

After storm, US mulls artificial islands near NY

March 29 2014, by Wayne Parry



This artist rendering provided by WXY/West 8/Stevens Institute of Technology shows a proposed project to create a string of artificial barrier islands off the coast of New Jersey and New York to protect the shoreline from storm surges like the ones that caused billions of dollars' worth of damage during Superstorm Sandy. The "Blue Dunes" project, conceived by New Jersey's Stevens Institute of Technology and two architectural firms, would cost \$10 billion to \$12 billion, and would stretch from central Long Island, N.Y., to the southern tip of Long Beach Island in New Jersey. Many logistical, political, financial and technical issues would have to be overcome before the project could be built. It is part of the Rebuild By Design contest being held by the U.S. Department of Housing and Urban Development to solicit new ideas to protect the region from future

storms. (AP Photo/WXY/West 8/Stevens Institute of Technology)

A string of artificial islands off the coast of New Jersey and New York could blunt the impact of storm surges that proved so deadly during Superstorm Sandy, according to a new proposal.

It's a big proposal—one that would cost up to \$12 billion—but it's also the kind of innovative idea that federal officials requested as they consider how best to protect the heavily populated East Coast from future storms.

"Yes, it's a big deal. It can save lives and protect property," Alan Blumberg, a professor at New Jersey's Stevens Institute of Technology.

The "Blue Dunes" proposal is part of a competition sponsored by the U.S. Department of Housing and Urban Development to come up with novel ways to protect Americans against the next big storm. It is one of 10 projects that will be evaluated and voted on next week, but there's no guarantee any of them will receive funding. Other ideas include building sea walls around cities, re-establishing oyster colonies in tidal flats to blunt waves and creating water-absorbent nature and recreational preserves.

The artificial islands plan was created by Stevens Institute, along with the WXY architectural firm and West 8 Urban Design and Landscape Architecture. It is designed to blunt the worst effect of Sandy: the storm surge that pounded the coast. From Maryland to New Hampshire, the storm was blamed for 159 deaths, and New Jersey and New York alone claimed a total of nearly \$79 billion in damage.

"How do you protect New Jersey and New York at the same time from

the storm of the future?" Blumberg asked. "Our idea is to build a chain of islands, like a long slender banana. The wave action and storm surge will reflect off these islands and go back out to sea rather than hitting the coast."

The islands 10 to 12 miles off the coast would be uninhabited, although day trips for surfing or fishing might be allowed, Blumberg said. They would be built by pumping sand atop some hard base made of rock, concrete or other material.

Steve Sandberg, a spokesman for U.S. Sen. Robert Menendez, a New Jersey Democrat, said funding for at least some of the proposals is already available as part of the \$60 billion in Sandy aid that Congress passed last year. Other money could come from disaster recovery grants as well as public and private-sector funding.



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A gap would be left between the New York and New Jersey island groups to allow water from the Hudson River to flow out into the ocean.

Blumberg also said computer modeling has shown such islands would have produced vastly lesser damage during Sandy, Hurricane Donna in 1962 and the destructive December 1992 nor'easter.

Aside from the formidable cost, many other obstacles remain. Stewart Farrell, head of Stockton College's Coastal Research Center, said numerous government agencies would have to cooperate.

"The sand borrow sites always run into strong objections from the U.S. Fish & Wildlife Service," he said. "Next in line would be the historical preservationists: You can't cover up Captain Kidd's treasure ships, no way! And every 19th-century coal barge is an historical treasure. Then there are abundant submarine cables, lines, pipes and rights of way."

Surfers aren't stoked by the idea either.

"This would forever change the Jersey shore," said John Weber of the Surfrider Foundation. "This would change oceanfronts into bayfronts ... and this does nothing to address rising sea levels."

George Kasimos, who campaigns against higher flood insurance rates said the money would be better spent on building or strengthening dunes along the existing shoreline.

"Anything to help protect our coast," he said. "All we need to do is build a proper dunes system, sea gates and sea walls. It seems like \$10 billion to build something 12 miles out is overkill."

Blumberg acknowledged the obstacles but said Sandy showed the need for new approaches to protection.

"This is innovative thinking," he said. "It's 2014; it's time to think differently."

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