



The City of New York

# **Manhattan Community Board 1**

**Julie Menin** CHAIRPERSON | **Noah Pfefferblit** DISTRICT MANAGER

**The New York City Committee on Environmental Protection  
Public Hearing on**

**Climate Change**

**Testimony by  
Catherine McVay Hughes, Vice-Chairperson,  
Manhattan Community Board 1**

**Wednesday, April 25, 2012, 10 a.m.  
250 Broadway, 16<sup>th</sup> Floor Committee Room, New York, NY**

Good morning, Chairperson James Gennaro. I am Catherine McVay Hughes, Vice Chairperson of Manhattan Community Board One and I am here to testify on behalf of CB1 regarding climate change.

I am proud to report that, at last night's full board meeting, CB1 motioned to support Int 0834-2012, the New York City Council legislation to amend the New York City charter, in relation to convening the New York City panel on climate change regularly, for the purpose of producing a report on climate change adaptation in New York City. CB1 supports additional research in the area of climate change, as it has in the past.

On January 24<sup>th</sup>, 2012, CB1 passed a resolution requesting that the Army Corp. of Engineers to expeditiously conduct a study about the feasibility of installing storm surge barriers to protect New York City. This resolution was the result of a series of meetings and reports, dating back to 2008.

In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC) composed of leading scientists, social scientists, academics and risk management experts to advise the City on climate change. The NPCC projects that by mid-century, New York City's average temperatures will rise by three to five degrees Fahrenheit and sea levels could rise by more than two feet. By the end of the century, the city's climate may be more similar to North Carolina's than present-day New York City and sea levels could rise by as much as four and a half feet.<sup>1</sup>

On December 16<sup>th</sup>, 2011, David Bragdon, Chairperson of the New York City Long-Term Planning and Sustainability Office, stated at a New York City Council Oversight Hearing of the

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<sup>1</sup> From testimony by David Bragdon, Director, Mayor's Office of Long-Term Planning and Sustainability, before the City Council Committees on Environmental Protection and Waterfronts, Dec. 16, 2011

Environmental Protection Committee that his agency would commence a study of storm surge barriers.<sup>2</sup>

According to Douglas Hill, consulting engineer and adjunct lecturer at the School of Marine and Atmospheric Sciences at Stony Brook University, “Relative sea level has been rising inexorably in New York City over the past 140 years at an average rate of 0.27 m (10.7 in.) per century due to both geologic subsidence and the warming trend in the twentieth century .... There is little doubt that New York City will be exposed to major coastal flooding within the next several decades as sea level rises and storms may become more frequent and severe.”<sup>3</sup>

The flooding caused by such a surge - which happened in the 19<sup>th</sup> century – would be calamitous, particularly to those living within several blocks of the Hudson River.<sup>4</sup>

According to one hurricane expert who participated in the drafting of a significant U.S. Army Corps of Engineers study of storms and evacuation in New York City, a Category 3 hurricane could cause 30-foot storm surges, flood hundreds of miles of the city’s coast and force the evacuation of over 2.5 million residents.<sup>5</sup>

The Federal Transit Administration has stated that the “Combined economic and physical damage losses from subway tunnel flooding under a 100-year storm surge were estimated at \$58 billion at current sea levels and \$84 billion with four feet of sea-level rise, assuming a linear recovery and an estimated subway outage time of three to four weeks. Direct physical damage alone was estimated at \$10 billion for the former and \$16 billion for the latter.”<sup>6</sup>

Given all of this data and research, it seems that the prudent response would be a comprehensive study of storm surge barriers to prevent New York City from being flooded. Storm surge barriers have been built in London and Rotterdam and are being built in Venice to protect those cities, and could be protective of New York City.

Community Board #1 calls upon members of the New York City Council to support our request that the Army Corp. of Engineers conduct a study about the feasibility of installing storm surge barriers, and that this study include consideration of the environmental and ecological impact of storm surge barriers. The City should not only rely on evacuation and remediation activities at the time of a weather-related disaster, but should seriously evaluate what could be done ahead of a disaster that might reduce or eliminate the effects of a weather calamity.

Thank you for the opportunity to testify today.

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<sup>2</sup> Kreuzer, Terese L. "A Tide of Concern Is Rising Risk of Storm Surges." Downtown Express. Community Media LLC, 4 Jan. 2012. Web. 6 Jan. 2012. <<http://www.downtownexpress.com/?p=5935>>.

<sup>3</sup> Hill, Douglas. "Must New York City Have Its Own Katrina?" Leadership and Management in Engineering 8.3 (2008): 132-38. Print.

<sup>4</sup> [http://www.nyc.gov/html/oem/html/hazards/storms\\_hurricanehistory.shtml](http://www.nyc.gov/html/oem/html/hazards/storms_hurricanehistory.shtml)

<sup>5</sup> From Preliminary Report on New York City Emergency Response and Evacuation Plans in the Event of a Weather-Related Emergency issued by the New York State Assembly Standing Committee on Corporations, Authorities, and Commissions on Sept. 15, 2005. The U.S. Army Corps of Engineers study cited dated from 1993.

<sup>6</sup> Federal Transit Administration Research, “Flooded Bus Barns and Buckled Rails: Public Transportation and Climate Change Adaptation” (August 2011, FTA Report No. 0001, Prepared by FTA Office of Budget and Policy).