

A photograph showing water spraying through a dark metal grate. The water is captured in motion, creating a blurred, cascading effect. The background is dark, and the water is illuminated, highlighting its texture and flow.

# INNOVATIONS IN FLOOD INSURANCE PROTECTION

Jeremiah Konz



insured.™

# INNOVATIONS IN FLOOD INSURANCE PROTECTION

**Jeremiah Konz**

**November 2013**

## **Introduction**

Recent extreme windstorms and flooding events, from Superstorm Sandy to the devastating floods that deluged Calgary and Boulder, Colorado, underscore the need for broad property insurance protection. One of the troubling legacies of Superstorm Sandy was the large number of businesses that had either exhausted or severely eroded the available limits of their insurance policies. Many companies/businesses, post-loss, were unable to restore the limits for the remainder of the policy's duration, while others experienced difficulty purchasing adequate limits at policy renewal. A standalone insurance policy designed to reinstate limits after a loss can be an effective tool for risk managers confronting similar situations in the future.

## **Flood Loss Legacy of Superstorm Sandy**

The severe flooding caused by Superstorm Sandy in 2012 was an extraordinary event. From a scientific standpoint, the storm at landfall was classified by the National Hurricane Center as an "extra-tropical storm" of rare intensity. This type of weather event is created by temperature contrasts caused by a great volume of energy in the atmosphere, unlike a traditional hurricane that is fueled by the warm ocean waters.

Superstorm Sandy is estimated to have caused \$20 billion to \$25 billion in insured losses.<sup>1</sup> A significant portion of these losses was attributed to a tidal storm surge. According to the U.S. Federal Emergency Management Agency (FEMA), the storm surge exceeded the one-in-500-year flood elevation estimation for more than one hour in lower Manhattan, and the one-in-100-year elevation estimation for nearly four hours.<sup>2</sup>

Many companies in the region experienced substantial flood losses, as well as persistent business and service interruptions. The flooding damaged electrical and heating equipment, resulted in the failure of revolving front doors and elevators, and closed down New York's subway system and area roads. Serious gas shortages and the loss of wireless service were other major problems.

Since Superstorm Sandy, massive flooding has also devastated the cities of Calgary and Toronto in Canada as well as Boulder, Colorado. For businesses experiencing losses caused by such flooding, their property insurance programs provide great financial recourse. But, as the insurance market's reaction after Superstorm Sandy demonstrated, once the available limits

afforded by the property insurance policy are exhausted or have eroded, the businesses may experience difficulty reinstating these limits to the previous levels of protection.

Even though the insurance policies would remain in force until expiration, they may no longer have the financial capacity to absorb additional flood losses that might occur during the remainder of the policy's duration. In effect, the insured would be on the hook financially to assume additional losses until the policy was renewed, unless the aggregate flood limit was reinstated. Unfortunately for the insured, many carriers may be averse to reinstating the flood limits post-loss or providing the same limits at renewal. Such was the case following Superstorm Sandy, when many carriers took these approaches. The consequence for companies caught in the crosshairs was stark—the risk of absorbing losses from successive events on their balance sheets.

In the aftermath of a catastrophic weather event, many businesses incur losses from the deductibles they pay, the vertical shares of risk they absorb in the core program and the risks they assume in the excess portion of the program. The potential inability to reinstate much-needed insurance limits is an added financial strain. Insureds may have very little to no insurance protection remaining until their property policies are renewed, and even then they may not be able to acquire the same limits as before.

There is another potential risk to consider. Following Superstorm Sandy, many companies in the midst of renegotiating their property insurance policy renewals discovered that they could not acquire the same high limits of protection as before. Whereas a \$30 million limit was previously attainable, some risk managers were offered as little as \$5 million of this vital protection.

Recent extreme windstorms and flooding events, from Superstorm Sandy to the devastating floods that deluged Calgary and Boulder, Colorado, underscore the need for broad property insurance protection.

## Market Reaction

Reduction in coverage after a large catastrophic event is not a new phenomenon, and should be expected by risk managers. Before Superstorm Sandy, many carriers inadequately priced their flood catastrophe risks—a misstep, given the substantial concentration of risks in Manhattan.

Following Superstorm Sandy, this practice was unsustainable. The primary insurance markets have now tightened policy contract terms and conditions, requiring more narrowly written windstorm and high hazard flood sub-limits. In certain cases, tidal storm surge has been effectively excluded from policies absorbing windstorm risks. In other cases, it has been included in a much smaller high hazard flood sub-limit, representing an increased financial exposure for businesses in coastal regions.

There are also coverage wording issues to consider. In some policies, the risk of tidal storm surge is covered in the flood sublimit; in other policies it is assumed in the wind sublimit. This difference in wording has profound implications for an insured with a high hazard flood risk.

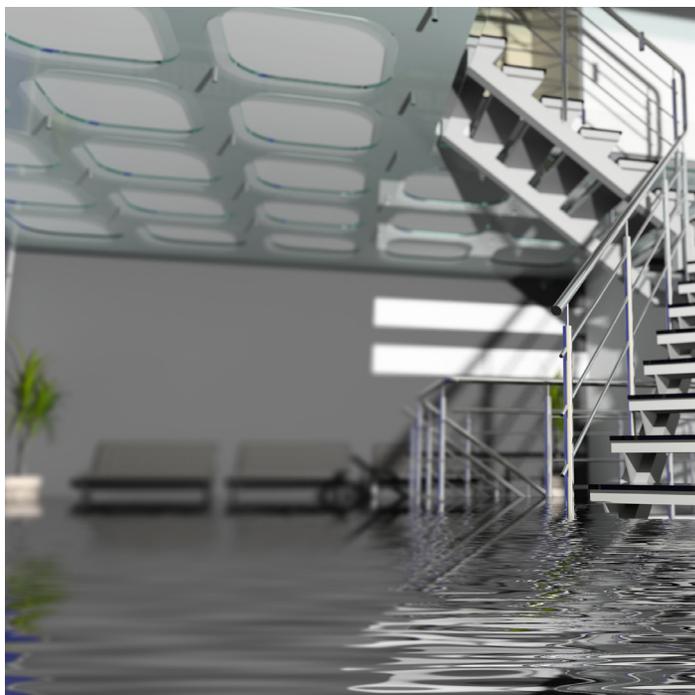
For instance, the flood exposure might share in the same overall sub-limit as the windstorm exposure. If the insured suffers losses from both a storm surge flood and a wind loss, there may not be enough combined financial limits of protection. In such cases, higher combined limits for both wind and flood losses would be advisable, yet obtaining these limits can be problematic.

There are advantages and disadvantages to both types of coverage; the appropriate placement varies by policy depending on the specific assets being insured. The critical factor is to understand where the high hazard flood risk is placed in a policy to gauge if the limits of insurance are adequate—before a catastrophe strikes.

Finally, flood rates for most accounts have pitched skyward, pressuring risk managers from a budget allocation standpoint. Many risk managers find they now need to shift dollars from other parts of their insurance portfolios to purchase adequate limits of insurance against flood losses.

Risk managers seeking more customizable solutions from existing markets have experienced little to no success in this regard. Overnight, companies can find themselves in a severe situation, their financial survival jeopardized at a time when the likelihood and severity of extreme weather events and other natural disasters is predicted to be much higher. “Once in a century storms” appear to be happening year-after-year, as the one-two punch of Hurricane Irene and Superstorm Sandy illustrated in 2011 and 2012, respectively.

The risk of a storm tidal surge causing substantial flooding losses also appears to be greater, given the far greater number of structures exposed along US coastlines. According to the National Ocean and Atmospheric Administration (NOAA), 123.3 million



people, or 39 percent of the country’s population, lived in counties directly on the shoreline in 2010. From 1970 to 2010, the population of these counties increased by nearly 40 percent, and are projected to increase by an additional 10 million people (an 8 percent rise) by 2020, NOAA stated.<sup>3</sup> As the population increases, so does the exposure. In the coming years, companies will require additional, affordable protection for these high-risk locations, particularly when the insurance limits of current policies are exhausted or eroded.

## A Steep Price to Pay

Obviously, if the limits to absorb flood risks within current policies are exhausted or eroded, companies owning these highly exposed properties will require a means of additional, affordable insurance protection. Without adequate limits of insurance against flood-related losses, businesses confront the risks of both severe property damage and long disruptions in operations. The latter can foster upheaval with customers and vendors, culminating in reputational problems, competitive issues, a decline in market share and financial instability.

When many companies in the same region endure these challenges, the aggregate financial toll can adversely impact the national economy. Following the monsoons that caused immense flooding in Thailand in 2011, the country’s fourth quarter GDP fell 9 percent.<sup>4</sup> The flooding further disengaged supply chains across the world, resulting in shortages in the hard disc drive market that caused millions of dollars in losses for electronics manufacturers.<sup>5</sup>

Assuming more frequent and extreme weather events in the future, risk managers should better understand how storm surge is addressed in their property insurance policies—e.g., within the windstorm or flood sub-limit—and its impact on premiums and

limits. Risk managers also confront an urgent need to bolster the insurance limits of their property coverage, post-loss, to address additional flood exposures that arise during the policy period.

### **Flood Limit Reinstatement Protection**

---

In the aftermath of Superstorm Sandy, many corporate risk managers whose organizations had experienced a flood loss from the hurricane were distressed by their inability to acquire adequate limits of insurance to absorb future flood losses that might occur during the remainder of the policy period. They had few places to turn for this additional insurance and peace of mind. The catastrophic losses of Superstorm Sandy forced many carriers to drive a hard bargain, either declining to provide additional capacity or reinstating the limits of existing policies at much higher cost, stricter coverage terms and conditions and substantial increases in client self-insured risk retentions or deductibles.

These dire actions leave risk managers with a dilemma—how to ensure they have adequate limits of insurance to address the risk of severe flooding. What should they do? For one thing, risk managers need to be aware of the coverage solutions available in the market today, as many carriers in the traditional property insurance market have restricted their offerings.

A compelling market solution is a standalone insurance policy reinstating an insured's previous limits for flood coverage. This policy can be customized to each organization's specific risk profile. In effect, the insurance augments the limits remaining in the insured's property insurance policy, even in cases where the limits have been completely exhausted. The coverage terms, conditions and premium charged are based on each insured's high-hazard flooding exposures.

Flood reinstatement insurance comes at a time of great need, providing excess of loss insurance above the remaining limits in the underlying property insurance policy. Risk managers now have the option to buy excess of loss insurance if the current coverage is sub-limited upon renewal or if the high-hazard flood deductible in the primary program has dramatically increased.

The insurance specifically addresses the dilemma faced by some risk managers in the aftermath of Superstorm Sandy—inadequate insurance capacity to absorb their remaining exposure to weather-related flood risks. When extreme rainfall deluged Boulder, Colorado, in September 2013, drenching some regions with at least 21 inches of rain—more than the average for an entire year—company risk managers in the affected areas had immediate access to flood loss reinstatement limits.

Thus, the scenario provided earlier of a risk manager with \$30 million in insurance protection who could only buy \$5 million at policy renewal, can now acquire an additional \$25 million in insurance via a flood reinstatement policy. This additional capacity makes the property insurance program whole, reinstating the insured to more comfortable, historic limits.

Risk managers now have the option to buy excess of loss insurance if the current coverage is sub-limited upon renewal or if the high-hazard flood deductible in the primary program has dramatically increased.

Flood limit reinstatement insurance serves an additional purpose of great value to risk managers. In cases where a company building may be financed through a bank, this additional layer of financial protection can assist in attaining lower interest rates at refinancing. In most cases, the lending institution bank may request the borrower's proof of insurance as part of the bank's due diligence process and as a condition for obtaining the loan. If a certificate or evidence of insurance indicates \$5 million of flood loss protection on a building worth five times that amount, the chance of obtaining a more favorable loan is greatly reduced, if not eliminated in its entirety.

With regard to where the storm surge risk is assumed—in the flood sub-limit or the wind sub-limit, the choice remains the province of the risk manager. In either case, the availability of the flood limit reinstatement insurance provides peace of mind by augmenting the capacity for flood loss in the aftermath of a major event.

### **ABOUT THE AUTHOR:**

---

**Jeremiah Konz**, Senior Vice President, ACE Property & Specialty Lines, is based in Eden Prairie, Minnesota. With 13 years of technical property catastrophe expertise, Mr. Konz uses his analytics background in insurance and reinsurance to lead the underwriting and new product development for ACE's Specialty Catastrophe Unit.

ACE's Specialty Catastrophe Unit seeks to understand and define client challenges to provide customized solutions that specifically address these needs. It is highly regarded for its creative responses to complicated market conditions, providing named storm deductible buydowns, offering multi-year insurance arrangements, and developing parametric triggered coverage for concentrated catastrophe exposures, in addition to the flood limit reinstatement policy.

## CONTACT US

### ACE USA

436 Walnut Street  
Philadelphia, PA 19106, United States  
[www.acegroup.com/us](http://www.acegroup.com/us)

ACE Group is one of the world's largest multiline property and casualty insurers. With operations in 53 countries, ACE provides commercial and personal property and casualty insurance, personal accident and supplemental health insurance, reinsurance and life insurance to a diverse group of clients. ACE Limited, the parent company of the ACE Group, is listed on the New York Stock Exchange (NYSE: ACE) and is a component of the S&P 500 index. Additional information can be found at [www.acegroup.com](http://www.acegroup.com).

The opinions and the positions expressed in this paper are the author's own and not necessarily those of any ACE company. Insurance is provided by ACE American Insurance Company, Philadelphia, PA, or in some jurisdictions, other insurance companies in the ACE Group. This publication is for educational purposes only. The suggestions and information are not intended to be professional or legal advice. The advice of a competent attorney or other professionals should be sought prior to applying this information to a particular set of facts.

Copyright © 2013, ACE Group.  
All rights reserved.

## Endnotes:

1. <http://www.bloomberg.com/news/2012-11-14/sandy-may-cost-insurers-as-much-as-25-billion-rms-estimates.html>
2. <http://www.metropolismag.com/story/20130207/the-59-billion-question>
3. <http://oceanservice.noaa.gov/facts/population.html>
4. Oxford Economics, Country Economic Forecast: Thailand, February 2012
5. <http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Managing-Risks-Supply-Chain-Reaching-New-Standards.pdf>

