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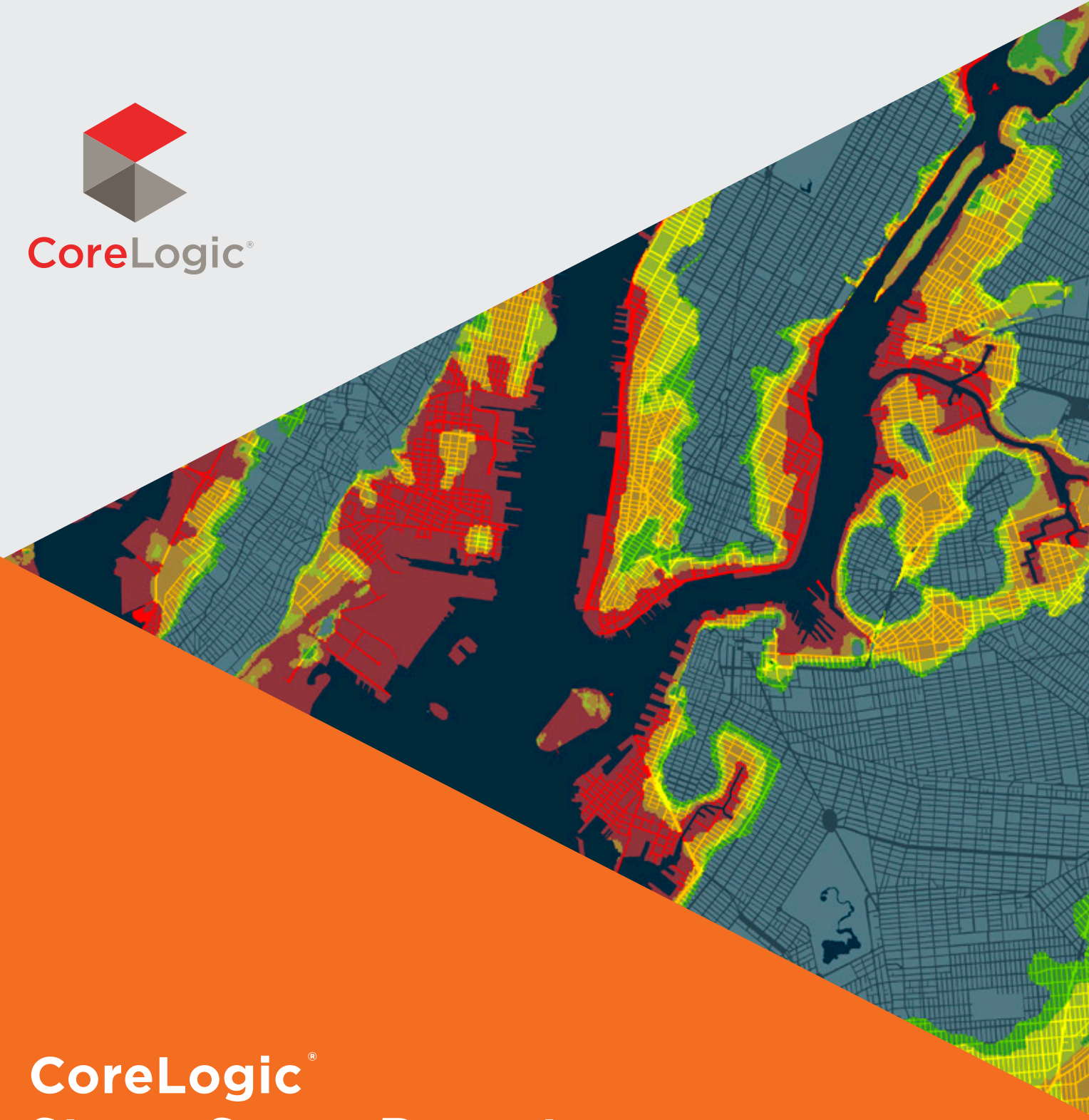

CoreLogic® Storm Surge Report

2013

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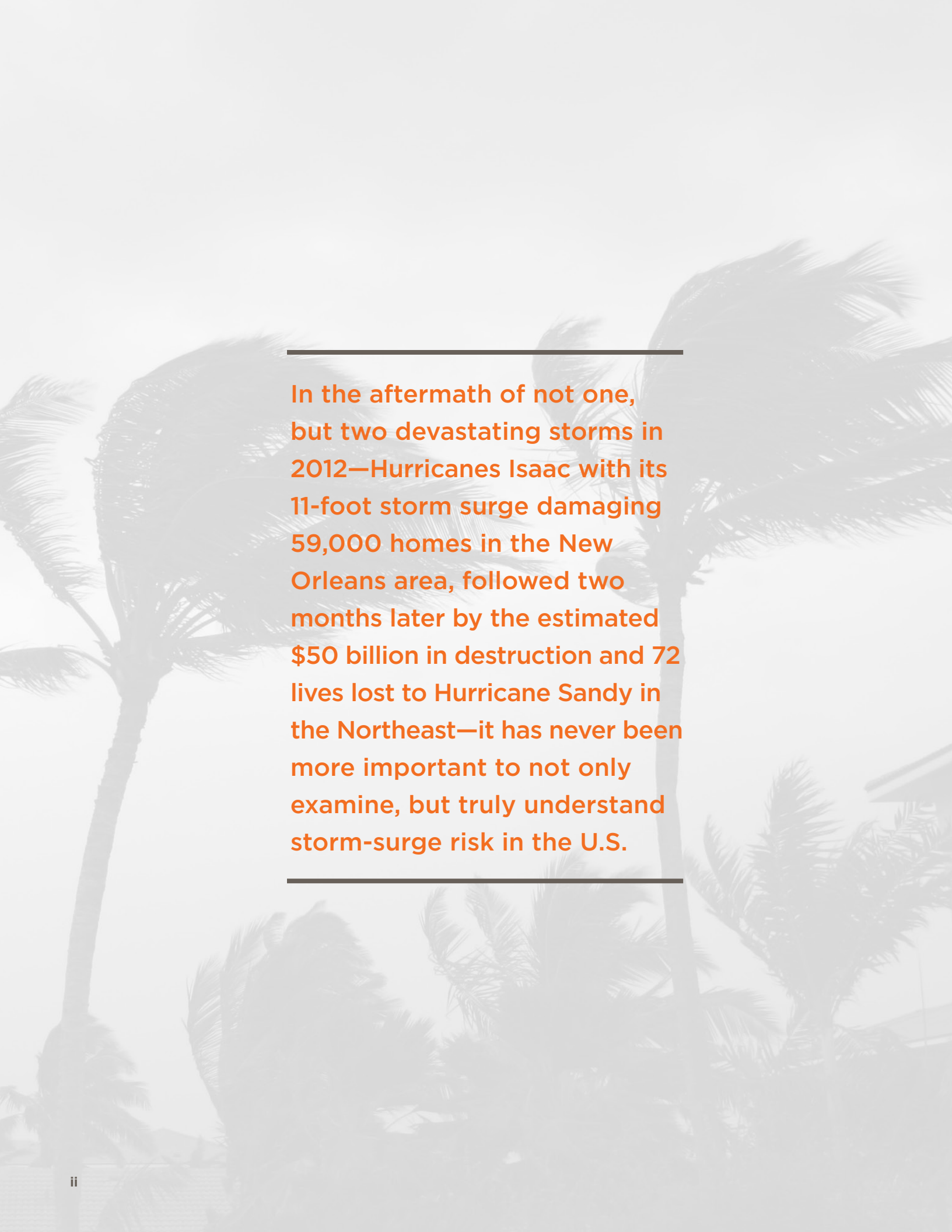

In the aftermath of not one, but two devastating storms in 2012—Hurricanes Isaac with its 11-foot storm surge damaging 59,000 homes in the New Orleans area, followed two months later by the estimated $50 billion in destruction and 72 lives lost to Hurricane Sandy in the Northeast—it has never been more important to not only examine, but truly understand storm-surge risk in the U.S.

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EXECUTIVE SUMMARY

The 2013 CoreLogic Storm Surge Report examines homes exposed to potential hurricane-driven storm-surge damage along the Gulf and Atlantic coasts in the U.S. The 2013 report provides an in-depth analysis of the total number and estimated value of properties potentially at risk. Two separate top-ten lists provide an overview of major metropolitan areas ranked by total properties at risk and the total value of those properties based on CoreLogic automated valuation model (AVM) data. In addition to a continuation of metropolitan, state, regional and national analyses as introduced in the 2012 report, this year's report also contains a new overview of potential storm-surge risk that could occur in the event of either a one-foot, two-foot or three-foot sea-level rise. This new analysis provides a glimpse into the potential for increased risk in the event that ocean levels rise in coming years.

For many homeowners along the eastern seaboard of the United States, Hurricanes Irene and Sandy have been harsh reminders that hurricane risk is not simply confined to Florida or even just the southern states. Hurricane Irene arrived during the late summer of 2011 and caused more than $15 billion in property damage. The impact zone included 13 states and extended as far north as Vermont and New Hampshire, becoming the seventh costliest hurricane in U.S. history[3]. As it turns out, however, Irene was a weak opening act for what was to come in 2012. Hurricane Sandy dwarfed the property damage caused by Irene just one year prior when its devastating storm surge struck the northeastern coastline in late October.

As the storm barreled along the Atlantic coast, Sandy set records for surge water and wave heights in New York, New Jersey and Connecticut[1]. The destruction attributed to this single storm is estimated at $50 billion, with some 650,000 homes damaged or destroyed, and caused power outages in the Northeast affecting 8.5 million people[1]. Hurricane Sandy is directly responsible for the deaths of 147 people, 72 of which occurred in the U.S.[1], and its broad reach pushed remnants of the storm as far inland as Illinois and Wisconsin. So while Hurricane Irene demonstrated the potential for hurricane storm-surge damage that exists along the Northeast coast, the impact of Sandy clearly established just how many homes and coastal communities are vulnerable in an area that is not often associated with hurricane activity.

As Sandy took shape in the Caribbean, news and weather reports leading up to the storm's landfall provided an insightful look into storm-surge modeling. Multiple storm simulations eventually narrowed to a more precise path and area of impact as the storm progressed. Predictions of where, when and how severe the surge levels would be were evaluated, presented and discussed as the country watched the storm move toward the largest metropolitan area in the U.S. Though the real-time projections were and will continue to be vitally important, it is equally imperative to understand that future storms have the potential to affect other coastal areas just as dramatically, or possibly return to the New York/New Jersey area as larger events capable of even greater damage. Understanding areas susceptible to storm-surge risk is absolutely necessary for preparation and mitigation efforts that can help to reduce the amount of property damage and loss, and also improve safety and disaster response.

Storm-surge data can be highly useful for insurance providers and financial services companies by enhancing the understanding of potential exposure to water damage for homes that do not fall within the designated Federal Emergency Management Agency (FEMA) flood zones. Homeowners who live outside of the FEMA Special Hazard Flood Areas (SFHA), especially in the Northeast, would have little reason to carry flood insurance, given that they may not be aware of the risk storm surge poses to their properties. For that reason, fully understanding the number and value of homes at risk of sustaining storm-surge damage allows insurance providers to improve underwriting policies and procedures.

Based on anecdotal evidence, storm-surge risk data is also increasingly being adapted for additional commercial and governmental uses. For example, some utility and telecommunications companies, local retailers and other private-sector businesses are incorporating the data into their enterprise risk management solutions. The public sector has also begun using this data for logistical planning, critical infrastructure location decisions and public safety applications.

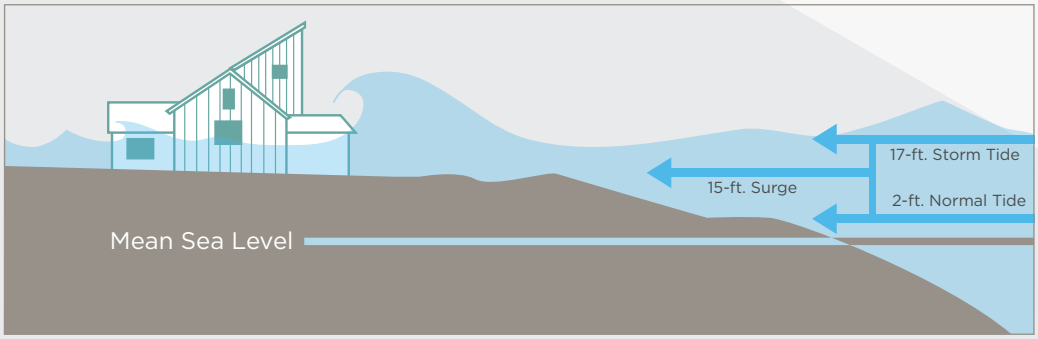
REPORT METHODOLOGY

This report examines the potential exposure of single-family residential structures (homes) to storm surge within five separate geographic scales in the U.S. The report provides a snapshot of property risk at the national level, at the regional level (Gulf and Atlantic coasts), at the state level, at the major metropolitan scale for selected cities along the coasts and then for the top 10 individual ZIP codes within the metro areas. The figures represented as "values" in the charts throughout this report reflect current structure value based on a new methodology effective in 2013, using CoreLogic AVM data, and do not consider replacement costs, contents, auto, life or business interruption.

While wind would certainly contribute significantly to the loss incurred in the event of a hurricane, the properties identified in this report are only those that CoreLogic analysis has determined would be "wet" in a storm-surge event. Although each storm has its own unique characteristics, the CoreLogic storm-surge analysis featured in this study assumes the worst-case scenario for each category of hurricane according to the Saffir-Simpson scale of wind speed, and does not represent the impact one storm will have on the region, but rather the total number of properties and value exposed to storm-surge risk in the event of all possible hurricanes. A worst-case scenario includes:

- **Maximum wind speed for each category at time of landfall;**
- **Right-front quadrant and onshore-facing winds of the storm at landfall;**
- **The storm striking perpendicular to the coast; and**
- **Peak high tide at the time of hurricane landfall.**

The 2013 CoreLogic Storm Surge Report was created using the company's extensive ParcelPoint® database of property parcels to identify the homes that fall within the perimeter of each category of storm-surge inundation to create a risk polygon. The risk polygons result from modeling potential surge for simulated hurricane events. A risk polygon is constructed for each hurricane category and defines the land area susceptible to the surge expected for each storm category. A parcel is the individual property associated with an address and is the most granular way to identify properties exposed to natural hazards. To date, CoreLogic has collected or converted (from a boundary drawn on a paper map to a digital outline) data on more than 135.6 million properties in the U.S., representing more than 91 percent of the total properties in the country. The storm-surge risk polygons are combined with the property parcel boundaries so that each parcel can be evaluated individually to determine the storm surge risk for that property.



To determine residential exposure value, the proprietary CoreLogic storm-surge model* was paired with the company's parcel-level database of residential structure valuations. CoreLogic identified every property contained within each category of the storm-surge inundation areas, and matched the structure valuation for each residence identified. Valuations for individual geographic areas were then totaled by hurricane category. The final results depict the total number of residential properties exposed to each potential storm-surge event, as well as the total current value of those properties.

ENHANCEMENTS TO 2013 METHODOLOGY: EXPLAINED

Beginning with the 2013 report, the CoreLogic storm-surge methodology has been enhanced to improve accuracy and provide a greater degree of precision in the analysis. The valuations included in this report were determined using CoreLogic AVM data that is more geographically comprehensive than previous valuation methods, and utilizes a more accurate method of estimating the improved property value of a residence. For that reason, there are noticeable changes in both total number of properties and total valuation in the 2013 findings compared to prior CoreLogic storm-surge analyses.

The 2013 AVM data, in addition to being more complete geographically, is not based on the same tax-assessed property valuation as the previous methodology. The AVM evaluation, in fact, often shows an increase over the tax-assessed value of a property. The CoreLogic AVM model, by incorporating proprietary valuation modeling techniques, provides a more detailed, and therefore more accurate, representation of home values compared with the tax-based assessments used in previous reports. The AVM property assessment in this report is intended to be a more accurate estimate of the true improved value of the property.

Additionally, the combination of CoreLogic proprietary ParcelPoint and AVM data has enabled a more accurate analysis of properties within each designated storm-surge area. In some geographic locations, there will be a noticeable change to the number of homes in the various surge risk categories from the 2012 findings. This could be a result of several factors, including new home construction, increasing home values and the more comprehensive dataset available through the new AVM-based methodology.

*Sea, Lake, and Overland Surges from Hurricanes (SLOSH) Maximimum of Maximum (MOM) data, used in our proprietary storm-surge model, provided by NOAA.

UNDERSTANDING STORM SURGE

WHAT IS STORM SURGE?

Storm surge is a complex phenomenon that occurs when water is pushed toward the shore through the force of powerful winds associated with cyclonic storms, and is further influenced by many different factors, including water depth (bathymetry) and ocean floor terrain (underwater topography). High winds and low pressure created by a storm cause water to accumulate at its center. As it moves across the ocean, the strong winds inside the hurricane act as a plow, causing water to pile up along the front of the storm, with the highest water levels accumulating along the right-front quadrant as the hurricane spins counterclockwise.

Over deep water far from land, the accumulated water, or rise in sea level, is usually minimal because the energy generating the surge is able to dissipate downward into deeper water or off to the side of the storm. But as the storm moves closer to shore and the water depth becomes shallower, the height of the water column gathered inside the storm increases because the water cannot dissipate as easily. As a precursor to the hurricane, the storm surge can begin rising a day before the storm makes landfall and can also affect areas that are not in the direct path of the hurricane. This is particularly true in the Gulf of Mexico, where the ocean depths tend to be shallower than along the Northeast coast of the Atlantic.

Due to the counterclockwise rotation and track of hurricanes that impact the U.S., in many cases the right side or right-front quadrant of the storm will drive the highest surge levels when a storm strikes the coast, and the onshore winds help to push the surge water onto the land. The prevailing onshore direction of the wind on the right side of the storm only serves to intensify the surge levels. If landfall occurs at high tide, storm-surge levels will often be increased due to the availability of a larger volume of water from the tidal action. Wave action, on top of the surge, can then further augment the flooding. Storm surge can push inland via rivers, creeks and canals and can cause extensive damage over large areas inland from the coast. An additional peril can happen when saltwater flooding overtops levees or topographical berms. The water is then left trapped behind the barrier and can cause additional damage due to the inability of that water to naturally drain from the area.

The speed at which a hurricane moves along its path can be highly variable, even for a single storm. The surge levels created by a fast moving storm are likely to be higher than for a slow storm. Conversely, for a slower moving hurricane, a larger volume of water is pushed due to the fact that it will take more time for the storm to move inland and dissipate. The hydraulic impact created by these waves tends to be incredibly destructive because one cubic yard of seawater weighs approximately 1,728 pounds—nearly a ton. Compounding the destructive power of the rushing water is the large amount of floating debris that typically accompanies a surge. Trees, autos, boats, pieces of buildings and other debris are carried by the storm surge and act as battering rams that can damage or even demolish buildings in the wave's path.

IMPACT AND RISK

The intensity and impact of storm-surge flooding on a coastal area can be affected by several key environmental factors, including offshore characteristics, such as wind speed, atmospheric pressure, forward speed, tide, and the angle of the coast, as well as onshore characteristics like levees, barriers, bays, rivers and canals. Certain distinctive attributes, namely bathymetry, land elevation and rainfall, can heavily influence the amount and scope of damage caused by surge waters as they move onshore.

Bathymetry: Storm surge tends to be pervasive in coastal areas that possess a relatively shallow water depth (bathymetry), commonly associated with low-lying coastlines or river estuaries, since surge and wave heights that travel onshore are affected by the configuration and bathymetry of the ocean bottom. A coastal zone with a narrow underwater shelf, or one that has a steep increase in water depth, and subsequently produces deep water in close proximity to the shoreline, tends to produce a lower surge, but can develop higher and more powerful waves. This situation is best exemplified by the Southeast coast of Florida (Figure 1). Conversely, coastlines along the Gulf of Mexico, from Texas to Florida, tend to have long, gently sloping shelves and shallow water depths. These areas are subject to higher storm surges, but tend to produce relatively smaller waves. These differences are caused primarily by the near-shore depth of the water. In a deep-water environment, surge water can disperse down and away from the driving forces of the hurricane. However, upon entering a shallow, gently sloping shelf, the surge accumulates ahead of the storm and much of it is driven ashore with the movement of the hurricane.

Figure 1 - Florida Bathymetry

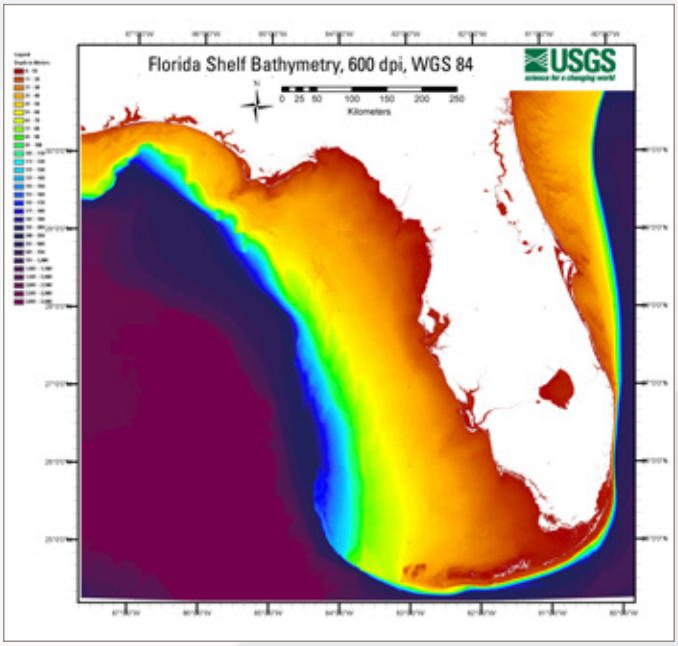


Figure 1 - Florida Bathymetry

Land Elevation: The topography or terrain associated with the land surface is a critically important element in determining the extent of storm-surge flooding. Areas where the land elevation is less than a meter or two above sea level are often susceptible to storm-surge inundation. Little change in elevation in low-lying areas may contribute to the overland movement of the surge water, as the water can reach further and wider than over land with sharp elevations and topographical changes.

Residential Density: Many of the nation's most densely populated areas are located along the coast. Based on recent population statistics, 23 of the 25 most populous U.S. counties are located in coastal areas[4]. Overall, coastal counties average 300 persons per square mile, which is a density three times greater than the national average of 98 persons per square mile[4]. Since 1980, population density increased in coastal counties by 65 persons per square mile or 28 percent[4]. An increase in population density leads to a higher concentration of residential structures located along the coast and potentially within a surge risk zone. As a result of more people and therefore more homes in these areas, there will likely be a greater economic impact when storm-surge flooding occurs.

Rainfall: Although rainfall is commonly mentioned only after storm-surge and wind risk, rainfall in a coastal region can have a significant impact on the area's vulnerability to storm surge, particularly as it relates to drainage and estuaries. As it approaches the coast and later makes landfall, a hurricane may cause considerable rainfall within a short period of time. As a result, runoff within watersheds can quickly fill the rivers that drain them. In turn, this can increase the water level near the head of tidal estuaries as storm-driven waters surging inland from the ocean meet rainfall flowing outward from the estuary. Rainfall associated with Hurricane Sandy totaled five to seven inches across a broad area from eastern Virginia up to southern New Jersey, with Bellevue, Md. receiving more than 12 inches of rain from the storm[1]. Rain from Sandy contributed to flooding along many coastal rivers in the region, but most significantly enhanced the flooding along the Hudson River in New York and New Jersey as rainwater attempted to flow out to the sea while surge water pushed inland[1].

LOSS PROCESSES CONSIDERED

Storm surge can cause massive damage to structures in several ways that can result in total loss. While every storm is unique, CoreLogic analysis considers loss processes that would likely be involved in a storm-surge event. These can be catastrophic.

Water Depth: Flood water can cause many different types of damage. Absorptive materials, such as drywall or wood, will swell and burst or warp when saturated. Electrical systems can short circuit and corrode when exposed to water. Depending on the intensity of the surge, empty fuel oil and gas tanks can become destabilized and their supply lines can rupture and leak. Steel and other metals used for construction and infrastructure can quickly corrode in salt water. As water levels increase, so does the rate of saturation and ultimately the amount of resulting damage.

Storm-Surge Velocity: Wind-driven water has tremendous power. The energy generated by the movement of this wind-driven water can easily erode shorelines, banks and undercut pilings and slabs. If pilings and slabs are destroyed or compromised, the affected structure becomes more likely to collapse. The energy delivered by large surge-generated waves breaking on the coastline can easily sweep away entire structures.

Transportation of Debris: The high velocity flow associated with surge water can transport and deposit large amounts of sand, sediment and gravel within a structure. Surge water moves at a fast pace and drags massive amounts of sediment, which loses velocity dramatically causing additional levels of havoc. The tons of sediment that are being carried will be deposited including uprooted trees, pilings, boats, cars and other large objects, all of which will cause damage when swept up against structures.

Standing Water: In the aftermath of a hurricane, the water that has come onshore with the storm surge can stand for weeks, unable to escape to the sea because of structural barriers such as levees or other existing barriers such as raised railroad tracks. New Orleans, after Hurricane Katrina, was a compelling example of how water can become 'trapped' in low-lying areas, leaving behind untold amounts of debris while at the same time corroding or damaging structures. The longer water stands, the more damage it will cause. Organic materials start to rot, mortar disintegrates, metals corrode, bacteria multiply very swiftly depending on water temperature, and watertight buildings come loose of their moorings as a result of the rising and standing ground water. Surge waters can also transport particulates and should be expected to be polluted by chemical and/or biological substances. If present, these substances tend to seep into the smallest cracks and cavities and are deposited there. Later, when the water is removed during remediation, these pollutants may remain and expose a homeowner to health risks. The interaction of these factors can result in unpredictable and possibly devastating damages for a property owner.

2013 INSIGHTS AND FINDINGS

Hurricanes Sandy and Isaac in 2012, Hurricane Irene in 2011 and other recent events, such as the Japanese tsunamis in March of 2011 and Hurricane Katrina in September of 2005, raised public awareness of the destructive impact of ocean water driven by climatic and seismic events. For the U.S., with its heightened exposure to tropical storms along the Atlantic and Gulf Coasts, hurricane-driven storm-surge inundation is one of the most disastrous natural flooding events that can occur. For that reason, understanding the additional layer of risk posed by coastal storm surge is critical for homeowners, emergency responders, insurance companies and others who must prepare for and rebuild homes and lives following a disaster.

A LOOK BACK

The 2012 Atlantic hurricane season began with two tropical storms in quick succession at the end of May, just prior to the traditional June 1 start to the season. Neither storm caused appreciable damage, but the early occurrences led to some concern about an increase in hurricane activity in 2012. June then brought Tropical Storm Debby to Florida, causing significant flooding across the state, but little damage from surge or wind[5]. For most of July and August there was very little storm activity, until the later part of August, when Hurricane Isaac moved through the Gulf and made landfall near New Orleans. Isaac developed into a Category 1 storm and was the first real test of the newly improved surge mitigation efforts recently completed in Louisiana in the aftermath of Hurricane Katrina[6]. The improved levees and pumping systems worked as intended, but that did not eliminate the impact of the storm. Generating 11-foot surge, Isaac overtopped an older levee and caused significant flood damage in several parishes[6]. The number of homes damaged or destroyed reached 59,000, with a total damage amount of approximately $2.3 billion[6].

Several more hurricanes formed in September, but it wasn't until the end of October that the U.S. was faced with unprecedented risk from the largest storm of the season. Hurricane Sandy developed in the Caribbean and grew to a Category 3 storm before downgrading to a Category 1 as it approached the northeastern Atlantic coast[1]. The storm was unique in that it grew to nearly 1,000 miles in diameter, causing concern that its broad span could affect a wider area of the coast than once anticipated[1]. To compound the problem, Sandy was set to make landfall precisely at high tide and during a full moon, which enhances the effect of the surge water by raising sea levels.

HURRICANE SANDY – IMPACT AND IMPLICATIONS

Hurricane Sandy came ashore just northeast of Atlantic City, N.J., with a wind speed of approximately 80 mph[1]. The storm had the worst possible trifecta of characteristics: an extremely large diameter, strong winds and high tide at landfall, which generated massive surge that inundated the coast from New Jersey to Connecticut[1]. Record surge levels were recorded in several areas of New York and New Jersey, with over 12 feet of surge in some locations[1]. Subway tunnels flooded, airport runways flooded, power outages occurred all along the coast, natural gas lines were broken, and when it was all over, at least 650,000 homes were damaged or destroyed from the storm[1]. On top of the estimated 72 people in the U.S. who were killed as a direct result of the storm, many more lives were lost as a result of hypothermia, house fires, vehicle accidents and other indirect causes[1].

The numbers continue to be tabulated and analyzed, but most estimates put the total damage amount from Sandy at $50 billion or more, making it, currently, the sixth costliest hurricane since 1900 (adjusted for inflation)[1]. Much of the property damage that occurred was a direct result of the record-setting storm surge that developed. In the wake of Hurricane Sandy, many now wonder how truly vulnerable this area is to storm surge, and if prior evaluation of surge risk accurately reflects the effects of a hurricane-force storm. In 2013, FEMA released preliminary revised flood maps for Staten Island, Queens and Brooklyn that enlarged designated flood zone areas to include an additional 35,000 homes and businesses that were not identified as existing within a flood zone in the earlier versions[7]. While the force of Hurricane Sandy was undeniably devastating, this single event does not define the complete extent of potential storm-surge risk.

GEOGRAPHIC RISK ANALYSIS

STORM-SURGE INUNDATION VERSUS FRESH-WATER FLOODING

FEMA has a long history of providing flood boundaries for parts of the U.S. with its Flood Insurance Rate Maps (FIRM) that identify 100-year and 500-year floodplains. Unfortunately, many homeowners inadvertently believe that the FIRM boundaries represent the full extent of flood risk. In fact, varying levels of flood risk for both fresh water and storm surge can and do extend beyond the FIRM boundaries.

The standard FEMA flood zones are designed to identify areas at risk for both freshwater flooding as well as storm surge based on the likelihood of either a 100-year or a 500-year flood event. The FEMA flood maps designate specific zones according to 100-year or 500-year flood risk, and properties are simply either "in" or "out." While this method of risk analysis does identify some of the risk associated with surge water flooding, it does not differentiate based on storm severity and as a result does not effectively define the total extent of the risk possible along coastal areas. Extensive regions along both the Gulf and Atlantic coasts are vulnerable to storm surge, and yet the homeowners who live in these areas are not required to carry flood insurance because they are not located within a designated FEMA 100-year floodplain.

Comparing the metro areas, Table 1 illustrates the significant differences between properties found in storm surge and flood inundation areas, by comparing surge-only areas and FEMA SFHA-only areas.

To illustrate these varying degrees of flood risk exposure, the CoreLogic analysis in Table 1 compares homes that are not located within FEMA 100-year floodplains against the number of homes located in surge inundation zones, as well as those located in both surge and FEMA Special Flood Hazard Areas (SFHA) for the top 10 metro areas included in this analysis that are susceptible to storm surge. Since standard homeowner's insurance excludes flood losses from either fresh or salt water, homeowners who are not located in FEMA SFHAs but are in high-risk surge zones have not historically considered buying National Flood Insurance Program (NFIP) coverage for their properties.

Table 1 - Storm-Surge Inundation vs. Fresh-Water Flooding

Metro Areas	Total Properties Exposed to Flood or Surge Inundation	Total Properties in Both a SFHA and a Surge Zone	% of Properties in Both a SFHA and a Surge Zone	Total Properties Located Only in a FEMA SFHA	% of Properties Located Only in a FEMA SFHA	Total Properties Located Only in a Surge Zone	% of Properties Located Only in a Surge Zone
Miami, FL	615,756	120,524	19.6	375,846	61.0	119,386	19.4
New York, NY	475,195	136,924	28.8	27,767	5.8	310,504	65.3
Tampa, FL	328,270	109,100	33.2	27,225	8.3	191,945	58.5
Virginia Beach, VA	306,717	37,295	12.2	774	0.3	268,648	87.6
New Orleans, LA	240,384	136,214	56.7	1,465	0.6	102,705	42.7
Cape Coral, FL	199,426	75,802	38.0	1,406	0.7	122,218	61.3
Bradenton, FL	140,249	37,940	27.1	2,023	1.4	100,286	71.5
Wilmington, NC	116,968	24,453	20.9	2,273	1.9	90,242	77.2
Charleston, SC	85,730	42,905	50.0	4,246	5.0	38,579	45.0
Naples, FL	78,270	42,468	54.3	2,167	2.8	33,636	43.0

According to the 2013 CoreLogic data, approximately 1 million homes in the U.S. are located in a "High Risk" zone and are susceptible to storm-surge flooding from Category 3-5 hurricanes. More than 790,000 properties are considered to be in the "Moderate Risk" zone, affected only by Category 4-5 storms.

RESIDENTIAL LOSS ESTIMATES FOR THE UNITED STATES

The first step in understanding and accurately evaluating the potential for storm-surge damage in the U.S. is identifying the location of storm-surge risk and correlating that risk to real property locations. In-depth CoreLogic analysis reveals storm surge has the potential to cause tremendous property loss, resulting in billions of dollars in property damage. Storm-surge risk extends from the more traditional hurricane states, such as Texas, Louisiana and Florida and continues into states like New York, New Jersey and Connecticut, that until recently were not often considered likely targets of hurricane damage. In fact, all Gulf and Atlantic coastal states are susceptible to storm surge to varying degrees.

To help identify the risk levels for residential properties situated along the U.S. Gulf and Atlantic Coasts, CoreLogic defines surge risk groups by the categories of the hurricanes that could inundate a single property in that area. The 2013 analysis shows just over 4.2 million single-family residential properties across the U.S. are exposed to some degree of hurricane-driven storm-surge risk. As illustrated in Table 2, more than 976,000 of those homes are located in the "Extreme Risk" zone and considered to be the most vulnerable to storm-surge damage. As is the case with the examples that follow throughout the rest of this report, an extreme-risk property would be at risk for inundation from a hurricane of any category, as these properties are often located closest to the coastline and at the lowest elevation. Another roughly 880,000 properties fall into the "Very High" risk category with exposure to flooding from Category 2-5 hurricanes. Storm surge driven by a weaker Category 1 storm would not affect these areas.

Lastly, CoreLogic data shows with worst-case scenario analysis that more than 506,000 homes are in the "Low Risk" zone, and are susceptible to inundation from a Category 5 hurricane in the Gulf region or in any state south of Maryland. These homes would only be at risk of storm-surge damage from the most severe storms that would reach the farthest inland.

Table 2 - Residential Exposure by Storm Category for the Entire U.S.

Storm Surge Risk Level (Storm Category)	Total Properties Potentially Affected	Total Estimated Structure Value (U.S. dollars)
Extreme (Category 1-5)	976,054	$371,982,774,310
Very High (Category 2-5)	880,998	$253,024,759,473
High (Category 3-5)	1,049,184	$249,709,531,130
Moderate (Category 4-5)	790,046	$185,714,070,109
Low (Category 5)	506,081	$86,427,245,865
Total	**4,202,363**	**$1,146,858,380,887**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Based on the 2013 storm-surge analysis, the total value of all residential structures in the U.S. that are exposed to damage from hurricane-driven storm surge has reached more than $1.1 trillion. It's important to note that the methodology used for this year's report features enhanced valuation data, which provides greater accuracy. The damage estimation, which takes into consideration worst-case scenario conditions, represents the total value of all homes susceptible to a maximum surge event, and is not meant to suggest that all properties would be affected as a result of one single storm or that the full value of all properties would be lost to storm-surge destruction. There is no likelihood that a single storm, or even a single storm season, would damage or destroy every home in the U.S. located in a designated risk zone.

It is very important to note that lower category hurricane surge events will generate less total damage, but as the table indicates, all properties with the potential for damage from Category 1-4 storms still total more than $1 trillion in structural value. One recent example of the type of damage that can occur is Hurricane Sandy, which was a Category 1 hurricane just prior to making landfall in the New Jersey/New York area[1]. Although the $50 billion in total estimated damage from that storm may seem insurmountable, the potential for more severe storms means that even higher damage amounts are possible.

STORM-SURGE RISK ALONG THE ATLANTIC AND GULF COASTS

As Hurricane Sandy clearly demonstrated, there is no geographic location along either the Gulf or Atlantic Coast that can be considered completely protected from hurricane-driven storm-surge risk. Though hurricane activity typically affects states on the southern-most stretches of the U.S. coastline more frequently than in the Northeast, homes located as far north as Rhode Island, Massachusetts and even Maine can still feel the impact of a severe storm. Hurricane Sandy, in fact, caused tens of billions of dollars in damage to property along the northeastern Atlantic Coast, which many might have previously presumed to be safely outside of the storm-surge risk zone.

Table 3 - Residential Exposure by Region Along the Atlantic and Gulf Coasts

Region	Extreme	Very High	High	Moderate	Low	Total
Atlantic Properties (Potential)	571,581	560,225	555,249	459,945	244,606	2,391,606
Atlantic Structure Damage Exposure (Estimated)	$255,974,406,964	$190,543,273,571	$163,413,843,003	$134,443,701,400	$48,937,152,899	$793,312,377,837
Gulf Properties (Potential)	404,473	320,773	493,935	330,101	261,475	1,810,757
Gulf Structure Damage Exposure (Estimated)	$116,008,367,346	$62,481,485,902	$86,295,688,127	$51,270,368,709	$37,490,092,966	$353,546,003,050

Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Though 2013 data indicates the number of properties potentially affected by hurricane-driven storm surge is only slightly higher in the Atlantic Coast region (extending from the southern tip of Florida through Maine) when compared with the Gulf Coast region (extending from Texas through the Gulf Coast of Florida), differences in the atmospheric and oceanic conditions of each region can cause distinct differences in the amount of damage and level of destruction caused by a hurricane (Table 3). Onshore elevation, offshore bathymetry, and other key impact factors specific to a particular area can all influence the formation and track of a storm, surge levels and, ultimately, the impact of storm surge as the hurricane makes landfall.

Unlike the relatively similar number of properties exposed to storm-surge damage in the Gulf and Atlantic regions, the total value of residential property at risk when comparing the two regions is dramatically different, as indicated in Table 3. According to the most recent information available, the total value of homes along the Atlantic coast, at more than $793 billion, is more than double the value of at-risk properties in the Gulf region, at under $354 billion. This discrepancy can be attributed to several factors, including the concentration of homes along each coast and the higher-than-average home values associated with the large metropolitan areas that dominate the central and northeast shorelines.

STORM-SURGE RISK BY STATE

The more than 4 million properties in the U.S. exposed to hurricane-driven storm-surge risk, valued at over $1.1 trillion, are located along the coastlines of 19 different states and the District of Columbia in the Gulf and Atlantic regions, extending as far west as Texas and as far north as Maine. Naturally, total exposure varies significantly from state to state given differences in population, trends in residential development, geographic risk factors, length of coastline and other distinguishing factors. Florida and Texas, for example, are within the top four states for number of properties at risk likely because of their extensive coastlines (Table 4). Louisiana and New Jersey, on the other hand, have a smaller coastal area overall, yet round out the other top two spots as a result of relatively low elevation that allows storm-surge risk to extend farther inland and affect more homes.

Table 4 - Potential Properties at Risk of Storm-Surge Damage by State

Rank	State	Extreme	Very High	High	Moderate	Low	Total
1	Florida	372,186	246,057	349,708	238,045	272,862	1,478,858
2	Louisiana	91,815	48,663	160,715	62,575	47,284	411,052
3	Texas	32,073	59,814	94,100	99,606	83,478	369,071
4	New Jersey	75,016	140,529	65,181	69,851	N/A	350,577
5	Virginia	72,750	89,929	80,383	64,847	21,325	329,234
6	New York	78,164	61,431	72,144	58,719	N/A	270,458
7	North Carolina	72,378	46,303	43,307	35,798	34,426	232,212
8	South Carolina	64,424	38,956	43,029	30,008	20,367	196,784
9	Georgia	29,320	41,854	24,153	15,563	7,114	118,004
10	Massachusetts	22,990	28,511	30,570	25,586	N/A	107,657
11	Mississippi	9,191	15,768	23,913	21,709	8,411	78,992
12	Maryland	19,875	19,898	15,216	20,273	N/A	75,262
13	Connecticut	14,917	14,540	11,689	12,468	N/A	53,614
14	Delaware	10,051	9,065	11,359	11,703	N/A	42,178
15	Alabama	3,296	7,338	5,887	7,519	10,814	34,854
16	Pennsylvania	997	5,126	8,007	6,068	N/A	20,198
17	Rhode Island	3,899	3,890	4,170	4,763	N/A	16,722
18	Maine	1,556	1,544	3,783	3,652	N/A	10,535
19	New Hampshire	1,156	1,782	1,844	1,072	N/A	5,854
20	District of Columbia	N/A	N/A	26	221	N/A	247
	Total	**976,054**	**880,998**	**1,049,184**	**790,046**	**506,081**	**4,202,363**

Source: CoreLogic 2013.

In many cases, as illustrated in Tables 4 and 5, the total property exposure to hurricane-driven storm surge damage in a given state is closely correlated to the total number of properties at risk. Florida, ranked first, carries the highest number of properties at potential risk, at more than 1.4 million, along with the highest total value, at more than $386 billion. For some states, however, particularly in the Northeast, there are a smaller number of overall properties that equate to exceptionally high total property exposure. New York is a prime example, with only 270,458 homes located in storm zones, but nearly $135 billion in property at risk. This can be explained by the nature of residential development in those areas where there are often higher property values and greater variations in home values by market, trends in primary residences and vacation-home buying, and population density in different parts of the country. The values of coastal homes along the northeast coast are comparatively higher than in other areas of the U.S.

Table 5 - Total Potential Exposure to Storm-Surge Damage by State

Rank	State	Extreme	Very High	High	Moderate	Low	Total
1	Florida	$156,920,080,202	$64,927,643,294	$74,708,407,918	$44,666,875,467	$45,255,998,820	$386,479,005,701
2	New York	$41,458,430,592	$31,873,791,787	$33,432,008,616	$28,212,853,635	N/A	$134,977,084,630
3	New Jersey	$31,889,762,310	$50,005,134,982	$16,996,256,872	$19,904,947,067	N/A	$118,796,101,231
4	Virginia	$18,879,322,139	$20,215,486,730	$18,182,123,910	$15,246,918,000	$5,520,450,100	$78,044,300,879
5	Louisiana	$13,313,243,333	$6,945,108,745	$31,147,175,990	$11,810,499,386	$8,757,690,981	$71,973,718,435
6	South Carolina	$31,549,247,749	$12,388,063,995	$10,106,067,426	$7,472,192,789	$4,066,979,923	$65,582,551,882
7	North Carolina	$22,346,581,295	$12,968,518,220	$12,476,015,782	$8,879,283,746	$8,515,974,927	$65,186,373,970
8	Texas	$6,519,471,982	$7,143,131,847	$12,354,042,994	$13,662,184,273	$11,269,016,281	$50,947,847,377
9	Massachusetts	$12,433,954,700	$12,987,399,552	$13,765,267,600	$11,098,265,900	N/A	$50,284,887,752
10	Connecticut	$11,756,419,610	$9,316,182,320	$6,758,110,550	$7,204,258,700	N/A	$35,034,971,180
11	Maryland	$6,630,528,200	$7,149,285,600	$4,017,538,600	$4,604,150,404	N/A	$22,401,502,804
12	Georgia	$8,000,838,540	$6,323,213,883	$3,343,370,691	$2,034,100,117	$818,760,826	$20,520,284,057
13	Delaware	$4,762,875,800	$3,994,646,400	$3,970,378,600	$3,181,055,900	N/A	$15,908,956,700
14	Mississippi	$1,481,879,920	$2,089,574,984	$2,976,818,986	$2,741,724,461	$1,057,345,107	$10,347,343,458
15	Rhode Island	$2,275,171,300	$1,624,977,670	$1,641,941,700	$1,689,931,500	N/A	$7,232,022,170
16	Alabama	$649,504,900	$1,133,225,100	$750,147,400	$1,013,037,600	$1,165,028,900	$4,710,943,900
17	Maine	$455,667,500	$458,055,400	$1,130,474,090	$1,008,593,600	N/A	$3,052,790,590
18	New Hampshire	$536,954,800	$825,510,400	$880,931,300	$450,409,700	N/A	$2,693,806,200
19	Pennsylvania	$122,839,438	$655,808,564	$1,067,222,605	$784,386,064	N/A	$2,630,256,671
20	District of Columbia	N/A	N/A	$5,229,500	$48,401,800	N/A	$56,631,300
	Total	**$371,982,774,310**	**$253,024,759,473**	**$249,709,531,130**	**$185,714,070,109**	**$86,427,245,865**	**$1,146,858,380,887**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.

STORM-SURGE RISK IN MAJOR METROPOLITAN AREAS

To evaluate storm-surge risk at the local level, CoreLogic uses Core Based Statistical Areas (CBSAs), defined by the Office of Management and Budget, which centers on an urban center and the adjacent regions that are tied to that center. The metro areas identified in this report are named by primary urban center, though each might contain additional urban areas, such as Miami/Fort Lauderdale/Pompano Beach, Fla.

The CBSAs examined in the 2013 storm-surge analysis (Tables 6-8) represent the 10 cities in the U.S. with the highest total financial exposure to potential storm-surge damage and are home to more than 2 million people. According to CoreLogic data, of the more than $1.1 trillion in residential property exposed to storm surge along the Gulf and Atlantic Coasts, more than $658 billion of that risk is concentrated in the top 10 metro areas (Table 6). This is not surprising, as two of the top five and five of the top 20 most densely populated cities in the U.S. are located in the Gulf and Atlantic regions.

Table 6 - Storm-Surge Risk for the Top 10 U.S. Metropolitan Areas

Rank	Metropolitan Area	Total Properties Potentially Affected by All Categories of Hurricane	Total Structural Value	Average Value
1	New York, NY	447,428	$205,712,837,261	$459,767
2	Miami, FL	239,910	$100,132,133,476	$417,374
3	Virginia Beach, NC	305,943	$73,033,753,064	$238,717
4	Tampa, FL	301,045	$55,073,950,288	$182,943
5	New Orleans, LA	238,919	$43,728,316,068	$183,026
6	Cape Coral, FL	198,020	$42,878,848,735	$216,538
7	Wilmington, NC	114,695	$38,166,906,111	$332,769
8	Naples, FL	76,104	$34,505,061,211	$453,394
9	Bradenton, FL	138,226	$33,841,384,949	$244,826
10	Charleston, SC	81,484	$31,500,440,425	$386,584
	Total	**2,141,774**	**$658,573,631,588**	**$307,490**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.

After Hurricane Sandy made history in late 2012, there has been greater attention and focus on the New York/Northern New Jersey/Long Island CBSA, which contains not only the highest number of homes at risk for potential storm-surge damage, but also the highest total value of residential property exposed, at more than $200 billion. The 2013 findings indicate there aren't any homes in the New York City area that fall into the "Low Risk" category. This is because the potential for a Category 5 storm to reach those homes furthest inland has been determined by scientific consensus to be extremely unlikely. However, it does not suggest a diminished amount of risk to this area. On the contrary, as Table 7 shows and Hurricane Sandy clearly demonstrated, even a Category 1 hurricane could impact more than 116,000 homes in the New York City metro area. Sandy was a Category 1 storm prior to making landfall in the New Jersey/New York metro region, yet it damaged an estimated 305,000 homes as it moved through the state of New York[1].

Table 7 – Top 10 Metropolitan Areas by Number of Potential Properties Affected/Risk Level

Rank	Metropolitan Area	Extreme	Very High	High	Moderate	Low	Total
1	New York, NY	116,013	125,884	104,376	101,155	0	447,428
2	Miami, FL	52,047	26,961	77,916	34,682	48,304	239,910
3	Virginia Beach, VA	61,743	88,828	74,875	60,038	20,459	305,943
4	Tampa, FL	75,676	57,420	68,238	56,010	43,701	301,045
5	New Orleans, LA	72,567	19,062	123,771	15,040	8,479	238,919
6	Cape Coral, FL	75,684	37,040	51,131	17,181	16,984	198,020
7	Wilmington, NC	29,657	20,438	21,327	20,719	22,554	114,695
8	Naples, FL	22,690	33,347	16,663	1,475	1,929	76,104
9	Bradenton, FL	15,863	23,332	40,854	30,167	28,010	138,226
10	Charleston, SC	30,397	15,995	13,565	11,442	10,085	81,484

Source: CoreLogic, 2013.

Another major CBSA worth noting in the 2013 analysis is New Orleans/Metairie/Kenner, LA. The New Orleans area consists of a large number of homes located in the "Extreme Risk" category with more than 70,000 properties at risk valued at more than $10.3 billion. Hurricane Isaac is estimated to have damaged or destroyed 59,000 homes, and while it was not close to the severity of Katrina, it is a strong reminder of the high potential for damage from even a Category 1 storm[6]. Also significant in the New Orleans-area data, are a noticeable number of properties previously located in an "Extreme Risk" zone that have been downgraded to the "High Risk" zone between 2012 and 2013. This dramatic shift in "Extreme-Risk" homes to "High Risk" zones is a direct result of the recent completion of a new protective levy system by the Army Corps of Engineers—a massive undertaking launched in the wake of Hurricane Katrina that is now factored into the updated 2013 analysis. The efforts to rebuild and enhance the storm-surge barriers after Katrina have improved the ability of the city to protect more properties from low- and mid-level hurricane-driven surge. While this does not mean that homes in New Orleans are without risk, it does indicate that the mitigation efforts do afford a level of protection against certain storm levels.

Table 8 – Top 10 Metropolitan Areas by Structure Value/Risk Level

Rank	Metropolitan Area	Extreme	Very High	High	Moderate	Low	Total
1	New York, NY	$57,515,509,302	$60,975,263,269	$44,221,860,288	$43,000,204,402	N/A	$205,712,837,261
2	Miami, FL	$42,535,623,065	$11,082,548,764	$20,909,148,284	$11,626,346,481	$13,978,466,882	$100,132,133,476
3	Virginia Beach, VA	$16,464,709,888	$20,102,503,809	$17,079,827,432	$13,906,591,775	$5,480,120,160	$73,033,753,064
4	Tampa, FL	$21,175,666,606	$10,292,479,238	$10,144,477,932	$7,971,089,562	$5,490,236,950	$55,073,950,288
5	New Orleans, LA	$10,303,199,190	$2,696,361,824	$25,563,645,081	$3,219,824,378	$1,945,285,595	$43,728,316,068
6	Cape Coral, FL	$22,481,265,785	$6,879,502,548	$9,492,780,501	$2,646,618,620	$1,378,681,281	$42,878,848,735
7	Wilmington, NC	$12,658,924,532	$6,932,419,365	$6,540,729,355	$5,771,844,061	$6,262,988,798	$38,166,906,111
8	Naples, FL	$14,864,998,235	$13,963,772,379	$5,068,497,636	$303,837,996	$303,954,965	$34,505,061,211
9	Bradenton, FL	$9,955,790,747	$6,477,863,199	$8,145,397,882	$4,966,470,105	$4,295,863,016	$33,841,384,949
10	Charleston, SC	$14,587,465,800	$6,643,014,800	$4,299,068,680	$3,760,622,425	$2,210,268,720	$31,500,440,425

Source: CoreLogic 2013. Based on estimated property values as of April 2013.

TOP 16 CBSAs BY THE NUMBERS

UPDATED TO REFLECT 2013 DATA

NEW YORK / NORTHERN NEW JERSEY / LONG ISLAND

Residential Exposure by Storm Category

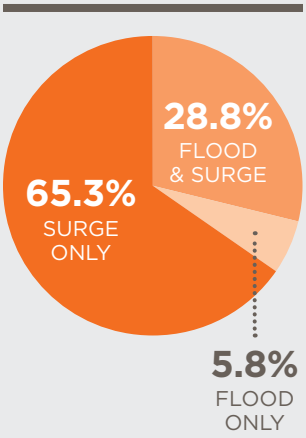
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	116,013	$57,515,509,302
Very High	125,884	$60,975,163,269
High	104,376	$44,221,860,288
Moderate	101,155	$43,000,204,402
Low	N/A	N/A
Totals	**447,428**	**$205,712,837,261**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 4 Storm (Maximum possible in this area)

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	08008 - Beach Haven	15,642	$11,855,729,181
2	11234 - Brooklyn	10,513	$5,366,331,000
3	08742 - Point Pleasant Beach	9,475	$4,536,569,694
4	11758 - Massapequa	8,724	$4,132,159,409
5	11572 - Oceanside	8,554	$3,563,823,200
6	11561 - Long Beach	6,885	$3,562,818,399
7	11937 - East Hampton	3,524	$3,526,820,312
8	11229 - Brooklyn	6,177	$3,526,207,000
9	11566 - Merrick	7,025	$3,512,982,900
10	11978 - Westhampton Beach	2,354	$3,383,707,590

Source: CoreLogic 2013. Based on estimated property values as of April 2013.



New York Regional Storm Surge Risk. Source: CoreLogic, 2013.

MIAMI, FL

Residential Exposure by Storm Category

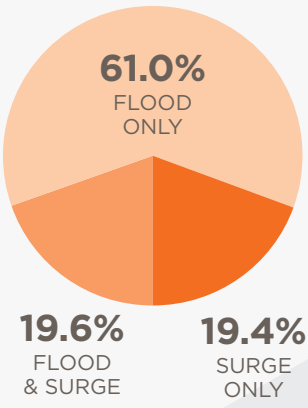
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	52,047	$42,535,623,065
Very High	26,961	$11,082,548,764
High	77,916	$20,909,148,284
Moderate	34,682	$11,626,346,481
Low	48,304	$13,978,466,882
Totals	**239,910**	**$100,132,133,476**

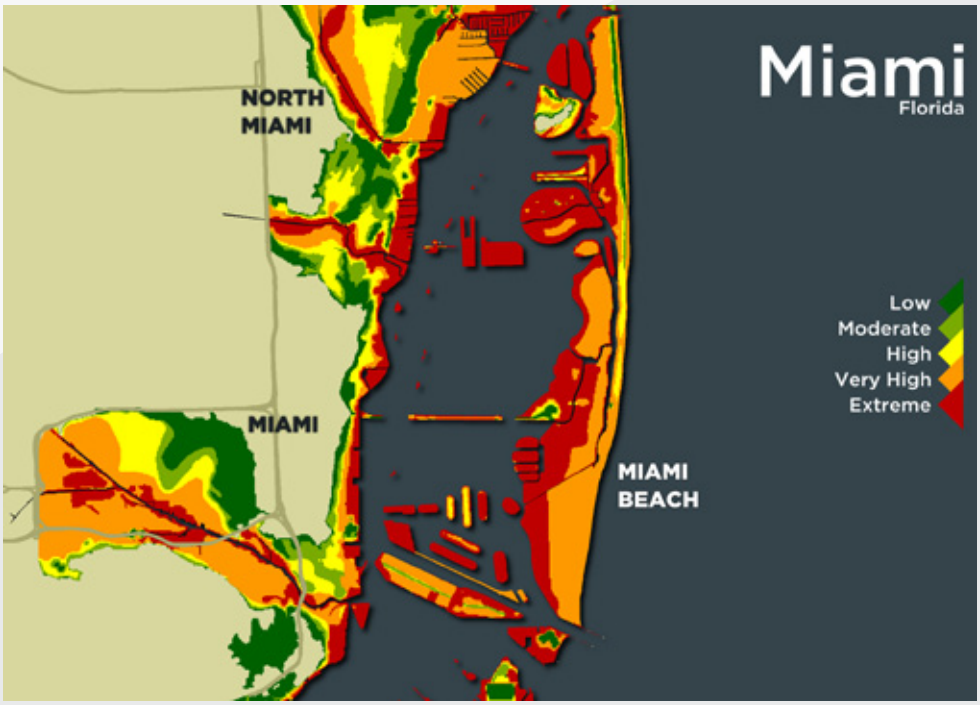
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	33156 – Miami	6,599	$6,829,796,297
2	33480 – Palm Beach	2,073	$4,959,824,675
3	33157 – Miami	16,186	$3,754,404,715
4	33410 – West Palm Beach	7,540	$3,154,123,661
5	33308 – Fort Lauderdale	5,043	$3,023,596,940
6	33458 – Jupiter	9,679	$2,996,227,288
7	33140 – Miami Beach	2,459	$2,961,940,111
8	33143 – Miami	2,562	$2,953,869,894
9	33133 – Miami	3,858	$2,810,458,492
10	33301 – Fort Lauderdale	2,714	$2,784,169,590

Source: CoreLogic, 2013. Based on estimated property values as of April, 2013.





Miami Regional Storm Surge Risk. Source: CoreLogic, 2013.

VIRGINIA BEACH, VA

Residential Exposure by Storm Category

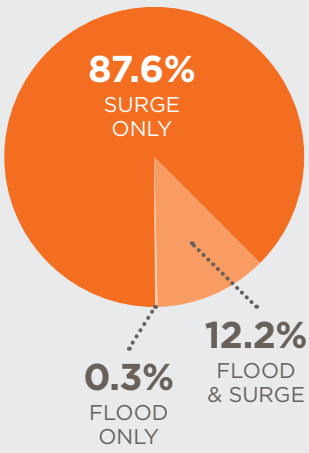
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	61,746	$16,464,709,888
Very High	88,828	$20,102,503,809
High	74,875	$17,079,827,432
Moderate	60,038	$13,906,591,775
Low	20,459	$5,480,120,160
Totals	**305,943**	**$73,033,753,064**

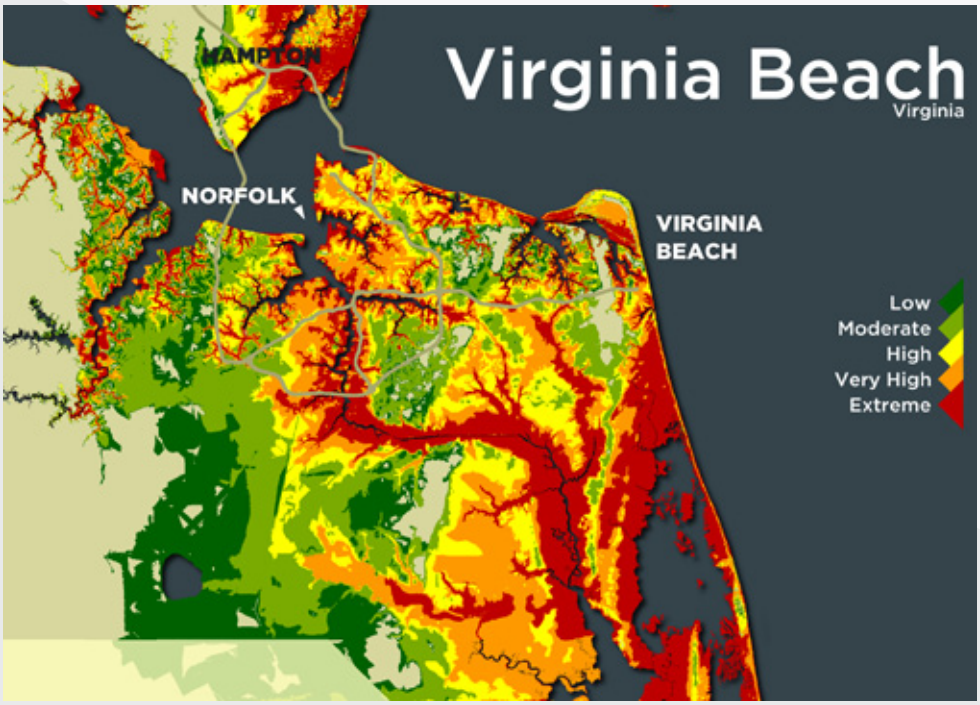
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	23456 - Virginia Beach	15,749	$5,557,775,200
2	23322 - Chesapeake	13,695	$4,263,567,600
3	23464 - Virginia Beach	16,451	$4,036,204,000
4	23452 - Virginia Beach	14,341	$3,979,341,900
5	23454 - Virginia Beach	11,210	$3,892,053,300
6	23451 - Virginia Beach	6,226	$3,592,192,700
7	23320 - Chesapeake	9,282	$2,449,854,400
8	27927 - Corolla	4,076	$2,415,862,486
9	23323 - Chesapeake	10,649	$2,338,469,700
10	23435 - Suffolk	8,523	$2,331,233,800

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Virginia Beach Regional Storm Surge Risk. Source: CoreLogic, 2013.

TAMPA, FL

Residential Exposure by Storm Category

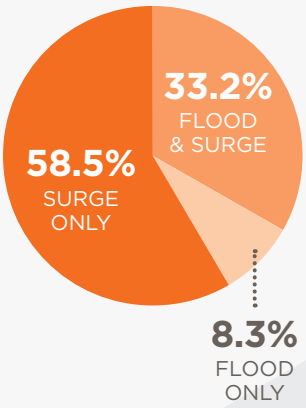
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	75,676	$21,175,666,606
Very High	57,420	$10,292,479,238
High	68,238	$10,144,477,932
Moderate	56,010	$7,971,089,562
Low	43,701	$5,490,236,950
Totals	**301,045**	**$55,073,950,288**

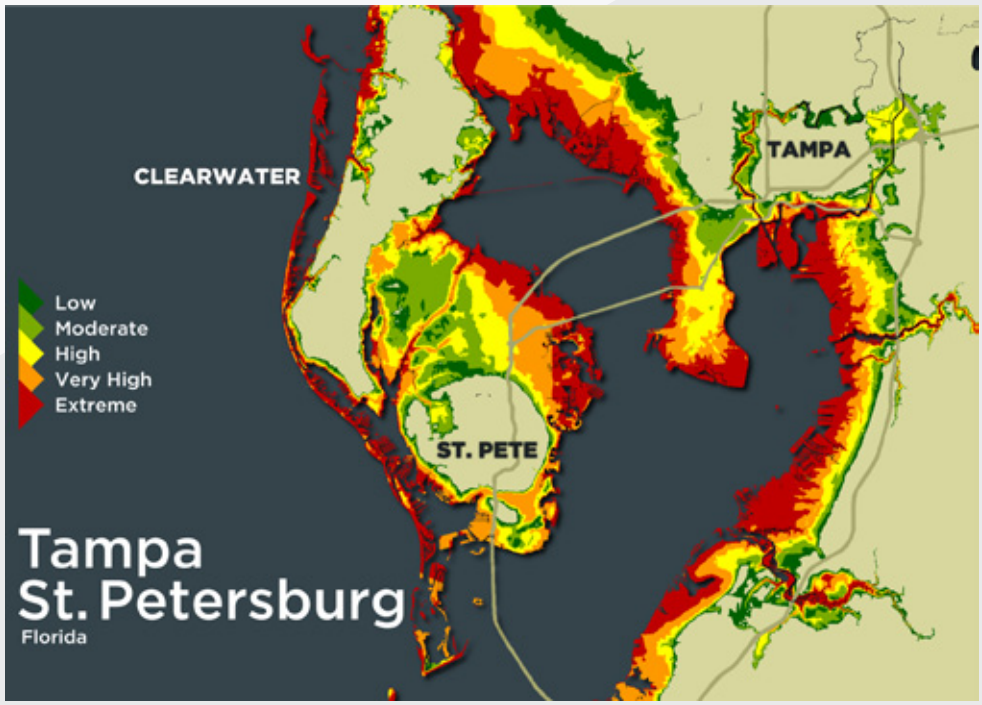
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	33629 – Tampa	7,822	$3,393,645,334
2	33706 – Saint Petersburg	4,541	$2,029,055,304
3	33611 – Tampa	8,086	$1,875,116,938
4	33626 – Tampa	5,374	$1,776,847,671
5	33606 – Tampa	2,997	$1,699,829,618
6	33703 – Saint Petersburg	8,356	$1,686,529,093
7	33609 – Tampa	4,071	$1,534,899,223
8	34685 – Palm Harbor	5,021	$1,397,712,151
9	33615 – Tampa	9,670	$1,393,551,089
10	34689 – Tarpon Springs	7,446	$1,349,849,683

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Tampa Regional Storm Surge Risk. Source: CoreLogic, 2013.

NEW ORLEANS, LA

Residential Exposure by Storm Category

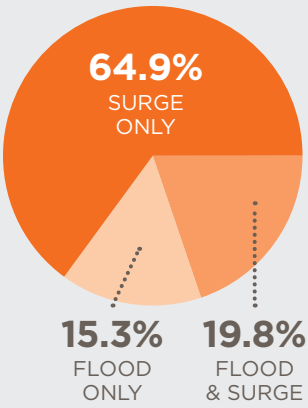
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	72,567	$10,303,199,190
Very High	19,062	$2,696,361,824
High	123,771	$25,563,645,081
Moderate	15,040	$3,219,824,378
Low	8,479	$1,945,285,595
Totals	**238,919**	**$43,728,316,068**

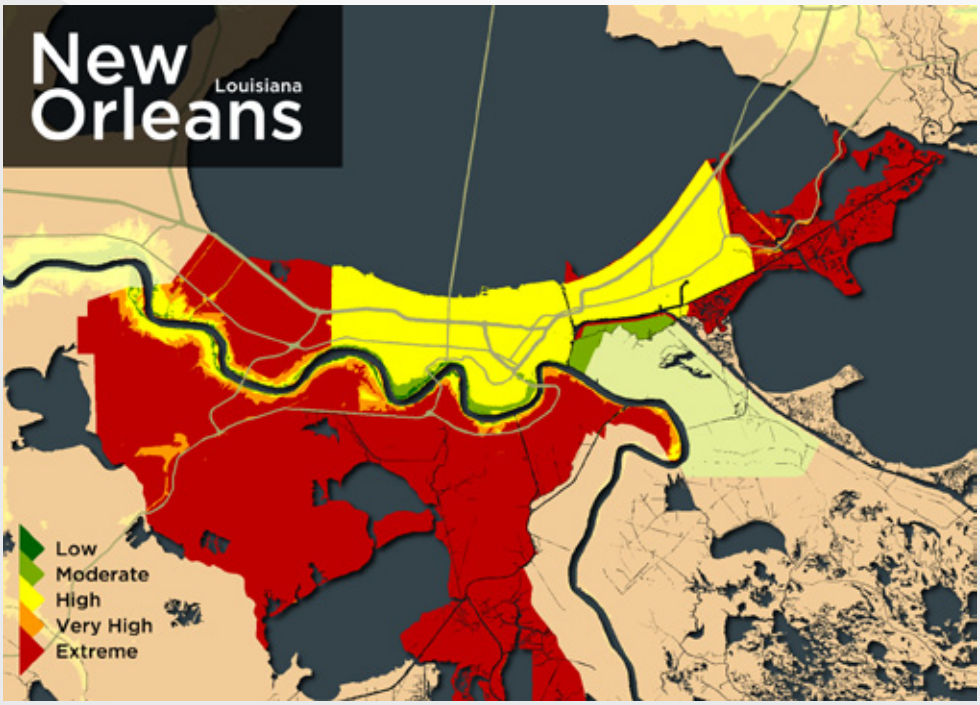
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	70005 – Metairie	7,482	$2,402,587,790
2	70072 – Marrero	17,770	$2,165,385,750
3	70115 – New Orleans	4,936	$2,155,277,650
4	70003 – Metairie	13,566	$2,146,955,100
5	70458 - Slidell	12,519	$2,120,713,830
6	70118 – New Orleans	5,549	$2,005,296,280
7	70124 – New Orleans	5,121	$1,937,418,196
8	70001 – Metairie	9,491	$1,855,522,190
9	70433 – Covington	6,011	$1,587,737,327
10	70461 – Slidell	7,347	$1,494,533,032

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





New Orleans Regional Storm Surge Risk. Source: CoreLogic, 2013.

CAPE CORAL, FL

Residential Exposure by Storm Category

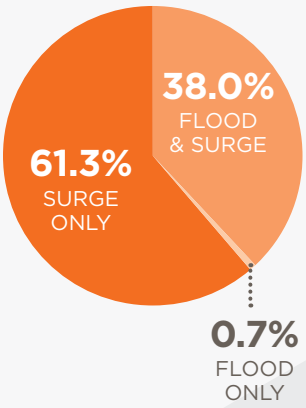
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	75,684	$22,481,265,785
Very High	37,040	$6,879,502,548
High	51,131	$9,492,780,501
Moderate	17,181	$2,646,618,620
Low	16,984	$1,378,681,281
Totals	**198,020**	**$42,878,848,735**

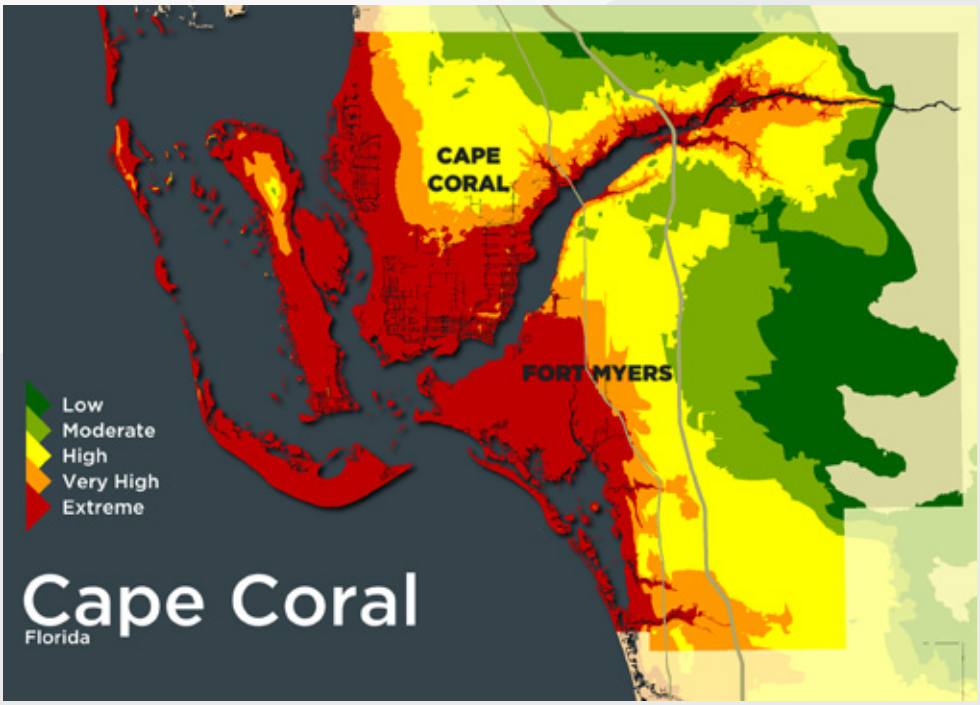
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	33914 – Cape Coral	16,547	$3,869,522,325
2	34135 – Bonita Springs	11,434	$3,435,898,227
3	33957 – Sanibel	3,889	$3,099,234,369
4	34134 – Bonita Springs	4,365	$2,926,224,959
5	33908 – Fort Myers	8,412	$2,790,086,917
6	33904 – Cape Coral	13,024	$2,645,091,291
7	33928 – Estero	7,690	$2,104,887,752
8	33913 – Fort Myers	6,756	$1,725,132,460
9	33919 – Fort Myers	7,578	$1,637,167,173
10	33993 – Cape Coral	11,303	$1,563,003,063

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Cape Coral Regional Storm Surge Risk. Source: CoreLogic, 2013.

WILMINGTON, NC

Residential Exposure by Storm Category

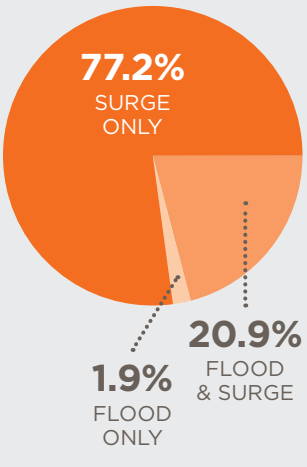
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	29,657	$12,658,924,562
Very High	20,438	$6,932,419,365
High	21,327	$6,540,729,355
Moderate	20,719	$5,771,844,061
Low	22,554	$6,262,988,798
Totals	**114,695**	**$38,166,906,111**

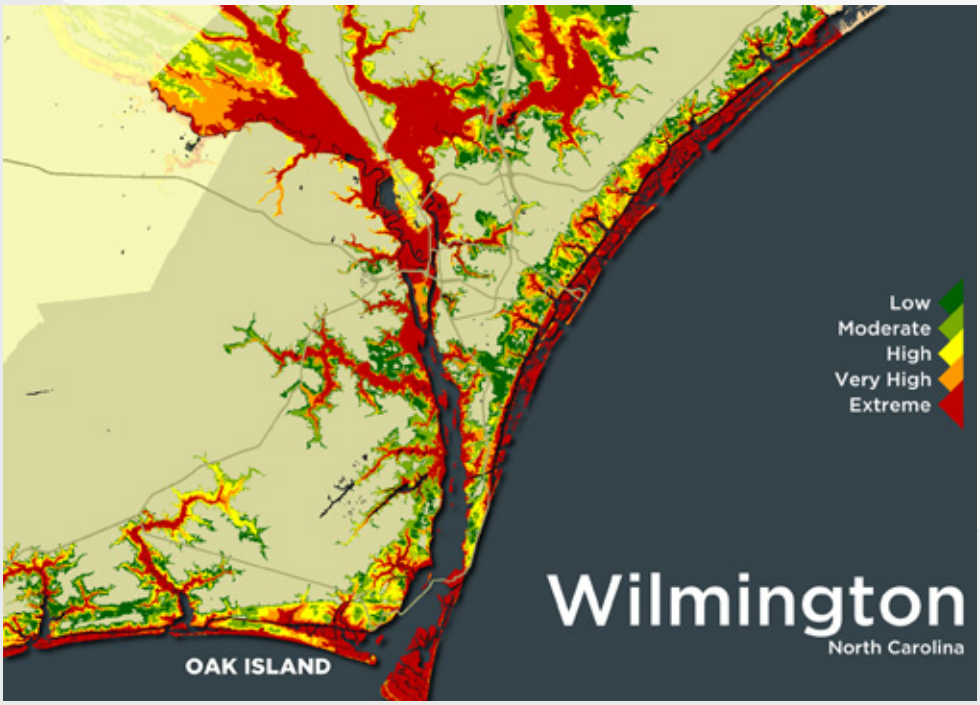
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	28461 – Southport	12,676	$4,777,574,076
2	28462 – Supply	12,150	$4,323,940,190
3	28465 – Oak Island	13,758	$4,120,867,850
4	28469 – Ocean Isle Beach	8,839	$3,390,978,865
5	28411 – Wilmington	6,300	$2,662,359,043
6	28409 – Wilmington	8,701	$2,327,795,800
7	28468 – Sunset Beach	5,853	$2,143,327,166
8	28470 – South Brunswick	5,794	$1,934,954,950
9	28422 – Bolivia	5,109	$1,761,834,984
10	28405 - Wilmington	3,617	$1,369,524,900

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Wilmington Regional Storm Surge Risk. Source: CoreLogic, 2013.

NAPLES, FL

Residential Exposure by Storm Category

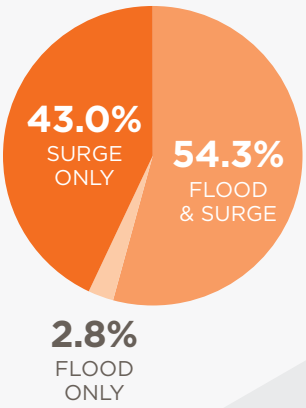
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	22,690	$14,864,998,235
Very High	33,347	$13,963,772,379
High	16,663	$5,068,497,636
Moderate	1,475	$303,837,996
Low	1,929	$303,954,965
Totals	**76,104**	**$34,505,061,211**

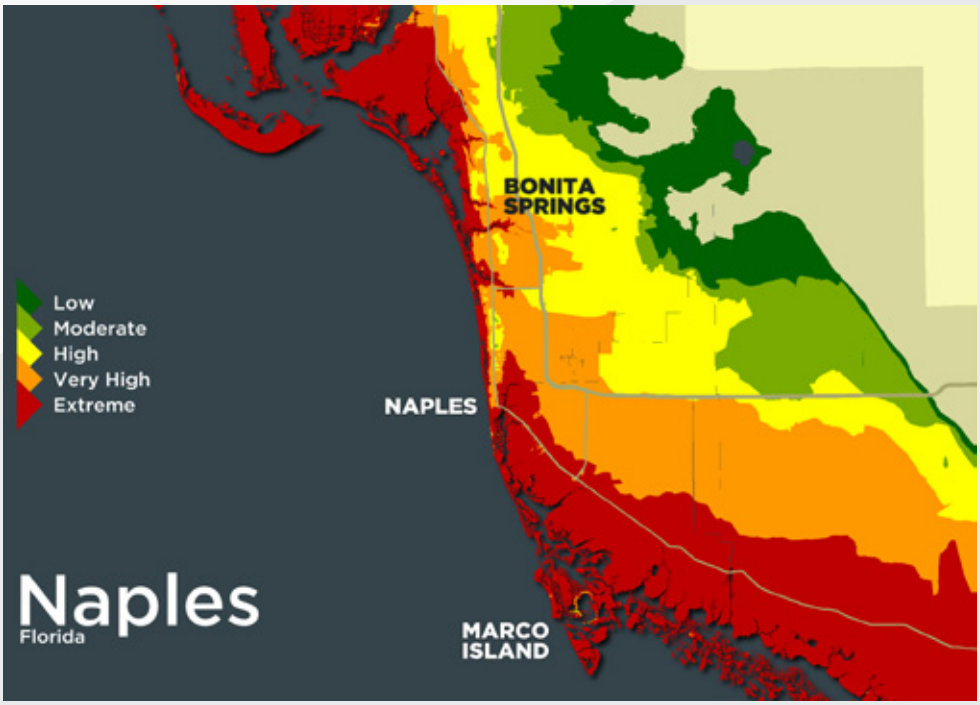
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	34102 – Naples	3,554	$6,014,792,679
2	34145 – Marco Island	6,619	$4,256,597,897
3	34119 – Naples	7,659	$3,327,055,791
4	34108 – Naples	4,516	$3,003,115,903
5	34110 – Naples	4,817	$2,726,857,572
6	34109 – Naples	5,251	$2,340,366,421
7	34105 – Naples	3,129	$2,190,555,132
8	34120 – Naples	9,148	$1,876,075,856
9	34103 – Naples	2,842	$1,787,773,893
10	34113 – Naples	4,629	$1,475,733,341

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Naples Regional Storm Surge Risk. Source: CoreLogic, 2013.

BRADENTON, FL

Residential Exposure by Storm Category

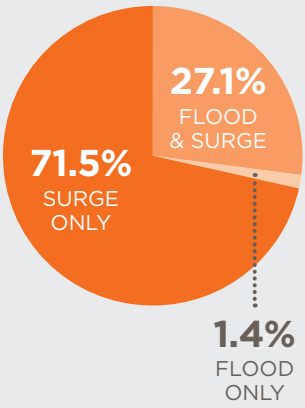
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	15,863	$9,955,790,747
Very High	23,332	$6,477,863,199
High	40,854	$8,145,397,882
Moderate	30,167	$4,966,470,105
Low	28,010	$4,295,863,016
Totals	**138,226**	**$33,841,384,949**

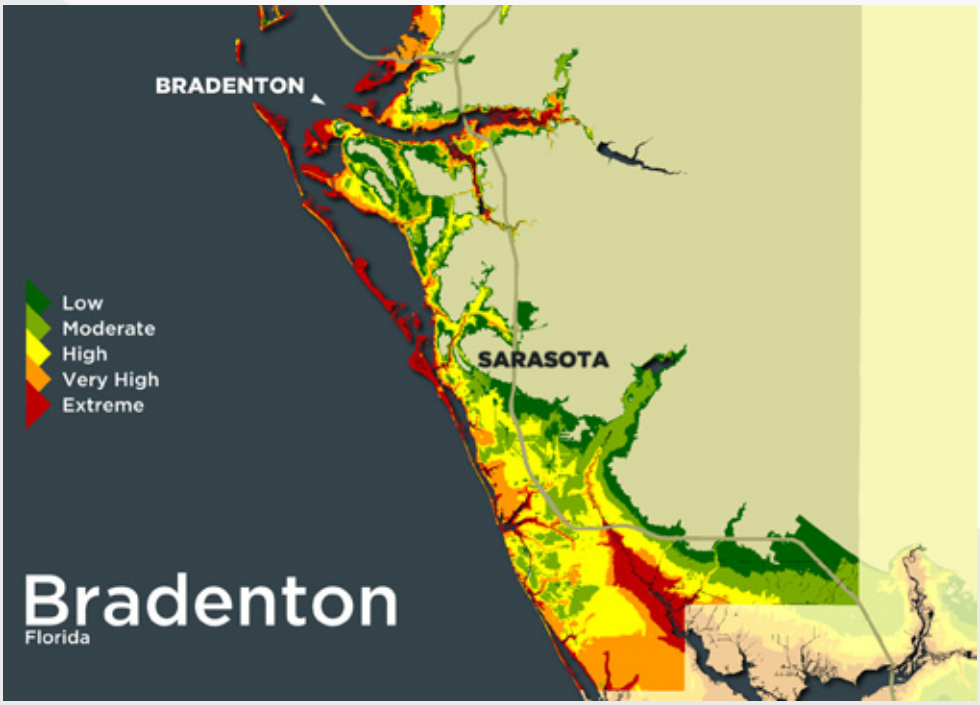
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	34242 – Sarasota	2,731	$2,371,572,700
2	34293 – Venice	15,175	$2,359,453,200
3	34275 – Nokomis	6,313	$2,211,509,400
4	34238 – Sarasota	5,894	$1,987,684,900
5	34231 - Sarasota	7,470	$1,855,413,100
6	34217 – Bradenton Beach	2,939	$1,705,092,336
7	34228 – Longboat Key	1,764	$1,693,421,244
8	34209 – Bradenton	7,605	$1,663,089,780
9	34223 – Englewood	6,258	$1,601,985,800
10	34236 - Sarasota	1,845	$1,589,001,200

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Bradenton Regional Storm Surge Risk. Source: CoreLogic, 2013.

CHARLESTON, SC

Residential Exposure by Storm Category

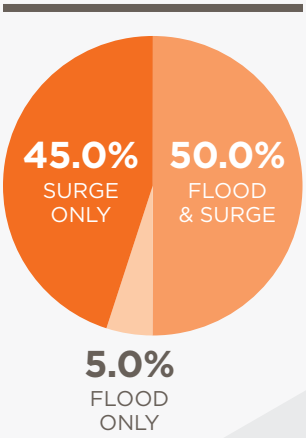
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	30,397	$14,587,465,800
Very High	15,995	$6,643,014,800
High	13,565	$4,299,068,680
Moderate	11,442	$3,760,622,425
Low	10,085	$2,210,268,720
Totals	**81,484**	**$31,500,440,425**

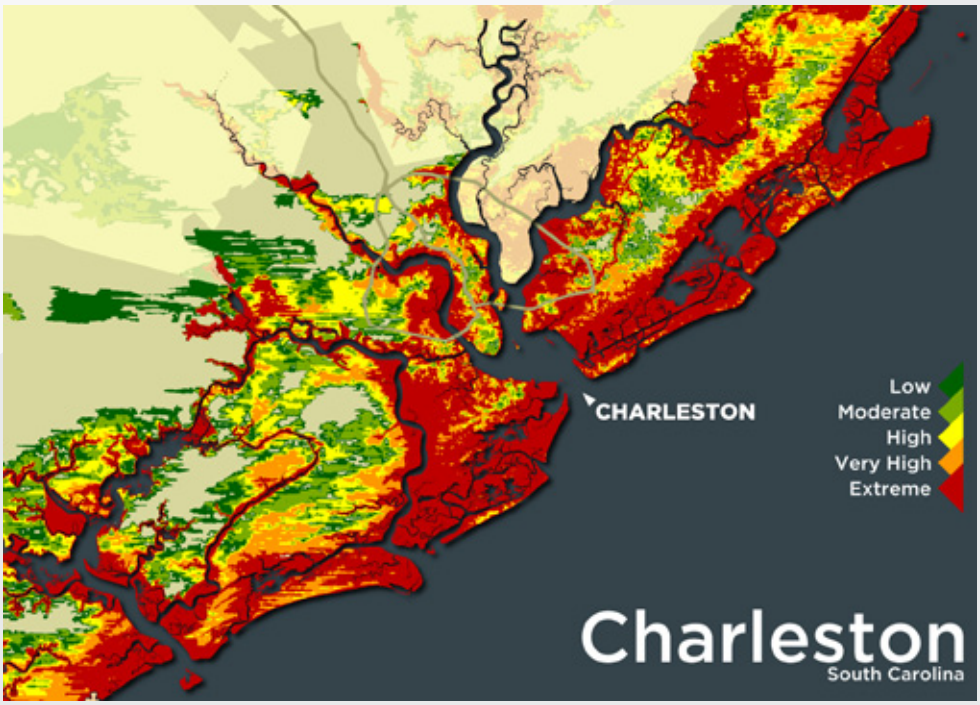
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	29464 – Mount Pleasant	12,605	$5,198,641,500
2	29455 – Johns Island	6,939	$5,187,747,600
3	29412 – Charleston	12,893	$3,783,445,500
4	29466 – Mount Pleasant	7,627	$3,011,381,800
5	29451 – Isle of Palms	3,063	$2,598,472,000
6	29407 – Charleston	9,481	$2,245,684,600
7	29401 – Charleston	1,599	$1,959,752,900
8	29492 – Charleston	3,650	$1,608,086,300
9	29482 – Sullivans Island	870	$1,157,273,000
10	29403 - Charleston	3,556	$1,046,955,200

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Virginia Beach Regional Storm Surge Risk. Source: CoreLogic, 2013.

BOSTON, MA

Residential Exposure by Storm Category

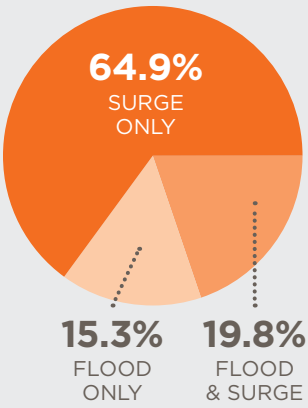
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	10,935	$4,592,575,700
Very High	20,275	$8,782,887,952
High	20,170	$8,974,977,000
Moderate	14,030	$6,147,233,900
Low	N/A	N/A
Totals	**65,410**	**$28,497,674,552**

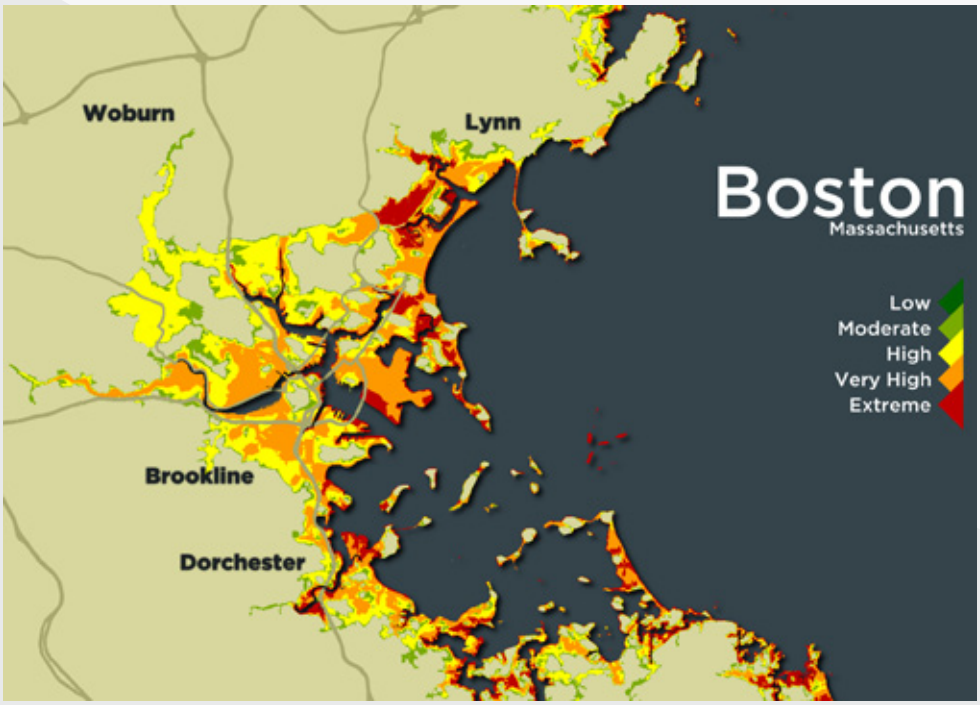
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 4 Storm (Maximum possible in this area)

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	02050 - Marshfield	4,636	$1,559,109,700
2	02138 - Cambridge	931	$1,307,136,600
3	02066 - Scituate	2,230	$1,089,498,200
4	01930 - Gloucester	1,944	$1,071,330,700
5	02045 - Hull	2,872	$998,955,100
6	02571 - Wareham	4,445	$992,766,000
7	02738 - Marion	1,579	$916,600,700
8	02169 - Quincy	2,960	$864,840,400
9	01945 - Marblehead	1,006	$855,459,300
10	02170 - Quincy	2,559	$846,230,900

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Boston Regional Storm Surge Risk. Source: CoreLogic, 2013.

PHILADELPHIA, PA

Residential Exposure by Storm Category

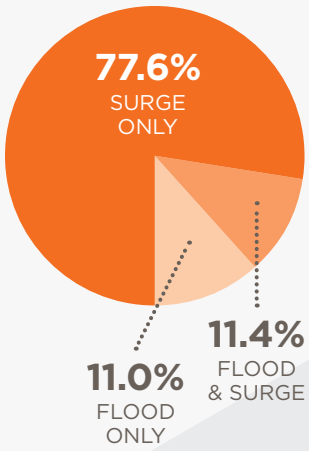
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	9,049	$1,389,624,938
Very High	45,020	$5,561,364,764
High	30,012	$4,620,328,805
Moderate	26,497	$4,195,342,964
Low	N/A	N/A
Totals	**110,578**	**$15,766,661,471**

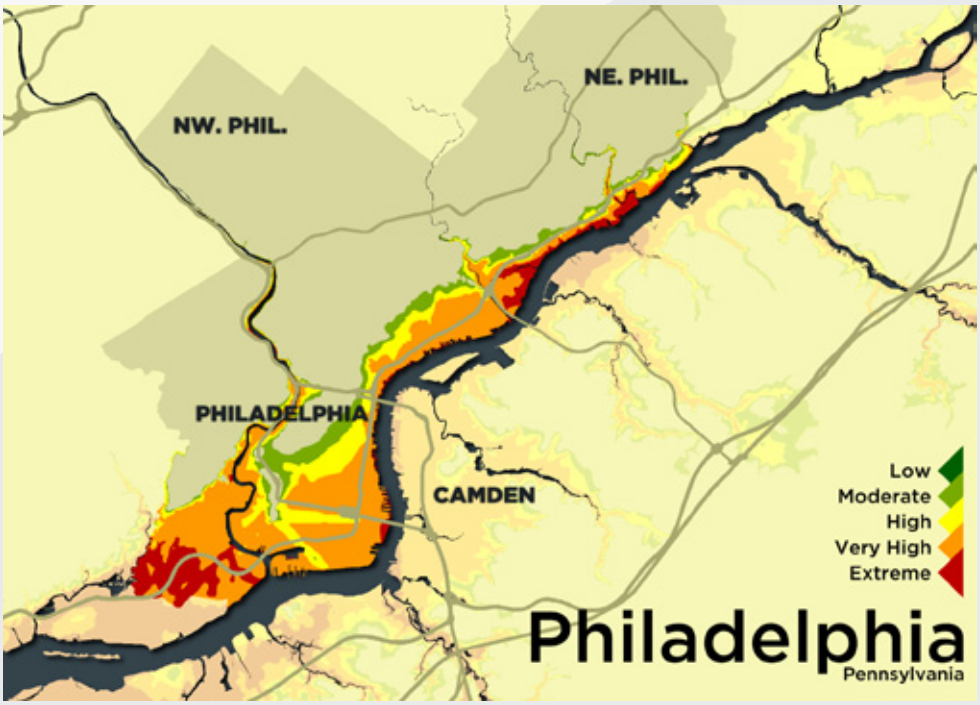
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 4 Storm (Maximum possible in this area)

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	08075 - Riverside	4,874	$800,231,300
2	08108 - Collingswood	3,153	$664,448,200
3	08070 - Pennsville	4,502	$632,197,000
4	08016 - Burlington	3,357	$600,113,600
5	08096 - Woodbury	3,394	$544,451,000
6	08054 - Mount Laurel	2,136	$542,205,300
7	19720 - New Castle	3,575	$538,719,100
8	08077 - Riverton	2,277	$497,554,500
9	08107 - Oaklyn	3,092	$451,641,400
10	08069 - Penns Grove	3,757	$424,186,600

Source: CoreLogic, 2013. Based on estimated property values as of April, 2013.





Philadelphia Regional Storm Surge Risk. Source: CoreLogic, 2013.

JACKSONVILLE, FL

Residential Exposure by Storm Category

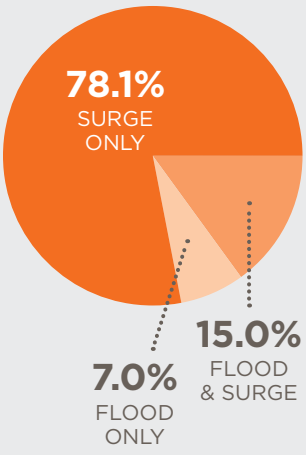
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	16,515	$6,245,507,275
Very High	14,529	$4,543,091,612
High	41,774	$9,944,250,985
Moderate	20,956	$3,157,829,277
Low	43,156	$6,016,133,398
Totals	**136,930**	**$29,906,812,547**

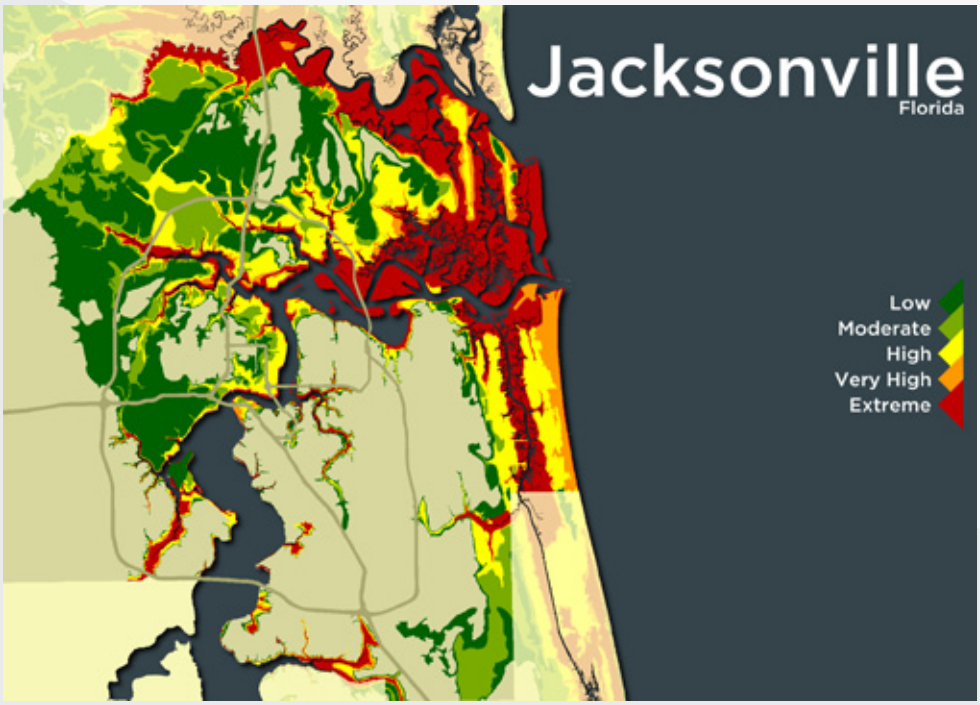
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	32082 – Ponte Vedra Beach	9,928	$5,495,062,403
2	32034 – Fernandina Beach	10,669	$3,264,711,600
3	32080 – St. Augustine	7,558	$2,459,159,164
4	32250 – Jacksonville Beach	7,518	$1,974,241,713
5	32233 – Atlantic Beach	6,288	$1,674,334,236
6	32218 – Jacksonville	13,687	$1,550,176,832
7	32225 – Jacksonville	6,137	$1,467,667,285
8	32210 – Jacksonville	5,936	$1,396,256,369
9	32205 – Jacksonville	9,066	$1,262,925,688
10	32224 – Jacksonville	4,269	$997,218,238

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Jacksonville Regional Storm Surge Risk. Source: CoreLogic, 2013.

MOBILE, AL

Residential Exposure by Storm Category

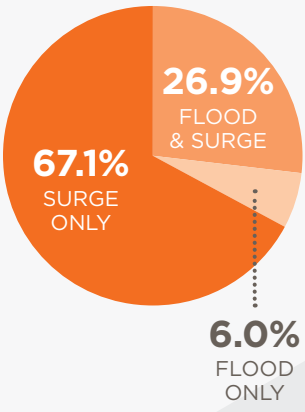
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	1,997	$394,644,400
Very High	5,937	$850,016,700
High	4,471	$499,702,000
Moderate	5,564	$594,892,700
Low	9,546	$892,124,800
Totals	**27,515**	**$3,231,380,600**

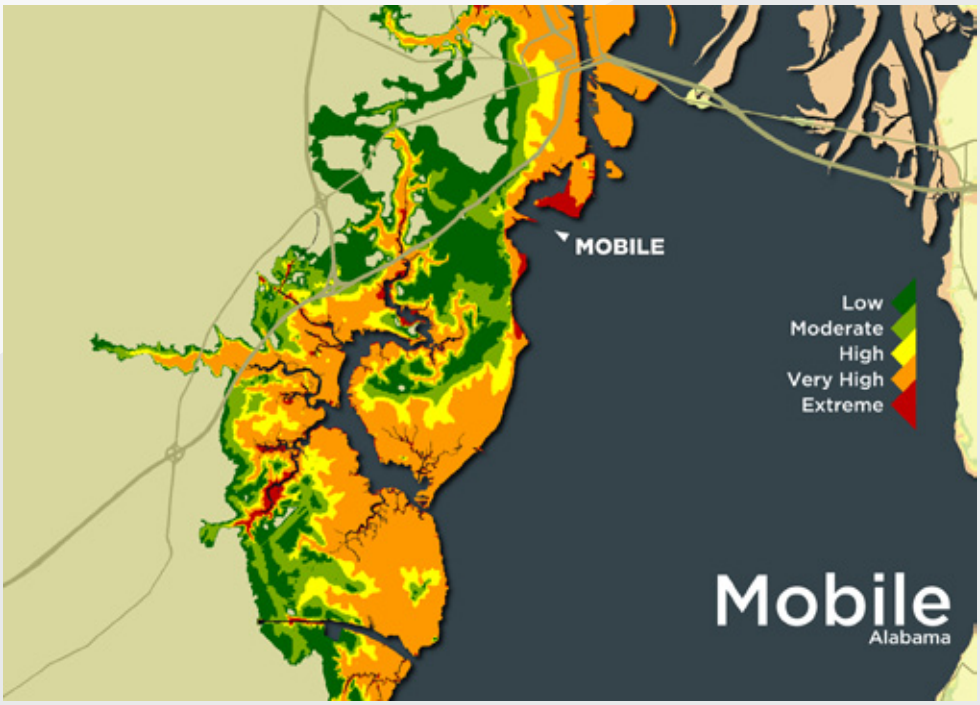
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	36605 – Mobile	8,478	$666,048,900
2	36528 – Dauphin Island	1,554	$387,758,900
3	36582 – Theodore	1,767	$365,924,900
4	36606 – Mobile	2,926	$289,866,100
5	36572 – Satsuma	2,073	$276,070,800
6	36604 – Mobile	1,600	$241,009,000
7	36619 – Mobile	792	$145,704,600
8	36603 – Mobile	1,861	$142,522,300
9	36523 – Coden	1,098	$135,959,200
10	36693 - Mobile	555	$129,850,800

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Mobile Regional Storm Surge Risk. Source: CoreLogic, 2013.

HOUSTON, TX

Residential Exposure by Storm Category

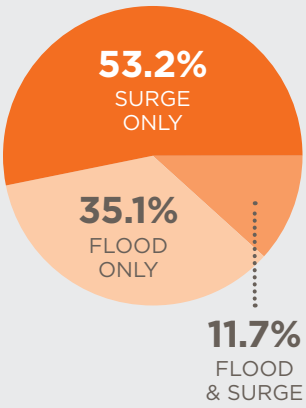
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	16,839	$3,507,484,737
Very High	20,667	$3,066,897,748
High	46,999	$6,614,753,484
Moderate	60,283	$9,088,790,504
Low	42,772	$6,754,693,557
Totals	**187,560**	**$29,032,620,030**

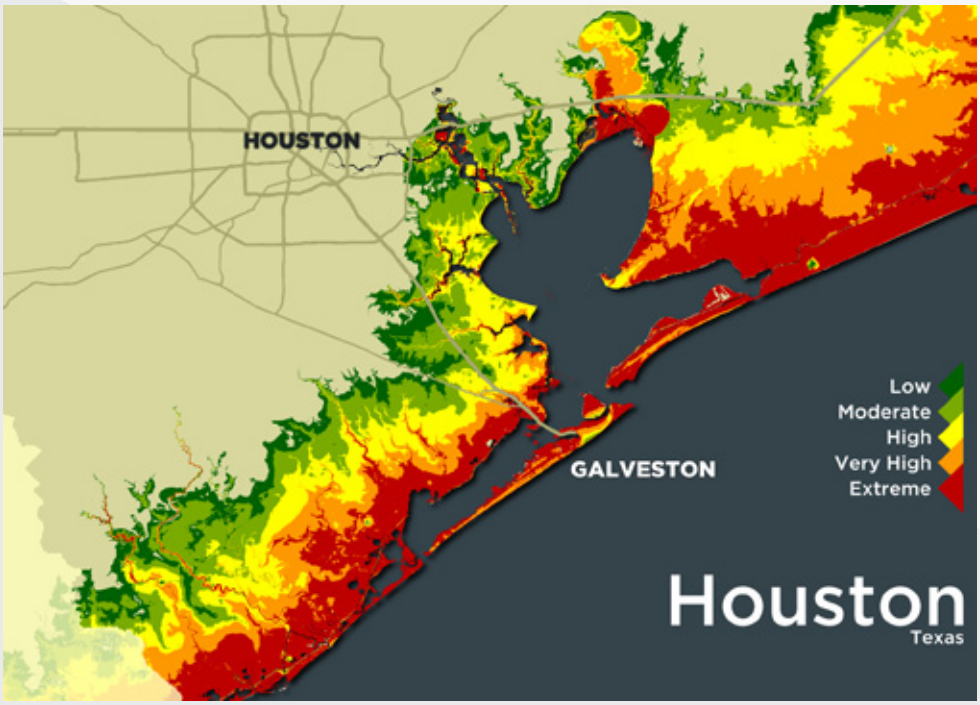
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	77573 – League City	20,585	$3,926,916,593
2	77554 – Galveston	7,315	$2,328,571,010
3	77539 – Dickinson	11,717	$1,540,116,560
4	77059 – Houston	5,727	$1,515,908,281
5	77586 - Seabrook	6,526	$1,385,658,167
6	77546 – Friendswood	4,712	$1,370,583,956
7	77062 – Houston	7,703	$1,340,614,455
8	77566 – Lake Jackson	9,143	$1,332,327,400
9	77571 – La Porte	10,980	$1,297,197,497
10	77550 – Galveston	6,694	$908,093,500

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Houston Regional Storm Surge Risk. Source: CoreLogic, 2013.

CORPUS CHRISTI, TX

Residential Exposure by Storm Category

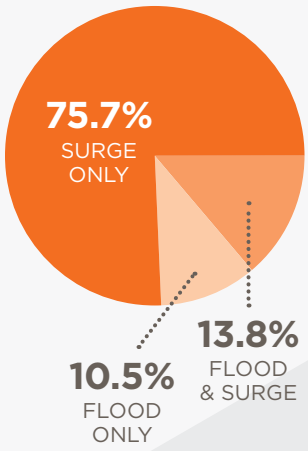
Storm Surge Risk Level	Total Properties at Risk	Total Estimated Structure Value
Extreme	5,254	$1,513,604,991
Very High	3,162	$553,005,242
High	9,086	$1,528,211,204
Moderate	16,131	$2,395,262,778
Low	13,987	$2,040,973,669
Totals	**47,620**	**$8,031,057,884**

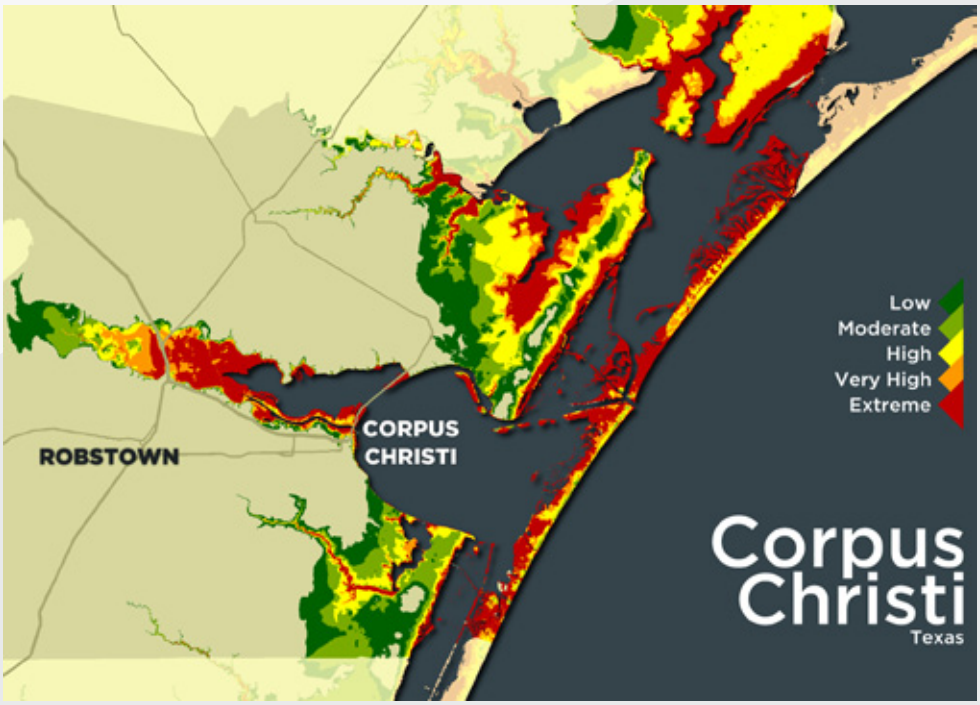
Source: CoreLogic 2013. Based on estimated property values as of April 2013.

Top 10 Areas Affected by Category 5 Storm

Rank	ZIP Code - Area Name	Total Properties at Risk	Total Estimated Structure Value
1	78414 – Corpus Christi	9,149	$1,616,385,534
2	78418 – Corpus Christi	8,225	$1,579,238,668
3	78412 – Corpus Christi	8,160	$1,033,019,991
4	78382 – Rockport	6,324	$1,016,817,610
5	78413 – Corpus Christi	4,886	$835,329,936
6	78373 – Port Aransas	1,900	$659,353,414
7	78336 – Aransas Pass	3,142	$458,856,328
8	78362 – Ingleside	2,813	$322,139,768
9	78411 – Corpus Christi	1,159	$277,592,189
10	78410 – Corpus Christi	434	$71,751,707

Source: CoreLogic 2013. Based on estimated property values as of April 2013.





Corpus Christi Regional Storm Surge Risk. Source: CoreLogic, 2013.

POTENTIAL IMPACT OF RISING SEA LEVELS

A recurring question in storm-surge analysis is whether or not climate change is affecting the development of hurricanes and therefore increasing the frequency or intensity of these events. This report was not designed to address those questions. Climate change and its effect on hurricane development falls beyond the scope of the annual CoreLogic Storm Surge Report. However, given it is the purpose of this report to evaluate the potential impact of storm surge on residential properties, the 2013 findings include a new analysis evaluating the increase in storm-surge risk in the event that sea levels rise in the future.

Because sea level is the baseline for storm-surge evaluation, and hurricane activity along with tidal action are two contributing factors that help to determine storm-surge height, CoreLogic has identified the increased risk that would result from one-foot, two-foot and three-foot sea-level rise. It is possible to model the effect of storm surge using an increased sea-level baseline height to determine how much further inland the potential surge could travel. The resulting inundation for each storm category was combined with CoreLogic parcel data to identify residential properties within surge areas.

As stated previously in the report, the analysis tabulates the total number of homes and total value at risk. The following case studies analyze seven metro areas that were selected as representative of various geographic locations along both the Gulf and Atlantic coasts, and they are also all regions that have experienced hurricane storm surge in the recent past. Each case study provides the home and value data for all three sea-rise scenarios, though the analysis and results are not intended to infer that these scenarios will occur.

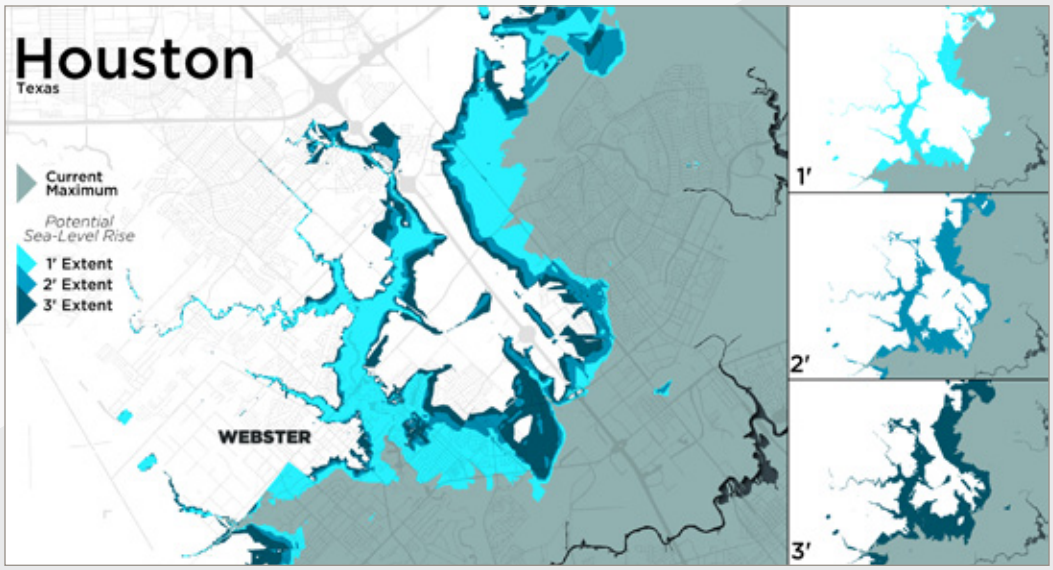
Additionally, the cities in this analysis are not full CBSA areas, and therefore tend to represent only the urban center indicated by the name. This more restricted urban view is intentional, as the findings demonstrate the effect of sea-level rise on storm surge within the smaller municipal area, thus offering a more precise evaluation of the potential increase in risk to the major population center.

HOUSTON, TX

A one-foot sea-level rise would have a significant impact on the damage to residential properties in Houston caused by storm surge. In the event sea levels would increase by one foot, the number of homes that could be affected by even a Category 1 storm (Extreme Risk) would climb by over 3,000, and the increase to potential structure damage would rise by more than $500 million. Overall, the increased risk from any category storm would expand the damage to more than 11,000 homes and increase the potential damage value by almost $1.5 billion. Surge inundation for a two-foot sea-level rise would add an additional 8,000 homes to the risk area and increase the estimated property value by another $1 billion. In the most extreme case of sea-level rise, considering a three-foot change, the number of potentially affected properties increases to 199,824 with a combined residential value of over $30 billion.

Storm-Surge Risk Level	Total Properties Potentially Affected (Current)	Total Estimated Structure Value (Current)	Number of Properties Inundated by 1-ft Rise	Estimated Value of Properties Affected by 1-ft Rise	Number of Properties Inundated by 2-ft Rise	Estimated Value of Properties Affected by 2-ft Rise	Number of Properties Inundated by 3-ft Rise	Estimated Value of Properties Affected by 3-ft Rise
Extreme	11,655	$2,930,185,964	14,694	$3,515,982,696	18,634	$4,224,208,821	22,420	$4,759,513,482
Very High	15,938	$2,337,676,685	16,071	$2,150,767,363	17,325	$2,024,150,482	17,817	$2,025,813,839
High	43,918	$6,297,692,819	48,623	$7,076,889,380	51,398	$7,682,780,892	53,867	$8,124,033,231
Moderate	58,284	$8,847,846,840	58,913	$8,945,665,238	58,873	$8,909,503,930	60,881	$9,286,263,466
Low	41,595	$6,622,346,533	44,755	$6,838,153,729	44,846	$6,786,767,994	44,839	$6,486,426,768
Total	**171,390**	**$27,035,748,841**	**183,056**	**$28,527,458,406**	**191,076**	**$29,627,412,119**	**199,824**	**$30,682,050,786**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.



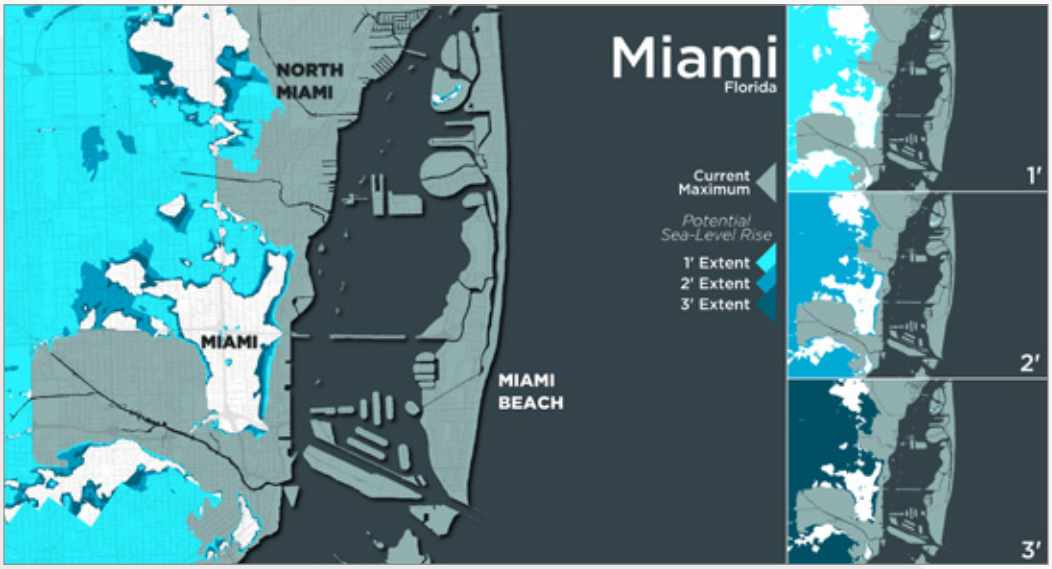
Houston Regional Storm Surge Risk with Sea-Level Rise. Source: CoreLogic, 2013.

MIAMI, FL

The geographic location and characteristics of urban areas along the coast are factors that will contribute to the potential for increased risk due to sea-level rise. Areas that are lower in elevation farther inland from the coast tend to see a larger increase in risk potential with increased sea levels. The Miami area has the type of geographic and development patterns that will be disproportionately affected by a sea-level rise. The number of homes at risk will more than double, increasing from 131,000 currently to more than 339,000, with a one-foot change in sea-level. The potential damage valuation also increases dramatically from $48 billion to more than $94 billion. Due to the terrain of the Miami area, a one-foot rise in sea level will have the most dramatic impact. A two-foot rise will increase the potential damage to include 10,000 more properties worth an additional $1 billion dollars. A three-foot rise in sea-level adds another 5,000 properties worth an additional $687 million.

Storm-Surge Risk Level	Total Properties Potentially Affected (Current)	Total Estimated Structure Value (Current)	Number of Properties Inundated by 1-ft Rise	Estimated Value of Properties Affected by 1-ft Rise	Number of Properties Inundated by 2-ft Rise	Estimated Value of Properties Affected by 2-ft Rise	Number of Properties Inundated by 3-ft Rise	Estimated Value of Properties Affected by 3-ft Rise
Extreme	15,910	$14,648,931,281	208,360	$59,344,214,487	256,885	$71,785,716,874	286,872	$78,643,491,808
Very High	14,487	$4,915,134,153	72,164	$20,624,745,960	46,754	$13,245,880,266	37,457	$11,202,086,254
High	47,136	$12,636,014,839	29,748	$8,916,211,499	26,554	$7,561,832,811	20,204	$5,031,939,094
Moderate	16,462	$5,074,308,999	18,384	$3,615,166,999	11,662	$1,961,452,189	7,357	$1,088,657,097
Low	37,790	$11,023,186,374	11,115	$2,262,982,560	8,039	$1,399,302,766	3,380	$675,649,035
Total	**131,785**	**$48,297,575,646**	**339,771**	**$94,763,321,505**	**349,894**	**$95,954,184,906**	**355,270**	**$96,641,823,288**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.



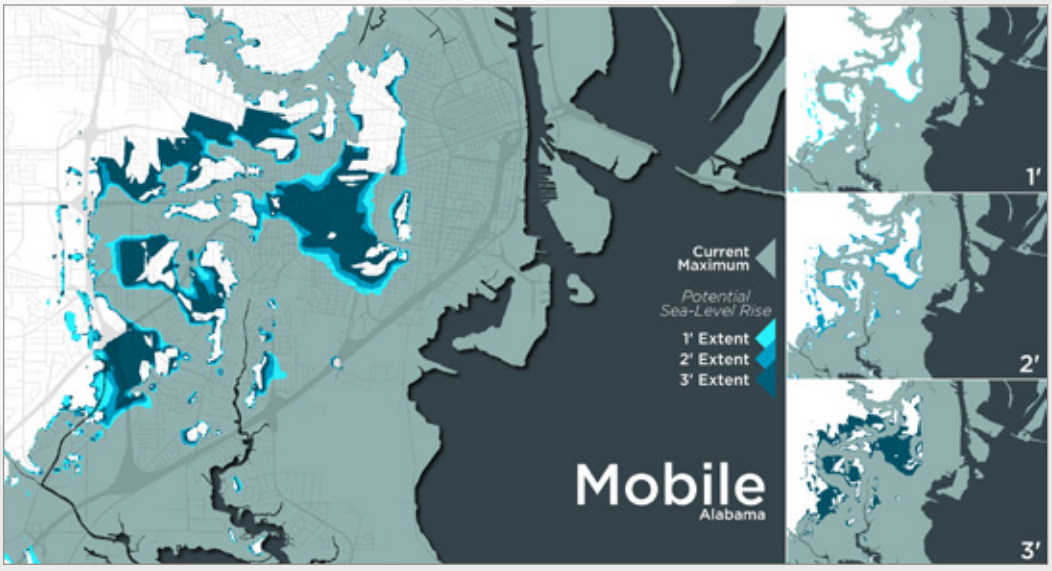
Miami Regional Storm Surge Risk with Sea-Level Rise. Source: CoreLogic, 2013.

MOBILE, AL

Mobile, due to its relatively narrow coastal area, has fewer homes at risk of storm surge when compared to other coastal states. And while the effect of sea-level rise on this area is less than other locations, it is not insignificant. A one-foot sea-level rise would affect nearly 2,000 more homes than are currently at risk, while increasing the damage potential by more than $100 million. A two-foot increase in sea level would add an additional 1,400 homes worth nearly $150 million. A three-foot sea-level rise would have substantially more impact, putting another 3,600 homes at risk, worth nearly $400 million over and above the damage done with a two-foot sea-level rise.

Storm-Surge Risk Level	Total Properties Potentially Affected (Current)	Total Estimated Structure Value (Current)	Number of Properties Inundated by 1-ft Rise	Estimated Value of Properties Affected by 1-ft Rise	Number of Properties Inundated by 2-ft Rise	Estimated Value of Properties Affected by 2-ft Rise	Number of Properties Inundated by 3-ft Rise	Estimated Value of Properties Affected by 3-ft Rise
Extreme	1,987	$392,301,500	2,627	$512,667,800	3,718	$653,366,400	6,889	$1,128,811,900
Very High	5,938	$851,237,200	6,970	$920,812,000	7,026	$910,362,700	4,815	$548,888,600
High	4,464	$499,210,600	3,759	$420,772,500	3,687	$422,728,200	3,886	$428,458,500
Moderate	5,503	$591,338,300	6,581	$671,635,400	7,353	$718,378,100	7,513	$712,535,000
Low	9,609	$895,100,100	9,091	$862,469,800	8,760	$830,915,900	11,116	$1,114,558,600
Total	**27,501**	**$3,229,187,700**	**29,028**	**$3,388,357,500**	**30,544**	**$3,535,751,300**	**34,219**	**$3,933,252,600**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.



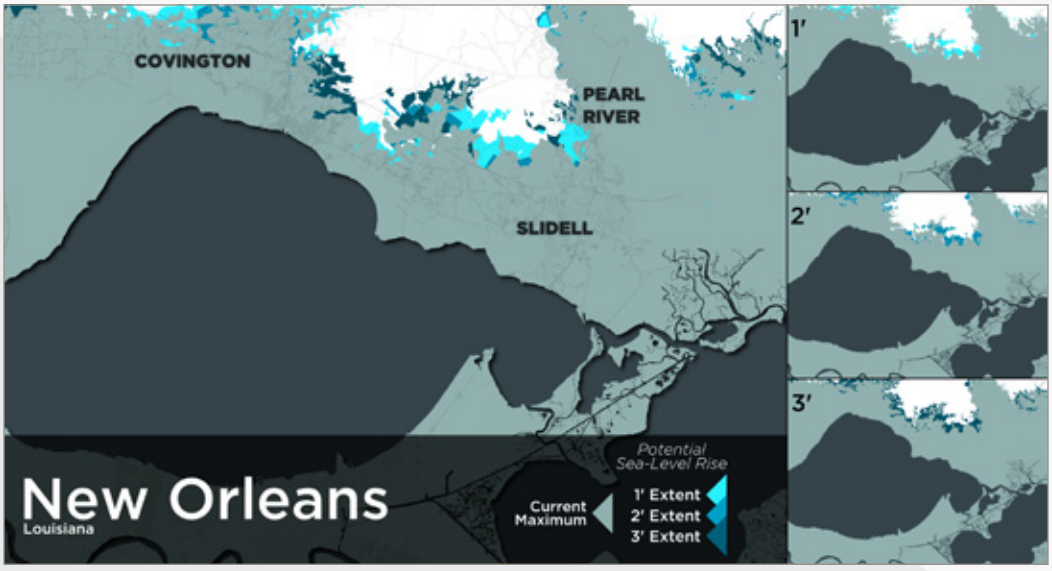
Mobile Regional Storm Surge Risk with Sea-Level Rise. Source: CoreLogic, 2013.

NEW ORLEANS, LA

The New Orleans area has always been a concern when discussing storm surge, and although the mitigation efforts in the area have been very important to the protection of the city, sea-level rise could have a serious impact on potential damage. It is projected that a one-foot rise in ocean levels would put an additional 2,000 homes, worth approximately $300 million, into a surge risk zone. A two-foot sea-level rise would add an additional 1,000 homes worth another $150 million, with a development of a three- foot rise have progressively less impact by adding roughly 700 homes to the surge risk area worth an additional $175 million.

Storm-Surge Risk Level	Total Properties Potentially Affected (Current)	Total Estimated Structure Value (Current)	Number of Properties Inundated by 1-ft Rise	Estimated Value of Properties Affected by 1-ft Rise	Number of Properties Inundated by 2-ft Rise	Estimated Value of Properties Affected by 2-ft Rise	Number of Properties Inundated by 3-ft Rise	Estimated Value of Properties Affected by 3-ft Rise
Extreme	3,572	$1,042,947,896	3,815	$1,088,045,609	3,815	$1,088,045,609	4,537	$1,311,172,402
Very High	7,564	$1,220,953,492	9,317	$1,437,602,739	11,977	$2,090,650,175	11,373	$1,883,146,682
High	11,093	$1,963,624,996	9,532	$1,771,396,553	10,752	$2,164,590,168	12,225	$2,447,948,358
Moderate	9,213	$2,031,287,912	12,529	$2,965,632,835	9,445	$2,043,324,494	8,995	$1,953,239,277
Low	7,713	$1,786,594,919	5,988	$1,096,843,783	6,030	$1,121,240,727	5,617	$1,086,643,677
Total	**39,155**	**$8,045,409,215**	**41,181**	**$8,359,521,519**	**42,019**	**$8,507,851,173**	**42,747**	**$8,682,150,396**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.



New Orleans Regional Storm Surge Risk with Sea-Level Rise. Source: CoreLogic, 2013.

NEW YORK, NY

Sea-level rise would certainly have an impact on the northern Atlantic region, just as it would in the Gulf and southern Atlantic. With a one-foot rise in sea level, the number of homes that are at risk of storm-surge damage would increase in New York City by more than 16,000, worth an additional $7 billion. Increasing ocean levels by two feet would virtually double the number of homes at risk—another 16,000 homes worth $6.5 billion. Finally, a three-foot rise in sea level would increase the number of homes by 17,000 and adds an additional $6 billion in potential damage.

Storm-Surge Risk Level	Total Properties Potentially Affected (Current)	Total Estimated Structure Value (Current)	Number of Properties Inundated by 1-ft Rise	Estimated Value of Properties Affected by 1-ft Rise	Number of Properties Inundated by 2-ft Rise	Estimated Value of Properties Affected by 2-ft Rise	Number of Properties Inundated by 3-ft Rise	Estimated Value of Properties Affected by 3-ft Rise
Extreme	110,167	$53,312,954,912	130,306	$63,327,196,512	150,743	$73,714,291,410	195,697	$94,379,633,326
Very High	115,484	$54,775,348,110	112,539	$52,032,540,117	110,214	$48,923,006,423	81,280	$34,944,333,256
High	96,895	$39,352,257,914	99,962	$40,714,122,681	98,033	$40,376,991,202	102,361	$42,018,328,447
Moderate	94,649	$38,163,089,130	90,875	$36,427,178,250	90,443	$36,095,014,782	86,880	$33,998,696,339
Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	**417,195**	**$185,603,650,066**	**433,682**	**$192,501,037,560**	**449,433**	**$199,109,303,817**	**466,218**	**$205,340,991,368**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.

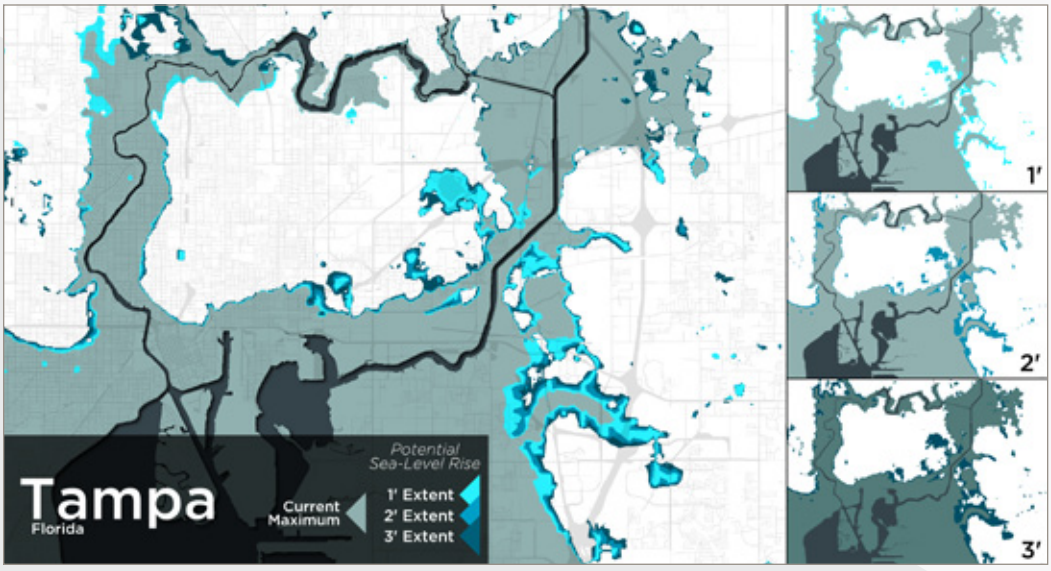
New York Regional Storm Surge Risk with Sea-Level Rise. Source: CoreLogic, 2013.

TAMPA, FL

Though less dramatic than in other metro areas, Tampa would see a noticeable impact from a rise in sea level along with the rest of the Gulf Coast states. In Tampa, a one- foot rise in ocean levels would put an additional 3,000 homes into a surge risk zone and add more than $300 million to the potential damage cost. A total two-foot sea-level rise would add just over 1,000 additional homes and another $125 million in potential damage. A three-foot sea level rise would potentially inundate 4,600 more residences and increase the damage total by another $520 million.

Storm-Surge Risk Level	Total Properties Potentially Affected (Current)	Total Estimated Structure Value (Current)	Number of Properties Inundated by 1-ft Rise	Estimated Value of Properties Affected by 1-ft Rise	Number of Properties Inundated by 2-ft Rise	Estimated Value of Properties Affected by 2-ft Rise	Number of Properties Inundated by 3-ft Rise	Estimated Value of Properties Affected by 3-ft Rise
Extreme	15,905	$5,608,095,466	21,994	$6,723,475,066	24,072	$7,178,389,759	26,832	$7,715,634,853
Very High	16,294	$3,050,326,541	13,391	$2,458,723,050	16,443	$2,924,957,144	17,504	$3,564,047,959
High	16,668	$3,365,012,047	18,623	$3,862,691,180	14,874	$3,210,601,418	13,138	$2,478,922,142
Moderate	15,390	$3,249,798,391	14,263	$2,950,241,563	14,548	$2,867,807,138	15,977	$2,828,278,958
Low	12,755	$1,805,767,294	11,733	$1,403,771,582	11,180	$1,342,030,347	12,355	$1,457,492,003
Total	**77,012**	**$17,078,999,739**	**80,004**	**$17,398,902,441**	**81,117**	**$17,523,785,806**	**85,806**	**$18,044,375,915**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.



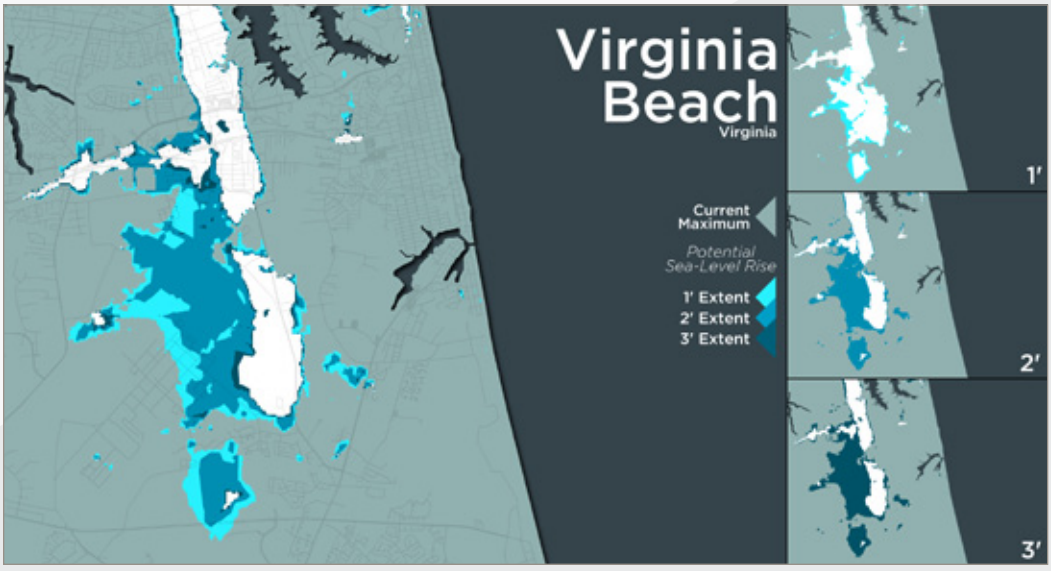
Tampa Regional Storm Surge Risk with Sea-Level Rise. Source: CoreLogic, 2013.

VIRGINIA BEACH, VA

Virginia Beach would see a significant increase in damage potential in the event sea level rises by one foot. Approximately 3,400 additional homes would be at risk given a one-foot rise adding around $1 billion to the total estimated property value at risk. A two-foot sea-level rise would add another 4,500 homes worth just over $1 billion. A three-foot rise would add 3,150 homes worth an additional $770 million.

Storm-Surge Risk Level	Total Properties Potentially Affected (Current)	Total Estimated Structure Value (Current)	Number of Properties Inundated by 1-ft Rise	Estimated Value of Properties Affected by 1-ft Rise	Number of Properties Inundated by 2-ft Rise	Estimated Value of Properties Affected by 2-ft Rise	Number of Properties Inundated by 3-ft Rise	Estimated Value of Properties Affected by 3-ft Rise
Extreme	45,736	$12,297,942,809	63,244	$16,227,491,509	87,138	$21,600,074,409	104,501	$25,578,752,419
Very High	71,277	$15,745,730,410	74,445	$16,087,499,410	71,588	$15,285,675,120	65,631	$14,023,158,510
High	57,191	$12,477,885,310	49,465	$11,168,867,910	45,803	$10,223,145,500	42,057	$9,349,439,900
Moderate	42,655	$9,441,594,300	37,226	$8,185,670,200	24,136	$5,674,160,600	19,832	$4,794,243,600
Low	13,322	$3,294,060,500	9,258	$2,548,707,100	9,441	$2,471,956,900	9,235	$2,281,587,100
Total	**230,181**	**$53,257,213,329**	**233,638**	**$54,218,236,129**	**238,106**	**$55,255,012,529**	**241,256**	**$56,027,181,529**

Source: CoreLogic 2013. Based on estimated property values as of April 2013.



Virginia Beach Regional Storm Surge Risk with Sea-Level Rise. Source: CoreLogic, 2013.

CONCLUSION

In the aftermath of not one, but two devastating storms in 2012—Hurricane Isaac with its 11-foot storm surge damaging 59,000 homes in the New Orleans area[6], followed two months later by the estimated $50 billion in destruction and 72 lives lost to Hurricane Sandy in the Northeast[1]—it has never been more important to not only examine, but truly understand storm-surge risk in the U.S. The past two years have illustrated the necessity of more accurate information to plan and prepare for natural disasters, even in locations that have not historically had a propensity for hurricanes. There are millions of homes potentially at risk from storm surge along the Gulf and Atlantic coastlines, and only through the incorporation of surge risk data will homeowners, insurance providers, city officials, disaster response teams and other public and private sector groups be able to mitigate that risk, plan for the worst and respond swiftly to future events.

For more information on the data and analytics contained in this report or on CoreLogic coastal storm-surge risk products, please contact us at hazardrisk@corelogic.com or 855.267.7027.

DISCLAIMERS:

The data in this report represents CoreLogic analysis and interpretation of potential storm surge risk in the United States. It is based on publically available information combined with other CoreLogic internal research and application of CoreLogic proprietary tools and information. It is not meant as a probabilistic evaluation of the potential for a hurricane to occur or to address the risk determination of any particular property. CoreLogic recommends that specific analysis be performed at the property level to adequately determine likelihood of risks for an individual parcel of land.

SOURCES:

[1] NOAA: National Hurricane Center, Tropical Cyclone Report, Hurricane Sandy, 2013.

[2] Billion-Dollar U.S. Weather/Climate Disasters 1980-2012, National Climatic Data Center, 2013.

[3] NOAA: National Hurricane Center, Tropical Cyclone Report, Hurricane Irene, 2011.

[4] NOAA: National Ocean Service, Population Trends Along The Coastal United States: 1980-2008.

[5] NOAA: National Hurricane Center, Tropical Cyclone Report, Tropical Storm Debby, 2013.

[6] NOAA: National Hurricane Center, Tropical Cyclone Report, Hurricane Isaac, 2013.

[7] "Twice as Many Structures in FEMA's Redrawn Flood Zone," The New York Times, January 28, 2013.

ABOUT CORELOGIC

CoreLogic (NYSE: CLGX) is a leading residential property information, analytics and services provider in the United States and Australia. Our combined data from public, contributory and proprietary sources spans over 700 million records across 40 years including detailed property records, consumer credit, tenancy, hazard-risk and location information. The markets CoreLogic serves include real estate and mortgage finance, insurance, capital markets, transportation and government. We deliver value to our clients through unique data, analytics, workflow technology, advisory and managed services. Our clients rely on us to help identify and manage growth opportunities, improve performance and mitigate risk. Headquartered in Irvine, Calif., CoreLogic operates in seven countries. For more information, please visit www.corelogic.com.

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