

Coastal Wetlands Offer Millions of Dollars Worth of Hurricane Protection

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Wetlands offer protection from storm surges and flooding brought on by hurricanes and other major storms. File photo by Stephen Shaver/UPI | License Photo

By [Brooks Hays](#)

Healthy, intact coastal wetlands are like a free insurance policy. Hurricane flood protections offered by wetlands are worth millions of dollars, according to a new report on [Hurricane Sandy](#).

Researchers used newly designed flood damage models to calculate the property damage costs avoided by the natural buffer offered by wetland acreage. The models incorporated engineering, coastal ecology and economic analysis.

Without wetlands, residents in New York and New Jersey would have been on the hook for an additional \$625 million in property damages. In most coastal communities, wetlands guaranteed at least a 10 percent reduction in damages. Many Maryland communities, where wetlands are more abundant, were bolstered by 30 percent cost savings.

Researchers from the University of California, Santa Barbara and University of California, Santa Cruz published their cost analysis [in a new report](#) called "Coastal Wetlands and Flood Damage Reduction Report."

The report's authors are now using their calculations to tally the cost savings offered by wetlands to southeastern coastal communities hit by Hurricane Matthew.

“The results are relevant for many other areas such as San Francisco Bay, where we have lost 85 percent of historic wetlands and face grave risks from future flooding,” Michael Beck, an adjunct professor of ocean sciences at [UC Santa Cruz](#), [said in a news release](#). “Our work shows how we can align risk reduction and conservation interests to identify where to do marsh restoration and how to fund it.”

Researchers hope that by quantifying the services coastal wetlands provide, officials will be able to better protect natural resources as they plan for the future and safeguard their communities from flood damages.

“This work shows the unlikely yet powerful benefits of collaboration between insurers, engineers, and conservationists in identifying solutions to reduce risks to people, property, and nature,” Beck said. “The work highlights where we can find innovative financing opportunities and incentives for conserving and restoring coastal wetlands, which plainly put is good for the environment and good for business.”
