

Massive barrier plan to save New York from flooding

A British company is one of the parties involved in plans to design a massive ocean barrier to protect New York from flooding in the event of another superstorm.



A rendition of the concept New York flood defence barrier

By Edward Helmore, New York

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Engineering firm Halcrow, is involved in a study initiated by New York Mayor Bloomberg to place a five mile storm surge barrier across the mouth of New York harbour.

The plan, which was conceived as part of an **American** climate change study conference in Manhattan four years ago, involves a design similar to the 15 mile barrier which currently protects St. Petersburg from storm surges.

The proposed barrier would stretch from Brooklyn to Sandy Hook in New Jersey, with two 800-foot retracting gates that would close in the event of an approaching hurricane surge.

Graeme Forsyth, the company's chief engineer of gates, says the system would both protect New York from events like Hurricane Sandy but not impede the busy shipping lanes to docks in New York and New Jersey.

"The beauty of it is that we've already tested the design in Russia, so we know it works," he told The Telegraph. "If anything, building a barrier to protect New York is simpler."

Michael Bowman, an oceanography professor at Long Island's Stony Brook University is also involved in the project. He says the plan would cost around \$10 billion "a small amount of capital expense compared to the damage from Hurricane Sandy," he told The Telegraph.

"The city is finally going to have to face this. We've been warning for years of catastrophic damage from a storm surge but the city has followed a policy of resilience. That was okay until something like this happens," he added

With five hundred miles of barrier islands, a low-lying coast and an island city only minimally protected by sea-walls, Bowman and his colleagues say they have warned New York planning authorities for years that the city is vulnerable to flooding caused by rising seas and super-storm surges but their scheme to erect storm barriers was shunned.

"They didn't want to hear it," Mr Bowman said. "They said, come back in 30 or 40 years."

But after damage from two hurricanes in just over a year, elected officials are now acknowledging the scale of the problem.

"Given the frequency of these extreme weather situations that we've had – and I believe that it's an increasing frequency – for us to sit here today and say this is a once-in-a-generation and it's not going to happen again, I think would be shortsighted," New York Governor Andrew Cuomo said yesterday.

After Hurricane Katrina devastated New Orleans seven years ago, authorities across the US acted to initiate measures to curb the effect of superstorms irrespective of links to climate change by restricting development on flood plains or expanding marshlands to absorb storm surges.

But with more frequent flooding virtually guaranteed by climate scientists advising the city, New York officials stalled, warning that building defences would have to carefully weighed against the risk of

flooding. Until Hurricane Irene last year, they pointed out, New York City had not been hit by a hurricane in more than a century.

But climate change experts point out that three of the highest floods recorded in the past century have occurred in the last three years.

"If that's not a wake-up call to take this seriously, I don't know what is," Ben Strauss, director of the sea level rise program at the research group Climate Central, told The New York Times.

Under plans drawn up by Bowman's Storm Surge Research Group, Thames Barrier-like gates would be erected across the mouth of the harbour and across the East River at the top of Manhattan island.

But with so many prescient warnings, city authorities are struggling to explain why so little was done. Mayor Bloomberg has said it was difficult to translate such warnings into concrete action. But a former administration official conceded. "We've just been lucky. We need hardening for the risk we've always faced. Until things happen, people aren't willing to pay for it."

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