To: Senior Advisor to the Mayor for Recovery, Resiliency, and Infrastructure, New York

City Office of the Mayor

From: Hunts Point Resiliency Implementation Advisory Working Group

Subject: Advisory Working Group Recommendations

Date: September 30, 2015

Background

The U.S. Department of Housing and Urban Development (HUD) launched the Rebuild by Design Competition in June 2013 to spur new ideas and collaborations for improving coastal area resiliency in the Sandy-affected region. Hunts Point Lifelines was one of six winning proposals, developed by a team of multi-disciplinary professionals who worked closely with local stakeholders over a number of months to develop a resiliency plan for Hunts Point.

In addition to \$20 million in HUD Community Development Block Grant Disaster Recovery (CDBG-DR) funding awarded to the City of New York based on the winning Hunts Point proposal, the City allocated an additional \$25 million in CDBG-DR funding to resiliency efforts in the peninsula — for a total of \$45 million for Hunts Point resiliency.

In Summer 2015, the New York City Economic Development Corporation (NYCEDC) and the Mayor's Office of Recovery and Resiliency (ORR) convened an Advisory Working Group of Hunts Point stakeholders to develop resiliency priorities and recommendations that build upon the ideas presented in the Hunts Point Lifelines proposal and other ongoing initiatives in Hunts Point. NYCEDC hired the Interaction Institute for Social Change to facilitate this engagement process.

Enclosed are the Advisory Working Group's recommendations to the City as it plans for a pilot project and additional feasibility studies to advance resiliency in Hunts Point. Attached is an appendix that describes the Advisory Working Group and public engagement process that led to these recommendations. The Advisory Working Group and other public stakeholders look forward to ongoing participation in the process through the feasibility study phase, design and construction, and implementation as well as partnership opportunities on related initiatives in the peninsula.

Recommendations

The Advisory Working Group identified two *priority categories* that it recommends the City consider as it plans for a pilot project and additional studies. The Advisory Working Group recommends that the City pursue one as a pilot project and advance the other through the feasibility study phase while it identifies additional funding for these resiliency initiatives. Furthermore, the Advisory Working Group recommends that all levels of government act to

protect the region's food supply hub for 22 million people¹ and the adjacent residential community by securing investment for a comprehensive resiliency plan that reflects the shared goals and interests of the businesses, unions, community organizations, elected officials and residents of the Hunts Point peninsula.

The two priority categories selected by the Advisory Working Group are:

- Power/energy
- Coastal protection

The Advisory Working Group anticipates that a component of the City's feasibility studies in the next phase will be the identification of potential pilot project options that (1) meet HUD requirements, (2) are technically and legally feasible, (3) fall within the available funding allocated for the pilot project and (4) fit the selection and implementation criteria agreed upon by the Advisory Working Group (see below). In addition, members would like a better understanding of the nature and implication of risks from the identified threats. Pending the outcome of further study, the Advisory Working Group understands that the resulting pilot project could include, but is not limited to:

Power/energy

- Elevation and protection of mechanical systems (i.e. heating, ventilation and cooling systems)
- Back-up power generation (i.e. fuel cells, generators)
- o Micro-grid for independent district-wide energy generation
- o Nano-grid for independent building-scale energy generation
- Cleaner energy production (less emissions, less waste, more renewables): Solar;
 Natural gas; Co-generation (Combined Heat and Power); Tri-Generation
 (Combined Cooling, Heat and Power)

Coastal protection

- Shoreline/edge protection
 - Multi-purpose levee (i.e. greenway levee integrated with urban shoreline restoration)
 - Improved and/or raised bulkheads and/or seawalls
 - Wetlands (i.e. urban tidal flat restoration)
 - Green infrastructure-based storm water management
 - Green seawalls (i.e. seawalls that provide lattice work or substrates to support aquatic species)
 - Deployable flood walls
 - Integrated storm water management
- Building-level protection
 - Building and/or site flood barriers
 - Wet flood-proofing
 - Building elevation

¹ NYC Food by The Numbers: The Hunts Point Food Distribution Center, New York City Food Policy Center, September 18th, 2015, http://nycfoodpolicy.org/nyc-food-numbers-hunts-point-food-distribution-center/

Advisory Working Group's Risk Considerations and Selection Criteria

The Advisory Working Group recognizes the strategic importance of Hunts Point as a hub of the New York region's food supply and a need to address the significant economic and health burdens of the South Bronx. The Hunts Point Food Distribution Center (FDC) is an industry with annual revenues of \$5 billion dollars² and provides annual wages of \$285 million dollars.³ Furthermore, the distribution center is a critical facility for the safe supply of food to an estimated 22 million people.⁴ Despite the FDC as a major employer of living wage jobs, the South Bronx remains severely under-employed with an unemployment rate of 19% with 41% living below the poverty rate.⁵ Additionally the community health indicators are very poor with elevated asthma rates and the highest rates of cancer, diabetes and premature death in the entire city of New York.⁶ Collectively, these concerns mirror a desire by Advisory Working Group members to pursue a pilot project that preserves business operations as well as seek opportunities to improve community public health and economic wellbeing.

While a study to assess the cost-benefit of hazard mitigation of the FDC facilities has not yet been conducted by the City, there is awareness that Hunts Point is a low lying area prone to flooding and loss of power. Several significant blackouts have occurred in New York City occurring on average of every 10 to 12 years with 2003 and 2012 constituting recent significant blackout events. An immediate and sustained loss of operations would likely have significant negative impact through disruption of food supply, job losses and permanent loss of use of facilities.

The Advisory Working Group developed and used these *key selection criteria* to come to consensus on these recommendations:

- Protects infrastructure that has city-wide implications (food supply system, wastewater treatment)
- Addresses critical vulnerabilities for both community and industry
- Protects existing and future businesses and jobs in the food supply and/or maritime sectors
- Supports asset-building within the community, where assets include financial holdings, natural resources, social bonds, education, employment skills and access to opportunities
- Utilizes sustainable, ecologically-sensitive infrastructure (soft infrastructure over hard infrastructure where possible, renewable energy, etc.)

² An Economic Snapshot of the Hunts Point Food Distribution Center, Albany, Office of New York State Comptroller, 2008, https://www.osc.state.ny.us/reports/economic/huntspoint08.pdf

³ Ibid.

⁴ NYC Food by The Numbers: The Hunts Point Food Distribution Center, New York City Food Policy Center, September 18th, 2015, http://nycfoodpolicy.org/nyc-food-numbers-hunts-point-food-distribution-center/

⁵ Hunts Point/Longwood - BX 02, New York City, The Bronx Community District

Profiles, http://furmancenter.org/files/sotc/BX_02_11.pdf

⁶ Hunts Point and Mott Haven Community Health Profile, New York City Department of Health and Mental Hygiene, 2006,http://www.nyc.gov/html/doh/downloads/pdf/data/2006chp-107.pdf

Guiding Principles for Implementation

The Advisory Working Group developed the following set of *implementation principles* for the City to incorporate in the planning, implementation and ongoing operation of a pilot project:

- Leadership Development Embedded in any project there should be some intention around who will carry the work forward in the future, including considerations of leadership training opportunities.
- Emergency Preparedness Leverage these kinds of opportunities to build human capital and help people grow their skills along with the infrastructure in the direction of preparedness for future events.
- Sustainability Utilize sustainable, ecologically-sensitive materials, soft infrastructure over hard, and renewable, clean energy. The pilot project should not increase the burden on the health and physical well-being of the Hunts Point community.
- Leverageable Given that the available funds for this project are small in comparison to the need, prioritize projects that will draw additional investment from the City, State, Federal and other interested parties.
- Stakeholder participation in an ongoing way Advisory Working Group engagement should not end "when the shovel goes in the ground." There has to be an ongoing sense of accountability and participation from key stakeholders from the community and industry, including this Advisory Working Group.
- Transparency and Coordination from government agencies and utilities with regards to other capital investment projects/studies *Keep Advisory Working Group members* aware of future capital investments on the horizon, making budgetary information as transparent as possible on an ongoing basis.
- Local procurement Make sure money invested in these kinds of projects by the government circulates in the South Bronx (local goods, labor and services).
- Local Hiring and Training Leverage this process and project to ensure that people who are ready to enter the workforce can learn and find jobs.
- High road economic development project Union jobs, prevailing wage, reward people for their efforts and the sweat of their brow. Any jobs related to these projects should be living wage jobs.
- Multiple benefits Projects should be of broad benefit, for example serving needs and interests of both business and community and/or providing protection against major climate events while also providing everyday benefits
- Ongoing mechanism for translation of terms/categories/concepts Everyone in the room should have enough information to participate. Make sure everyone understands what is being discussed.
- Scalability Find ways to scale projects in an orderly fashion and in a way that does not overrun the budget.
- Consider critical vulnerabilities of the community for people who live in the neighborhoods.
- Integrate these principles/criteria into other City projects and capital investments.

Appendix: Advisory Working Group and Public Engagement Process



Hunts Point Resiliency Project

Community Stakeholder and Advisory Working Group Engagement for Resiliency Priorities and Project Development

Final Report

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I. Overview and Background

New York City Economic Development Corporation (NYCEDC) and the New York City Mayor's Office of Recovery and Resiliency (ORR) are working together to advance a strategic approach to resiliency for the South Bronx's Hunts Point peninsula. This work has engaged stakeholders in the development of resiliency goals and priorities for Hunts Point and the identification of pilot project "categories" that could be supported with available federal CDBG-DR funding.

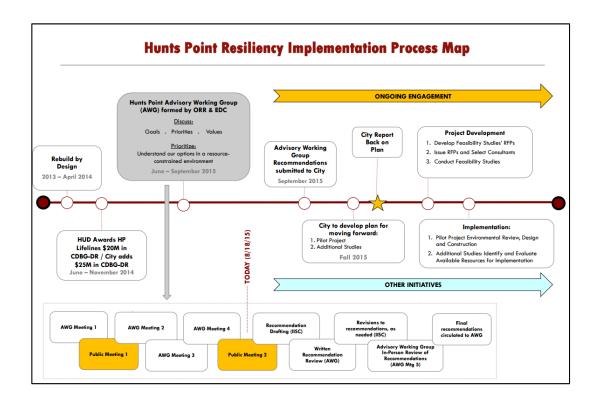
NYCEDC engaged the Interaction Institute for Social Change (IISC) to design and facilitate a four-month engagement process from May through September 2015 to develop stakeholder resiliency priorities and to identify possible pilot resiliency projects and additional feasibility studies that align stakeholder priorities and compliance requirements associated with available funding.

II. Process Design

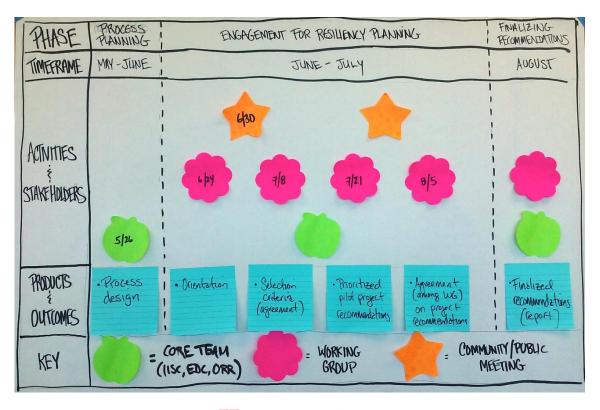
This four-month process utilized a defined Advisory Working Group along with broader public outreach via community meetings to develop various recommendations for the \$45M of resiliency funding allocated to Hunts Point. Integrating feedback from larger public meetings and also from their respective constituencies, Advisory Working Group members worked together to develop recommendations to the Senior Advisor to the Mayor for Recovery, Resiliency and Infrastructure.

The first image below puts this stakeholder engagement process in the broader context of prior resiliency-oriented engagement processes, as well as future engagement/refinement activity leading to implementation of the deliverables of this process, as well as other related initiatives.





The image below is the hand-drawn "process map" that was posted by the consulting team from IISC in all Advisory Working Group meetings. It indicates all key meetings and high-level outcomes of this engagement process. These are further explained below.



Core Team Meetings

Regular "core team" meetings were held between IISC, EDC and ORR to maintain clarity on the parameters and expectations of the work, establish and refine a clear timeline of activities and understanding of key stakeholder perspectives and to build agreement on specific meeting design and ongoing communication.

Advisory Working Group Meetings

- #1 (6/24/15) The purpose of this first meeting was to orient Advisory Working Group members to the purpose and parameters of the process, their role and also to initiate conversation about possible pilot project selection criteria.
- #2 (7/8/15) The second meeting included sharing feedback from the first public meeting about the brainstormed selection criteria, additional information to guide selection, prioritization of selection criteria, and a brainstorm of possible pilot projects.
- #3 (7/21/15) The Advisory Working Group finalized selection criteria, engaged in conversation about relative risk/vulnerability and gave input to a list of categorized pilot project areas created by EDC based on input from the second meeting. A key outcome of Core Team conversation between the second and third Advisory Working Group meetings was the suggestion that recommending specific resiliency projects was premature and that a better course of action would be to focus on project categories, guided by possible project ideas. These categories would provide more latitude for feasibility study in terms of best options to meet the expressed need of the given category (i.e. coastal protection, leadership development, etc.)
- #4 (8/5/15) The Advisory Working Group achieved consensus on two pilot project categories and generated a list of "guiding principles" for project implementation. The second outcome was not foreseen in the original design of the process and grew out of the Advisory Working Group's desire to have their input guide not simply what was selected in terms of a resiliency pilot project but how it is ultimately implemented and relates to other ongoing efforts in the peninsula.
- #5 (9/17/15) Advisory Working Group members were presented with a revised draft of this report (having seen a prior draft and been given the opportunity to offer additional input) and engaged in an evaluative conversation of this process.

Public Meetings

• #1 (6/30/15) – IISC oriented participants to the purpose of this process, reviewed federal rules and restrictions related to available funding, and gathered feedback on criteria for ranking pilot project and feasibility projects.



 #2 (8/18/15) – The second public meeting brought attendees up to date with respect to both the process and deliverables of the Advisory Working Group, as well as discussion of other related projects in the community. The main opportunity for input was around the potential projects within the priority categories and the initial "implementation principles" proposed by the Advisory Working Group.

III. Decision-Making

The agreed upon decision-making process for the Advisory Working Group was *consensus*, which the Interaction Institute for Social Change defines as "making a decision where each member of the group is willing to support and help implement the ultimate decision." All group members have had an opportunity to give their opinion and to understand the implications of various options. All members have the same formal power to support or block proposals.

IV. Invited Participants

- Congressman Jose Serrano
- Borough President Ruben Diaz
- Senator Ruben Diaz
- Senator Jeff Klein
- Assemblyman Marcos Crespo
- Assemblywoman Carmen Arroyo
- CM Maria del Carmen Arroyo
- Community Board 2
- The Point CDC
- Sustainable South Bronx
- Youth Ministries for Peace & Justice
- Mothers on the Move
- Hunts Point Alliance for Children
- Rocking the Boat
- Hyde Leadership
- Hometown Security Labs
- Urban Health Plan
- The BLK ProjeK
- Hunts Point Economic Development Corporation
- Bronx Overall Economic Development Corporation
- Hunts Point Cooperative (Meat) Market
- New Fulton Fish Market
- Hunts Point Terminal Produce Market
- Baldor
- Jetro
- Oak Point Properties
- Teamsters Local 202
- Penn Design/OLIN



- New York City Environmental Justice Alliance
- Mayor's Office of Recovery and Resiliency
- New York City Agencies (NYCEDC, DCP, DPR, DEP, DOT, NYCEM)

V. Selection Criteria

Risks, threats and vulnerabilities

The main risks/vulnerabilities raised by the Advisory Working Group members in arriving at the two categories and associated project possibilities included:

- Coastal flooding from major weather events and other flooding from rain events
- Power outages from smaller events leading to lost product in industry and threats to people's lives (lack of heat or cooling, vulnerability to heat waves)
- Social vulnerabilities, poverty

Project Selection Criteria

The following image captures a narrowed list of selection criteria with numbers corresponding to selections from individual Advisory Working Group members using a dot voting technique. Advisory Working Group members suggested that this list be maintained for consideration of "implementation criteria" or guiding principles beyond pilot project selection.

Selection Criteria: Recap of dot voting from 7/8/15

Physical Protection	Local Economy and Community Building	Practicality	Design Characteristics
A. Protects existing and future businesses and jobs in the food supply and/or maritime sectors (10 votes)	D. Affords opportunities for local jobs / job training (Zvotes)	I. Something we can streamline (<u>0</u> votes)	K. Utilizes sustainable, ecologically-sensitive infrastructure (soft over hard infrastructure where possible, renewable energy, etc.) (8 votes)
B. Address critical vulnerabilities for <u>both</u> community and industry (<u>14 votes</u>)	E. Creates living wage jobs (<u>4</u> votes)	J. Leveragable opportunity (creates possibilities for additional future projects/phases/ funding) (<u>6</u> votes)	L. Provides multiple benefits (both day-to-day and for disaster events) (<u>5</u> votes)
C. Protects infrastructure that has city-wide implications (food supply system, wastewater treatment) (17_votes)	F. Requires trades and services that existing local firms are positioned to supply (<u>1</u> vote)		
	G. Supports asset building within the community, where assets include financial holdings, natural resources, social bonds, education, employment skills, and access to opportunities [Revised post-meeting] (10 votes)		
	H. Maintains a healthful environment and minimizes negative environmental health impacts (<u>3</u> votes)		



Final Selection Criteria:

The third Advisory Working Group meeting reached a consensus on 5 criteria to guide the group's selection of the pilot project:

- Protects infrastructure that has city-wide implications (food supply system, wastewater treatment)
- Addresses critical vulnerabilities for both community and industry
- Protects existing and future businesses and jobs in the food supply and/or maritime sectors
- Supports asset-building within the community, where assets include financial holdings, natural resources, social bonds, education, employment skills and access to opportunities
- Utilizes sustainable, ecologically-sensitive infrastructure (soft infrastructure over hard infrastructure where possible, renewable energy, etc.)

Other Considerations for Resiliency Pilot Project Selection:

Additionally, NYCEDC offered the following considerations to Advisory Working Group members as they discussed possible resiliency pilot projects:

- Focus at the category level (see slide below) but use the projects within the category to inform your thinking
- Identify which climate risk each recommendation ties back to:
 - Flooding = single large, less frequent event
 - Increased rain precipitation = smaller, more frequent events
 - Heat wave = increased threat for overall city (industry, residential), not quantified
- Consider if project on its own can be protective against risk(s)
- Consider eligibility under CDBG-DR rules (capital eligibility, independent utility)
- Consider other partners / initiatives for categories / projects not eligible under CDBG-DR rules

VI. Priority Project Categories – Reaching Agreement

Priority Project Categories

The following categories were developed by IISC and NYCEDC after reviewing feedback from the Advisory Working Group's initial brainstorm of possible projects. The rationale for presenting categories back to the Advisory Working Group was that this offered a more appropriate level of abstraction at this point in the process, before specific technical feasibility and cost estimation information was available (which will occur in the next phase of analysis).



Resiliency Priorities

Power/energy

 Emergency production / distribution (back-up generators, microgrid)

Coastal protection

- Edge protection (multi-purpose levee, bulkhead repair, wetlands)
- Building level protection (flood barriers, wet flood proofing)

Emergency preparedness

- Evacuation routes and community refuge
- Communications
- Freight Movement

Stormwater

- Reduction (sewer system improvements, green roofs, urban farms)
- Management (bioswales, wetlands restoration)

Leadership Development

- Resiliency Institute
- Materials testing
- Job training/workforce development
- Risk assessments

Sustainability

Energy load reduction (green/white roofing, tree planting, solar)

Advisory Working Group members used the following work sheet to guide their conversations about a priority pilot project category.

Pilot Project Prioritization

PRIORITY CATEGORIES

Capital Eligibility + Independent Utility

Risk Protection

- Risk = Threat x Vulnerability
- Consider if project on its own can be protective against risk(s)
- Threats:
 - > Flooding
 - Threat: single large, less frequent event
 - Rain/Snow Event
 - Threat: smaller, more frequent events
 - > Heat Wave
 - Threat: increased threat for overall city, not quantified

Alignment with Selection Criteria

Top Selection Criteria:

- Protects infrastructure that has city-wide implications
- Addresses critical vulnerabilities for <u>both</u> community and industry
- Protects businesses and jobs in the food supply and/or maritime sectors
- Supports asset building financial holdings, natural resources, social bonds, education, employment skills, and access to opportunities
- Ecologically sustainable

Pilot Project + Additional Feasibility Studies + Other Partnerships/Initiatives



Recommendations

The original intent was to settle on one resiliency project category. However, the Advisory Working Group as a whole found merit in the two categories mentioned in this report, unable at this point to pick one over another without further information and analysis.

Therefore, the Advisory Working Group identified two *priority categories* to recommend that the City consider as it plans for a pilot project and additional studies. The Advisory Working Group recommends that the City pursue one as a pilot project and advance the other through the feasibility study phase while it identifies additional funding. Furthermore, the Advisory Working Group recommends that all levels of government act to protect the region's food supply hub for 22 million people⁷ and the adjacent residential community by securing investment for a comprehensive resiliency plan.

The two pilot project categories selected by the Advisory Working Group are:

- Power/energy
- Coastal protection

Some of the lingering questions from Advisory Working Group discussions about a resiliency project, which the group hopes will be answered by future analysis by the City, include:

- What exactly are the risks from the identified threats? (i.e. how catastrophic would a
 flood event be to the community and industry and what is the likelihood in the context
 of sea level rise? What do these risks mean in health, safety and welfare terms as well as
 economics?)
- How could integrated flood protection be phased?
- How could flood protection be done within the existing budget for this project and be independently viable?
- Given limited budget, what specific project for coastal protection would yield the biggest bang for the buck, with the expectation that it will be added to over time?
- How could an energy project be built so that it is protected from a major weather event (i.e. flooding)?
- What is the feasibility of a standalone utility project in energy?
- How do we ensure that back-up and/or more resilient power/energy is not just for industry, but for residents as well?

Guiding Principles for Implementation

As mentioned previously, Advisory Working Group members decided to submit for NYCEDC and ORR's consideration a list of principles to guide continued refinement and ultimately implementation of a resiliency pilot project, as well as other related projects. These are as follows:

⁷ NYC Food by The Numbers: The Hunts Point Food Distribution Center, New York City Food Policy Center, September 18th, 2015, http://nycfoodpolicy.org/nyc-food-numbers-hunts-point-food-distribution-center/



- Leadership Development Embedded in any project there should be some intention around who will carry the work forward in the future, including considerations of leadership training opportunities.
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- Integrate these principles/criteria into other City projects and capital investments.

