



This appendix includes the hazard event tables that were found in the 2007 Suffolk County HMP. These tables include events that occurred in the County through 2007.



**Table H-1. Coastal Erosion Events**

Dates of Event	Event Type	FEMA Declaration Number	Suffolk County Designated?	Losses / Impacts
September 22- 23, 1815	Severe Storm	N/A	N/A	Many structures damaged including Montauk Lighthouse, major erosion
October 29, 1893	Severe Storm	N/A	N/A	During “The Great Storm of 1893”, Fire Island Cut broken through
October 24, 1897	Nor’ easter	N/A	N/A	Separated Orient Village from the North Fork
March 4, 1931	Nor’ Easter	N/A	N/A	Created Moriches Inlet, severe beach erosion and structural damage
September 21, 1938	Hurricane	N/A	N/A	<p>“Long Island Express” or “Great Hurricane of ‘38” caused approximately \$6.2 M, multiple deaths, Shinnecock Inlet created, Moriches Inlet widened by over 4,000 feet. More then 200 homes had been perched on dunes 20-feet high, destroyed fishing industry, created 12 new inlets.</p> <p>The storm produced winds that reached 200 miles per hour (mph), generated 5-meter-high breakers, overwashed 1/3 to 1/2 of Long Island, and created approximately 12 new inlets. altered natural coastline erosion responses from future storms (Mandia, 1992).</p>
September 14, 1944	Hurricane	N/A	N/A	<p>The “Great Atlantic Hurricane” storm center crossed the eastern portion of Long Island during a falling tide. Wind gust velocities were reported up to 99 mph with a 5-minute average wind velocity of 82 mph recorded at Block Island. According to the Governor’s Coastal Erosion Task Force Final Report Volume II (September 1994), bluffs along the north shore of Long Island were eroded at their base and summer homes were “undermined.” The USACE estimated the north shore and the Peconic shorelines suffered \$733,000 of total damages from this storm and Westhampton Beach (Town of Southampton) suffered \$100,000 of damages</p>
August 31, 1954	Hurricane	DR-26	Yes	<p>Property loss to both Nassau and Suffolk Counties was estimated at \$3 million from winds of up to 125 mph and waves as high as 14 feet. Montauk Point was closed off for hours by high tide rolling across the neck of Napeague. Water four feet deep and a mile wide poured across Montauk Highway, making Montauk Point a temporary island. The sea broke through the dunes and flooded the main road of the area. In Westhampton, beaches and six homes were destroyed from the high tide, which rolled inshore five or six feet higher than normal.</p>



Dates of Event	Event Type	FEMA Declaration Number	Suffolk County Designated?	Losses / Impacts
August 7-19, 1955	Hurricane Diane	DR-45		Millions - but not quantified
September 12, 1960	Hurricane Donna			High tide at Jones Beach swelled to a record 11.7 feet, seven feet above normal. Although with a weaker impact in other areas, this storm caused considerable and widespread damage in New York including coastal erosion. The NYS HMP indicates that damage from this event was estimated at \$1.9 million within Long Island (NYSDPC, 2008). Also, according to the Governor's Coastal Erosion Task Force Final Report Volume 2, the \$1.9 million (measured in 1960 dollars) was incurred in areas from Jones Inlet to Montauk Point
March 6-8 1962	Nor' Easter / Flooding	DR-129	Yes- PA	The "Ash Wednesday Storm" or "Great Atlantic Storm of 1962" resulted in total damages of \$130 M in damages and 40 deaths, \$714 K in disaster aid throughout Suffolk County, Millions in damages to Fire Island. On Fire Island, 1.1 million cubic yards of sand was placed along 8.5 miles of shoreline, raising beaches to an elevation of 12 feet above mean low water. Some 9,500 feet of dune and 37,000 feet of eroded beach were quickly restored (Fire Island Association, 2002). the storm was responsible for over 75 breaks (washovers) between Fire Island Inlet and Southampton. In the Moriches to Shinnecock Reach, large stretches of Dune Road and 46 houses were destroyed. The west side of Shinnecock Inlet was eroded, and accretion occurred along the east side. President Eisenhower declared the south shore a disaster area eligible for Federal aid. Assistance was provided to the local communities in the removal of debris and in the rebuilding of beaches and dunes. Under authority of Public Law 875, the USACE performed engineering and construction of emergency shore protection and rehabilitation of over 23 miles of beaches and dunes, including the breach of Westhampton Beach. Some 2.2 million cubic yards of sand was pumped onto beaches, mostly from back bays (Historical Aerial Photos, Date Unknown).
August 10, 1976	Hurricane Belle	DR-520	Yes- PA and IA	Hurricane Belle caused Approximately \$2.5 M



Dates of Event	Event Type	FEMA Declaration Number	Suffolk County Designated?	Losses / Impacts
February 6-7, 1978	Nor'easter			Much of Fire Island suffered severe coastal erosion.
1982	Hurricane Cindy	N/A	N/A	Hurricane Cindy was considered one of the top three erosion events in Suffolk County
October 27, 1985	Hurricane Gloria	DR-750	Yes- PA	Hurricane Gloria affected Long Island as a Category 2 hurricane, with the worst hit areas within eastern Long Island, including Cutchogue (North Fork), Greenport, Westhampton Beach, Lindenhurst, Riverhead, Northport, Babylon, Brookhaven, East Hampton, Huntington, Islip, Shelter Island, Smithtown, Southampton, Southold, Montauk, Fire Island and Shinnecock Bay. The storm center passed over Fire Island with heavy rain and winds of over 80 mph. \$285 million in property damages were sustained and 48 homes were destroyed on Fire Island. Eleven deaths were reported in Long Island. Many beach communities on eastern Long Island reported modest beach erosion with several piers and docks swept away.
August 17-19, 1991	Hurricane Bob	DR-918	Yes- PA	Hurricane Bob impacted SC on August 16-29, 1991, with the worst hit areas being Montauk, Riverhead, Northfork/Southfork, E. Moriches, Sag Harbor to Bayville (North Shore), Port Jefferson, Northport, Centerport, Dering Harbor, Huntington, Greenport, Shinnecock Hills, East Hampton, East Quogue, Southampton, Fire Island, Babylon, Bellport, Medford, Center Moriches and Islip. This event resulted in approximately \$11.7 million in damages to property within Long Island. This event created significant erosion on Dune Road in the hamlet of Westhampton and along the barrier beaches of the South Shore.
October 30-31, 1991	Nor'Easter	N/A	N/A	"The Perfect Storm" or "Halloween Storm of 1991" was considered 1 of top 3 erosion events caused \$2.6 B in total damages, 9 deaths. Eroded stretches of beach from Montauk to Freeport and punching holes in environmentally sensitive barrier beaches. A tidal surge with waves as high as 15 feet occurred in some places, engulfing the shores and sheering



Dates of Event	Event Type	FEMA Declaration Number	Suffolk County Designated?	Losses / Impacts
				off sweeping stretches of beach from Montauk to Freeport and punching holes in environmentally sensitive barrier beaches. 2.5 miles of dune 20 feet wide and five feet high were lost between Jones Beach and Fire Island Inlet.
December 11-13, 1992	Nor'easter	DR - 974	Yes PA and IA	Approx. \$31.2 M in damages, severe beach erosion on South Shores, destruction in North Fork, new inlets, 100 + structures damaged
March 12-14, 1993	Nor'easter / Blizzard	EM-3107	No	"Superstorm of 1993" or "Storm of the Century" caused Approx. \$8.5 M in total damages. Scoured 70 to 100 feet of beach away, almost the entire length of the island. Dunes were reduced to 0 to 8 feet in height in most places (from a previous 15 to 25-foot height). At least 18 homes fell into the sea on Long Island due to the pounding surf.
August 14, 1995	Hurricane Felix	N/A	N/A	Hurricane Felix caused each erosion, two houses washed away in East Hampton
January 6-8, 1996	Nor'Easter	DR-1083	Yes	New York State experienced approximately \$21.3 M in eligible damages (NYS DPC). 10 to 30 inches of snow fell throughout Suffolk County. 50-year-old casino bar and restaurant in Davis Park (on Fire Island) was swept into the sea. three homes in the Fire Island Pines were destroyed, and Gilgo Beach lost 50 to 75 feet of sand. Just after high tide, up to 2 feet of water flooded downtown Ocean Beach where 150 families live. A 200 foot stretch of Smith Point Beach was eroded away during the storm.
October 19-20, 1996	Nor'easter	DR-1146	Yes PA and IA	Approx. 16.1 M in total damages (NYS HMP) - Approx. \$3.5 M in disaster aid to the two counties, \$286 K in additional federal aid to SC. Major erosion occurred throughout Suffolk County.
February 6-7, 1998	Flood			Water from storm inundated streets in Mastic Beach. Major beach erosion occurred in Smith Point County Park.
September 16, 1999	Tropical Storm Floyd	DR-1296 EM 3149	Yes PA and IA	Tropical Storm Floyd caused approximately \$62.2 M in damages to 12 counties in eastern NYS; Approximately \$169 K in disaster aid to Huntington, Asharoken and Patchogue, SC. Power outages and beach erosion
September 30, 2001	Nor'easter			35 feet of dunes were lost
December 2003	Nor'Easter	N/A	N/A	Moderate to severe erosion on some South Shore beaches



Dates of Event	Event Type	FEMA Declaration Number	Suffolk County Designated?	Losses / Impacts
October 14, 2005 (Flooding - Remnants of Hurricane Wilma)	Hurricane Wilma/ Flooding			Remnants of Hurricane Wilma caused approximately \$43 M in damages (\$23 M in residential damage, \$6.5 M in agricultural loss and \$14 M in municipal damage). Extensive shoreline damage throughout the County. Storm sheared bluffs at Theodore Roosevelt County Park in Montauk. Major beach erosion occurred throughout Fire Island. Beach sand lost in Wainscott. Bluffs were eroded in Caumsett State Park. "Cliff-like drops" were cut into the dunes at Hither Hills State Park. Significant erosion at Robert Moses State Park and erosion and inundation at the Captree State Park picnic area, where waves swept away 30 feet of beach. It shaved two to three feet of elevation off Meschutt County Park on Great Peconic Bay and tore away 500,000 cubic yards of sand at Smith Point County Park
September 2, 2006	Tropical Storm Ernesto	N/A	N/A	Tropical Storm Ernesto caused beach erosion and power outages throughout the County
April 14-16, 2007	Nor'Easter	DR-1692	Yes - PA	Major flooding and coastal erosion throughout County (Approximately \$26 M in damage). As of July 11, 2007, Suffolk County received over \$1 M in Public Assistance from FEMA. Of that total, nearly \$900 K has been approved to repair dunes and beach, and to protect private property in the Davis Park area. Many beaches destroyed along the South Shore of Suffolk County.
December 16, 2007	Flood	N/A	N/A	Widespread beach erosion, some significant, along with coastal flooding occurred across parts of Long Island's south fork. A dock at Maidstone Harbor Marina in East Hampton's Three Mile Harbor was completely submerged an hour after high tide. Over \$7.0 M in damages.



**Table H-2. Drought Events**

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
September 1910 – July 1911	Drought	N/A	N/A	Lowest PDSI of -3.77	NRCC
March 1930 – February 1931	Drought	N/A	N/A	Lowest PDSI of -3.81	NRCC
November 1931 – February 1932	Drought	N/A	N/A	Lowest PDSI of -3.39	NRCC
November 1949 – January 1950	Drought	N/A	N/A	Lowest PDSI of -3.63	NRCC
September – December 1964	Drought	N/A	N/A	Lowest PDSI of -3.88	NRCC
May 1965 – August 1966	Drought	DR-204	No	Lowest PDSI -5.63	FEMA, NRCC
March – April 1985	Drought	N/A	N/A	Lowest PDSI of -3.65	NRCC
August – December 1993	Drought	N/A	N/A	\$50 million in crop losses	NOAA-NCDC
July – August 1999	Drought	N/A	N/A	This drought event was one of the most significant weather events in the northeast U.S. and was one of the most costly weather events of the year. There were many restrictions on water use, increased fire danger and farmland disaster areas throughout Long Island.  Lowest PDSI -3.94	NRCC
2002	Drought	N/A	N/A	This drought event affected the entire east coast and was identified as the worst drought in over 100 years. Suffolk County was issued a drought warning in September and was eligible for drought assistance.  Lowest PDSI of -4.22 between January and May 2002.	NRCC



Table H-3. Earthquake Events

Dates of Event	Event Type	Location	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
May 23, 1971	Earthquake 3.5 – 4.1	Blue Mountain Lake, NY	N/A	N/A	No reference and/or no damage reported.	NYS DHSES
June 7, 1974	Earthquake 3.0	Wappinger Falls, NY	N/A	N/A	Earthquake caused windows to break and a bookcase to topple. More than 100 aftershocks were reported through June 13 <sup>th</sup> .	NYS DHSES, Stover and Coffman
June 9, 1975	Earthquake 3.5	Plattsburgh (Altona), NY	N/A	N/A	In Beekmantown on Lake Champlain, a chimney and fireplace were cracked. East of Beekmantown, in Fairfax, Vermont, slight damage was reported.	NYS DHSES, Stover and Coffman
November 3, 1975	Earthquake 4.0	Raquette Lake, NY	N/A	N/A	No reference and/or no damage reported.	NYS DHSES
March 10, 1979	Earthquake 3.2		N/A	N/A	Felt by some in Manhattan	Kim
February 2, 1983	Earthquake 3.0	Scarsdale-Lagrangeville, NY	N/A	N/A	Chimneys cracked	NYS DHSES
October 7, 1983	Earthquake 5.1	Goodnow, Adirondack Mountains	N/A	N/A	An old chimney collapsed, about 20 tombstones slid or rotated, and some minor cracks formed in plaster walls in Blue Mountain Lake. Several landslides were reported. Light damage was reported in surrounding towns. It was felt over a wide range, including two provinces in Canada and 12 states.	NYS DHSES, Stover and Coffman
October 19, 1985	Earthquake 4.0	Ardsley, NY	N/A	N/A	Windows broken in Newburgh, New York and Glenville, Connecticut. Plaster and drywall were cracked and glassware broke in Newburgh. Light damage was sustained in some towns in Connecticut, New Jersey and New York. It was felt over a large area of Connecticut, Massachusetts, New Jersey, New York and Pennsylvania. A moderate aftershock was felt on October 21 <sup>st</sup> in Connecticut, New York and New Jersey.	NYS DHSES, Stover and Coffman, Kim
June 17, 1991	Earthquake 4.1	Richmondville, NY	N/A	N/A	No reference and/or no damage reported.	NYS DHSES
March 10, 1992	Earthquake 2.8	East Hampton, NY	N/A	N/A	Very minor damage to the area. The earthquake was centered in the Atlantic Ocean, about 15 miles south of Montauk. It was felt from the tip of eastern Long Island to New London,	NYS DHSES





Dates of Event	Event Type	Location	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
					Connecticut.	
March 22, 1994	Earthquake 3.6		N/A	N/A	No reference and/or no damage reported	NYS DHSES
Earthquake April 20, 2000	Earthquake 3.8	Newcomb, NY	N/A	N/A	No reference and/or no damage reported	NYS DHSES
November 6, 2000	Earthquake 2.4	Duanesburg, NY	N/A	N/A	No reference and/or no damage reported	USGS
January 17, 2001	Earthquake 2.4		N/A	N/A	Felt in Upper East Side of Manhattan, Long Island city and Queens.	Kim
October 17, 2001	Earthquake 2.6		N/A	N/A	Felt in Upper West Side of Manhattan, Astoria and Queens	Kim
April 20, 2002	Earthquake 5.1	Au Sable Forks, NY	DR-1415	No	Largest earthquake to hit New York State in 20 years. People felt the earthquake from Washington, D.C. to Bangor, Maine. In Suffolk County, reports of having felt the earthquake were noted in the hamlets of Center Moriches, Cold Spring Harbor, Commack, East Setauket, and Hauppauge; the town of Huntington; the hamlets of Huntington Station, Mastic, and Nesconset; the villages of Patchogue and Port Jefferson; the hamlet of Port Jefferson Station; the town of Riverhead; the hamlets of Rocky Point and Sayville; the town of Smithtown; and the hamlets of Sound Beach and Tuckahoe.	NYS DHSES, USGS
May 24, 2002	Earthquake 3.1	Au Sable Forks, NY	N/A	N/A	Aftershock of the April 20 <sup>th</sup> event; no damage reported.	NYS DHSES, USGS
March 26, 2007	Earthquake 1.8	Feura Bush, NY	N/A	N/A	No reference and/or no damage reported.	USGS
April 11, 2007	Earthquake 2.6	Wolcott, NY	N/A	N/A	No reference and/or no damage reported.	USGS



Dates of Event	Event Type	Location	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
July 19, 2007	Earthquake 3.0	Lake Ontario, NY	N/A	N/A	No reference and/or no damage reported.	USGS
July 24, 2007	Earthquake 2.6 – 3.1	Berne, NY	N/A	N/A	No reference and/or no damage reported.	USGS
February 27, 2008	Earthquake 2.7	Howes Cave, NY	N/A	N/A	No reference and/or no damage reported.	USGS
May 28, 2008	Earthquake 1.8	Saratoga Springs, NY	N/A	N/A	No reference and/or no damage reported.	USGS
February 18, 2009	Earthquake 2.3 – 2.7	East Berne, NY	N/A	N/A	No reference and/or no damage reported.	USGS
February 20, 2009	Earthquake 2.7	East Berne, NY	N/A	N/A	No reference and/or no damage reported.	USGS
February 23, 2009	Earthquake 2.1	East Berne, NY	N/A	N/A	No reference and/or no damage reported.	USGS
March 22, 2009	Earthquake 2.1 - 2.8	Berne, NY	N/A	N/A	No reference and/or no damage reported.	USGS



Table H-4. Flood Events

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
September 22- 23, 1815	“The Great September Gale”	N/A	N/A	Center Moriches impacted by flooding. Montauk Lighthouse heavily damaged. Landing Wharf was washed away and orchards were stripped of fruit in Gardiner’s Island. Tide was reported 6 feet higher than ever reported.	Weather 2000; NYS DPC, 2005
August 29, 1893	Tropical Storm	N/A	N/A	Beach erosion, street flooding, coastal ship wrecks throughout Long Island	Long Island Newsday
September 21, 1938	“Long Island Express” or “Great Hurricane of ‘38”	N/A	N/A	Approximately \$6.2 M (in 1938), multiple deaths, Shinnecock Inlet created, Moriches Inlet widened. More than 200 homes had been perched on dunes 20-feet high, destroyed fishing industry.	Northshore Wx, Weather 2000; Long Island Newsday, Mandia (SUNY), NYS DHSES, Williams (Hurricane City)
August 1954	Hurricane Carol	DR-26	No	Resulted in approximately \$3 M in property damages to Long Island, New York. Water 4 feet deep and a mile wide poured across Montauk Highway, making a temporary island.	FEMA
August 1955	Hurricane Diane	DR-45	No	Resulted in millions in damages; however, quantity and location of damages was not reported.	FEMA
April 1, 1960	Flooding	N/A	N/A	\$1 K in property damages.	SHELDUS
April 4-8, 1960	Flooding	N/A	N/A	\$8 K in property damages.	SHELDUS
June 13-15, 1960	Flooding	N/A	N/A	\$3 K in property damages.	SHELDUS
January 15, 1962	Flooding	N/A	N/A	\$1,700 in property damages.	SHELDUS
March 6-8, 1962	Severe Storm, High Tides, Flooding	DR-129	Yes	Coastal Flooding, tidal wave destruction, severe storms, thunderstorms, and high Wind. The event caused an estimated \$714 K in infrastructure damages; millions in damages to Fire Island (47 houses destroyed, 75 other properties severely damaged). There was significant beach erosion and a new inlet was formed at Westhampton Beach.	FEMA
September 27-28, 1962	Flooding	N/A	N/A	\$7 K in property damages.	SHELDUS



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
February 7-8, 1962	Flooding	N/A	N/A	\$3,500 in property damages.	SHELDUS
February 13, 1966	Flooding	N/A	N/A	Approximately \$1 K in property damages.	SHELDUS
May 28-29, 1968	Flooding	N/A	N/A	\$3,500 in property damages and \$3,500 in crop damages	SHELDUS
June 25-28, 1968	Flooding	N/A	N/A	\$9,600 in property damages and \$9,600 in crop damages.	SHELDUS
July 27-29, 1969	Flooding	N/A	N/A	\$35 K in property damages.	SHELDUS
August 4-5, 1969	Flooding	N/A	N/A	\$3 K in property damages and \$3 K in crop damages.	SHELDUS
February 2-3, 1970	Flooding	N/A	N/A	\$2 K in property damages.	SHELDUS
April 2-3, 1970	Flooding	N/A	N/A	Approximately \$1 K in property damages.	SHELDUS
February 7-9, 1971	Flooding	N/A	N/A	Approximately \$1 K in property damages.	SHELDUS
September 11-14, 1971	Severe Storms, Flooding	DR-311	Yes	This storm caused seven deaths and \$147.6 M in damage throughout its path. New York State experienced approximately \$7.4 M in total eligible damages.	FEMA
October 10, 1971	Flooding	N/A	N/A	\$2,500 in property damages.	SHELDUS
June 20-25, 1972	Flooding	N/A	N/A	\$806 K in property damages and \$806 K in crop damages.	SHELDUS



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
October 6-7, 1972	Flooding	N/A	N/A	\$3 K in property damages.	SHELDUS
November 8-9, 1972	Flooding	N/A	N/A	\$1,425 in property damages.	SHELDUS
September 22-27, 1975	Flooding	N/A	N/A	\$55 K in property damages.	SHELDUS
August 12, 1978	Flooding	N/A	N/A	\$250 K in property damages.	SHELDUS
May 23-31, 1979	Flooding	N/A	N/A	\$1.25 M in property damages.	SHELDUS
July 1, 1979	Flooding	N/A	N/A	\$2.5 M in property damages.	SHELDUS
March 29, 1984	Flooding	N/A	N/A	\$2.5 M in property damages.	SHELDUS
May 28 – April 8, 1984	Coastal Storms and Flooding	DR-702	Yes	Resulted in approximately \$11.9 M in property damages throughout southeastern New York State- \$2.4 M to Suffolk County.	FEMA, NYS DHSES; SHELDUS
September 27, 1985	Hurricane Gloria	DR-750	Yes	Hurricane Gloria struck Long Island as a Category 2 hurricane, with the worst hit areas along eastern Long Island, which included Suffolk County. Severe power outages resulted from this event. The hurricane brought wind gusts of over 100 mph, downing thousands of trees, flooded hundreds of streets and damaged numerous shorefront homes. This storm event caused approximately \$48.5 M in damages. Losses for Suffolk County were not reported.	FEMA, NYS DHSES, Wick (Newsday.com), Amon (Newsday.com)
March 14, 1986	Flooding	N/A	N/A	\$238 K in property damages.	SHELDUS
August 11, 1989	Flood	N/A	N/A	\$2.5 million in property damages to Suffolk County	SHELDUS



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
August 24, 1990	Flooding	N/A	N/A	\$2,500 in property damages.	SHELDUS
October 30-November 1, 1991	"The Perfect Storm" or "Halloween Storm of 1991"	N/A	N/A	\$2.6 B in total damages, 9 deaths in the northeastern United States.	McNoldy (MESO), Long Island Newsday, SHELDUS
December 10-14, 1992	Coastal Storm, High Tides, Heavy Rain, Flooding	DR-974	Yes	This event caused flooding, coastal erosion, debris and damage to utility lines, roads and other infrastructure. Resulted in approximately \$31.2 M in property damages throughout southeastern New York State. Suffolk County suffered \$7.1 M in damages.	FEMA, NYS DHSES, McNoldy (MESO), Amon (Newsday.com),
January 9, 1993	Coastal Flooding	N/A	N/A	In the hamlet of Westhampton a few homes already badly weakened as a result of a December 1992 Nor' Easter collapsed because their foundations were further undermined by this event. Estimates of property damage were unavailable.	NOAA-NCDC
April 7, 1993	Coastal Flooding	N/A	N/A	A couple of coastal roads were washed out and five homes were lost to the sea. Cost estimates of property damage were unavailable.	NOAA-NCDC
December 22-25, 1994	Nor' Easter	N/A	N/A	Coastal flooding during high tide occurred along the Twin Forks. Created the need for evacuations.	East Hampton HMP
July 31, 1996	Flooding	N/A	N/A	On July 31 <sup>st</sup> , widespread flooding occurred throughout several counties in New York State. This event caused street flooding of up to three feet deep, people stranded in cars, and minor mudslides were experienced. The hardest hit counties in New York State included Richmond, Kings, Queens, Nassau, and western Suffolk.	NOAA-NCDC
August 29 – September 2, 1996	Remnants of Hurricane Edouard	N/A	N/A	Remnants of Hurricane Edouard caused sea swells to build and when combined with high astronomical tides, minor coastal flooding began around high tides. As the swells became larger, the extent and intensity of coastal flooding increased around high tides. Maximum tides averaged one to two feet above normal during high tides. Moderate coastal flooding was reported along parts of the south shore of Long Island. Wind speeds remained below tropical storm force across the area. No significant rainfall occurred.	NOAA-NCDC
September 16-18, 1996	Remnants of Hurricane Fausto	N/A	N/A	The remnants of the Pacific storm Hurricane Fausto moved northeast from Mexico and turned into a large coastal storm off the DelMarVa coast. It moved slowly northeast towards NYS. This storm produced heavy rain, strong winds and minor to locally moderate coastal flooding. Rainfall amounts ranged from two to	NOAA-NCDC



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				four inches, causing street and poor drainage flooding. Tides averaged two to three feet above normal, causing minor coastal flooding along the western shores of Long Island.	
October 8-9, 1996	Remnants of Tropical Storm Josephine	N/A	N/A	Remnants of Tropical Storm Josephine moved quickly northeast, producing one to three inches of rain and causing localized flooding of streets and poor drainage areas across the region. In Suffolk County, rainfall totals ranged from 2.32 inches at the NWS office in Upton to 2.83 inches in the hamlet of Bridgehampton (Southampton). Wind gusts measured between 40 and 50 mph.	NOAA-NCDC
October 19-20, 1996	Severe Storms and Flooding	DR-1146	Yes	Heavy rain caused serious widespread street and poor drainage flooding in parts of New York State. In Suffolk County, the Long Island Expressway was flooded. Rainfall totals in the County ranged between 2.1 inches to 5.86 inches. Damages in Suffolk County were approximately \$2.3 M.	FEMA; NYS DHSES, McNoldy (MESO), McFadden (NY Times); SHELDUS
August 20, 1997	Coastal Flooding	N/A	N/A	A stretch of Harbor Beach Road in Mount Sinai (north shore of Suffolk County in Brookhaven), was submerged under at least 2 feet of water. About 50 people were stranded on the Cedar Beach peninsula for about 4 hours. Street flooding was reported in Port Jefferson. Coastal flooding was also reported across parts of the south shore of Suffolk County extending from Babylon east to Southampton. Cost estimates of property damage were unavailable.	NOAA-NCDC
January 29, 1998	Coastal Flood	N/A	N/A	A low pressure system produced strong, gusty northeast winds (35 knots with gusts up to 43 knots), high seas (12 to 16 feet), large sea swells (eight to 12 feet), heavy surf, and minor to moderate beach erosion and coastal flooding. Suffolk County emergency managers reported moderate coastal flooding in the hamlet of Bridgehampton (Southampton), where water was over Dune Road and people had to evacuate. The parking lot of Scott Cameron Beach was underwater and heavy surf crashed through into the parking lot.	NOAA-NCDC
February 5-6, 1998	Coastal Flood (Nor' Easter)	N/A	N/A	A Nor' Easter caused strong, gusty winds, high seas, heavy surf, moderate beach erosion, and minor to moderate coastal flooding. During the first high tides, water inundated streets, yards, and basements in Staten Island. Streets were flooded in Nassau and Suffolk Counties. On February 6 <sup>th</sup> , a state of emergency was declared in Ocean Beach (Suffolk County). Overall, Suffolk County had approximately \$750 K in property damage.	NOAA-NCDC
June 13, 1998	Flash Flooding	N/A	N/A	Torrential rains resulted in widespread, serious flooding of streets, poorly drained areas, low-lying areas, home basements, and small streams. Lightning struck many homes and ignited fires that	NOAA-NCDC



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				damaged them. In Suffolk County, rivers of moving water formed rapidly on streets. In Lindenhurst, waves were visible on Sunrise Highway. Up to 3 feet of water also inundated streets in Babylon on Sunrise Highway. In Mastic, water rapidly flowed from Montauk Highway into a residential area and flooded basements and the first floors of houses. In Suffolk County, lightning struck the television antenna on a home and traveled to the attic where it ignited a fire (Zophar Mills Road in the hamlet of Wading River). Cost estimates of property damage were unavailable.	
September 16, 1999	Hurricane Floyd	DR-1296/ EM-3149	Yes	Resulted in approximately \$62.2 M in property damages to Eastern New York State. Huntington, Asharoken and Patchogue received \$168,970 in disaster aid. Much of Suffolk County experienced power outages and beach erosion.	FEMA
April 20, 2000	Flood	N/A	N/A	a series of intense thunderstorms moved north to northeast across Nassau and Western Suffolk Counties. The thunderstorms were accompanied by torrential rainfall that produced widespread severe flooding of low-lying and poorly drained areas and frequent and intense lightning strikes. Rainfall amounts ranged from around 3 to 7 inches. Significant and widespread ponding of water caused the closure of several stretches of road such as from Route 109 to Wellwood Avenue along the Sunrise Highway in Lindenhurst and stretches of Park Avenue and Siegel Boulevard in Babylon Village. Many cars were trapped by rising flood waters in the town of Babylon, necessitating several rescues. Frequent and intense lightning strikes ignited fires and caused damage to many houses throughout Nassau and Suffolk Counties. Lightning struck a house and ignited a house fire on Tahlulah Lane in the hamlet of West Islip. Lightning blew a 4-inch hole in the siding of a house on Oakwood Road in the hamlet of Huntington Station. Cost estimates of property damage were unavailable.	NOAA-NCDC
July 31, 2000	Flood	N/A	N/A	Widespread flooding of low-lying and poor drainage areas occurred within Terryville. Up to 3.5 inches of rain fell in about 90 minutes. Water rapidly ponded up to 3 feet in several streets, which caused closures. Many cars were trapped in high water along Routes 112 and 347.	NOAA-NCDC
March 30, 2001	Flood	N/A	N/A	Port Jefferson received over 2.65 inches of rain; Sag Harbor received 3.5 inches.	NOAA-NCDC





Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
April 28, 2002	Coastal Flood	N/A	N/A	1 fatality in Bayport	SHELDUS
August 10, 2002	Coastal Flood	N/A	N/A	2 fatalities in Montauk and Moriches	SHELDUS
August 29, 2002	Flood	N/A	N/A	<p>In Western Suffolk County, flooding was reported at the following locations:</p> <p>In the village of Amityville, County Line Road was flooded north of the Sunrise Highway.</p> <p>In Babylon Village, flooding was reported at the intersection of Stowe Ave. and Bulger Street.</p> <p>In the town of Huntington, flooding occurred along New York Avenue (Route 110)</p> <p>In the hamlet of Melville, flooding was reported at the intersection of Sweet Hollow Road and Walt Whitman Road.</p> <p>In the hamlet of Nesconset, a section of Alexander Ave. and Jericho Turnpike was flooded.</p> <p>In addition, spotters reported street flooding in the hamlet of St. James.</p> <p>Total rainfall associated with the storm in Western Suffolk County ranged from 3.88 inches in the hamlet of Setauket to 5.40 inches in the village of Amityville. Cost estimates of property damage were unavailable.</p>	NOAA-NCDC
May 18, 2003	Coastal Flood	N/A	N/A	3 fatalities in Moriches Inlet	SHELDUS, NOAA-NCDC
August 8, 2003	Flash Flood	N/A	N/A	Sag Harbor received over 4.62 inches of rain	East Hampton HMP
May 13 – June 17, 2004	Severe Storms and Flooding	DR-1534	Yes	FEMA issued a disaster declaration for this event for several counties, including Suffolk County. Suffolk County was approved for PA. FEMA approved \$18,721,030.78 in PA grant assistance.	FEMA
July 20, 2004	Coastal Flooding	N/A	N/A	One fatality in the hamlet of East Quogue	SHELDUS



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
September 8, 2004	Flood	N/A	N/A	Torrential rains caused flash flooding and street closures in St. James.	NOAA-NCDC
September 18, 2004	Flood	N/A	N/A	Street closings occurred as a result of flash flooding in Centerport and remnants of Hurricane Ivan created flash flooding and high winds (wind damage) in the hamlet of Mattituck.	NOAA-NCDC
September 28, 2004	Flood	N/A	N/A	Sunrise Highways were closed with cars stranded due to major flash flooding in central Suffolk County. NOAA-NCDC indicated that Sunrise Highway closed with cars stranded due to major flash flooding. This event dropped between 3 and 6 inches across Southeastern New York State.	NOAA-NCDC
September 15, 2005	Flash Flooding	N/A	N/A	Torrential rain caused widespread flash flooding along portions of the north and south forks of eastern Long Island. Rainfall totals ranged between five and eight inches.	NOAA-NCDC
October 14, 2005	Flooding (Remnants of Hurricane Wilma)	N/A	N/A	Approximately \$43 M in damages (\$23 M in residential; \$6.5 M in agricultural loss; and \$14 M in municipal damages).	Farber, Suffolk County Government, Rather (NY Times)
September 15, 2006	Flash Flood	N/A	N/A	Torrential rain produced widespread flash flooding in eastern Long Island. Rainfall totals ranged between five and eight inches, with hourly rates up to two to three inches per hour. Many roads were flooded between the hamlet of Mattituck and the hamlet of Cutchogue, where spotters measured rainfall of 7.67 inches at the hamlet of Mattituck and 7.03 inches at the hamlet of Cutchogue. These roads included Sound and New Suffolk Avenues in the hamlet of Mattituck and Oregon and New Suffolk Avenues in the hamlet of Cutchogue. Many roads were flooded in the town of Southampton, mainly between North Sea and Sag Harbor along the north shore of the south fork and from east of the hamlet of Hampton Bays to East Hampton Airport along the south shore of the south fork.	NOAA-NCDC
October 11, 2006	Flood	N/A	N/A	Major flooding in Lake Grove	NOAA-NCDC
April 14-18, 2007	Severe Storms and Inland and Coastal Flooding	DR-1692	Yes	Heavy rain led to widespread flooding of small streams and creeks across the county, which began during the early morning hours of Monday, April 16th, and persisted into Wednesday morning on the 18th.  Suffolk County had approximately \$26 M in damages. FEMA	FEMA, NOAA-NCDC



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				gave out more than \$61 million in assistance to affected counties within the State.	
July 18, 2007	Flood	N/A	N/A	Street flooding throughout County.	NOAA-NCDC
October 28, 2007	Flood	N/A	N/A	Heavy rain produced flash flooding along Sunrise Highway in Amagansett. Heavy rain caused flash flooding of many urban areas where poor drainage occurs. Suffolk County – from 2.08 inches at Montauk to 3.39 inches at Nesconset.	NOAA-NCDC
December 16, 2007	Flood	N/A	N/A	Widespread beach erosion, some significant, along with coastal flooding occurred across parts of Long Island’s south fork. A dock at Maidstone Harbor Marina in East Hampton’s Three Mile Harbor was completely submerged an hour after high tide. Over \$7.0 M in damages.	NOAA-NCDC



Table H-5. Hurricane and Tropical Storm Events, 1954 to 2007

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
August 31, 1954	Hurricane Carol	DR-26	No	<p>Long Island had approximately \$3 M in property damages. On September 2, 1954, Long Island, including Suffolk County, was declared a disaster area after 275,000 homes were left without power.</p> <ul style="list-style-type: none"> <li>Amagansett: A 300 foot tower of the Mackay radio station was blown over and crashed into the roof of a four car garage.</li> <li>Montauk Point: The Montauk Point area was closed off for hours by high tide rolling across the neck of Napeague. Water four feet deep and a mile wide poured across Montauk Highway, making Montauk Point a temporary island. About 25 of Montauk's cottages and motels had their roofs ripped off and the sea broke through the dunes and flooded the main road. Approximately 30 boats, mostly private pleasure craft, were blown ashore at Lake Montauk. Forty cabanas at Montauk Surf Club were blown away. Winds as high as 125 mph were recorded at the Montauk Lighthouse.</li> <li>Riverhead: In the path of the storm's center, in Riverhead, about 40 trees were blown down near the Long Island Station in the right of way, causing railroad service to be temporarily suspended. Riverhead experienced gusts of wind of over 98 mph.</li> </ul> <p>Westhampton: Half a dozen homes were destroyed when the high tide rolled inshore at five or six feet higher than normal.</p>	FEMA; Weather 2000; Long Island Hurricane History, Hurricane City Database, NYS DHSES; Governor's Coastal Erosion Task Force
September 10-11, 1954	Hurricane Edna	N/A	N/A	Nine inches of rain fell over Suffolk County, with wind gusts exceeding 87 mph.	Weather 2000, Long Island Hurricane History
August 12-19, 1955	Hurricane Diane	DR-45	No	This storm event resulted in millions of dollars in damages. Losses for Suffolk County were not reported.	FEMA, NYS DHSES
July 30, 1960	Tropical Storm Brenda	N/A	N/A	Minor impacts	Long Island Hurricane History
September 12, 1960	Hurricane Donna	N/A	N/A	Hurricane Donna caused approximately \$1.9 M in damages. Some 10,000 residents of Nassau County's and Suffolk County's South Shore were evacuated before the storm hit. Two Long Islanders were killed in hurricane-related traffic accidents and over 220,000 homes lost	Weather 2000, NYS DHSES, Long Island Hurricane History, Hurricane City



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				electricity before the storm moved northward. Fallen trees, electric wires, and telephone poles were strewn across streets. Approximately 8,500 telephones went out of service.	Database, Governor's Coastal Erosion Task Force
September 21, 1961	Hurricane Esther	N/A	N/A	Hurricane Esther caused major power outages.	Long Island Hurricane History
June 14, 1966	Tropical Storm Alma	N/A	N/A	Minor impacts	Long Island Hurricane History
August 28, 1971	Tropical Storm Doria	DR-311	Yes	This storm event caused seven deaths and \$147.6 M in damages throughout its path. Losses for Suffolk County were not reported.	FEMA, NYS DHSES, Long Island Hurricane History
June 22, 1972	Tropical Storm Agnes	DR-338	No	Minor impacts	FEMA, Long Island Hurricane History
August 6-10, 1976	Hurricane Belle	DR-520	Yes	Four to six inches of rain were recorded throughout New England and the Mid-Atlantic regions. Suffolk County experienced approximately six inches of rain. Combined with heavy rains, the storm resulted in one death and over \$100 million in damage (1976 USD). Losses for Suffolk County were not reported.	FEMA, NYSDPC, NYS DHSES, Weather 2000, SHELDUS, Long Island Hurricane History, HurricaneCity, Governor's Coastal Erosion Task Force
September 2-7, 1979	Hurricane David	N/A	N/A	Hurricane David caused major power outages to Long Island.	LIPA
1982	Hurricane Cindy	N/A	N/A	Hurricane Cindy was one of the top three erosion events on Long Island.	Bleyer, Long Island Hurricane History
September 27, 1985	Hurricane Gloria	DR-750	Yes	<p>Resulted in approximately \$48.5 M in property damages to Long Island. Wind damage and beach erosion occurred throughout Long Island.</p> <ul style="list-style-type: none"> <li>Babylon: Damage was heaviest along the town's south shore (Copiague, Lindenhurst, Babylon and W. Babylon). Flooding south of Montauk Highway caused an estimated \$2 million in damage to homes along canals that lead to the Great South Bay. Hundreds of trees fell, bringing down power lines.</li> <li>Brookhaven: Scattered flooding occurred along the north and</li> </ul>	FEMA, NYS DHSES, Newsday.com, Weather 2000, Long Island Hurricane History, HurricaneCity



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				<p>south shores. Several trees and power lines were downed. Eight airplanes from Brookhaven Airport were significantly damaged. The roofs of 2 apartments in Coram were damaged. High winds ripped loose an antenna tower at the County fire coordination's center in Yaphank.</p> <ul style="list-style-type: none"> <li>• East Hampton: The wind ripped the roofs from several buildings and fanned a fire at a house in Amagansett, which burned to the ground. The roof of Gurney's Inn ripped off, resulting in the destruction of several cars in the parking lot.</li> <li>• Huntington: Dangling wires ignited small fires and fallen trees blocked roads. Five foot waves were reported at Crab Meadow Beach and some Asharoken residents left home as water flooded onto Asharoken Avenue. Several boats were swamped in Huntington and Centerport Harbor.</li> <li>• Islip: Heavy damage occurred south of Montauk highway, including several wires and utility poles and transformer units which were felled. It was estimated that it would take 2-3 days to address the impacts. In Islip Terrace, wind gusts of over 100-mph ripped the roof off the Islip Police Station and the large hangers at Long Island MacArthur Airport (Figure 5.4.4-45).</li> <li>• Lindenhurst: LILCO shut off gas service to 500 customers in Lindenhurst south of Montauk Highway because of flooding related to the storm.</li> <li>• Riverhead: A local man died during the cleanup of a fallen tree.</li> <li>• Shelter Island: Many trees were downed and fallen power lines ignited several minor brush fires (no major damage occurred).</li> <li>• Southampton: Many trees and wires were downed. Erosion occurred. The Ponguogue Bridge in Hampton Bays was submerged by flood waters. Dune Road was under six to eight feet of water. There was significant building damage in the Westhampton Beach area, with many structures flattened.</li> <li>• Southold: Many trees and wires were downed. Orient was separated from the mainland for most of the storm. At Fisher Island, 40 persons fled their homes, taking shelter in a World War II bunker.</li> </ul>	



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				<ul style="list-style-type: none"> <li>Smithtown: Many trees and wires were downed, leaving many streets impassable. Broken windows were reported and at least one building lost a portion of its roof.</li> </ul>	
August 17-19, 1991	Hurricane Bob	DR-918	Yes	<p>Agricultural lands within the County were significantly impacted. Many power outages occurred. It knocked out nearly 1/3<sup>rd</sup> of LILCO customers, with 75-percent of the outages being in the five East End towns of Suffolk County. According to LIPA, this event resulted in over 477,765 customers affected for a duration of 112 hours for 4.7 days (LIPA, 2004). The storm knocked out 21 high voltage transmission lines, 14 substations, and 72 lower voltage distribution lines. Hundreds of smaller wires were downed by trees and electric poles. Boats were damaged, and roads and bridges were closed. Thousands of people sought shelter.</p> <p>This storm event caused approximately \$11.8 M in damages to Long Island. At least 1/6th of Suffolk County's total annual agricultural output (valued at approximately \$120 million), appeared to be wiped out or severely damaged by the storm (including cornfields, peach and apple trees).</p>	FEMA, NYSDPC, Newsday.com, Long Island Hurricane History, HurricaneCity, NYSEMO, Governor's Coastal Erosion Task Force
August 14, 1995	Hurricane Felix	N/A	N/A	Hurricane Felix caused beach erosion and washed away two houses in East Hampton.	NOAA-NCDC
July 13, 1996	Tropical Storm Bertha	N/A	N/A	Tropical Storm Bertha caused major power outages, downed trees, and produced significant wind damage with wind gusts exceeding 74 mph.	Long Island Hurricane History; University of Hawaii
August 29 – September 2, 1996	Remnants of Hurricane Edouard	N/A	N/A	Remnants of Hurricane Edouard caused sea swells to build and when combined with high astronomical tides, minor coastal flooding began around high tides. As the swells became larger, the extent and intensity of coastal flooding increased around high tides. Maximum tides averaged one to two feet above normal during high tides. Moderate coastal flooding was reported along parts of the south shore of Long Island. Wind speeds remained below tropical storm force across the area. No significant rainfall occurred.	NOAA-NCDC
September 16-18, 1996	Remnants of Hurricane Fausto	N/A	N/A	The remnants of the Pacific storm Hurricane Fausto moved northeast from Mexico and turned into a large coastal storm off the DelMarVa coast. It moved slowly northeast towards NYS. This storm produced heavy rain, strong winds and minor to locally moderate coastal flooding. Rainfall amounts ranged from two to four inches, causing street and poor drainage flooding. Tides averaged two to three feet	NOAA-NCDC



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				above normal, causing minor coastal flooding along the western shores of Long Island.	
October 8-9, 1996	Remnants of Tropical Storm Josephine	N/A	N/A	Remnants of Tropical Storm Josephine moved quickly northeast, producing one to three inches of rain and causing localized flooding of streets and poor drainage areas across the region. In Suffolk County, rainfall totals ranged from 2.32 inches at the NWS office in Upton to 2.83 inches in Bridgehampton. Wind gusts measured between 40 and 50 mph.	NOAA-NCDC
July 24-25, 1997	Remnants of Tropical Storm Danny	N/A	N/A	Suffolk County was impacted by the fringe effects from Tropical Storm Danny, which brought heavy rain to the area. Rainfall totals ranged between three and five inches which caused street and poor drainage area flooding.	NOAA-NCDC
September 16, 1999	Hurricane Floyd	DR-1296/EM-3149	No	Torrential record rainfall caused widespread urban, small stream and river flooding due to the remnants of Hurricane Floyd. In Suffolk County, rainfall totals ranged between 2.67 inches and 4.88 inches. According to LIPA, this event affected over 149,000 for a duration of 1.5 days. The storm caused \$62.2 M in property damages to eastern NYS. Power outages and beach erosion were reported.	FEMA, NYS DHSES, USACE, Weather 2000, Long Island Hurricane History; LIPA, 2004
September 26-28, 2002	Remnants of Hurricane Isidore	N/A	N/A	The remnants of Hurricane Isidore passed just to the west and northwest of the New York metropolitan area. This resulted in significant rainfall. Long Island received between two and 2.5 inches of rain. Strong sustained winds of 20 to 30 mph also struck the area, with gusts around 40 mph. Many tree branches were downed.	NOAA-NCDC
August 15, 2004	Severe Storms and Flooding (Hurricane Charley)	DR-1564	No	Minor impacts	FEMA, Hurricane City
September 8, 2004	Severe Storms and Flooding (Remnants of Hurricane Frances)	DR-1564	No	Rainfall totals in Suffolk County ranged from 0.10 inches in Upton to 5.26 inches in Kings Park.	FEMA, NWS
September 16-18, 2004	Tropical Depression Ivan	DR-1565	No	Rainfall totals in Suffolk County ranged from 0.42 inches at Shirley Airport to 2.75 inches in Centerport.	FEMA, NWS
September 28, 2004	Remnants of Hurricane Jeanne	N/A	N/A	Rainfall totals in Suffolk County ranged from 2.60 inches in Seldon to 7.57 inches in Bridgehampton.	NWS





Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
October 14, 2005	Remnants of Hurricane Wilma	N/A	N/A	Bands of torrential rain produced widespread flash flooding on low lying and poor drainage areas throughout Nassau and Suffolk Counties. Trees and power poles were leaning from soggy ground. Overall, Long Island had approximately \$23 M in residential damages; \$6.5 M in agricultural losses; and \$14 M in municipal damage. Suffolk County had approximately \$11 M in damages.	Farber, Levy, Aigner, NWS, NOAA-NCDC
September 2, 2006	Tropical Storm Ernesto	N/A	N/A	Remnants of Tropical Storm Ernesto brought heavy rain and gusty winds of 40 to 57 mph across Long Island and southeast NYS. This resulted in numerous downed trees and power lines, leaving hundreds of thousands of people without power. In Suffolk County, between 0.5 and 0.75 inches of rain fell and wind speeds of 35 mph in Shirley to 55 mph in Shinnecock Inlet.	NOAA-NCDC, NWS
November 3, 2007	Remnants of Hurricane Noel	N/A	N/A	Remnants of Hurricane Noel passed 200 miles to the southeast of Montauk Point. Wind speeds of 40 to 45 mph and gusts of 50 to 55 mph struck the area. The winds knocked down trees and power lines across southern Suffolk County. Rainfall totals in Suffolk County ranged from 0.23 inches in Islip to 1.34 inches in Fisher Island. Wind gusts ranged from 34 mph in Wading River to 54 mph in Shinnecock Inlet.	NOAA-NCDC, NWS



Table H-6. Severe Storm Events

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 13, 1894	Strong winds, hail	N/A	N/A	<p>A rough snowstorm hit Long Island, bringing hail and strong winds. Many of the lighthouses could not be seen. The ocean was very loud and could be heard for miles. Parts of Suffolk County were affected as well, especially in East Moriches and Sag Harbor.</p> <p>In East Moriches, two men were walking back to the Beach View Hotel. The road that crosses the marsh to get back to the hotel was exposed to full force gale winds and was covered with water and floating ice. Several times during their trip back to the hotel, their feet were lifted off the ground and were almost washed out to the ocean. The men made it back safely to the hotel.</p> <p>In Sag Harbor, the strong winds caused the steamer Montauk to break loose from its moorings. The steamer pounded against a bulkhead all day, creating a noise that could be heard for over a mile. The steamer could not be removed from the bulkhead until the winds died down. Monetary losses were not documented in the materials available for review.</p>
August 25, 1903	Heavy Rain, Thunderstorm	N/A	N/A	Monetary damages were not recorded.
May 28, 1916	Strong winds, heavy rain	N/A	N/A	An electrical storm hit the Hudson Valley and New York City area, causing power outages throughout the area. In Sag Harbor, a cloudburst caused severe damage, which included power outages and downed trees and power lines. A bolt of lightning struck the power house of the Sag Harbor Electric Light and Power Company. The lightning caused an engine in the power house to explode, causing Sag Harbor to be without power. Monetary losses were not documented in the materials available for review.
September 8, 1958	Tornado	N/A	N/A	A classification F0 tornado touched down in Suffolk County. Monetary damages were not recorded.
August 30, 1960	Thunderstorm	N/A	N/A	\$100 K in property damages
March 6-8, 1962	Severe Storm, High Tides, Flooding	DR-129	No	Coastal flooding, tidal wave destruction, severe storms, thunderstorms, and high wind. The event caused an estimated \$714 K in damages.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
September 8, 1969	Thunderstorm	N/A	N/A	\$50 K in property damages; 19 injuries
September 27, 1970	Tornado (F2)	N/A	N/A	A tornado with maximum wind speeds of 113 to 157 mph occurred on this date. The tornado was located approximately 13.7 miles from the Huntington City Center and caused between \$50,000 and \$500,000 in damages.
September 13, 1971	Severe Storm and Flooding	DR-311	Yes	Severe rain and flooding caused an estimated \$2.6 K in damages.
September 18, 1973	Tornado (F1)	N/A	N/A	A classification F1 tornado touched down in Suffolk County.
December 2, 1974	TSTM	N/A	N/A	A thunderstorm affecting multiple counties caused \$166 K in damages
August 10, 1979	Tornado	N/A	N/A	A classification F1 tornado affected Suffolk County. Monetary damages were not recorded.
August 5, 1981	Tornado	N/A	N/A	A classification F1 tornado affected Suffolk County. The tornado caused an estimated \$250 K in damages
August 25, 1982	Tornado (F0)	N/A	N/A	A classification F0 tornado touched down in Suffolk County.
August 30, 1985	Tornado (F1)	N/A	N/A	A classification F1 tornado touched down in Suffolk County. Monetary damages were not recorded.
July 10, 1989	Northeast U.S. Tornado Outbreak of 1989	N/A	N/A	<p>The storm system produced hail up to 2.5 inches in diameter, thunderstorm winds up to 90 mph, and 17 tornadoes. More than 150 people were injured and one fatality occurred as a result of the tornado outbreak and one fatality occurred as a result of winds. The series of tornadoes caused approximately \$130 M in damages across the northeastern U.S.</p> <p>In Suffolk County, severe lightning and a tornado affected the County. An F2 tornado struck the hamlet of East Moriches, where it picked up a trailer with a person sitting in it. The trailer was tossed and thrown across an adjacent airfield. The person in the trailer suffered minor injuries, but the trailer was destroyed. A radio transmitter in Sag Harbor was struck with lightning.</p>



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
August 19, 1991	Tornado	N/A	N/A	Two classified F1 tornadoes affected Suffolk County. Monetary damages were not recorded.
December 10-14, 1992	Coastal Storm, High Tides, Heavy Rain, Flooding	DR-974	Yes	This event caused flooding, coastal erosion, debris and damage to utility lines, roads and other infrastructure. Resulted in approximately \$31.2 M in property damages throughout southeastern New York State
August 13, 1993	Thunderstorm	N/A	N/A	Monetary damages were not recorded. 1 injury was reported.
September 27, 1994	Heavy Rain	N/A	N/A	A warm front approaching from the south produced some very heavy rains across the area during the morning hours. Rainfall amount of between one and three inches lead to serious urban flooding. Highways and railways suffered equally during the morning rush hours as considerable delays were encountered on both. Several motorists attempted to drive through flooded areas only to have their cars float and then sink. Monetary damages were not recorded.
July 23, 1995	Tornado (F0)	N/A	N/A	A classification F0 tornado touched down in Suffolk County. \$500,000 in property damages were reported.
October 21, 1995	Thunderstorm Winds	N/A	N/A	A squall line passing through the area generated thunderstorms that downed several trees and power lines. A few cars were damaged by these downed trees. Street and highway flooding was also observed in several counties. Monetary damages were not recorded.
November 11, 1995	Thunderstorm	N/A	N/A	Monetary damages were not recorded. 1 fatality was reported.
January 19, 1996	High Wind	N/A	N/A	Strong southerly winds gusting in excess of 50 MPH produced widespread wind damage across the region. Most of the damage occurred to trees and power lines.
October 19-20, 1996	Storms and Flooding	DR-1146	Yes	Heavy rain caused serious widespread street and poor drainage flooding in parts of New York State. In Suffolk County, the Long Island Expressway was flooded. Rainfall totals in the County ranged between 2.1 inches to 5.86 inches. Damages in Suffolk County were approximately \$2.3 M.
November 26, 1996	Heavy Rain	N/A	N/A	A low pressure system moved northeast and passed over the local region. It caused from 1 to just over 2 inches of rainfall across the area. The heavy rain caused some small stream, street, and poor drainage flooding. Monetary damages were not recorded.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 6, 1997	High Wind	N/A	N/A	As a large and intense low pressure system moved from Kentucky east-northeast just north of New York City and across Eastern Massachusetts, it caused high winds. Winds gusted over 60 MPH at many locations. They knocked down trees and power lines on houses and streets. In Suffolk County, one person was seriously injured when a tree fell on a construction van. Long Island experienced 70 MPH winds. Monetary damages were not recorded.
June 26, 1997	Tornado (F0)	N/A	N/A	A weak F0 tornado occurred in the Cherry Grove Community on Fire Island (Town of Brookhaven). Damage was light with a few businesses, houses, and boats at the ferry terminal in Cherry Grove (Town of Brookhaven) being affected. The damage was limited to awnings, windows, roofs, and trees.
July 18, 1997	TSTM/Winds/Hail	N/A	N/A	Two "waves" of severe thunderstorms moved southeast across the area on this date. The first line of thunderstorms moved across Nassau and Western Suffolk Counties during the early afternoon. The second line of thunderstorms moved over the area during the evening. For the day, these thunderstorms caused two deaths and 24 injuries. Both lines of severe thunderstorms produced high winds. In addition, the first line produced large hail. Selected wind gusts from Western Suffolk County that were documented with the passage of the first line include: 60 mph at both the town of Babylon and Farmingdale Airport; and 58 mph at the hamlet of Bohemia.  Significant structural damage (several roofs were blown off businesses) resulted in five injuries in the hamlet of Deer Park. A NWS Meteorologist investigated this damage and concluded that it was caused by a microburst. At least 3 roofs were blown off (the K-Lombardi Repair Shop and 2 businesses on Price Parkway). In addition to the 1 inch diameter hail observed at the town of Babylon, 3/4-inch diameter hail occurred at the hamlet of Deer Park. Monetary damages were not recorded.
December 29, 1997	High Wind	N/A	N/A	A low pressure system developed, while a high pressure system was northeast of the area. The low moved over New York City and intensified. East to northeast winds increased rapidly by evening. Wind speeds in southeast Suffolk County included: 56 knots at the Shinnecock USCG Station; 52 knots at Plum Island (town of Southold); and 50 knots at East Hampton Airport. Monetary damages were not recorded.
February 12, 1998	Lightning	N/A	N/A	\$100 K in damages to two homes in the hamlet of Ridge and the town of Southold.
February 18, 1998	Lightning	N/A	N/A	Several houses were destroyed from fire caused by lightning strikes in the villages of Greenport and East Hampton. Monetary damages were not recorded.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 2, 1998	Lightning	N/A	N/A	Lightning struck a barn in the town of East Hampton, injuring 4 firefighters, but monetary damages were not recorded.
June 13, 1998	Heavy Rain	N/A	N/A	<p>A low pressure system moved southeast and redeveloped just south of New York City. It moved east, and rain began across There were two to three bursts of heavy rain during this three-day period, which saw rainfall amounts from two to just over seven inches across the region.</p> <p>Rivers of moving water formed rapidly on the streets. In Mastic, water flowed quickly from Montauk Highway into a residential area, flooding basements and first floors of homes. In Wading River, lightning struck a television antenna of a home, which then travelled to an attic and ignited a fire. The home was located on Zophar Mills Road. Monetary losses were not documented in the materials available for review.</p>
June 30, 1998 (3 events)	Tornado (1-F0 and 2-F1)/Hail	N/A	N/A	<p>Two waves of severe weather affected the New York City area: one in the morning and the other in the evening. Funnel clouds were produced in Suffolk County, described by meteorologists as mild. The first wave included an isolated severe thunderstorm that spawned two weak tornadoes, large hail, and damaging winds, as it moved across central Suffolk County. The first tornado (F1) touched down near Lake Shore Road in the hamlet of Lake Ronkonkoma, downing many trees and power lines. Trees were blown into houses, causing structural damage. The tornado then lifted and funnel clouds were observed before another touchdown took place, creating an F0 tornado. This touchdown occurred on the campus of the Suffolk Community College in the hamlet of Selden. Many trees were uprooted and fell on parked cars at the campus. Widespread damage was reported across the County.</p> <p>Overall, wind speeds of up to 70 mph were at the surface and speeds between 80 and 100 mph were at treetop level. The toppling trees caused damage to 10 homes and 12 cars. Monetary damages were not recorded.</p>
September 7, 1998	TSTM / Hail	N/A	N/A	<p>An intense line of severe thunderstorms oriented from north to south developed during Labor Day afternoon ahead of a strong approaching cold front. As the storms moved east at 40 to 50 mph, they produced high winds, large hail, and an isolated tornado. Wind gusts from 60 to 80 mph downed many trees and power lines throughout the area. In Suffolk County, high winds overturned many boats in the Great South Bay, downed large trees in West Babylon (town of Babylon) and the hamlet of Rocky Point, and downed large tree limbs in the hamlet of Wading River.</p> <p>One person died when a thunderstorm wind gust capsized a 19-foot sail boat in Great South Bay near the hamlet of Copiague. A hamlet of Centerport woman, 36, and her daughter, 3, were injured when a tree fell on them in the parking lot of the</p>



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				Ground Round Restaurant and CVS on Fort Salonga Road. The following peak wind gusts were reported: 72 mph in the town of Babylon and 65 mph in Fire Island (Town of Brookhaven). Monetary damages were not recorded.
August 8, 1999	Tornado (F2)	N/A	N/A	A severe thunderstorm produced a tornado along the south shore of the North Fork of Suffolk County on Long Island. The tornado touched down and lifted several times along a 4 mile path as it moved east-southeast from just southeast of Mattituck Air Base, across Marratooka Pt., Kimogener Pt. (of the hamlet of New Suffolk), Cutchogue Harbor, Central Nassau Pt., then lifted as it crossed Hog Neck Bay. \$1 M in damages; 1 injury
March 11, 2000	TSTM	N/A	N/A	Severe thunderstorms affected Suffolk County. In the Town of Southampton, four injuries were reported. Monetary damages were not recorded.
June 2, 2000	TSTM / Hail	N/A	N/A	1 injury. Monetary damages were not recorded.
June 6, 2000	Heavy Rain	N/A	N/A	Heavy rain caused some flooding of low-lying and poor drainage areas. The heaviest rain fell from Southwest Suffolk County northwest across Bronx, south Westchester, southwest Rockland, and southwest Orange Counties. Rain totals in Suffolk County ranged from 2.88 inches at Fishers Island (town of Southold) to 5.52 inches at the hamlet of Holbrook. In the hamlet of Bridgehampton, 3.07 inches was reported. At Islip Airport, 5.31 inches occurred. Monetary damages were not recorded.
September 15, 2000	Tornado (F1)	N/A	N/A	Damage was mostly done to trees; no monetary damages were recorded.
December 12, 2000	High Wind	N/A	N/A	High winds developed rapidly in an unstable air mass following the passage of a strong cold front across the area. Several measured peak wind gusts were at least 58 mph. They were responsible for causing one death and at least six injuries. High winds downed many trees onto houses, cars, power lines, and streets. They caused significant property damage and power outages. Peak wind gusts were reported in County: 58 mph in the village of Westhampton Beach. Monetary damages were not recorded.
May 25, 2001	Lightning	N/A	N/A	Frequent cloud to ground lightning accompanied these thunderstorms, which triggered fires that damaged at least two homes in Riverhead. Monetary damages were not recorded.
July 1, 2001	Tornado/Hail	N/A	N/A	Two separate F0 tornado events were reported. Widespread power outages and downed trees were reported in the Town of Southampton. Several boats were picked up and damaged. Monetary damages were not recorded.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 21, 2002	Lightning	N/A	N/A	1 injury. Monetary damages were not recorded.
September 1, 2002	Heavy Rain	N/A	N/A	A storm developing along the mid-Atlantic coast produced widespread heavy rain over the area. Spotter and official NWS observations indicate widespread rainfall amounts between one and two and a half inches in Suffolk County.
December 1, 2004	High Wind	N/A	N/A	As an intensifying low pressure system moved northeast, its' cold front swept east of the area. Strong and gusty west winds occurred. High winds downed numerous trees and power lines, which resulted in widespread power outages throughout the area. Thousands of power outages were confirmed by local utility companies. In Suffolk County, the Shinnecock Inlet wind system measured a wind gust to 64 MPH at 11:40 am
March 28, 2005	Heavy Rain	N/A	N/A	A strong low pressure system developed across the southeast U.S. and moved slowly north to up the eastern seaboard. Heavy rain developed, resulting in widespread flooding. Many small rivers and streams experienced significant within bank rises. Total rainfall amounts ranged between two and three inches. Suffolk County experienced 0.94 inches at the Village of Westhampton Beach to 2.47 inches at the hamlet of Nesconset.
April 1-3, 2005	Windstorm	N/A	N/A	Monetary damages were not recorded.
July 5, 2006	Lightning	N/A	N/A	1 injury
August 25, 2006	Tornado	N/A	N/A	There were reports of damage to trees and cars and Con Edison reported 14,000 customers without power. Monetary damages were not recorded.
October 28, 2006	Windstorm	N/A	N/A	Monetary damages were not recorded.
March 3, 2007	Strong Wind	N/A	N/A	\$1 K in property damages
April 24, 2007	Severe Storms and Inland Coastal Flooding	DR-1692	Yes	Heavy rain led to widespread flooding of small streams and creeks across the county, which began during the early morning hours of Monday, April 16th, and persisted into Wednesday morning on the 18th.  FEMA gave out more than \$61 million in assistance to affected counties within the





Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				State. Suffolk County had approximately \$26 M in damages
June 1, 2007	Hail	N/A	N/A	Pulse severe thunderstorms produced brief wind damage and large hail across interior portions of the Lower Hudson Valley and over East Central Suffolk County.
July 18, 2007	Tornado (F1)	N/A	N/A	<p>A tornado touched down in the town of Islip Terrace near the intersection of Irish Lane and the north service road of Sunrise Highway. It moved east to northeast across Carleton Avenue, Roslyn, and Nassau Streets, and lifted near Nassau and Kunigunda Place. The path was discontinuous over two thirds of a mile.</p> <p>Most of the damage was to hard wood trees. Twisted off branches were evident throughout the damage path. Some trees were snapped off half way up, including some healthy 40 foot pines. The Medical Arts Building at Irish Lane and Sunrise Highway sustained structural damage, with a significant loss of its' roof covering and the HVAC unit blown off its roof. Other homes along the damage path also sustained minor damage to siding and some directly from fallen trees. Monetary damages were not recorded.</p>



**Table H-7. Nor'Easter Events**

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
October 24, 1897	Nor' Easter	N/A	N/A	Separated Orient Village from the North Fork	Governor's Coastal Erosion Task Force 1994
March 4, 1931	Nor' Easter	N/A	N/A	Created Moriches Inlet, severe beach erosion and structural damage	NPS, 2005
November 24-25, 1950	Nor' Easter	N/A	N/A	A Thanksgiving storm caused millions of dollars in damages and brought wind gusts of up to 93 mph	Long Island Newsday, 2013
November 6-7, 1953	Nor' Easter	N/A	N/A	No information available.	FEMA, 2008
October 14-16, 1955	Nor' Easter	N/A	N/A	No information available.	FEMA, 2008
February 2, 1961	Wind/ Winter Weather	N/A	N/A	A winter weather event caused property damage of approximately \$80,000 in property damage.	SHELDUS
April 13, 1961	Nor' Easter	N/A	N/A	No information available.	FEMA, 2008
March 6-9, 1962	Severe Storm, High Tides, Flooding	DR-129	Yes	Coastal flooding, tidal wave destruction, severe storms, thunderstorms, and high wind. Long Island communities, such as Fire Island, were decimated by this storm, with over 100 homes destroyed. The USACE indicates that as a result of this flooding event, a total of 50 wash overs occurred and one new inlet at Westhampton Beach (the largest breach over 400 meters wide) was formed. On Fire Island, a total of 47 homes were destroyed and 75 were damaged resulting in property losses estimated in the millions.	FEMA; Long Island Newsday, 2013; Watson, 2006
November 12-13, 1968	Nor' Easter	N/A	N/A	No information available.	FEMA, 2008
February 8-10, 1969	Blizzard/Nor' Easter	N/A	N/A	Over 25 inches of snow fell throughout New York State	NWS



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
February 19, 1972	Nor' Easter	N/A	N/A	No information available.	FEMA, 2008
November 7, 1973	Nor' Easter	N/A	N/A	No information available.	FEMA, 2008
December 16, 1973	Winter Weather	N/A	N/A	A winter weather event caused property damage of approximately \$50,000.	SHELDUS
February 6, 1978	Coastal Winter Weather	N/A	N/A	Blizzard conditions, heavy snow, and tidal flooding caused at least 3 injuries. Suffolk County experienced over \$4 M in losses, mostly in the Town of Brookhaven.	SHELDUS; FEMA, 2008; Kocin and Uccellini, 2004
January 17, 1983	Winter Weather	N/A	N/A	A winter weather event caused property damage of approximately \$238,000 and at least one injury.	SHELDUS
February 28, 1984	Winter Weather	N/A	N/A	A winter weather event caused property damage of approximately \$238,000 and at least one injury.	SHELDUS
October 30-31, 1991	Nor' Easter	N/A	N/A	<p>This event was the worst coastal flooding event in Long Island since the 1960s. This storm caused heavy flooding and severe erosion across Long Island. A tidal surge with waves as high as 15 feet occurred in some places, engulfed the shores, sheared off sweeping stretches of beach from the hamlet of Montauk to the village of Freeport (Nassau County), and punched holes in environmentally sensitive barrier beaches. Wind and waves destroyed 24 homes and ripped up for public highways on the south shore. There was approximately \$34 M in damages to the coastal areas. Overall, this event caused \$2.6 B in damages and nine fatalities. This was also one of the top three erosion events in Suffolk County.</p> <p>In the town of Babylon, Gilgo Beach was scoured away. A layer of sand five-feet deep disappeared from Babylon Beaches.</p> <p>In the town of Southold, there was significant flooding in the hamlet of Jamesport at Peconic Bay.</p>	Long Island Newsday, 2013, Long Island Newsday, 2013



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				<p>Orient Beach experienced significant damage, causing it to close for an extended period of time. The roadway to the beach was undermined and caved in and the park was completely flooded. The access road to Orient Beach State Park was severed in 10 places. This was one of the hardest hit beaches in Long Island.</p> <p>In the town of East Hampton, 150 feet of beach was lost at Napeague State Park. A 20-foot section of West Lake Drive collapsed from flood waters. In addition, 10 feet of bluff on each side of Montauk Lighthouse was carved out. A dozen propane tanks and an electric dryer floated among the debris.</p> <p>In the town of Southampton, the village of Southampton was found underwater. In the hamlet of Westhampton, an Air National Guard helicopter with five crew members aboard went missing after it went down in rough waters. The storm washed away several houses. More than two dozen ocean-front homes in the hamlet of Westhampton were destroyed and left as debris. Many houses were buried in sand and debris.</p> <p>On Fire Island (town of Brookhaven), four people in boats that were capsized by waves fell into the icy water and were admitted to hospitals to address hypothermia. Several 40-foot dunes on Fire Island were leveled. Multiple homes were destroyed. Raw sewage was reported leaching from cesspools and septic tanks in some areas of the Island and residents who use well water were urged to boil water.</p>	
December 10-14, 1992	Coastal Storm, High Tides, Heavy Rain, Flooding	DR-974	Yes	This event caused flooding, coastal erosion, creation of new inlets, debris and damage to utility lines, roads and other infrastructure. Resulted in approximately \$31.2 M in property damages throughout southeastern New York State. Severe beach erosion on the south shores, destruction in the north fork, new inlets, 100 + structures damaged. About 448,000 Long Island	FEMA; Long Island Newsday, 2013



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				homes lost power at one time or another during the storm.  The worst hit areas in Suffolk County included the hamlets of Copiague, Eatons Neck, Fire Island, Lake Ronkonkoma, Montauk, Orient, Setauket, Wading River, and Westhampton; the Towns of Babylon, Brookhaven, Riverhead, Shelter Island, Smithtown, and Southampton; and the Villages of Amityville, Asharoken, Lindenhurst, Lloyd Harbor, Mastic Beach, Port Jefferson, Sag Harbor, Saltaire..	
March 12-14, 1993	Severe Blizzard (Nor' Easter)	EM-3107	Yes	This event caused approximately \$8.5 million in damages throughout New York State. 10 to 20 inches of snow fell throughout Suffolk County. Suffered significant coastal erosion. Over 3 million customers lost power. At least 18 homes fell into the sea. Type of damage, monetary losses, and location were not reported for Suffolk County.	FEMA; NYS DHSES
January 1994	Nor' Easter	N/A	N/A	No information available.	NWS
March 3, 1994	Nor' Easter	N/A	N/A	A powerful Nor' Easter moved northward along the coast, bringing strong winds, snow, ice and minor coastal flooding. Winds between 35 and 40 mph prevailed for several hours, with gusts of approximately 60 mph in several locations. The winds brought down large branches and small trees and many power lines were knocked down as well. The winds also attributed directly to widespread, but relatively minor, coastal flooding and moderate beach erosion. Snow and ice accumulated between five and eight inches.	NOAA-NCDC
January 6-8 1996	Nor' Easter / Blizzard	DR-1083	Yes	Snowfall totals ranged from 19 to 28 inches. All forms of transportation were crippled. All area airports were closed, some for a couple of days. Hundreds of Millions of dollars were spent for snow removal. Millions of dollars were lost for area businesses that had to close. Schools were closed throughout the region. Several people were injured during the next several days as numerous roofs	FEMA, NYS DHSES; NOAA-NCDC



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
				collapsed due to the extremely heavy load of snow. A state of emergency was declared for this storm that was dubbed the Blizzard of '96.	
October 19-20, 1996	Nor' Easter	DR-1146	Yes	Approx. \$16.1 M in total damages - Approx. \$3.5 M in disaster aid to Nassau and Suffolk Counties, \$286 K in additional federal aid to Suffolk County	FEMA, NYS DHSES
April 14-16, 1997	Nor' Easter	N/A	N/A	The combined effects of high winds, heavy rainfall, and high tides led to significant coastal erosion, flooding, storm damages, power outages, and evacuations, and disrupted traffic and commerce. This storm caused over \$26 million in damage in Suffolk County, including significant erosion, flooding, and damage to homes, businesses, and infrastructure. Cupsogue Beach County Park in Westhampton was hit with over \$5 million in damage while millions more in damage affected Smith Point County Park in Shirley. Major erosion and flooding also occurred at places like Captree State Park, Heckscher State Park, Caumsett State Park, Orient Beach, and Montauk Point. The storm led to the partial collapse of a road at Orient Point State Park. According to the Town of Babylon, homes and businesses south of Montauk Highway encountered significant damage. On the East End, towns like Southold heard from homeowners with flooded basements. Long Island was also plagued by flooding, especially in communities like Copiague, Amityville, Lindenhurst, Lake Ronkonkoma, and Babylon. Rain totals ranged from 1.5 inches to close to 4 inches. Across Long Island, almost 18,500 LIPA customers experienced power outages. The storm caused several fatalities. More than 1,000 people evacuated Fire Island	Patchogue Village Document; McFadden, 2007; Schumer, 2007
February 5-6, 1998	Coastal Flood / Nor' Easter	N/A	N/A	A Nor' Easter caused strong, gusty winds, high seas, heavy surf, moderate beach erosion, and minor to moderate coastal flooding. During the first high tides, water inundated streets, yards and basements in Staten Island. Streets were also flooded in Suffolk and Nassau Counties. In the Town of Southampton, a home was destroyed, causing approximately \$750 K in damages.	NOAA-NCDC



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts	Source(s)
February 24, 1998	Coastal Flood / Nor' Easter	N/A	N/A	As a storm passed southeast Long Island, a Nor' Easter developed. It produced gusty winds, high seas, heavy rain, moderate beach erosion, and minor to moderate coastal flooding. Many areas in Suffolk County were flooded.	NOAA-NCDC
January 25, 2000	Winter Storm / Nor' Easter	N/A	N/A	A Nor' Easter moved north to northeast, bringing snow, with rates up to two inches per hour.	SHELDUS
March 4-7, 2001	Nor' Easter	N/A	N/A	Snow totals throughout Suffolk County ranged from 5.6 inches in Montauk Point in the Town of East Hampton to 16.0 inches in the Town of Brookhaven.	North Shore Wx, NWS
December 24-26, 2002	Nor' Easter	N/A	N/A	Snow amounts ranged from 0 to 12 inches across the County	NWS; NOAA-NCDC
February 17-18, 2003	Snowstorm	EM-3184	No	This event brought between 14 and 24 inches of snow and caused approximately \$20 million in damages.	FEMA
December 5-7, 2003	Nor' Easter	N/A	N/A	Snowfall totals in Suffolk County ranged between 11 inches and 20.5 inches. 200 customers of the Long Island Power Authority lost power.	NWS; Kocin and Uccellini, 2004; Enloe, 2011; NOAA-NCDC
October 24-25, 2005	Nor' Easter	N/A	N/A	Up to approximately 2.5" of rain fell in parts of the County. No reference and/or no damage reported	NWS
November 21-22, 2005	Nor' Easter	N/A	N/A	Up to approximately 2.25" of rain fell in parts of the County. No reference and/or no damage reported	NWS
December 9, 2005	Nor' Easter	N/A	N/A	Up to one-half inch of snow fell in parts of the County. No reference and/or no damage reported	NWS
February 11, 2006	Nor' Easter	N/A	N/A	Many areas experienced very heavy snowfall rates, up to 3 to 4 inches per hour. Suffolk County received 9 to 20 inches of snow, with the town of Islip receiving the highest accumulation. The storm caused \$5 M in damages to multiple states	NOAA-NCDC
April 15-16, 2007	Nor' Easter	DR-1692	Yes	This event caused major flooding and coastal erosion, and approximately \$26 million in damages.	FEMA, NWS



Table H-8. Wildfire Events

Dates of Event	Event Type	FEMA Declaration Number	Location / County Designated?	Losses / Impacts
1839	Wildfire	N/A	N/A	Two great fires in the Central Islip – Farmingdale area. No reports of damages were available.
1845	Wildfire	N/A	N/A	A year after the mainline of the railroad was completed, extensive and destructive fires swept over the area. In some areas, the entire forest, eight to 10 miles in length and two to four miles wide, was completely taken over by fire. This fire destroyed vegetation and consumed thousands of cords of wood.
1848	Wildfire	N/A	N/A	A very destructive fire burned for two weeks and burned over 75 square miles.
1862	Wildfire	N/A	N/A	A destructive fire originated in the Town of Smithtown and swept across to the Town of Southampton. Reportedly started by passing trains on the railroad or intentional act of a person.
1930s	Wildfire	N/A	N/A	More than 4,000 acres burned in Brookhaven State Park and the northern portion of Brookhaven National Laboratory.
April 1931	Wildfire	N/A	N/A	An approximately 15,000 acre fire burned from the hamlet of Port Jefferson Station to the Rocky Point State Pine Barrens Preserve. Started south of the hamlet of Mount Sinai and south of the hamlet of Port Jefferson Station and burned 24 square miles.
1944	Wildfire	N/A	N/A	Suffolk Hills County Park fire impacting greater than 500 acres
1960s	Wildfire	N/A	N/A	More than 5,000-acre fire burned in South Yaphank, mostly north of Horse Block Road and south of the LI Expressway.
July 1964	Wildfire	N/A	N/A	An approximately 6,000-acre fire burned the Sears Bellows County Park area within the hamlet of Hampton Bays
May 25, 1981	Wildfire	N/A	N/A	Fire near Grassy Pond/Route 25 burned more than 500 acres
April 30 – May 1, 1983	Wildfire	N/A	N/A	Greater than 500 acres burned in the Manorville Moraine
October 28, 1985	Wildfire	N/A	N/A	Greater than 625 acres burned in Brookhaven State Park
April 20, 1989	Wildfire	N/A	N/A	Northwest of Bald Hill - greater than 542 acres burned in the Manorville Moraine
April 21, 1989	Wildfire	N/A	N/A	Otis Pike Property, greater than 542 acres burned in the town of Brookhaven
August 24 to September 5, 1995	Wildfire	FM 2115	Yes	In Pine Barrens, devastating fires raged for 13 days. Extreme drought conditions and gusting winds of up to 20 mph contributed to the ferocity of the blaze. Flames rose to between 50-200 feet high. More than 6,800 acres of forest were charred in the hamlet of Westhampton and other towns across Suffolk county. Nearly every fire department in Nassau and Suffolk Counties responded. 49 firefighters were injured, none seriously. One house and five fire trucks were destroyed, and nine other houses plus the Westhampton train station were damaged. This event was named the “Sunrise Fires.” An estimated \$620 K in Federal Fire Suppression Grants were awarded to offset local expenses related to fighting the wildfires





Dates of Event	Event Type	FEMA Declaration Number	Location / County Designated?	Losses / Impacts
				Suffolk County reported \$5 M in damages.
April 19-20, 2006	Wildfire	N/A	N/A	In the town of Babylon, 50 acres were burned near the Deer Park LIRR station and the Heartland Industrial Park. The fire caused traffic issues, railroad delays, and power outages. Buildings in the industrial park were evacuated. It took 43 fire companies from Nassau and Suffolk Counties to battle the fire. Two firefighters were injured. Monetary losses were not documented.
April 23, 2007	Wildfire	N/A	N/A	A wildfire impacted 48 acres in Connectquot State Park; an area that had been burned several years before. Several fire companies responded however the departments were able to contain the fire. There were no structural losses.



**Table H-9. Winter Storm Events**

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
1779-1780	Northeast's Hard Winter	N/A	N/A	No reference and/or no damage reported
March 1888	Blizzard ("Blizzard of '88")	N/A	N/A	Two hundred ships were grounded and at least one hundred seamen died. Fire stations were immobilized; property losses from fire alone were estimated at \$25 million. Specific monetary losses were not documented in the materials available for review for Suffolk County.
February 11-14, 1899	Blizzard	N/A	N/A	10 to 20 inches of snow fell throughout Suffolk County.
December 1947	Blizzard	N/A	N/A	The storm would eventually become the worst blizzard in New York City and surrounding areas since 1888. Beginning the day after Christmas, 25.8 inches (nearly 100 million tons) of snow were dropped on city streets. Thousands of commuters were trapped in the city, stranded on trains and subways. Over 30,000 men worked for an entire week at a cost of \$6 million to remove the snow. Seventy-seven people died in eight northeastern states.
January 1948	Blizzard	N/A	N/A	25.8 inches of snow fell throughout New York State.
March 18-19, 1956	Blizzard	N/A	N/A	1 to 30 inches of snow fell throughout Suffolk County.
March 2-5, 1960	Blizzard	N/A	N/A	10 to 30 inches of snow fell throughout Suffolk County.
December 12, 1960	Winter Storm	N/A	N/A	Southeastern New York State had \$36 K in damages and two fatalities
February 2-5, 1961	Blizzard	N/A	N/A	10 to 20 inches of snow fell throughout Suffolk County. No reference and/or no damage reported
February 11-14, 1964	Blizzard	N/A	N/A	10 to 20 inches of snow fell throughout Suffolk County.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 5-7, 1967	Blizzard	N/A	N/A	10 to 20 inches of snow fell throughout Suffolk County.
February 1969	Blizzard/Nor' Easter	N/A	N/A	Over 25 inches of snow fell throughout New York State. 4 to 20 inches of snow fell throughout Suffolk County
December 17, 1973	Winter Storm	N/A	N/A	\$100 K and 1.2 Fatalities
January 13-14, 1978	Ice Storm	N/A	N/A	Widespread power outages occurred across large parts of Long Island, especially along the north shore. The governor of New York State activated the National Guard to assist with the cleanup on Long Island and utility crews were brought in from hundreds of miles away to help with the repair of power lines.
January 19-20, 1978	Blizzard	N/A	N/A	The town of Islip received 17.0 inches of snow and the village of Patchogue received 16.0 inches of snow. No reference and/or no damage reported
February 5-7, 1978	Blizzard	N/A	N/A	10 to 30 inches of snow fell throughout Suffolk County. Suffolk County experienced over \$4 M in losses, mostly in the Town of Brookhaven. Brookhaven received over 25 inches of snow during this event, which resulted in over \$1 million in cleanup costs to residents. The cost to private businesses and individual in terms of storm damages, cleanup costs, snow removal, lost wages, and sales was roughly estimated at another \$2.6 million. The event resulted in one death and the destruction of 16 vacation homes along Fire Island
April 6, 1982	Blizzard	N/A	N/A	No reference and/or no damage reported
February 10-12, 1983	Blizzard	N/A	N/A	10 to 30 inches of snow fell throughout Suffolk County.
March 12-17, 1993	Severe Blizzard ("Storm of the Century")	EM-3107	No	New York State had approximately \$8.5 M in damages and 23 fatalities.  Damage on Fire Island was extensive. 12,000 homes sustained storm damages, including houses on Fire Island. The storms were so powerful that they scoured from 70 to 100 feet of beach away, almost the entire length of the island. Dunes were reduced to 0 to 8 feet in height in most places (from a previous 15 to 25-foot height). Over 3 million customers were without electrical power in the region due to fallen trees and high winds. At least 18 homes fell into the sea on Long Island due to the pounding surf.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 8-12, 1994	Blizzard	N/A	N/A	10 to 30 inches of snow fell throughout Suffolk County.
January 6-9, 1996	Blizzard (“Blizzard of ‘96”)	DR-1083 (PA)	Yes	<p>This event brought extremely heavy snow, with totals ranging between 19 and 28 inches. The heavy snow, combined with strong winds, created blizzard conditions for several hours. Area airports, businesses, schools and roads were closed. A state of emergency was declared for New York State.</p> <p>\$21.4 M in federal and state funds were provided to 150 municipalities in seven counties in New York State. Three men died from heart attacks while shoveling snow. 18 people in the tri-state area suffered effects of carbon monoxide poisoning in their stranded cars.</p>
January 22, 1997	Black Ice	N/A	N/A	Black ice formed and was widespread across Suffolk County roadways. Numerous traffic accidents resulted from this event. Overall, there were 24 injuries and one fatality in Suffolk County.
March 14-15, 1999	Heavy Snow	N/A	N/A	A low pressure system brought precipitation to the area; however, the light rain quickly turned to wet snow during the afternoon of the 14 <sup>th</sup> . The wet snow became heavy overnight, with totals ranging between six and 11 inches across the lower Hudson Valley and Long Island. The snow downed many tree limbs and power lines. In Suffolk County, snowfall totals ranged between six inches and 11 inches.
December 30, 2000	Heavy Snow	N/A	N/A	A low pressure system produced heavy snowfall in the area, with rates of one to two inches per hour. There were reports of thunder and lightning during the storm. In Suffolk County, snowfall totals ranged between 2.7 inches and 12 inches.
January 20-21, 2001	Winter Storm	N/A	N/A	A low pressure system developed off the mid-Atlantic coast and moved northeast, passing east of Long Island. Heavy precipitation developed and moved northeast across the area. Across Suffolk County, a significant period of sleet and freezing rain occurred before changing to heavy snow. Snowfall totals ranged between 0.43 inches and six inches.
February 5, 2001	Heavy Snow	N/A	N/A	Heavy, wet snow fell across central and eastern Long Island, causing hazardous travel conditions in the area. Snowfall totals in Suffolk County ranged between two inches and eight inches.
February 23, 2001	Snowfall	N/A	N/A	Snowfall totals in Suffolk County ranged between 2.5 inches to 4.6 inches. In the Town of Southampton, 3.8 inches of snow fell in the Town and 4 inches fell in the Hamlet of Bridgehampton.
March 4-7, 2001	Snowfall	N/A	N/A	Snowfall totals in Suffolk County ranged between five inches and 16 inches. In the Town of Southampton, snowfall totals ranged from eight inches in the Village of Quogue to 11 inches in the Village of Sag Harbor.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 27, 2001	Snowfall	N/A	N/A	Snowfall totals in Suffolk County ranged between one inch and 2.5 inches. In the Town of Southampton, snowfall totals ranged from one inch in the Village of Sag Harbor to 2.5 inches in the Hamlet of East Quogue.
December 5, 2002	Snowfall	N/A	N/A	Snowfall totals in Suffolk County ranged between 5.5 inches and 8.3 inches. In the Town of Southampton, 5.5 inches of snow fell in the Town.
December 24-26, 2002	Nor' Easter	N/A	N/A	4 to 10 inches of snow fell throughout Suffolk County.
February 7, 2003	Snow	N/A	N/A	Snowfall totals in Suffolk County ranged between 5.2 inches and 8.2 inches. In the Town of Southampton, snowfall totals included 6.9 inches in the Village of Sag Harbor, 7.5 inches in the Hamlet of Bridgehampton, and 8 inches in the Hamlet of East Quogue.
February 17-18, 2003 ("President's Day Storm")	Snowstorm	EM-3184 (PA)	Yes	Snowfall totals in Suffolk County ranged between 14 inches and 24 inches. In the Town of Southampton, snowfall totals included 24 inches in the Hamlet of Bridgehampton and 15 inches in the Hamlet of East Quogue. Property damages totaled \$20 million throughout the state.
March 6, 2003	Snow	N/A	N/A	Snowfall totals in Suffolk County ranged between four inches and 7.2 inches. In the Town of Southampton, snowfall totals included five inches in the Hamlet of East Quogue, 6.4 inches in the Village of Sag Harbor
April 7, 2003	Snow	N/A	N/A	Snowfall totals in Suffolk County ranged between three inches and 6.6 inches. In the Town of Southampton, snowfall totals ranged from 4.5 inches in the Hamlet of Bridgehampton to six inches in the Hamlet of Eastport.
December 5-7, 2003	Blizzard	N/A	N/A	Snowfall totals in Suffolk County ranged between 11 inches and 20.5 inches. 200 customers of the Long Island Power Authority lost power.
January 27-28, 2004	Snowstorm	EM-3195	No	No reference and/or no damage reported
February 1, 2004	Sea Ice	N/A	N/A	No reference and/or no damage reported
January 19, 2005	Snowstorm	N/A	N/A	No reference and/or no damage reported



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 22-23, 2005	Blizzard	N/A	N/A	Snow totals throughout Suffolk County ranged from 10.4 inches to 19.5 inches. Numerous trees and power lines down.
February 21-March 12, 2005	Snowstorms	N/A	N/A	No reference and/or no damage reported. February 25 <sup>th</sup> storm resulted in 7.5 inches in the village of Sag Harbor. The March 11 <sup>th</sup> -12 <sup>th</sup> snowstorm resulted in snow totals throughout Suffolk County ranged from 3.5 inches in the hamlet of Bay Shore to 8.0 inches in the village of Patchogue.
February 11-12, 2006	Blizzard	N/A	N/A	Approximately \$5 M in damages to multiple states. 10 to 20 inches of snow fell throughout Suffolk County. The town of Islip received the most at 20 inches.
February 16, 2007	Snowstorm	N/A	N/A	No reference and/or no damage reported