



U.S. Municipalities are battling growing flood risk with innovative insurance solutions

In collaboration with: **FLOODBASE**

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Across the United States, local governments face a common and worsening risk: flooding. From hurricane-driven storm surges to atmospheric rivers and intense rainfall, flooding is only increasing with climate change – and getting more expensive, costing an estimated 1-2% of U.S. GDP each year.

But this peril is largely underinsured, especially at a municipal level. Local governments rely mostly on payouts from the Federal Emergency Management Agency (FEMA) to cover flood-based damages to public infrastructure. However, FEMA funds are notoriously slow to respond and often fail to pay out at all, or they do not cover wider economic losses such as loss of tax revenue.

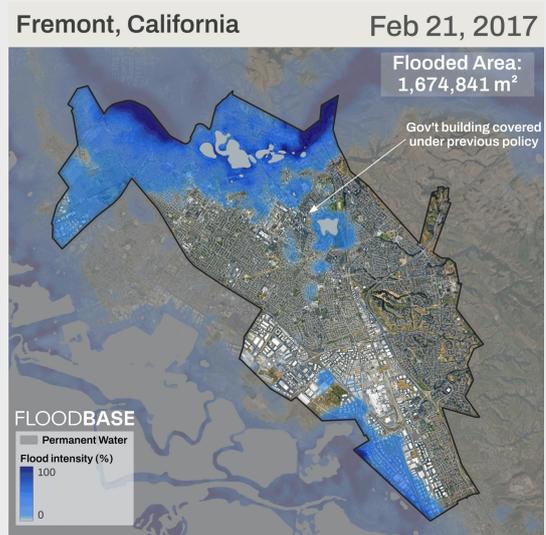
Without viable insurance options, municipalities are left exposed having to use their own funds to cover emergency responses and rebuild their communities. As ocean temperatures rise, Atlantic hurricanes are becoming increasingly powerful. Last year was the third-costliest hurricane season on record, as Hurricanes Milton and Helene slammed into the Southeast within two weeks of each other. They caused a combined insured loss of \$44 billion and a total economic loss of \$112 billion: demonstrating both the extent of destruction and the insurance gap.

Closing the insurance gap

With climate change intensifying flood risk and the Trump administration threatening to close down FEMA altogether, the status quo is not sustainable for municipal governments. Brokers and their clients are looking for more creative solutions for this growing gap in the market.

The Bay Area city of Fremont is one such local government that is taking a pioneering approach to the problem. While California does not suffer hurricanes, it is subject to devastating atmospheric rivers which dump tremendous amounts of rainfall, wreaking physical and economic damage to the cities in their path. As with hurricane-related flood, the insurance gap is stark. Economic losses to Californian municipalities in 2023 were as high as \$5-7 billion, 80% of which was uninsured.

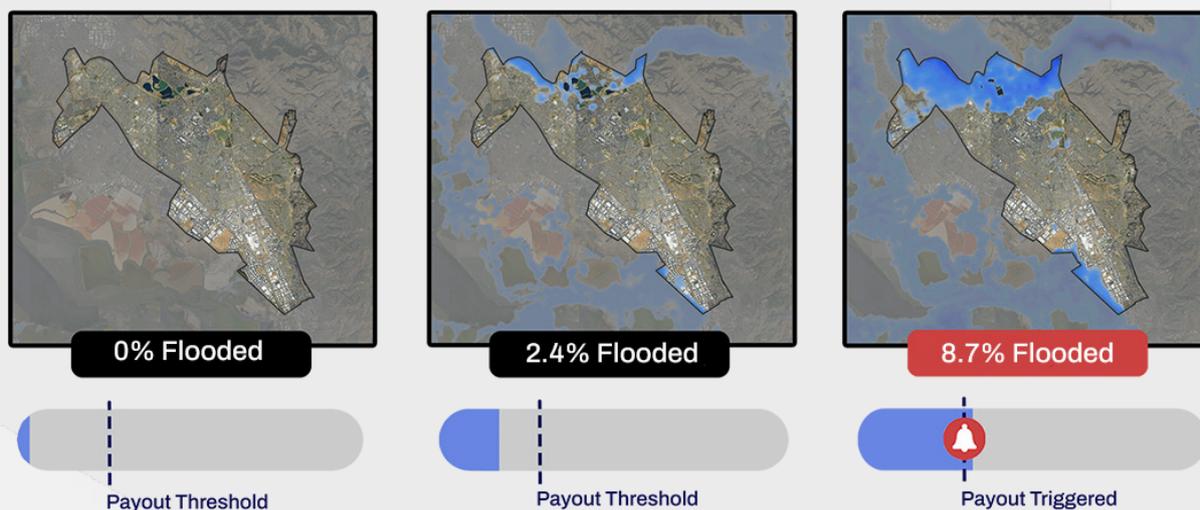
In 2017, an atmospheric river caused major flooding in Fremont, triggering mudslides and economic destruction, but many of the city's conventional insurance policies didn't pay out. In pursuit of greater financial protection in the first-of-a-kind parametric insurance policy that uses groundbreaking flood data from New York-based analytics experts Floodbase.



Parametric insurance differs from traditional insurance by paying out when a pre-agreed trigger is reached, such as the area of floodwater within a city's border. This gives the policyholder clarity on the scale of event required to trigger a pay out. Regardless of the cause of flooding, the payout scales with the flood, so the larger the flood, the larger the payout.

Parametric insurance is well-established for some disasters, like earthquake, drought and wildfire. However, it hasn't previously been available for flood, which is notoriously challenging to model at a large scale in real time. Floodbase's technology is changing the market. Leveraging advanced satellite imagery and near real-time inputs such as national stream gauges, the company uses AI to provide continuous flood monitoring data on a global scale, making policies like Fremont's possible.

Fremont is the first U.S. municipality to buy citywide flood protection. Although there has not been a flood since Fremont bought the policy, sold by specialty insurance distributor Amwins, Floodbase calculates that, had the policy been in place in 2017, then it would have received a payout worth over \$710,000



Protecting communities with faster payout

Local governments report frustration at the lack of insurance funds available in the immediate aftermath of a flood event. Because Floodbase delivers data in near real time, and payouts do not require damage assessments, the payout process is much quicker and more transparent. In fact, insurance payouts enabled by Floodbase happen within days of the disaster.

Municipalities also retain autonomy and flexibility in how they use the payout – whether for emergency response or to rebuild infrastructure. The funds can also be used to cover loss of tax revenue, which brokers report is a major source of economic loss from flooding that was previously uninsurable.

For municipal governments facing rising flood exposures, the relatively unfamiliar concept of parametric insurance may require a leap of faith -- but its success for other perils and the city of Fremont, should offer reassurance. With flooding exposures growing each decade, now is the time for local governments to think innovatively and proactively manage flood risk with Floodbase.

About Floodbase

Floodbase is a parametric platform for insuring uncovered flood risk. Built on more than a decade of groundbreaking science, we continuously monitor flooding worldwide. Leading re/insurers rely on Floodbase to design and deliver flood covers to corporates and public sector clients, covering previously uninsurable economic loss from flooding. Floodbase also supports FEMA, the UN, The New York Times, and others to identify and respond to major events.

Get in touch at hello@floodbase.com