



# Flood Risk Score

## Understand flood risk beyond the flood zone

### The Need for Comprehensive Flood Data

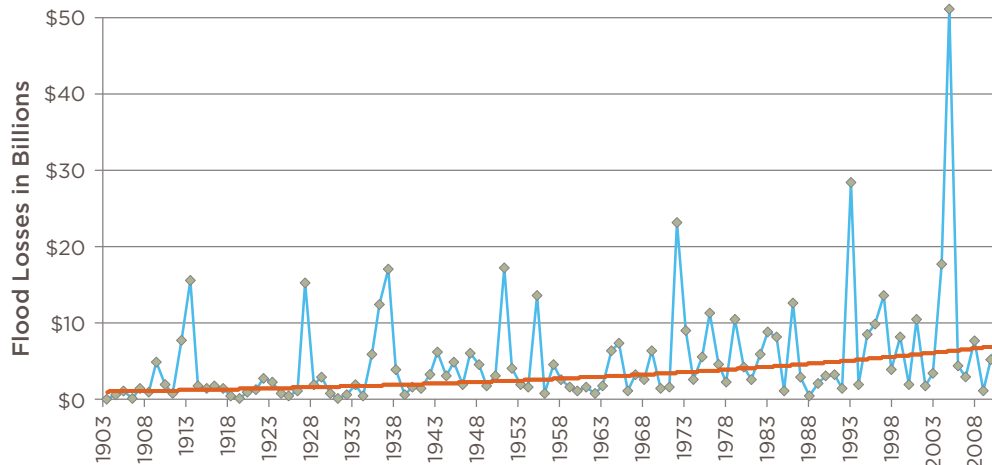
The most pervasive and expansive of all natural perils, flooding is also one of the most mismanaged and underinsured. The need for accurate and measurable flood risk management has always existed. By having comprehensive data beyond just the traditional “in/out” of flood zone, many industries have vastly improved their flood risk management using CoreLogic® flood risk data.

### Flood Risk Score

Underwriting guidelines have historically relied on a flood zone determination—whether a property is “in” or “out” of a federally designated floodplain. Yet flood zone determinations have proven to have limited reliability. Approximately 25-30 percent of annual flood insurance claims originate from properties located “outside” of the floodplain.

Sophisticated flood underwriters have moved beyond flood zone determinations to CoreLogic Flood Risk Score (FRS), a much more advanced risk assessment tool that combines federal flood zones with hydrological science and critical risk data. Elevation and comprehensive hydrology data, combined with an internal database of over 90,000 dams, levees and customized flood analysis (e.g. Howard Hanson Dam in Washington) provide an extensive flood risk management solution. FRS provides a precise and graduated risk assessment that distinguishes incremental levels of risk for properties located both “in” and “out” of designated floodplains.

The entire process is fully automated, instantaneous and yields a simple and intuitive risk score/rating to enable customers the ability to accurately assess property-specific flood risk anywhere in the U.S.



Historical U.S. flood loss and trend (1903-2011). Average insured losses have more than doubled over the last 20 years. Source: NOAA

### KEY BENEFITS

- ▶ Enhanced risk selection, policy structure and pricing
- ▶ Improved management of risk accumulation based on visibility to incremental risk and comprehensive hydrologic science to ascertain risk
- ▶ Fully automated, instantaneous, simple and intuitive

### KEY FEATURES

- ▶ Identifies high-risk areas “outside” the floodplain and differentiates levels of risk “inside” the special flood hazard area
- ▶ Flood Risk is calculated on a continuum via a numeric score (10-100), and categorizes those scores into risk ratings from “Very Low” to “Extreme”
- ▶ Provides additional flood risk factors including levee and dam proximity, FEMA-designated levee protected zones and hydrologic data to evaluate a property’s overall flood risk

## Risk Assessment Methodology

Properties are often exposed to an extended floodplain boundary or multiple flood zones, making it difficult to identify the most pertinent flood source. FRS resolves this issue by using 10m hydraulic profiles along national river systems and coastal zones and utilizing a multi-tiered methodology of drainage basins (e.g. catchment areas, subwatersheds, subbasins) to identify the correlation between properties and the special flood hazard area that poses the most immediate flood risk. FRS then calculates the proximity of the flood source in terms of elevation variance between the property and the most relevant hydraulic profile. Finally, the score is adjusted to reflect the presence of additional risk factors which includes storm surge, FEMA-designated levee protected zones and customized flood analysis done for specific geographic areas.

## Comprehensive Hydrology Data

FRS takes advantage of the National Hydrography Dataset (NHD) which offers comprehensive coverage of hydrographic data for the United States that reflects regional flooding and drainage patterns. Incorporating this data provided by the United States Geological Survey (USGS) into FRS enables insurers to accurately manage risk accumulations based on hydrologic science, as opposed to county boundaries or ZIP codes.

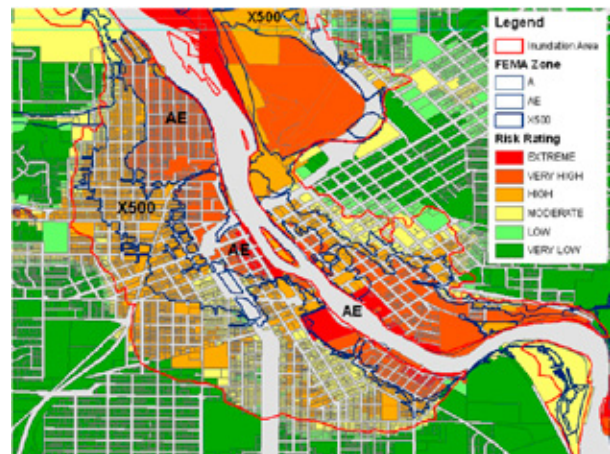
## Flood Risk Factors

In addition to a comprehensive score, FRS also provides flood risk factors that can be utilized for determining risk. Based on hydraulic science, FRS provides proximity distances to the most significant 100-year and 500-year floodplains, levees and dams. Elevation data used to calculate the score is also provided along with Additional Impact Areas (AIA) that may impact a property's flood risk. Lastly, hydrologic names and unit codes are provided to allow customers the ability to identify properties within their portfolio that are subject to more catastrophic flood events.

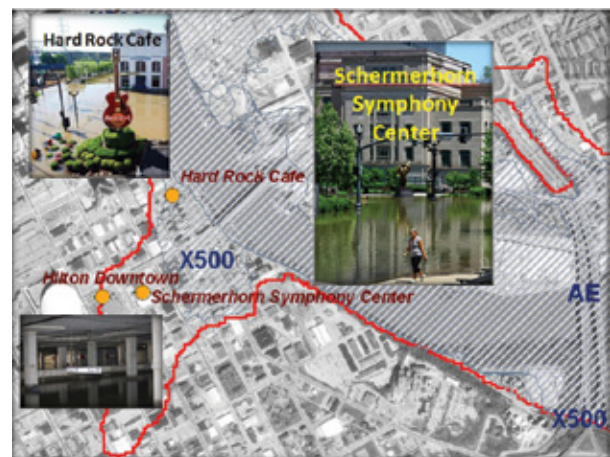
## CoreLogic Advanced Flood Risk Solutions

Flood Risk Score is just one important part of CoreLogic advanced flood risk solutions. These solutions include scoring, data visualization, and other 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, CoreLogic has managed flood risk for over 20 years, providing a comprehensive set of GIS, natural peril and property data solutions that can work for you.



Flood risk ratings by FRS and the FEMA inundation boundaries for the 2008 Cedar Rapids Flood.



Inundated landmark properties within the CoreLogic Inundation Boundaries from the Hydraulic Analysis for the 2010 Nashville Flood.

FOR MORE INFORMATION, PLEASE CALL 800-447-9959.

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