

# Hunts Point

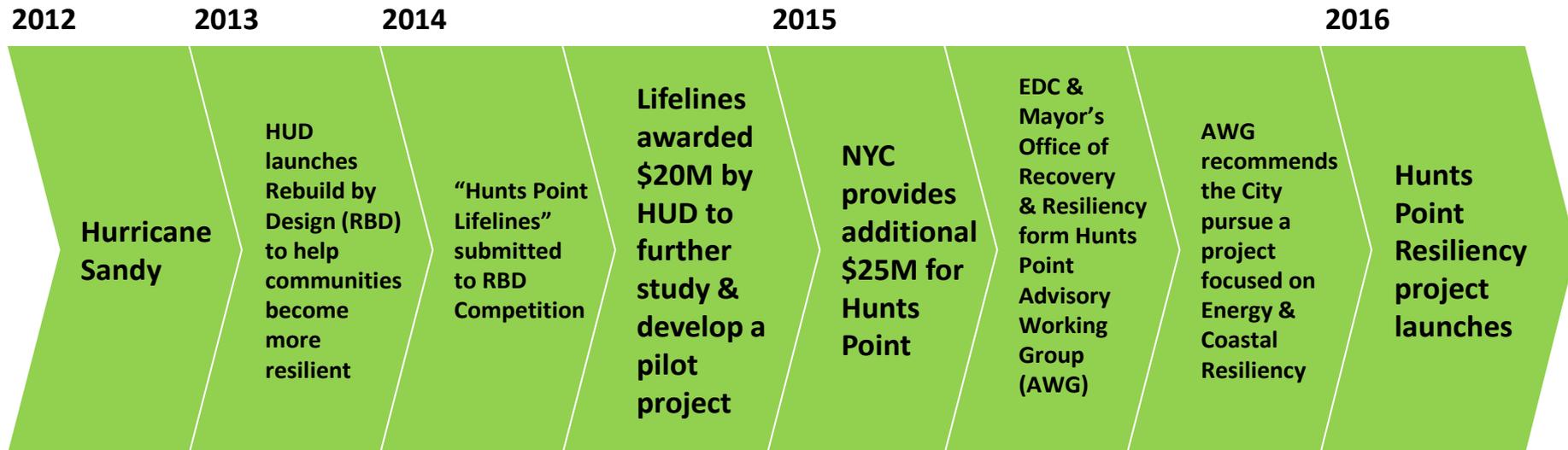
# RESILIENCY

PUBLIC MEETING  
October 19, 2016



# Project Background

- US Department of Housing & Urban Development (HUD) launched the Rebuild by Design Competition in 2013, in response to Hurricane Sandy
- *Hunts Point Lifelines* was selected; a total of \$45 million was awarded to advance resiliency concepts from the proposal
- The City convened an Advisory Working Group to identify resiliency concepts to study and implement projects on (1) Energy Resiliency (*funded pilot project*) and (2) Flood Risk Reduction.



On April 22<sup>nd</sup>, 2015, Mayor Bill de Blasio released a new long-term strategic plan to address our most pressing challenges.

This plan builds on existing efforts and strengthens and expands the City's commitment to a multilayered approach to resiliency.

## Our Four Visions



## Our Resilient City



**Neighborhoods**



Every city neighborhood will be safer by strengthening community, social, and economic resiliency



**Buildings**



The city's buildings will be upgraded against changing climate impacts



**Infrastructure**



Infrastructure systems across the region will adapt to enable continue services



**Coastal Defense**



New York City's coastal defenses will be strengthened against flooding and sea level rise

# Project Goals

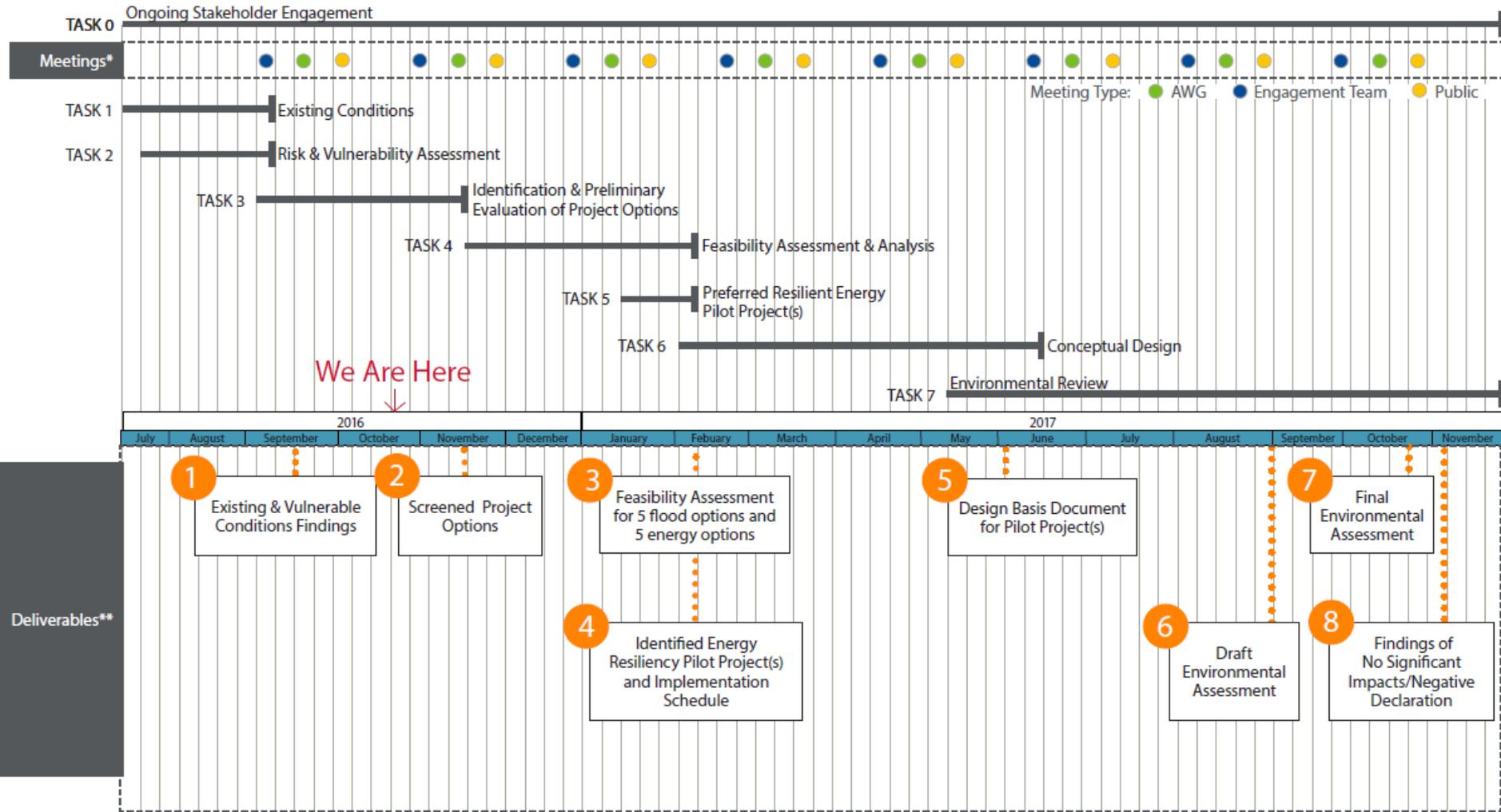
The Hunts Point Resiliency Project will result in the **implementation of a Resilient Energy pilot project** and the **identification of feasible Flood Risk Reduction projects** for which to seek additional funding.

The Hunts Point Resiliency Project seeks to advance solutions that:

- Address critical vulnerabilities for both community and industry
- Protect important citywide infrastructure
- Protect existing and future industrial businesses and jobs
- Support the community's social, economic, and environmental assets
- Use sustainable, ecologically sensitive infrastructure



# Project Timeline



\* The first meeting of the AWG will be held on May 23, 2016, prior to the start of this timeline.

\*\* HUD Timeline Obligations: Selected Pilot Project and Completed BCA by March 2017

# Meeting Today

1. Desired outcomes
2. Key vulnerability findings
3. Group discussions
  - Critical facilities
  - Consequences
  - Project options
4. Stakeholder engagement

# Key Vulnerability Findings

One goal of this study is to address critical vulnerabilities for both community and industry. Based on a vulnerability assessment, the key findings are:

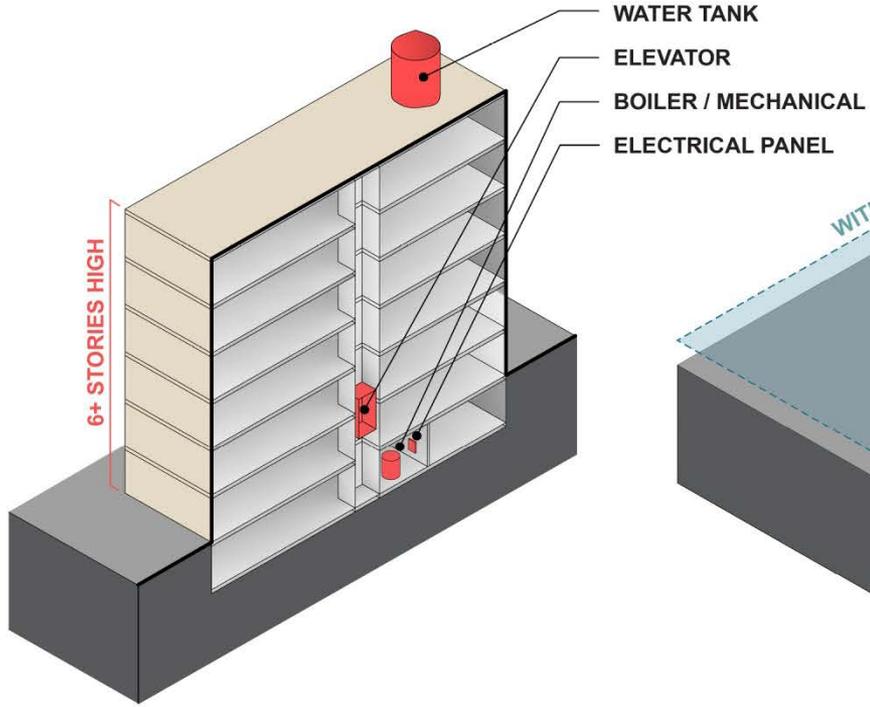
1. Building-level power outages are a significant and shared threat to residents and businesses in Hunts Point.
2. Due to considerable elevation change, the low-lying industrial areas face significant threats from coastal flooding while the upland residential area does not.
3. Extreme rain/snow storms are not a major threat in Hunts Point.
4. The number of community organizations and history of organizing in Hunts Point can lay the foundation for strong social resiliency.

# Key Finding #1: Building-level Power Outages

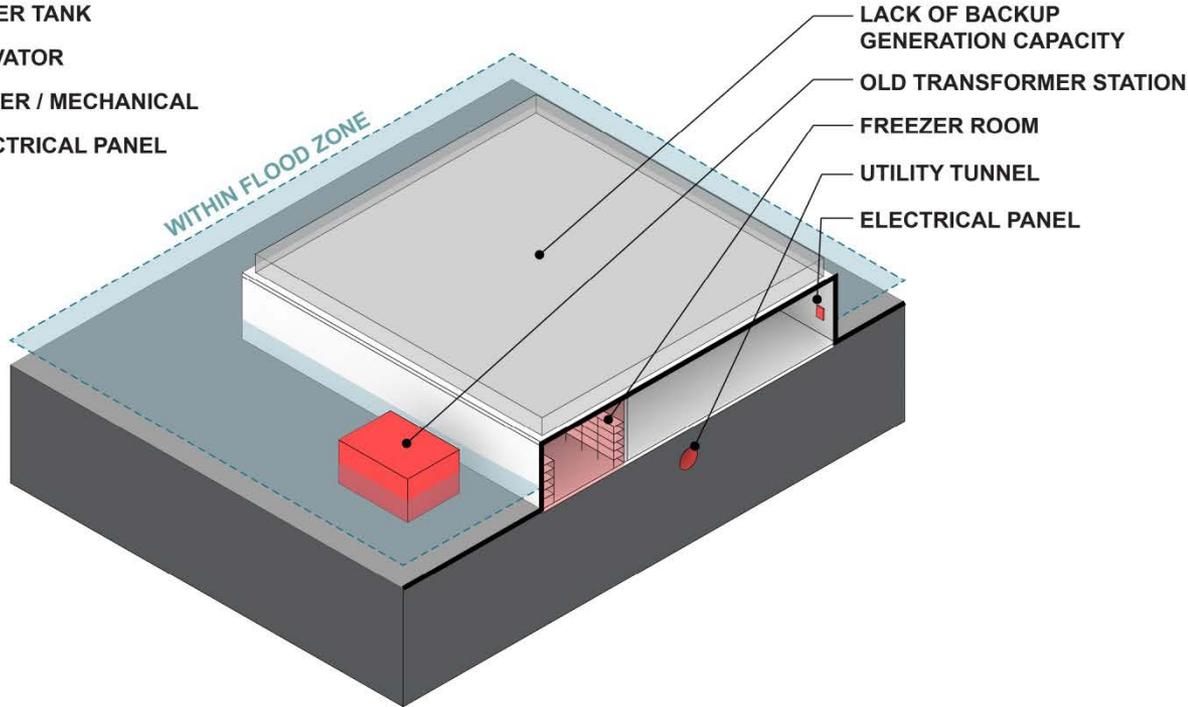
**Building-level power outages are a significant and shared threat to residents and businesses in Hunts Point.**

# Key Finding #1: Building-level Power Outages

## RESIDENTIAL



## INDUSTRIAL



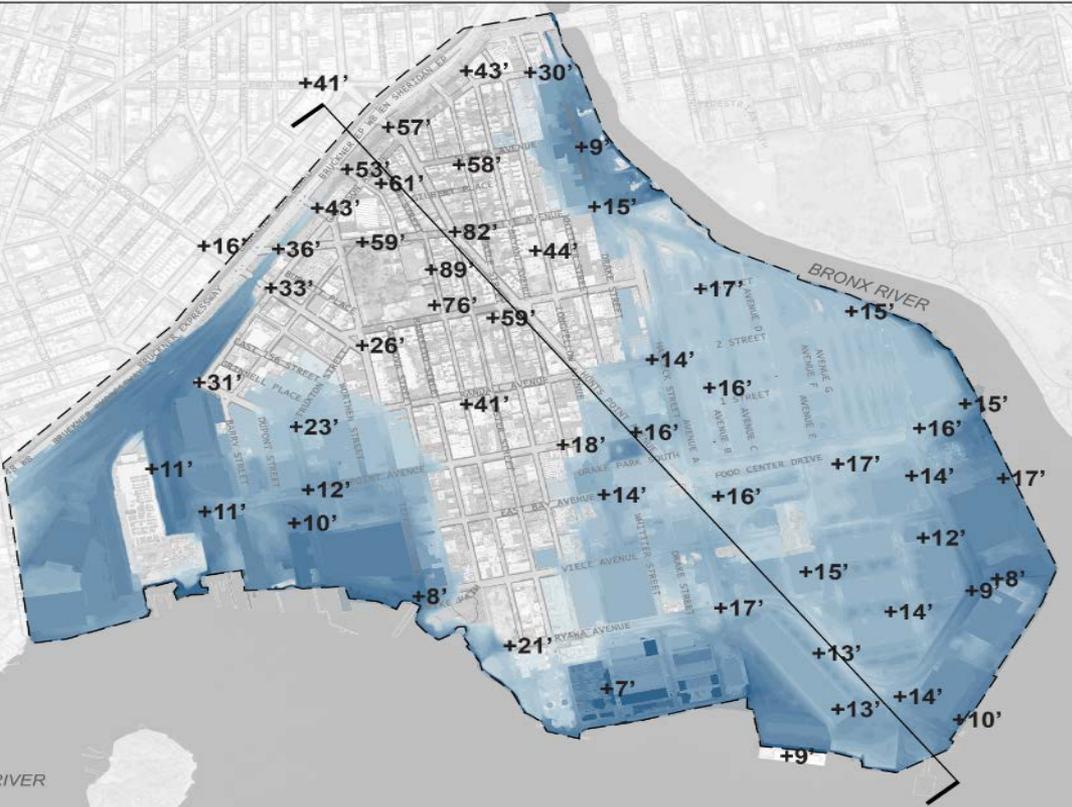
*Almost all residential buildings in Hunts Point are outside of the floodplain.*

- | BUILDING VULNERABILITY FACTORS                            |                              |
|---|------------------------------|
| ▪ Location within floodplains                             | ▪ Elevators                  |
| ▪ Basement below grade and in floodplain                  | ▪ Water tank                 |
| ▪ Age of infrastructure                                   | ▪ Backup generation capacity |
| ▪ Location of boiler, mechanicals, and electrical service | ▪ Perishable contents        |

## Key Finding #2: Coastal Flooding

**Due to considerable elevation change, the low-lying industrial areas face significant threats from coastal flooding while the upland residential area does not.**

# Key Finding #2: Coastal Flooding

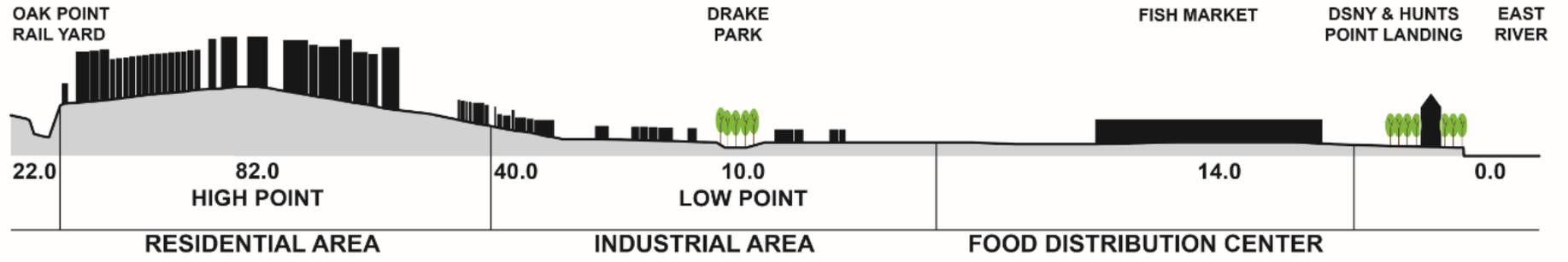
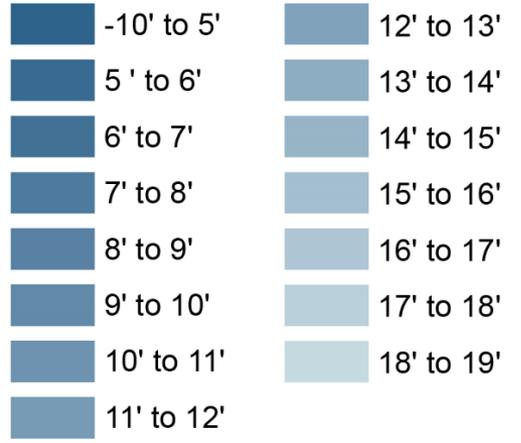


## LEGEND

--- Study Area

LAND ELEVATION

**+0'** Spot Elevation



VERTICALLY SCALED 500%

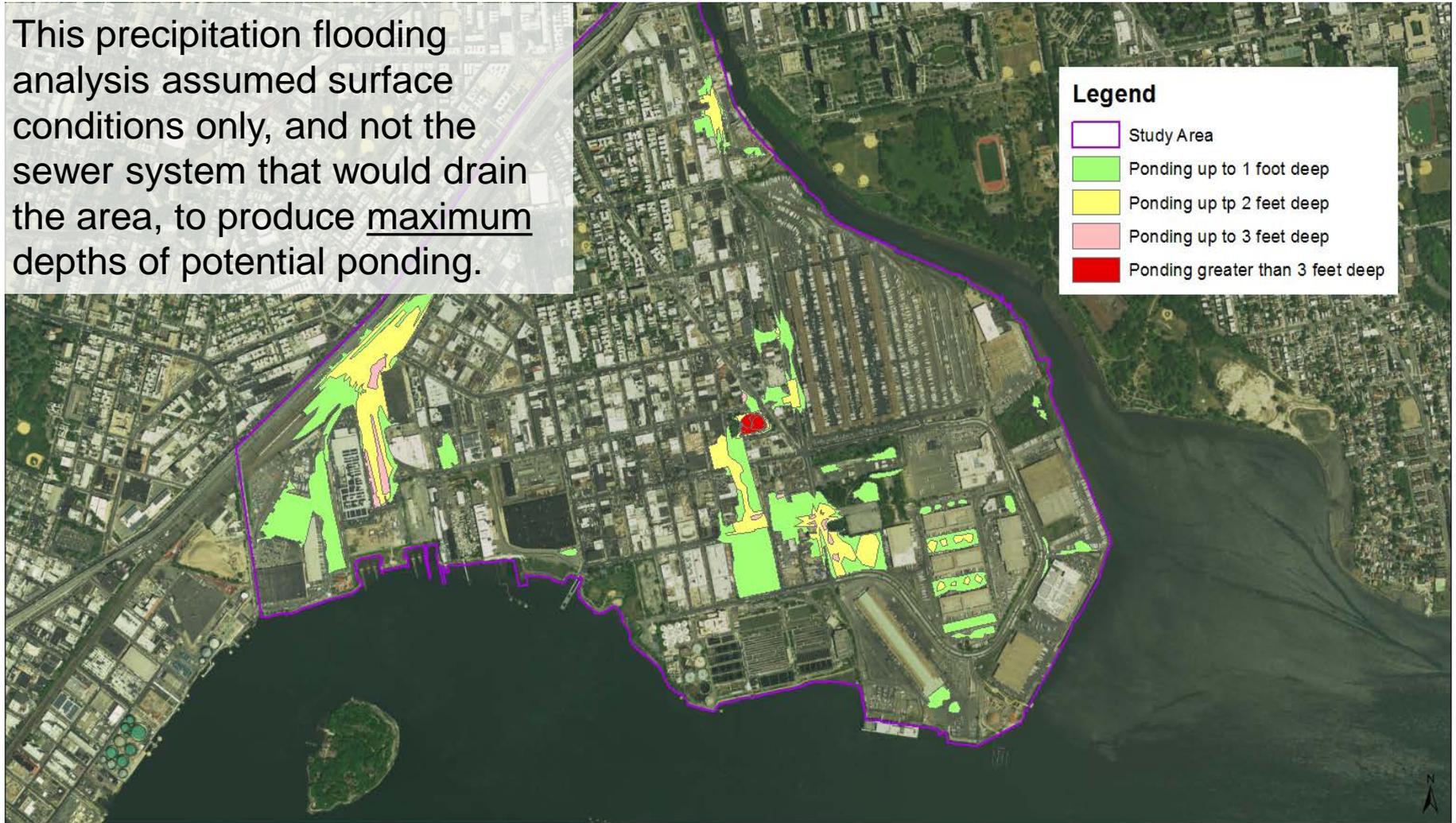
## Key Finding #3: Extreme Rain/Snow Storms

**Extreme rain/snow storms are not a major threat in Hunts Point.**

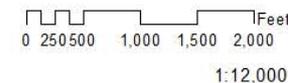
# Key Finding #3: Extreme Rain/Snow Storms

Date: 9/1/2

This precipitation flooding analysis assumed surface conditions only, and not the sewer system that would drain the area, to produce maximum depths of potential ponding.



Interior Flood Potential Ponding



**The number of community organizations and history of organizing in Hunts Point can lay a foundation for strong social resiliency.**

# Key Finding #4: Building on Social Resiliency Assets



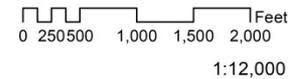
# Summary of Vulnerabilities and Strengths

	Vulnerabilities	Strengths
Residential	<ul style="list-style-type: none"><li>▪ Lack of back-up generation</li><li>▪ Limited access to cooling centers</li><li>▪ Socioeconomic factors</li></ul>	<ul style="list-style-type: none"><li>▪ High ground</li><li>▪ Community assets</li><li>▪ Low- and mid-rise buildings (which are not vulnerable to loss of water during prolonged power outages)</li></ul>
Industrial	<ul style="list-style-type: none"><li>▪ Old, critical transformers and electrical systems</li><li>▪ Location in floodplain</li><li>▪ Perishable products</li></ul>	<ul style="list-style-type: none"><li>▪ Loading docks create opportunities for elevation</li><li>▪ Initial investments in backup generation</li></ul>

# Resiliency and Critical Facilities



Critical Facilities



Hunts Point  
**RESILIENCY**

**LARGE GROUP DISCUSSION:  
WHAT 3 PUBLIC PLACES DO YOU, FAMILY  
MEMBERS, FRIENDS OR CO-WORKERS  
REGULARLY USE THAT MIGHT BE A  
GATHERING POINT IN THE EVENT OF AN  
EMERGENCY (FOR ASSISTANCE, SOCIAL  
CONNECTION, INFORMATION)?**

**WHAT ARE THE CONSEQUENCES OF  
DIFFERENT THREATS TO THESE PUBLIC  
PLACES?**

# Preliminary Project Technologies

## Resilient Energy

- Backup generation/storage
- Microgrids (building/facility scale)
- Anaerobic digestion
- Fuel cells
- Combined heat and power (CHP)
- Tidal power
- Building level retrofits
- Electrification of trailers



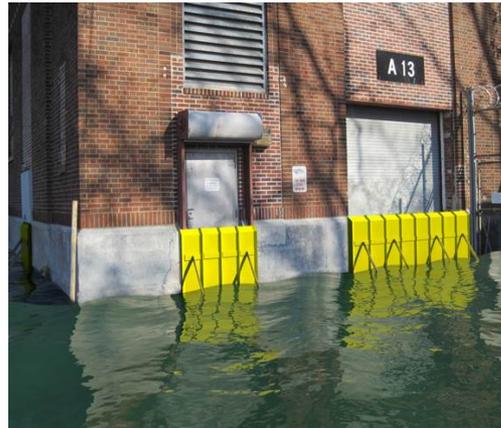
# Preliminary Project Technologies

## Coastal Flood Risk Reduction

- Levees
- Floodwalls
- Elevating building
- Elevating critical equipment
- Building floodwalls
- Deployable pumps

*Additional Elements For Consideration in Combination with Flood Risk Reduction Technologies:*

- Stormwater retrofits
- Backflow prevention
- Green infrastructure
- Shoreline stabilization



# Project Options Screening Criteria

## Hunts Point RESILIENCY

## ENERGY RESILIENCY PROJECT OPTION 1 ROOFTOP SOLAR PV (FOR EXAMPLE)

**ER1**

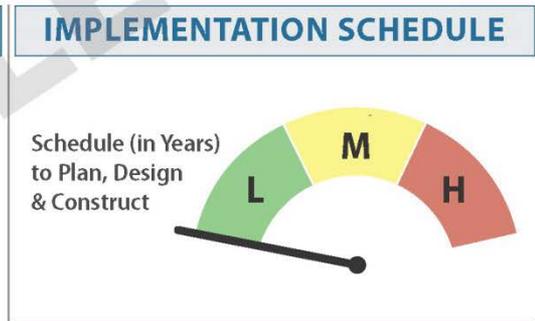


### Information to be included here:

- General description of technology
- Maximum energy supply/power provided
- How will technology address a real vulnerability in Hunts Point?
- Potential locations

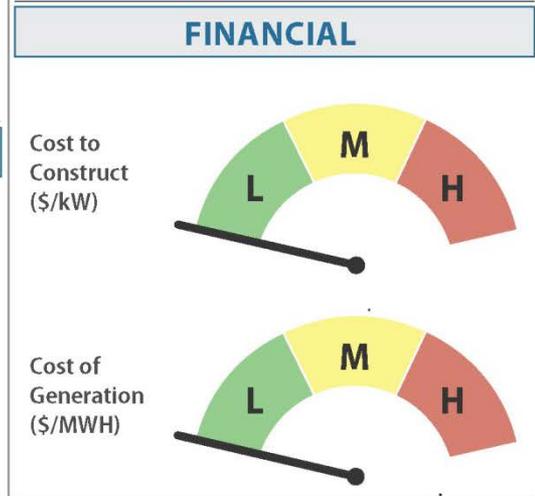
RESILIENCY	PASS	NEUTRAL	FAIL
Applicable to Vulnerable, Critical Facilities			
Scalable			
Proven Technology			
Reliable Technology			
Dispatchable/Operable during Emergencies			

SUSTAINABILITY	PASS	NEUTRAL	FAIL
Energy Efficient			
Clean Fuel Type			
Air Emissions Benefit			



CONSTRUCTABILITY	PASS	NEUTRAL	FAIL
Available & Suitable Space			
Required Infrastructure (gas, water)			
Ease of Permitting			

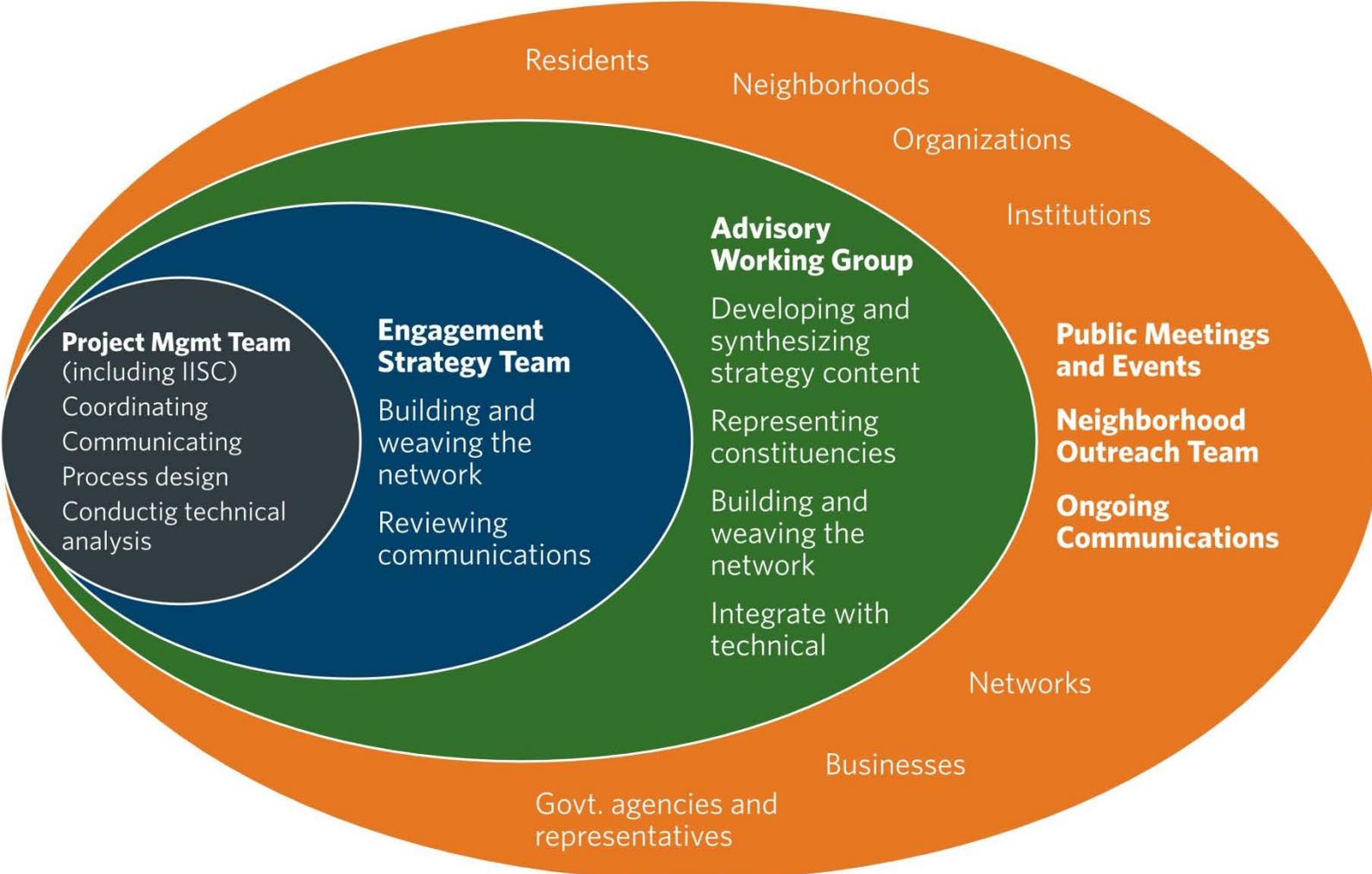
COMMUNITY BENEFITS	PASS	NEUTRAL	FAIL
Workforce Development (hiring and training)			
Multi-purpose (educational, recreational, or social)			
Potential to Leverage Public or Private Funds			



**WHAT INFORMATION CAN WE PROVIDE  
SO THAT YOU CAN UNDERSTAND  
DIFFERENT PROJECT TYPES?**

**ARE THERE IDEAS FOR OTHER KINDS OF  
PROJECT OPTIONS TO CONSIDER?**

# Engagement Structure



The rings of engagement for Hunts Point Resiliency illustrate how specific teams are embedded within others for communications flow and to fulfill different functions. The graphic is not intended to represent decision-making.

# Engagement Strategy Team: 7 Suggestions

1. Focus on real outcomes and the timeline for making things happen.
2. Make sure we have an answer to this question for anyone we engage – “Why does this matter to me?”
3. Help people understand limits on grant money and the City’s commitment to bring more money into the community.
4. Make sure that, whichever project gets selected, protects people and not just buildings.
5. Talk about risks but also strengths of the community and what we are already doing in Hunts Point.
6. Look for opportunities to engage new leadership in the Hunts Point community.
7. Keep the Implementation Principles front and center.

# Upcoming Public Meetings

Date and Time	Topic
January 17, 6:00-8:00	Evaluation of project options
March 21, 6:00-8:00	Identification of pilot project

# Staying in Touch

- Website – [www.huntspointresiliency.nyc](http://www.huntspointresiliency.nyc)
- Email - [Huntspointsresiliency@edc.nyc](mailto:Huntspointsresiliency@edc.nyc)
- Social media (Twitter and Instagram)
  - EDC @NYCEDC
  - ORR @NYClimate
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