



US River Flood and Storm Surge Model

KEY BENEFITS

- Sophisticated risk selection and pricing
- Probabilistic management of risk accumulation and loss potential
- Enhanced risk transfer capabilities and optimized reinsurance pricing

KEY FEATURES

- Parcel-based geocoding
- Distinct riverine and coastal flooding hazard functions
- Robust event-set comprises 500,000 stochastic events, covering the continental U.S.
- Accumulative and fully-probabilistic
- Detailed approach capable of portfolio-, policy- and individual-property level analyses

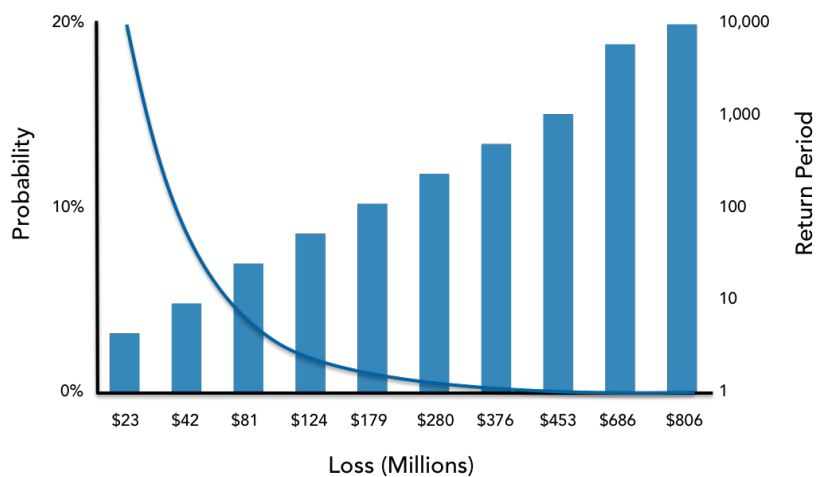
MODEL OUTPUT

- Average Annual Loss by Location, Portfolio
- Probability of Loss Exceedance Distribution (PML)
- Key Return Period Losses
- Full Event Loss Table

Now, Flood is Insurable.

The most pervasive and expansive of all natural perils, flooding is also one of the most mismanaged and under-insured. From the market demand for coverage in excess of federal program limitations, to the billions of dollars in unidentified exposure, the need for accurate flood risk management has always existed. Unfortunately, the tools necessary for the task have not. Until now.

Exceedance Probability Curve (PML)



The US River Flood and Storm Surge Model

First American's U.S. River Flood and Storm Surge Model is the industry's first and only fully-probabilistic and accumulative flood model. The model combines hydrological theory with documented characteristics of actual flood occurrences to generate an extensive array of events. This event set, or hazard function, forecasts the impact of all inland and coastal flood anywhere in the continent U.S. and represents one of the most robust hazard event sets—regardless of peril—available.

The impact of a flooding event, measured in terms of water depth, is then applied to a portfolio, policy schedule, or individual property location. The Model correlates the water depth with a property's structural vulnerability to calculate actual building, content, and time element (business interruption/living expense) damages. Finally, insurance conditions such as deductibles, limits, and quota share are applied to calculate the insurer's exposure. The results have been validated by hundreds of thousands of actual flood damage claims.



Advanced flood modelling for both river flood and storm surge

Accurately modeling flood risk requires localized analysis, a comprehensive and robust hazard function, and detailed data resolution. Accordingly, the Flood Model comprises 500,000 stochastic events—the most extensive data set available to model flooding in the United States. These events, and the resulting losses, are spatially correlated to quantify the aggregate exposure. The Flood Model is also detailed, forecasting losses at a single location or over the entire portfolio

Geocoding Accuracy

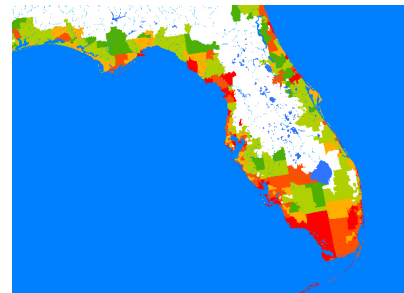
Potentially the most devastating of all natural disasters, flooding is also a uniquely localized peril. Misplacing the location of a property several dozen feet can dramatically impact its exposure to rising flood waters.

Consequently, First American utilizes its own proprietary U.S. parcel database, the industry's largest at over 110 million+ parcels, to deliver the most accurate and granular geocode solution available.

First American's Advanced Flood Risk Solutions

The U.S. River Flood and Storm Surge Model is just one important part of First American's Advanced Flood Risk Solutions. These solutions include scoring, modeling, and data visualization tools that collectively address the management of flood risk throughout the entire insurance process, from underwriting and portfolio management to risk transfer and reinsurance.

As a leading provider of risk assessment solutions to the insurance, financial and real estate industries, First American has managed flood risk for over 20 years, providing a comprehensive set of GIS, natural peril, and property data solutions that work for you.



Florida Storm Surge
Exposure by Zip Code

To learn more about First American and First American Spatial Solutions, visit www.faspatial.com or call 800.447.9959

