

Climate Change & Impact Assessment

**Washington, D.C.
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**Identifying and Mitigating the Risks
Associated with Climate Change**

**Rick Hawkinberry, Senior Vice President
Willis Environmental Practice**

The Willis logo consists of the word "Willis" in a white, serif font, centered within a dark blue rectangular box. The box is positioned on the right side of a yellow horizontal bar at the bottom of the slide.

Climate Change - A Concern for the Insured & the Insurance Industry

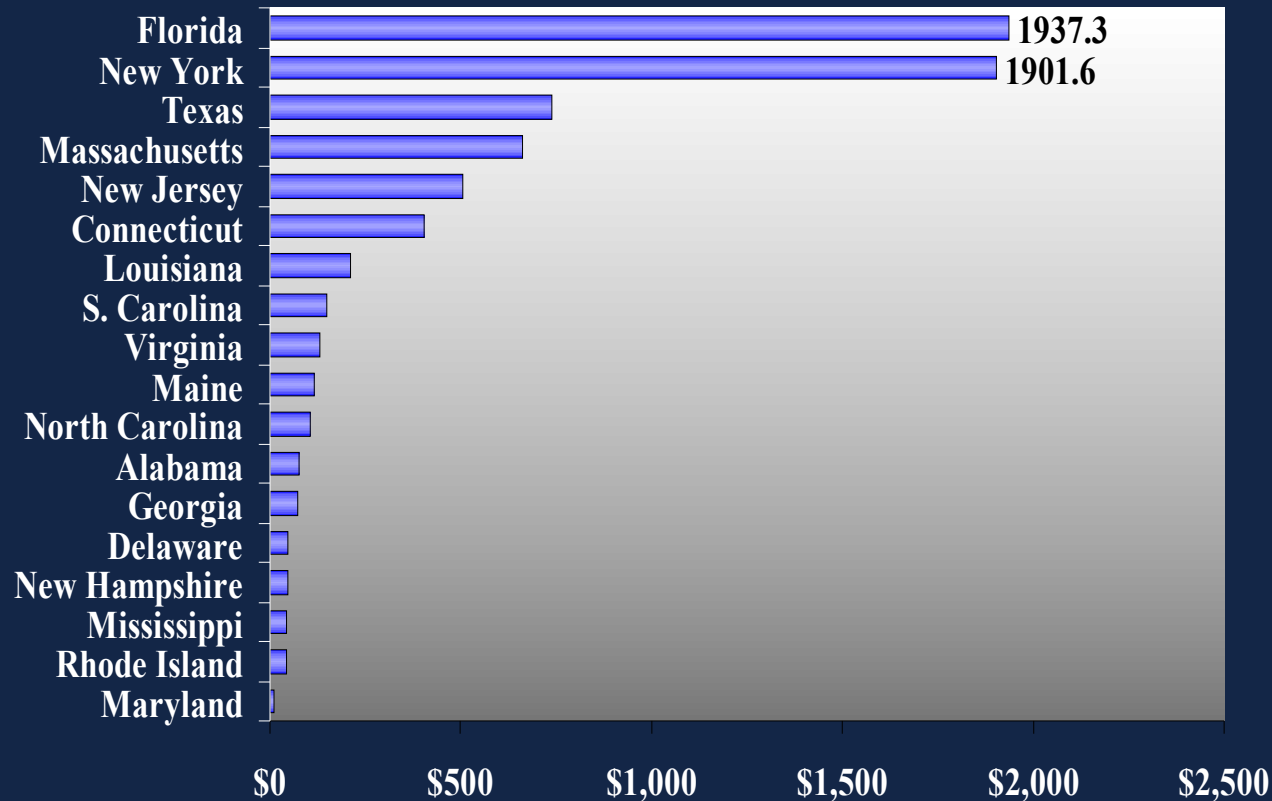
- Ernst & Young - #1 risk, “long term, far reaching and with significant impact on the industry”
- Swiss Re – compared climate change & asbestos lawsuits, but said – “climate change related liability will develop more quickly than asbestos related claims”
- “The #1 risk of the 21st century” – Joe Plumeri, Willis Chairman

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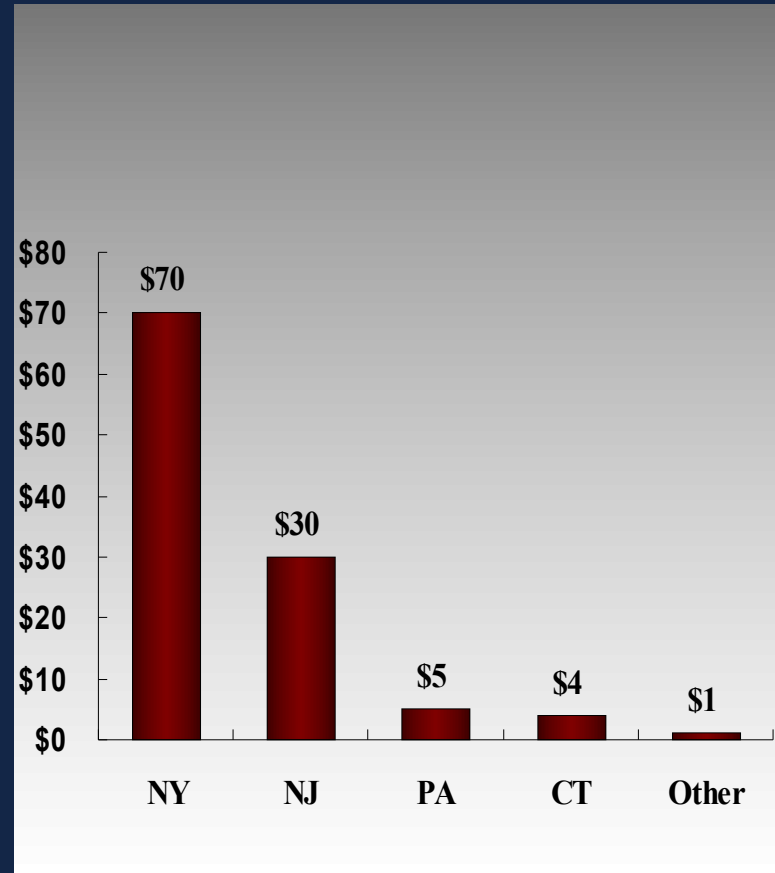
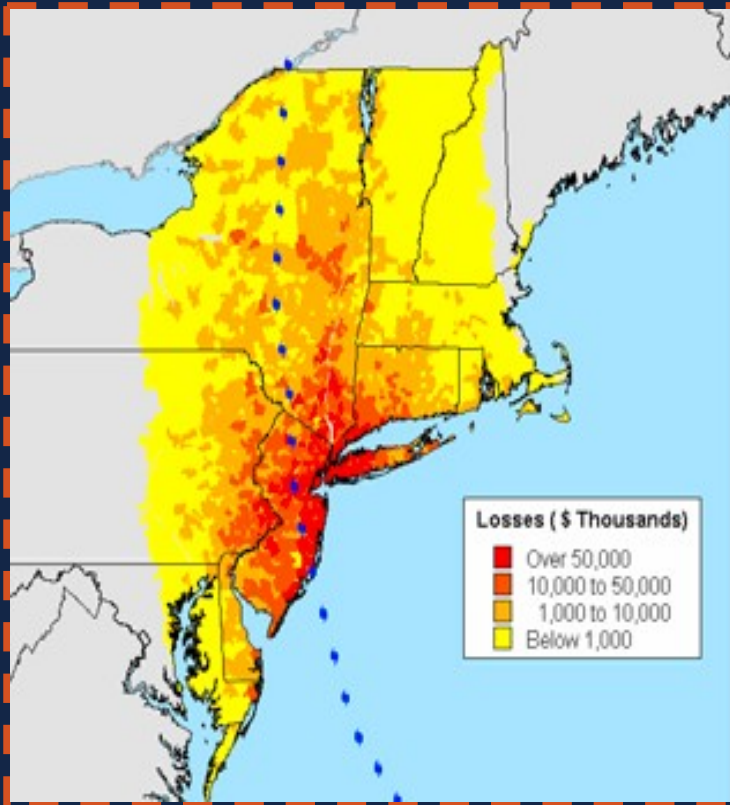
- **\$83B - 2005 Hurricane Season**
- **Greenland 2007 ice loss equals all ice in Alps or water layer 1/2 mi deep covering Washington, DC**
- **Estimate: by 2050 climate change cost = \$300B in annual weather-related damages**
- **Asia Coastal Megacities – 60% of population impacted by extreme weather events by 2050.**

A Concern for the Insured & Insurer

Total Insured Coastal Exposures – 2004 - \$Billions

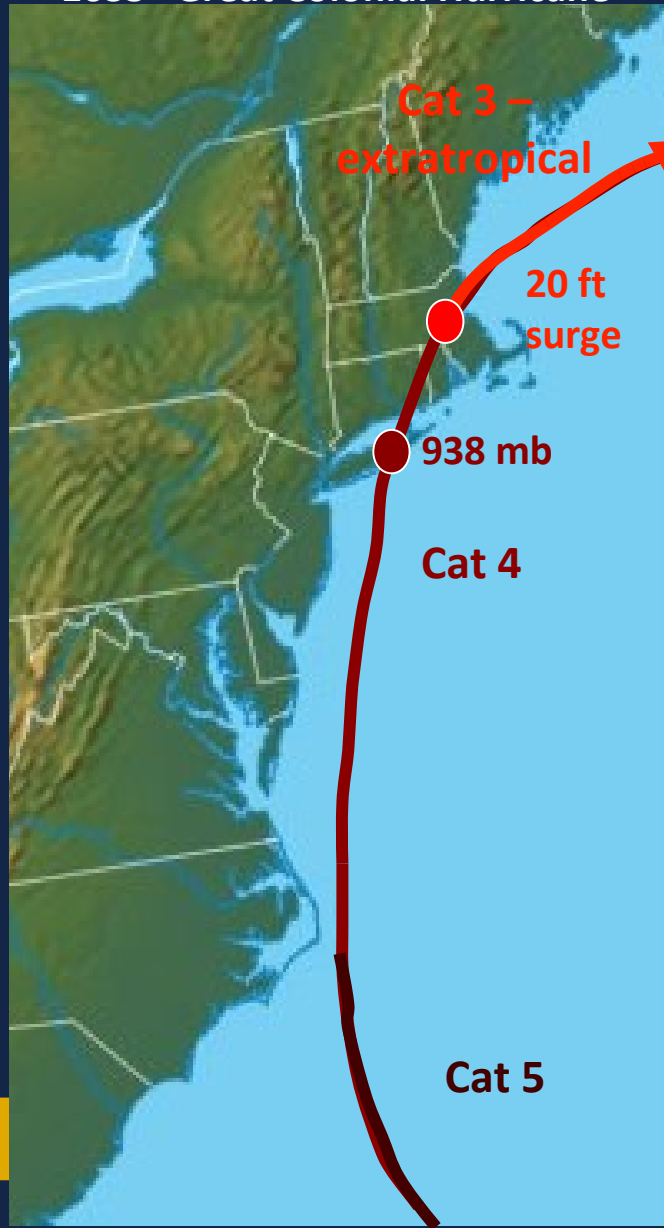


Nightmare Scenario: Insured Property Losses for NJ/NY CAT 3/4 Storm



It has happened before...

1635 "Great Colonial Hurricane"



1821 "Norfolk Long Island"



1938 "Long Island Express"



Climate Change Risk

■ The real challenge:

- Size of risk = \$\$\$\$\$\$?
- Huge defense costs
- Scope = planet
- Significant unknowns
- Insurance is not the total answer

Managing Climate Change Risk

- **Why is insurance not the total answer?**
 - Loss costs potentially too high
 - Coverage availability will change as losses develop – term, limits, coverage, etc.
- **Must identify the risks, then prevent & control exposure**

Climate Change Business Risks

- **Physical Risk** - from direct impacts of climate change
- **Litigation Risk** – current & future expectations
- **Competitive Risk** – change from carbon intensive processes & products
- **Reputation Risk** – real or perceived lack of response to climate change
- **Regulatory/Legislative Risk** – federal and global legislation & regulation
- **Viability risk**-populated areas, industries, technologies
- **Financial Risk** – cap & trade, shareholders
- **Understanding the science**

Why the Science Focus?

- **Understand what is happening now, why & future expectations**
- **Scientific knowledge used to build predictive models which are used by insurers and reinsurers to:**
 - Establish underwriting protocols
 - Monitor & manage accumulation risk
 - Demonstrate to investors that u/w decisions are made on basis of sound, scientific info

Why the Regulatory/Legislation/Litigation Focus?

- **Legislation & regulations establish standards**
 - US climate legislation stalemate
 - Regulation in absence of legislative action
 - EPA GHG Reporting (motive?)
 - SEC “interpretive guidance” on climate change risk disclosure
- **Lawsuits establish scope of 3rd party PD & BI liability**
- **Regulations & litigation drive insurance product development/use:**
 - Environmental
 - D&O

Climate Change - Managing the Risk

- **New risks & increase in magnitude of existing risks**
- **Real risk is how the risk is managed**
 - Contractual risk transfer
 - Changes to business model
 - Insurance coverage analysis
 - What you have
 - What's available/coverage maps
 - Coverage gaps will emerge as risks continue to develop
- **Strategic Response is no longer optional**
- **Ceres – Climate change a “textbook example” of the need for ERM**

ERM Approach Overview

- All major insurance brokers have ERM capabilities - different approaches, tools & outputs
- Key is to find someone who has climate expertise, understands your industry & has approach that fits your business culture
- What ERM can help accomplish:
 - Identify risks
 - Establish potential impact & probability of occurrences
 - Measure and analyze impact of existing & future controls
 - Prioritize to give profile to most critical
 - Establish improvement planning/risk mitigation strategies
- Some things to look for:
 - Accelerated and cost effective
 - Consensus driven analysis / cross-functional working group
 - Software downloads into “executive ready” output

Thank you...

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