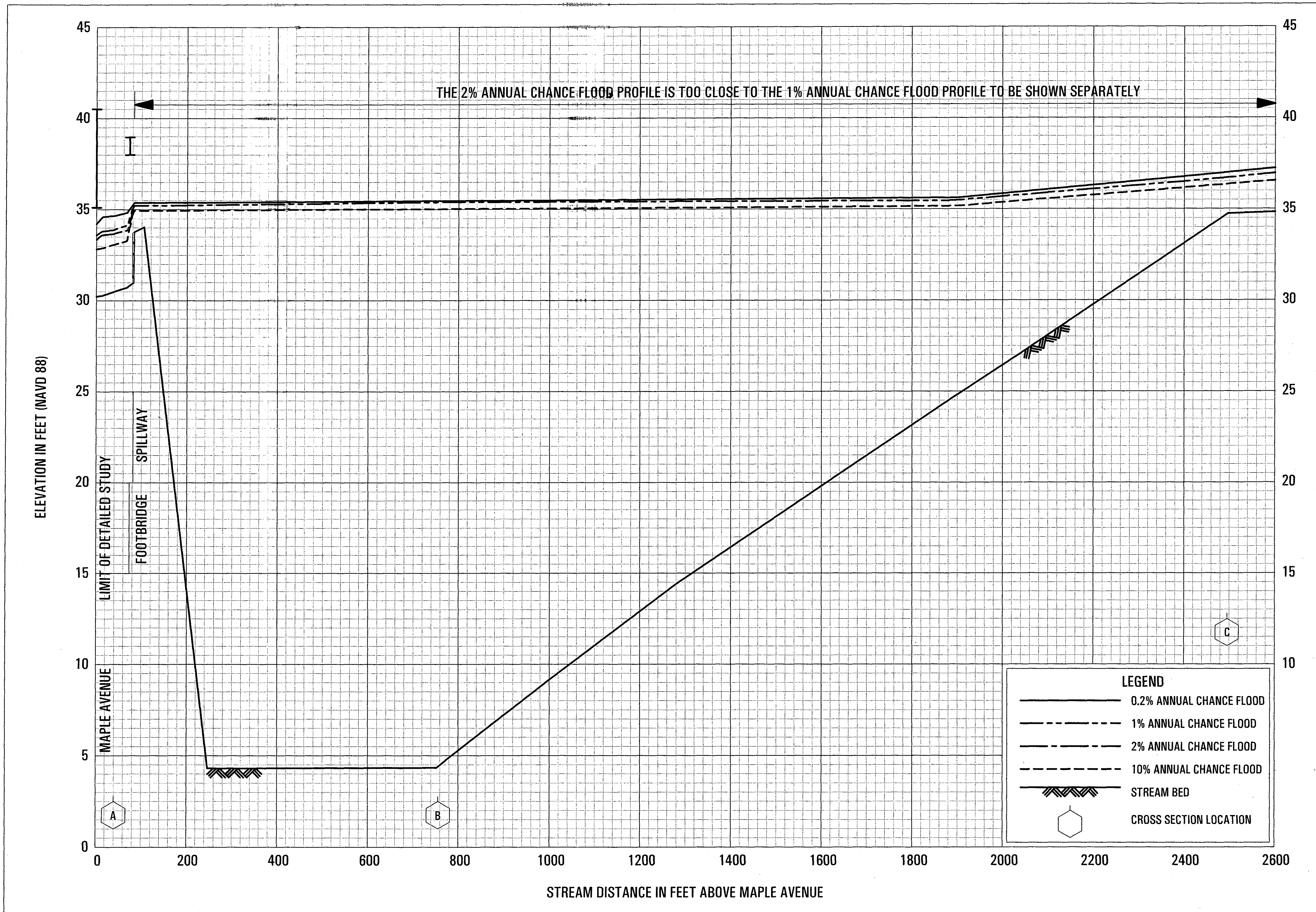

FLOOD PROFILES

NORTHEAST BRANCH NISSEQUOGUE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

SUFFOLK COUNTY, NY

(ALL JURISDICTIONS)

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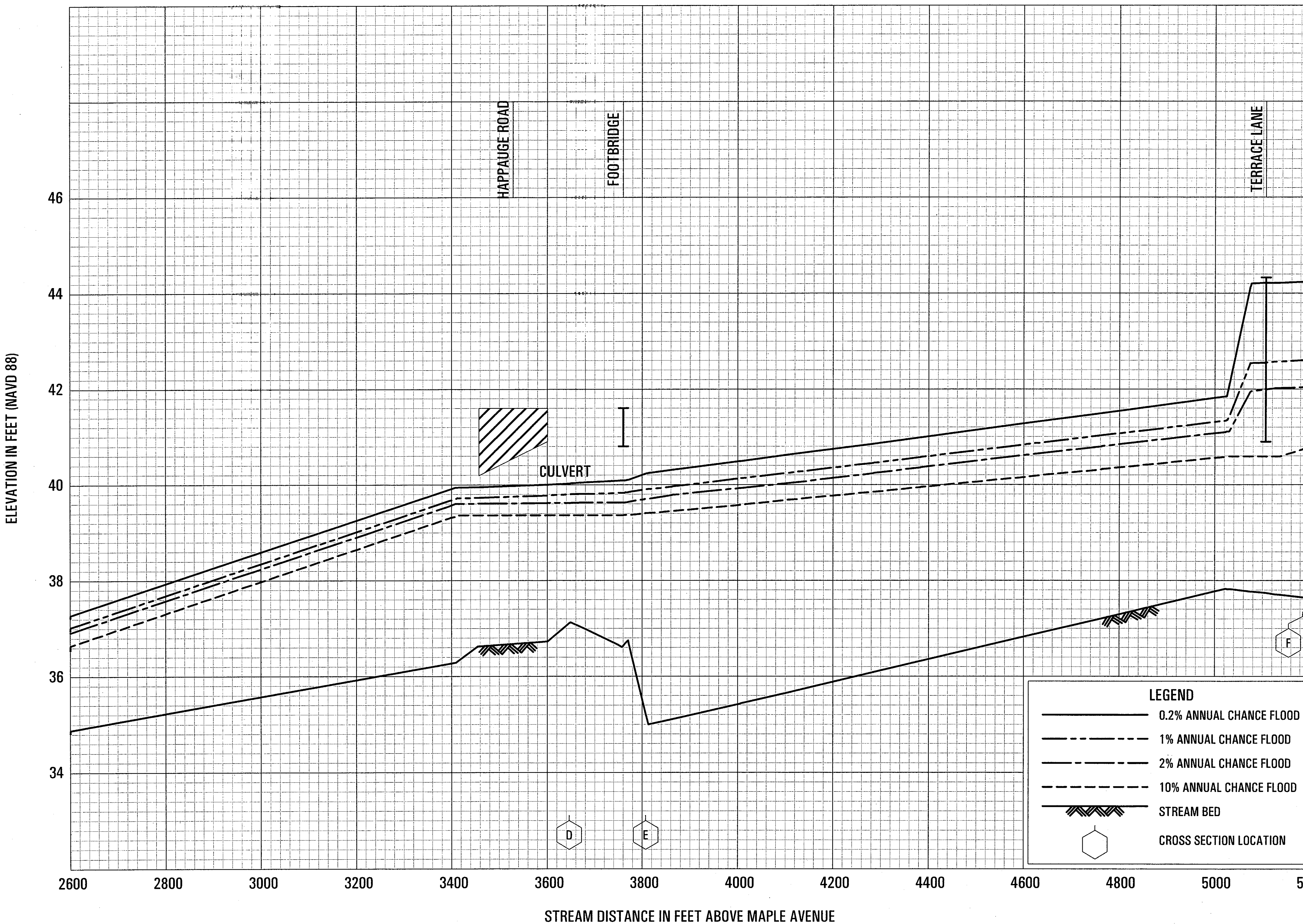

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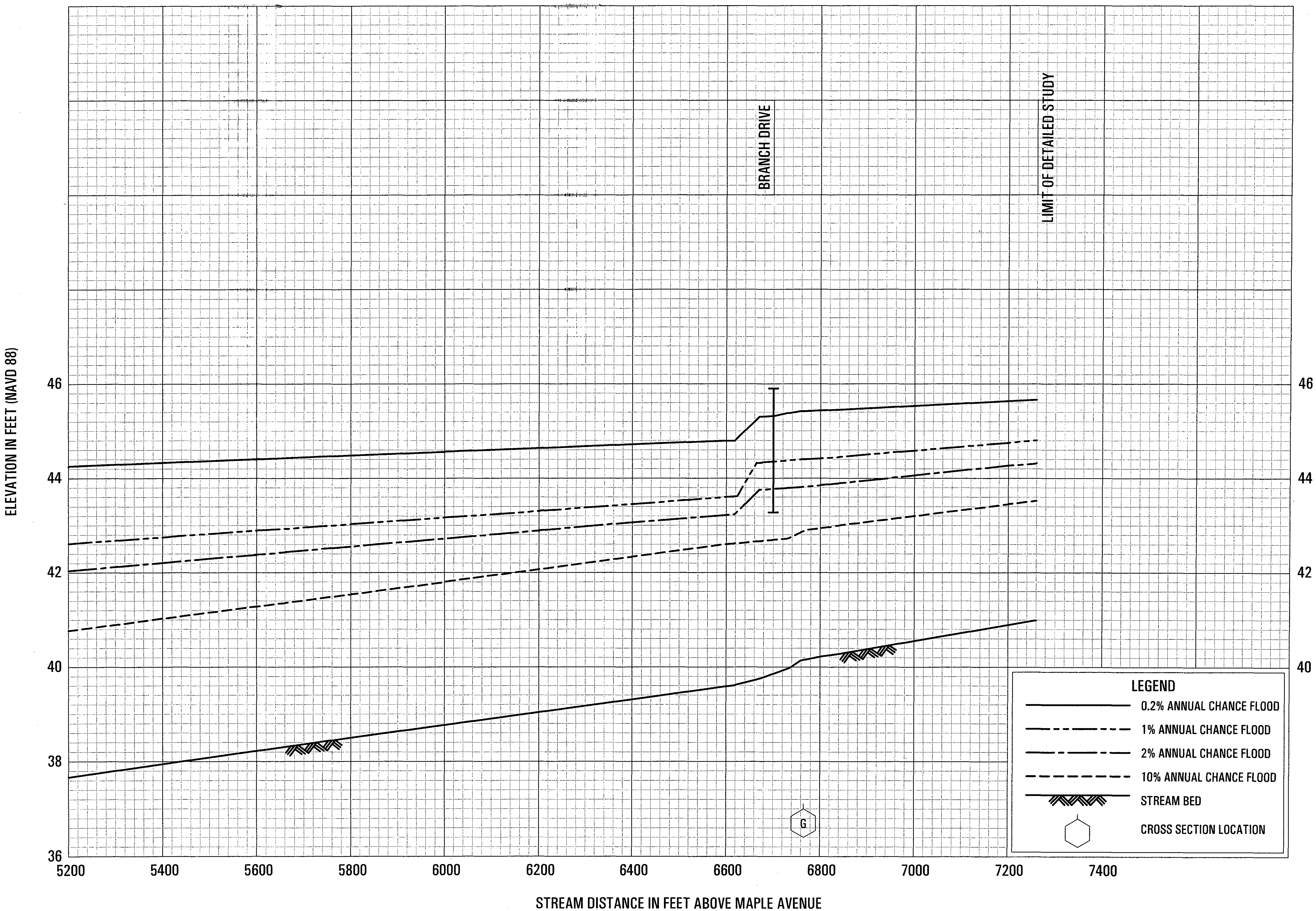

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