# Nassau County, New York Flood Hazard Mapping Status Report for Property Owners

# What factors determine Federal flood insurance premiums?

A number of factors determine Federal flood insurance premiums, including the amount of coverage purchased, the deductible, as well as the location, age, occupancy, and type of building. For newer buildings in floodplains, the elevation of the lowest floor relative to the BFE is used to rate the policy. Older buildings can be rated using lowest floor elevation if that rate is more beneficial to the property owner.

### If a structure was built in accordance with the flood elevation shown on the 1997 maps (or prior flood maps), and the BFE has increased on the proposed FIRM, what happens to the insurance premium for that structure when this FIRM goes effective?

Insurance premiums will not increase for a structure built in compliance with local floodplain management regulations and the flood map in effect at the time of construction. However, should the structure be substantially improved or substantially damaged (where damages or improvements reach 50% or more of the pre-damage market value) the entire structure will have to be brought into compliance with zone

designation and BFEs in effect at the time any repairs take place. If the substantial improvement consists of an addition sharing a common wall, only the addition is required to be compliant **FLOODSMART.GOV** with the current flood elevation.



### What if a structure is built in a coastal area which was in Zone AE, the flood elevation in effect at the time of construction, but the zone designation will change to Zone VE on the new maps?

If the structure was built in compliance with the maps in effect at the time of construction, the premium will not be affected.

### What if homeowners want to build an addition or improve their homes in Nassau County?

If the improvements or additions are valued at less than 50% of the market value of the existing structure, then the improvement can meet or exceed standards that were in effect when the existing structure was constructed. Substantial improvements, valued at 50% or more of the market value of the existing structure, invoke more stringent requirements that must be reviewed with your local building official.

## **Additional Information**

For any questions concerning Nassau County, New York flood hazard mapping, or LOMAs and LOMR-Fs, please contact the FEMA Map Assistance Center's toll-free information line at (877) FEMA MAP (877-336-2627).

Visit http://www.fema.gov/plan/prevent/fhm/ot\_lmreq.shtm for more information about LOMAs and LOMR-Fs.

Contact the U.S. Fish and Wildlife Service at (631) 776-1401 for more information about CBRS and OPAs.

Visit http://www.fws.gov/habitatconservation/cbra3.htm for more information about CBRS areas.

For any other questions concerning flood insurance, please contact the Flood Insurance Information Hotline at (800) 638-6620.

Visit http://rmc.mapmodteam.com/RMC2/counties.htm to view the preliminary DFIRM for Nassau County.

final flood hazard maps.

### What is the NFIP?

In 1968, Congress established the National Flood Insurance Program (NFIP) due to escalating costs to taxpayers for flood disaster relief. The NFIP is administered by FEMA and is based on the agreement that if a community practices sound floodplain management, the Federal Government will make flood insurance available. FEMA has undertaken flood hazard identification efforts to map flood hazard areas, including the Special Flood Hazard Area (SFHA), which is the area that has a 1% or greater chance of flooding in any given year. Development may take place within the SFHA provided that it complies with local floodplain ordinances that meet the minimum Federal criteria. Flood insurance is required for property owners whose residential and commercial structures are located within the SFHA as a condition of receipt of Federal or federally backed funding. When FEMA maps flood hazards in a community and/or county, two products are typically produced: a Flood Insurance Study (FIS) report and a Flood Insurance Rate Map (FIRM).

### What is a FIS report?

A FIS report includes an examination, evaluation, and determination of flood hazards and specific information about the flood hazard analyses performed.

### What is a FIRM?

A FIRM illustrates the extent of flood hazards in a community by depicting flood risk zones, including the 1% and 0.2% annual chance floodplains. FIRMs also depict other information including, Base Flood Elevations (BFEs) and/or depths associated with the risk zones, floodways, coastal high hazard areas (V Zones), and common physical features such as roads, stream centerlines, and shorelines.

### What has been issued for Nassau County?

The previous flood study for Nassau County became effective in April 1997. On June 2, 2008, FEMA issued a preliminary FIS report and FIRM to Nassau County for review and comment. The new FIRM reflects updated coastal analyses and is provided in FEMA's DFIRM format, which allows it to be easily integrated in your community's Geographic Information System (GIS). After holding meetings in July to present the study, FEMA will open a formal appeal process to allow the opportunity for community input. See Study Timeline below.





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This pamphlet provides information regarding revisions made to Nassau County's flood hazard maps. The following information is being provided by the Federal Emergency Management Agency (FEMA) to inform property owners about these revisions and the release of the

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### What changes for Nassau County will be shown on the new FIS report and FIRM?

The updated FIS report and FIRM will reflect new coastal flood hazard analyses, the most up-to-date guidelines for mapping Coastal High Hazard Areas, and refined flood hazard boundaries based on Nassau County provided topography. In general, these revisions impact the map in two ways:

- 1. Increased flood hazard elevations in coastal areas, and
- 2. New areas included in the Special Flood Hazard Area.

### What is a Base Flood Elevation (BFE)?

BFEs are shown on a FIRM and represent rounded, whole-foot elevations of the 1% annual chance flood (commonly known as the 100-year event) at selected locations along flooding sources that have been studied in detail. Coastal BFEs are determined by evaluating various effects associated with large storms, including storm surge and wave action.

### Why did BFEs increase in Nassau County since the old maps became effective in 1997?

BFEs increased in Nassau County based on improvements in our understanding of coastal processes and technological advances in our ability to model these processes specifically for two reasons:

- 1. Stillwater elevations (the storm surge elevation not including waves) in Nassau County were adjusted based on an analysis of historical flood data and events. These changes in stillwater elevations resulted in increases in BFEs of up to 4 feet in the Head of the Bay.
- 2. Wave setup was added to the stillwater elevation to better predict BFEs during a coastal storm event. Wave setup is the additional elevation of the water surface over normal surge elevation caused by onshore transport of the water by wave action. The addition of wave setup in Nassau County resulted in increases in BFEs of up to 4 feet along the open Atlantic Ocean coastline.

### What is a Coastal High Hazard Area?

In coastal areas, the SFHA may be designated on the FIRM as either a V Zone or an A Zone. V Zones, also referred to as Coastal High Hazard Areas, are defined as areas of the SFHA where wave action and/or high velocity water can cause structural damage.

### Why were new areas included in the Coastal High Hazard Area?

Several factors can dictate the extent of Coastal High Hazard Areas. In Nassau County, it was primarily based upon the landward limit of the primary frontal dune (PFD), consistent with the FEMA regulation adopted in 1988. In major storm events the primary frontal dune is subject to high energy wave action and erosion, which can result in dune overwash and breaching. These processes could potentially subject landward structures to flooding and wave impacts. Due to this, the PFD is classified as a Coastal High Hazard Area. The inland limit of the PFD is delineated at the point where a distinct change from a relatively steep slope to a relatively mild slope occurs on the landward side of the dune. Accordingly, many properties and structures on Long Island that were previously located outside of the SFHA are now shown within the SFHA due to Coastal High Hazard Area considerations.



The digital base mapping information files were provided by the Nassau County Department of Information Technology. The topographic dataset used to delineate floodplain boundaries, with the exception of Long Beach and Jones Beach, was comprised of 2 ft interval contour data. These data were originally derived from April 1993 stereo photography and updated with orthoimagery collected in 2004. The coastal floodplain delineation on Long Beach and Jones Beach was based on topographic data provided by the United States Army Corps of Engineers (USACE). These data were comprised of bare earth LiDAR topography collected by the USACE Compact Hydrographic Airborne Rapid Total Survey (CHARTS) system in October and November 2005. Bathymetric data was primarily sourced from National Oceanic and Atmospheric Administration National Ocean Service hydrographic surveys.

### Why are these maps being revised now when there has not been any flooding?

There are multiple reasons for the current map revision. The first reason is to significantly improve the data available for disaster planning. Updated maps and flood zones provide authorities at the local, state, and federal level with the information they need to make better decisions in order to save lives and reduce property damage. The second reason is that natural disasters can occur at anytime and no area is immune. Historically, Long Island has been subject to major storms. One example is the 1938 hurricane, a category 3 storm at landfall, known locally as the "Long Island Express." Impacts from this event included loss of life, extensive flooding, severe property damage (approx. \$92 million in 2008 dollars), and extensive overwash and breaching of the south shore barrier islands. Although such powerful storms are infrequent, the potential for these events is always there. Given the increase in population and development in the last 50 years, the exposure is much greater. Updated and accurate risk information is the cornerstone to sound emergency response and disaster preparedness efforts.

### What is a Letter of Map Amendment (LOMA)?

Although FEMA uses the most accurate flood hazard information available, limitations of scale or topographic definition of the source maps to prepare FEMA flood hazard maps may cause small areas that are at or above the BFE to be inadvertently shown within SFHA boundaries. Such situations may exist in Nassau County. For these situations, FEMA established the Letter of Map Amendment (LOMA) process to correct map inaccuracies.

LOMAs are documents issued by FEMA that can officially remove a property or structure from the SFHA. To obtain a LOMA, the applicant must complete the LOMA application form. For a LOMA to be issued removing a structure from the SFHA, NFIP regulations require that the lowest adjacent grade (the lowest ground touching the structure) be at or above the BFE. There is no fee for FEMA's review of a LOMA request, but the requestor of a LOMA is responsible for providing all the information needed for FEMA's review of the request, including elevation information certified by a licensed land surveyor or professional engineer.

### What is a Letter of Map Revision - based on Fill (LOMR-F)?

A LOMR-F is also a document issued by FEMA that can officially remove a property or structure from the SFHA. A LOMR-F application is submitted for properties on which fill has been placed to raise the property or structure to or above the BFE. By regulation, fill cannot be used as structural support in Coastal High Hazard Areas. NFIP regulations require that the lowest adjacent grade and lowest floor of the structure be at or above the BFE for a LOMR-F to be issued, removing the structure from the SFHA. To remove the entire property, the lowest point on the property must be at or above the BFE. FEMA charges fees for the engineering review for LOMR- F cases.

The issuance of a LOMA and a LOMR-F is at or above the BFE may result in the lender removing the requirement to carry flood insurance. However, it must be noted that it is the lender's right to require the purchase of flood insurance to protect their investment regardless of whether or not the structure has been removed from the SFHA by a LOMA or LOMR-F. A structure situated on the primary frontal dune is considered to be in the Coastal High Hazard Area, and therefore cannot be removed from the SFHA, regardless of the structure's lowest adjacent grade. Flood insurance is required for these structures.

### What are Coastal Barrier Resources System (CBRS) areas?

Congress passed the Coastal Barrier Resources Act (CBRA) in 1982, and the Coastal Barrier Improvement Act (CBIA) in 1990, defining and establishing a system of protected coastal areas known as CBRS.

Coastal barriers are unique landforms that serve as a protective barrier against the forces of wind and tidal actions caused by coastal storms. While the CBRA and CBIA do not prevent private financing and development within the CBRS, they do impose prohibitions on financial assistance by Federal agencies, including loans, grants, guarantees, insurance payments, rebates, subsidies, or any other forms of direct or indirect Federal assistance. Areas to be added to the CBRS are identified by the U.S. Department of the Interior, U.S. Fish and Wildlife Service through coordination with State and local agencies, and recommended to Congress. Federal assistance restrictions are applied to CBRS areas. Although FEMA shows CBRS areas on FIRMs, Congress is the **only** entity that may authorize or initiate a revision to boundaries of the CBRS.

The CBIA of 1990 also established "Otherwise Protected Areas" (OPAs). OPAs are undeveloped coastal barriers within the boundaries of an area established under Federal, State, or local law, or held by a qualified organization, primarily for wildlife refuge, sanctuary, recreational, or natural resource conservation purposes. Within OPAs, only the issuance of new Federal flood insurance is prohibited

### What CBRS areas exist in Nassau County?

On Long Island, there are two distinct flood insurance prohibition dates regarding CBRS areas and two flood insurance prohibition dates regarding OPAs:

- For CBRS areas designated by Public Law 101-591 (Coastal Barrier Improvement Act of 1990) Federal flood insurance is not available for structures built or substantially improved on or after November 16, 1990.
- For CBRS areas designated by Public Law 102-440, Federal flood insurance is not available for structures built or substantially improved on or after November 15, 1993.
- purpose for which the area is protected.
- with the purpose for which the area is protected.



**Primary Frontal Dune** 



Example of a Coastal Structure

 For OPAs designated by Public Law 102-440, Federal flood insurance may be obtained for structures built or substantially improved on or after November 16, 1991, only if written documentation is provided certifying that the structure is used in a manner consistent with the

For OPAs designated by Section 4(c) of Public Law 101-148, Federal flood insurance may be obtained for structures built or substantially improved on or after February 24, 1997, only if written documentation is provided certifying that the structure is used in a manner consistent