

# Ensuring Urban Resilience: Come Hell or High Water

**Mayor Dawn Zimmer**

City of Hoboken, NJ

@dawnzimmernj

Climate Week 2016



HOBOKEN





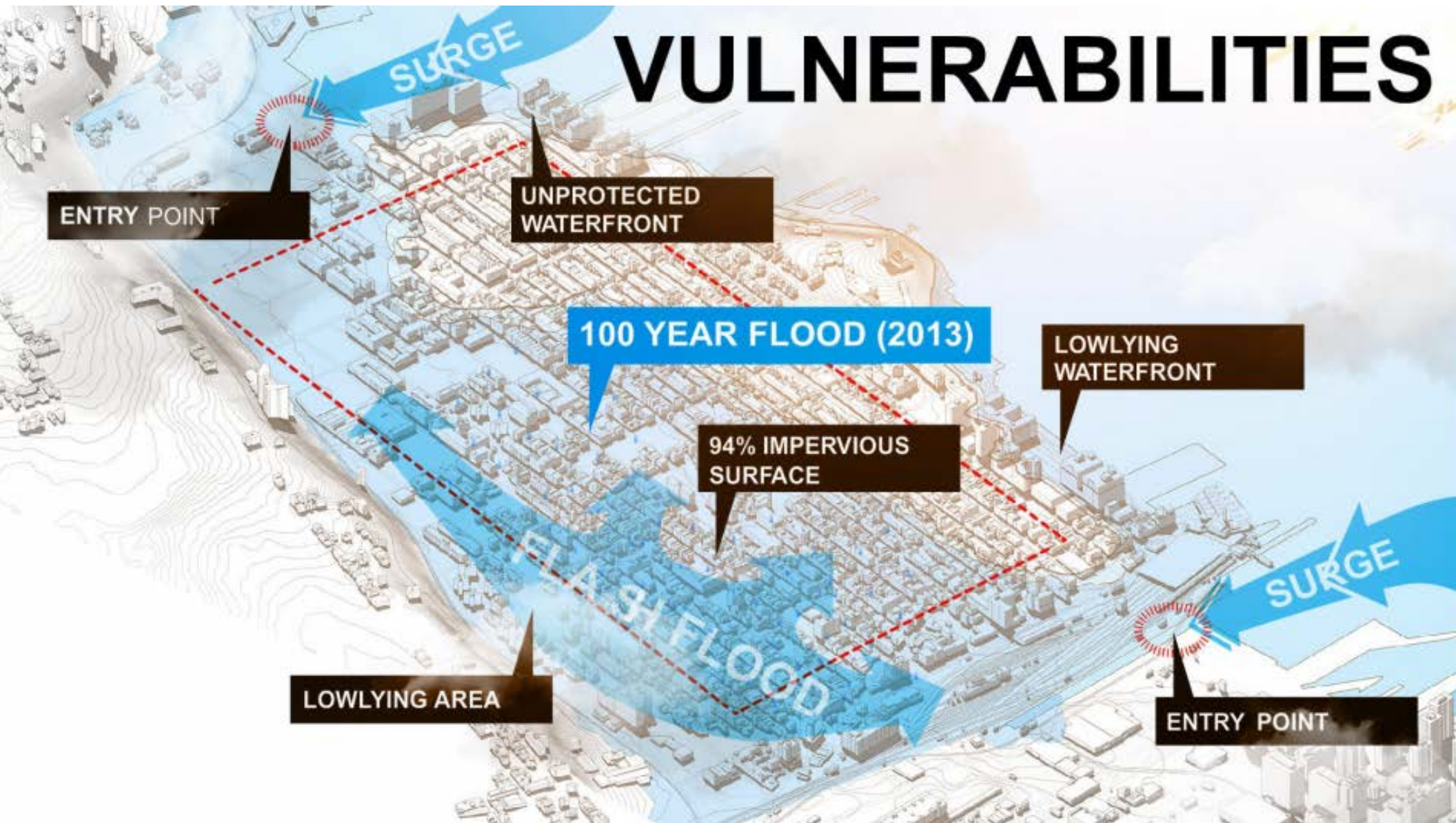






# Hoboken's dual flooding risk

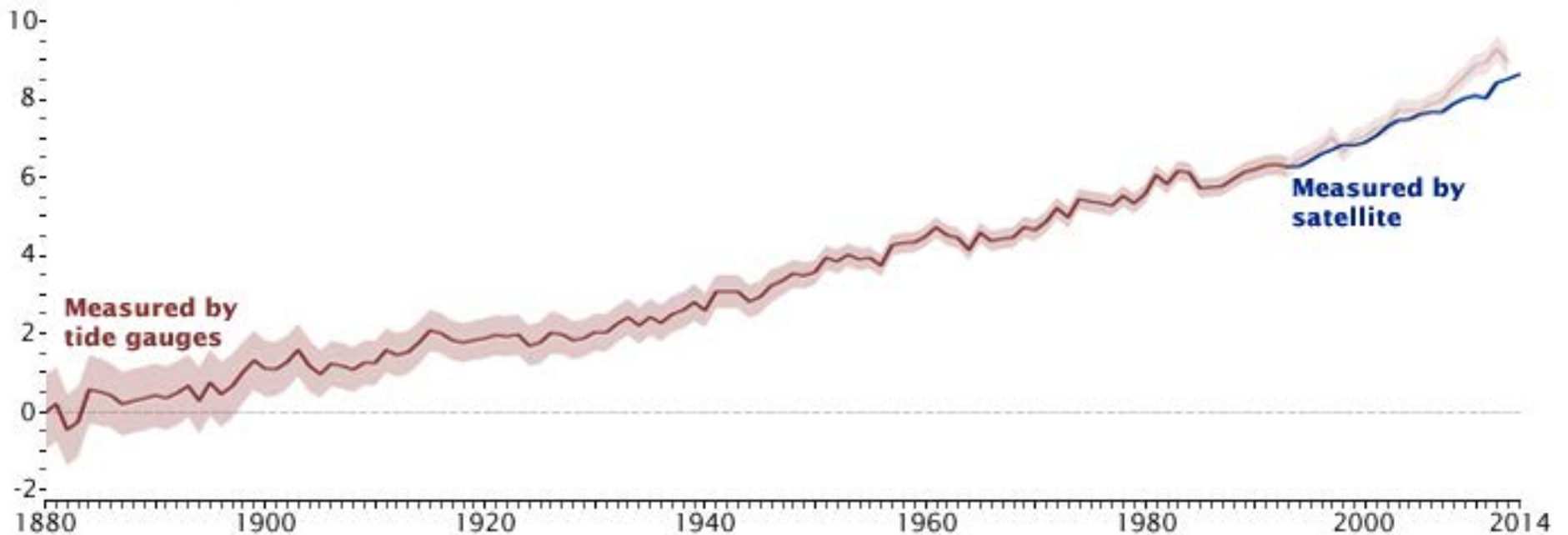
Coastal flooding & flash flooding





# Sea level rise

Globally Averaged Sea Level Change (in)

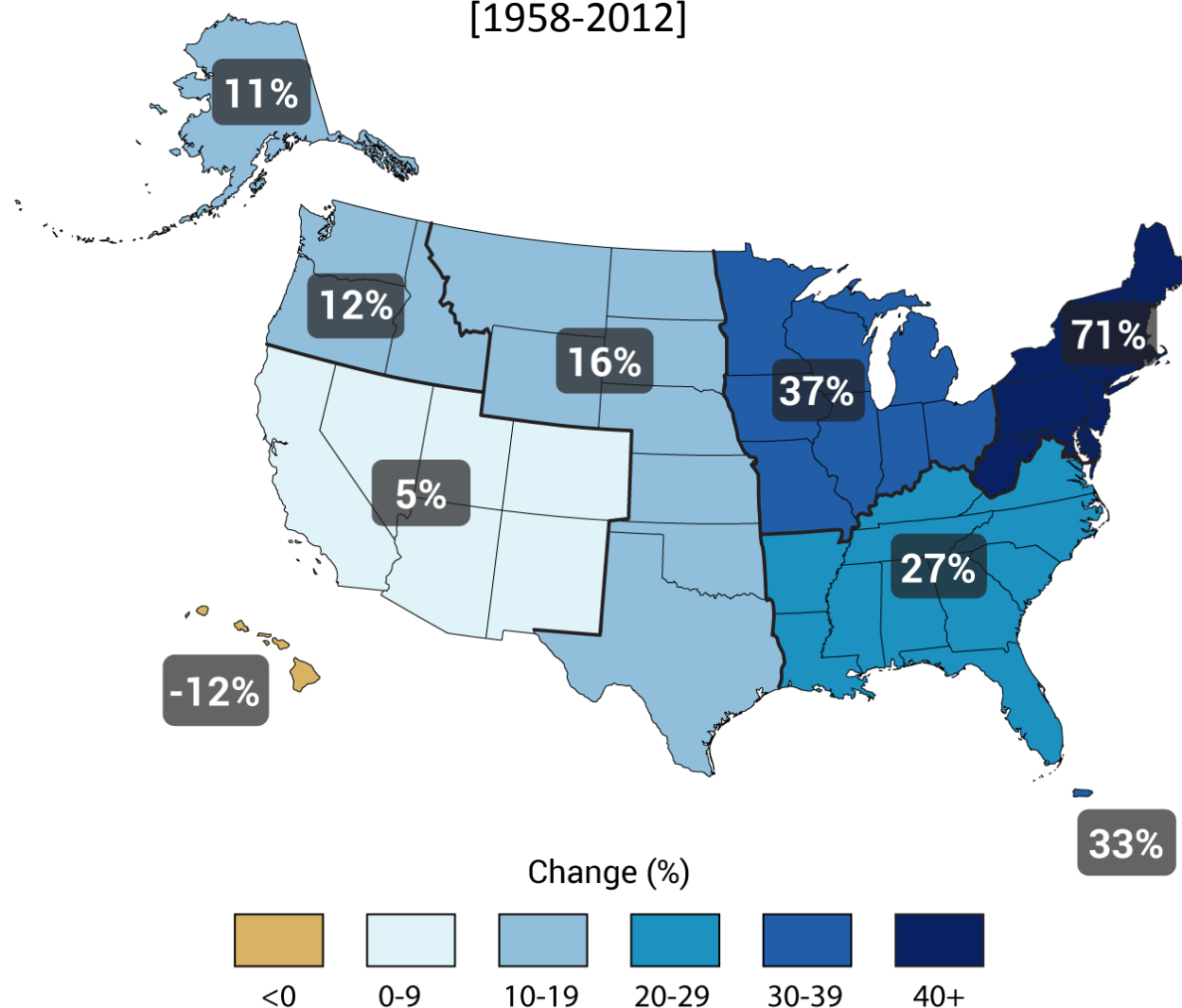




# When it rains, it pours

## Observed Change in Very Heavy Precipitation

[1958-2012]



# National Climate Assessment











# Hoboken, NJ Flood Map National Flood Hazard (Sandy Area)

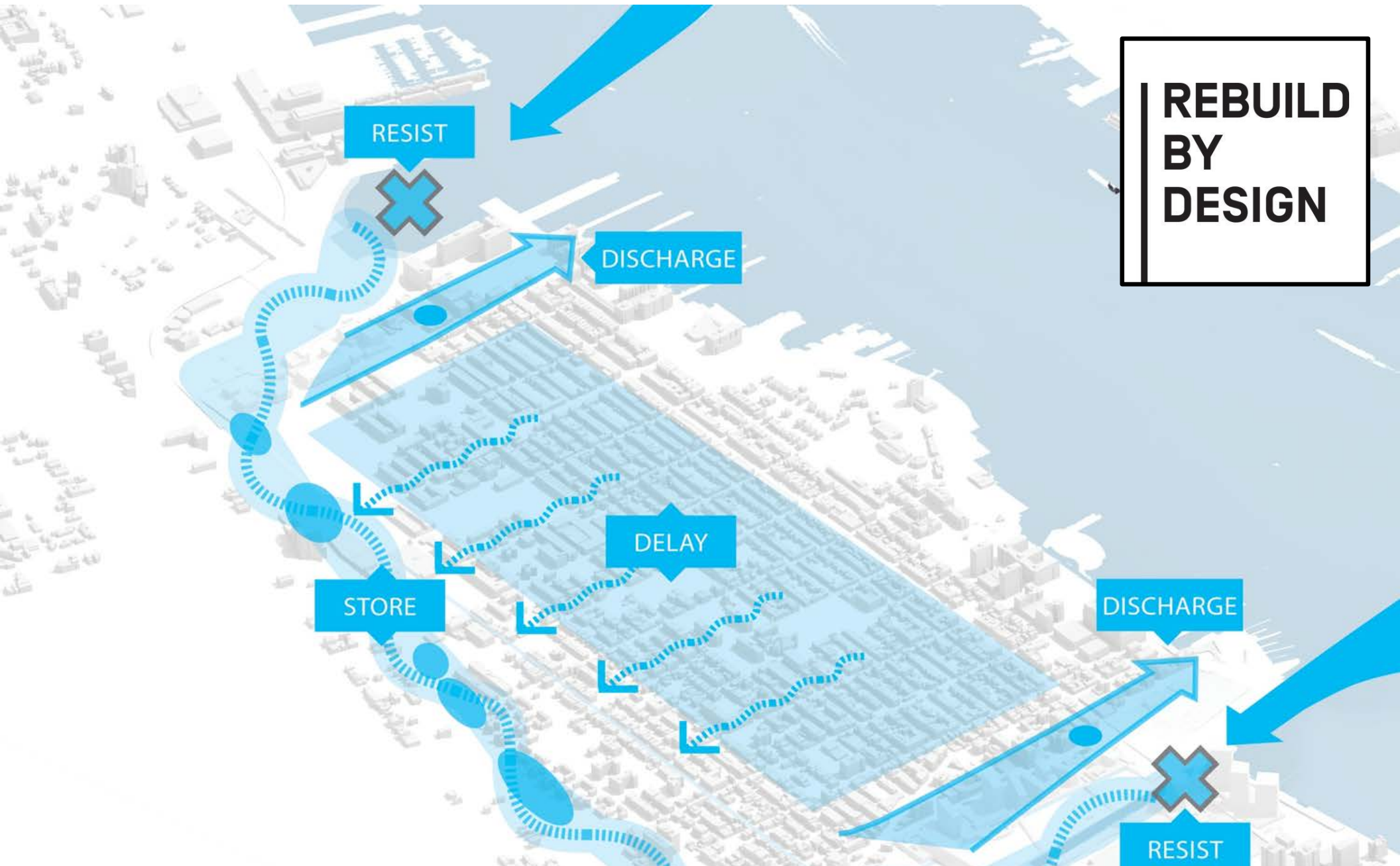
- FEMA Effective Flood Zones Sandy
- FEMA 0.2% ANNUAL CHANCE FLOOD HAZARD
- No Flooding  
Less Than 0.2% Annual Flood Risk





# Resist, Delay, Store, Discharge

An integrated urban water management strategy





OFFICE OF THE MAYOR



CITY HALL  
HOBOKEN, NEW JERSEY

February 24, 2014

Patrick J. Foye, Executive Director  
Deborah L. Gramiccioni, Deputy Executive Director  
Port Authority of New York and New Jersey  
225 Park Ave. So.  
New York, NY 10003

Dear Mr. Foye and Ms. Gramiccioni:

First, I want to congratulate Ms. Gramiccioni on the new position and wish you luck in the years ahead.

I am writing because I understand that the Port Authority is applying for federal transportation funds, and there may be an opportunity for us to collaborate in a way that will make both the City of Hoboken and Port Authority facilities more resilient and to significantly increase the amount of grant applications for federal funding. I realize that the Port Authority is a large organization and I appreciate meeting with you.

OFFICE OF THE MAYOR



CITY HALL  
HOBOKEN, NEW JERSEY

June 18, 2013

Secretary Shaun Donovan  
U.S. Department of Housing and Urban Development  
451 7th Street S.W.  
Washington, DC 20410

Dear Secretary Donovan:

I want to express my sincere appreciation to you, your staff, and the Obama Administration for your commitment to rebuilding after Hurricane Sandy and planning for a more resilient future. I have been particularly impressed by your willingness to listen and be responsive to the unique concerns affecting urban areas.

As the next round of Community Development Block Grant funding is distributed, I ask that you continue to demonstrate the flexibility that has been a hallmark of your efforts by providing the second allocation of CDBG funds directly to municipalities. As you understand well, each community has its own unique set of challenges, along with the capability and innovative ideas to address those challenges and prepare for future storms.

Thank you for your continued dedication to our region.

Sincerely,

*Dawn Zimmer*  
Mayor Zimmer

October 31, 2013

Dear Senator Menendez:

I am writing to ask for your help in advocating for an opportunity that could make Hoboken more resilient from flooding and the impacts of climate change.

The Department of Housing and Urban Development is leading an innovative Rebuild by Design Contest. There are ten finalist teams, each of which has explored 3 to 5 concepts. By the end of this week, a panel headed by Secretary Donovan will select one of these concept teams to pursue in greater detail during several months of design. At the end of that process, one or more of these designs could be implemented through disaster recovery funds. This may be Hoboken's best opportunity to implement a much-needed plan to protect our city.

I am asking for you to express your support to Secretary Donovan for the OMA "Comprehensive Strategy." You can learn more about their approach here: [www.rebuildbydesign.org/project/comprehensive-strategy/](http://www.rebuildbydesign.org/project/comprehensive-strategy/).

As you know, Hoboken has a historic flooding problem that is getting worse as storms become more intense. Unlike suburban areas, we do not have the option of pilings, yet we are facing skyrocketing flood insurance rates.

Our entire City, including the residents most impacted by our City's flooding, Hoboken residents, would benefit tremendously from the OMA comprehensive approach. Hoboken has received \$342,000 for resiliency hazard mitigation funding to date out of the \$1.2 billion that has been distributed in the State of New Jersey. Given the lack of focus on New Jersey to date, I hope that OMA's proposal can be strongly considered so that we can protect our vulnerable residents.

Your support for the OMA proposal could help ensure that Hoboken is protected by federal funding to evaluate, develop and ultimately implement a comprehensive plan. Thank you for your consideration.

Sincerely,

*Dawn Zimmer*  
Mayor Zimmer

CITY HALL  
HOBOKEN, NEW JERSEY

If at all possible, we would sincerely appreciate a letter of support from the Port Authority. Secretary Donovan for the OMA team's submission to the Rebuild by Design competition. I discussed this comprehensive water management strategy titled "Resist, Delay, Store" designed to protect all of Hoboken, as well as parts of Weehawken and Jersey City. The component could include extending Pier A Park between the pier and Hoboken Terminal, hardening the terminal in order to provide a physical layer of protection from storm surge through the area through which the storm surge entered which led to the flooding of the PATH system. The proposal is designed to protect from a 500 year storm.

In combination with your efforts to protect your assets, this strategy would provide an permanent layer of protection not just to the Port Authority's assets in Hoboken, but to the PATH system.

Thank you and best regards,

*Dawn Zimmer*  
Mayor Zimmer

CC: Patrick J. Foye, Port Authority of New York and New Jersey Executive Director  
Marc Ferzan, NJ Governor's Office Of Recovery And Rebuilding  
James S. Simpson, NJ Transportation Commissioner  
Alexis Taylor, Rebuild by Design  
Daniel Pittman, OMA

OFFICE OF THE MAYOR



CITY HALL  
HOBOKEN, NEW JERSEY

2013

Shaun Donovan  
U.S. Department of Housing and Urban Development  
451 7th Street S.W.  
Washington, DC 20410

Dear Secretary Donovan:

I am writing to invite me to be a part of the Hurricane Sandy Rebuilding Task Force. I have prepared a report of recommendations is prepared, I wanted to provide my written suggestions for your consideration.

Hoboken's urban Hurricane Sandy experience that caused 80 percent of our City to be destroyed in major flood events since Sandy, I offer the following suggestions to make our City more resilient in the future.

That will support comprehensive communitywide and regional approaches to make our City more resilient.

Hoboken has developed a comprehensive approach to address our flooding, but current policies, we are currently unable to receive any funding to make our City more resilient.

Options for change:

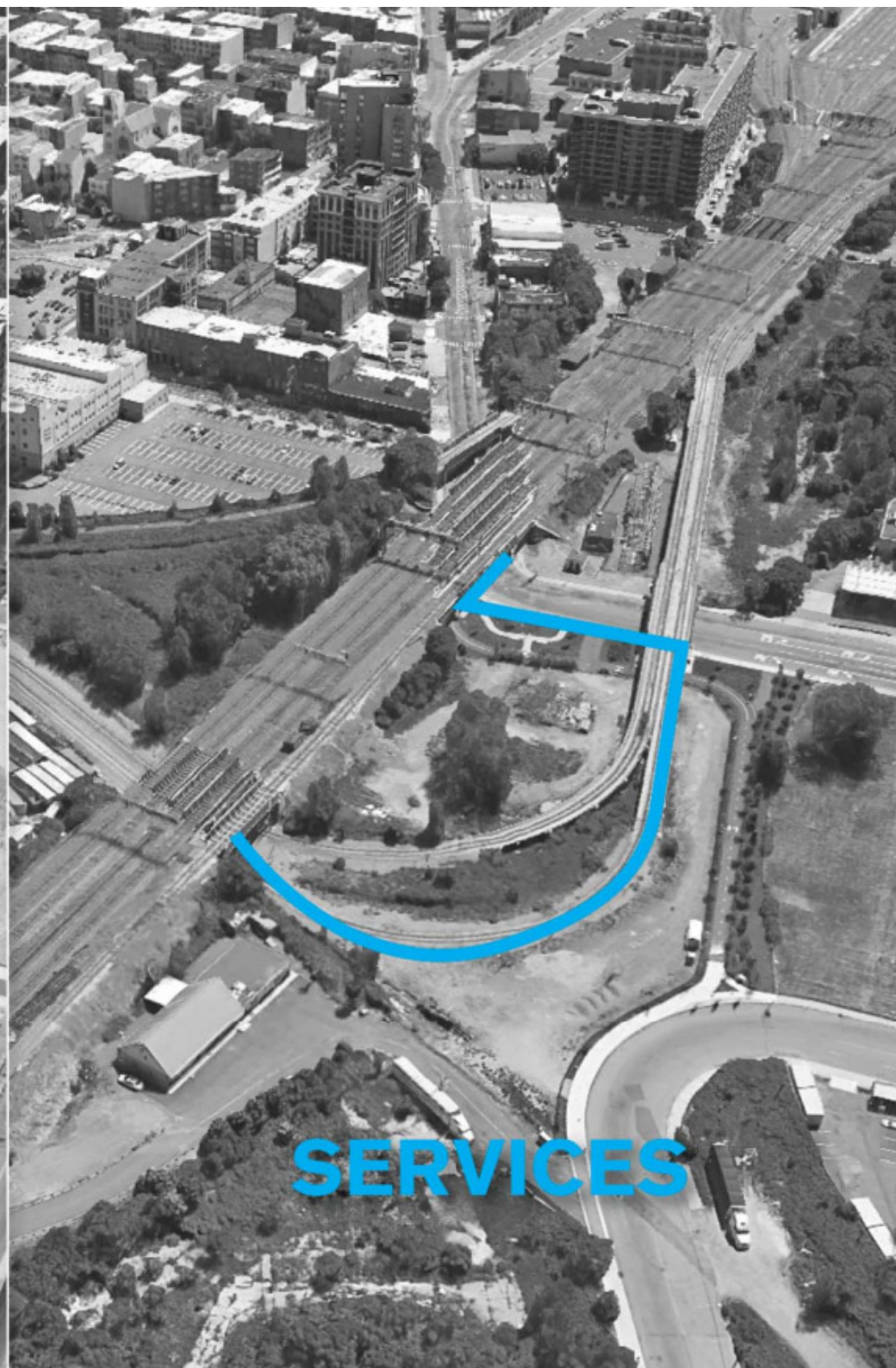
Each for FEMA that would enable the 406 public assistance program to support a comprehensive approach instead of islands of municipal properties.

Current FEMA public assistance policy, Hoboken can only get funding for Fire stations, senior center, municipal garage, and parking garage. After Hurricane Sandy. The rationale against funding a comprehensive approach is that it is physically on the municipal property. The funds will be spent on islands of protection instead of funding to a comprehensive approach that could protect both our municipal properties and all of the City.











# “Resist” – waterfront park





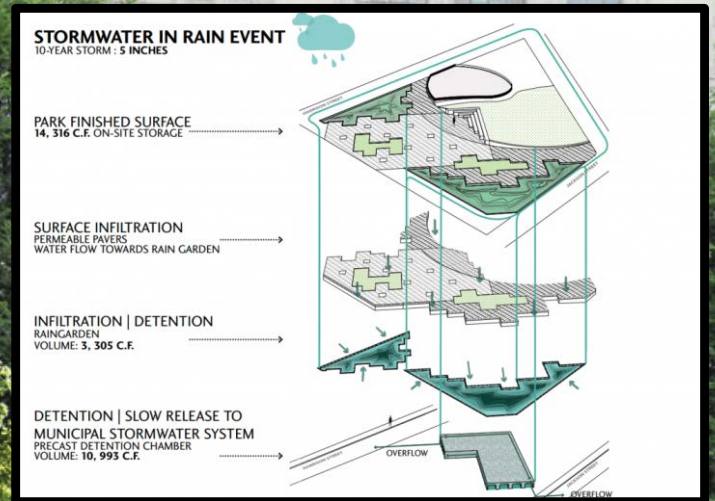
# “Resist” – Green wall/art





# “Delay” & “Store” – Southwest Resiliency Park

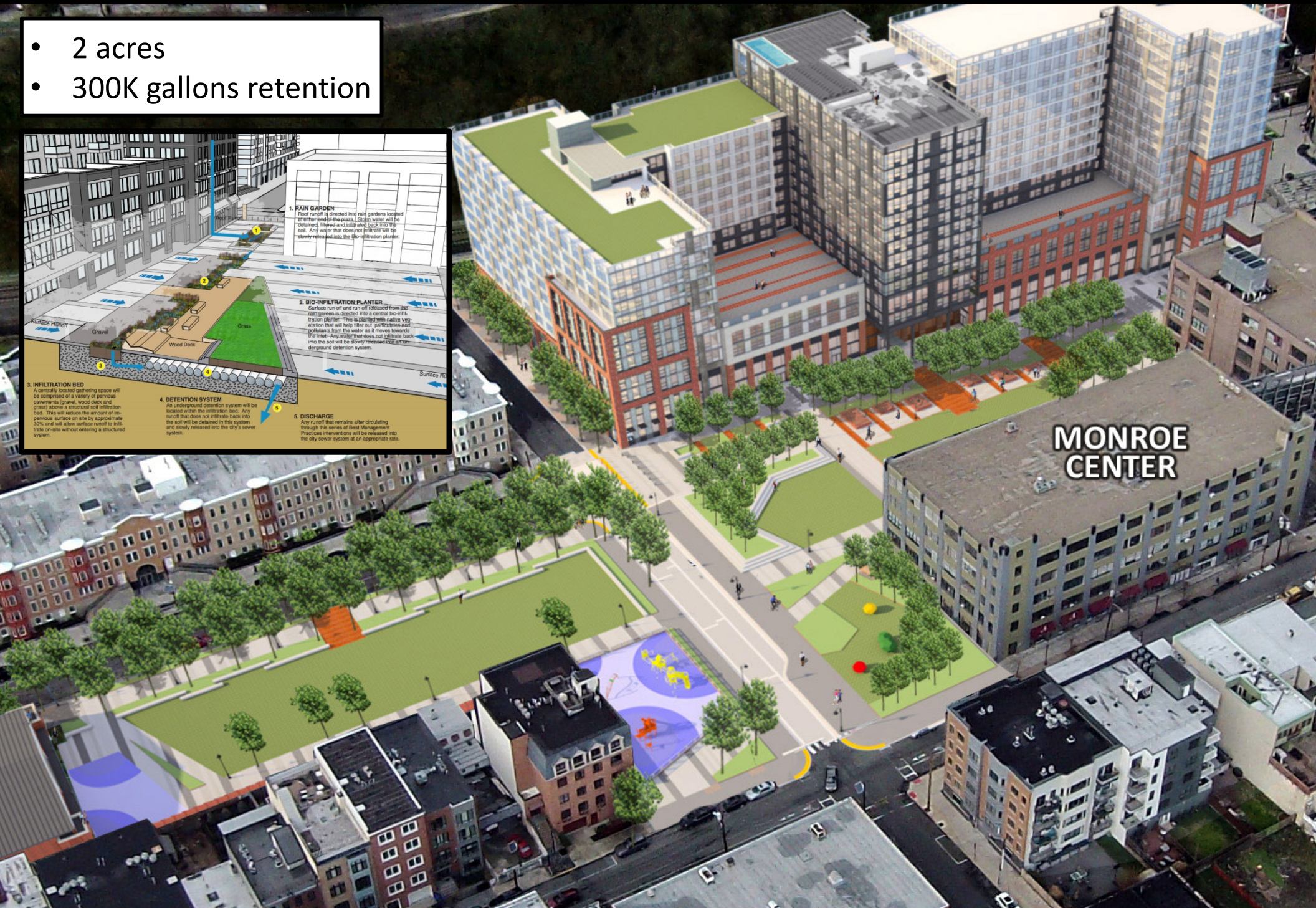
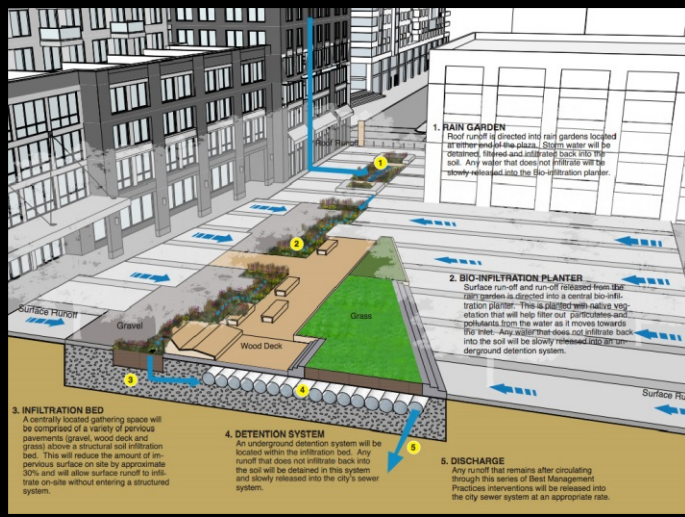
- 1 acre
- 200K gallons retention





# “Delay” & “Store” – 7<sup>th</sup> & Jackson Resiliency Park

- 2 acres
- 300K gallons retention





# “Delay” & “Store” – BASF Resiliency Park

- 5 acres
- 1M gallons retention





# “Delay” & “Store” – City Hall Demonstration Project

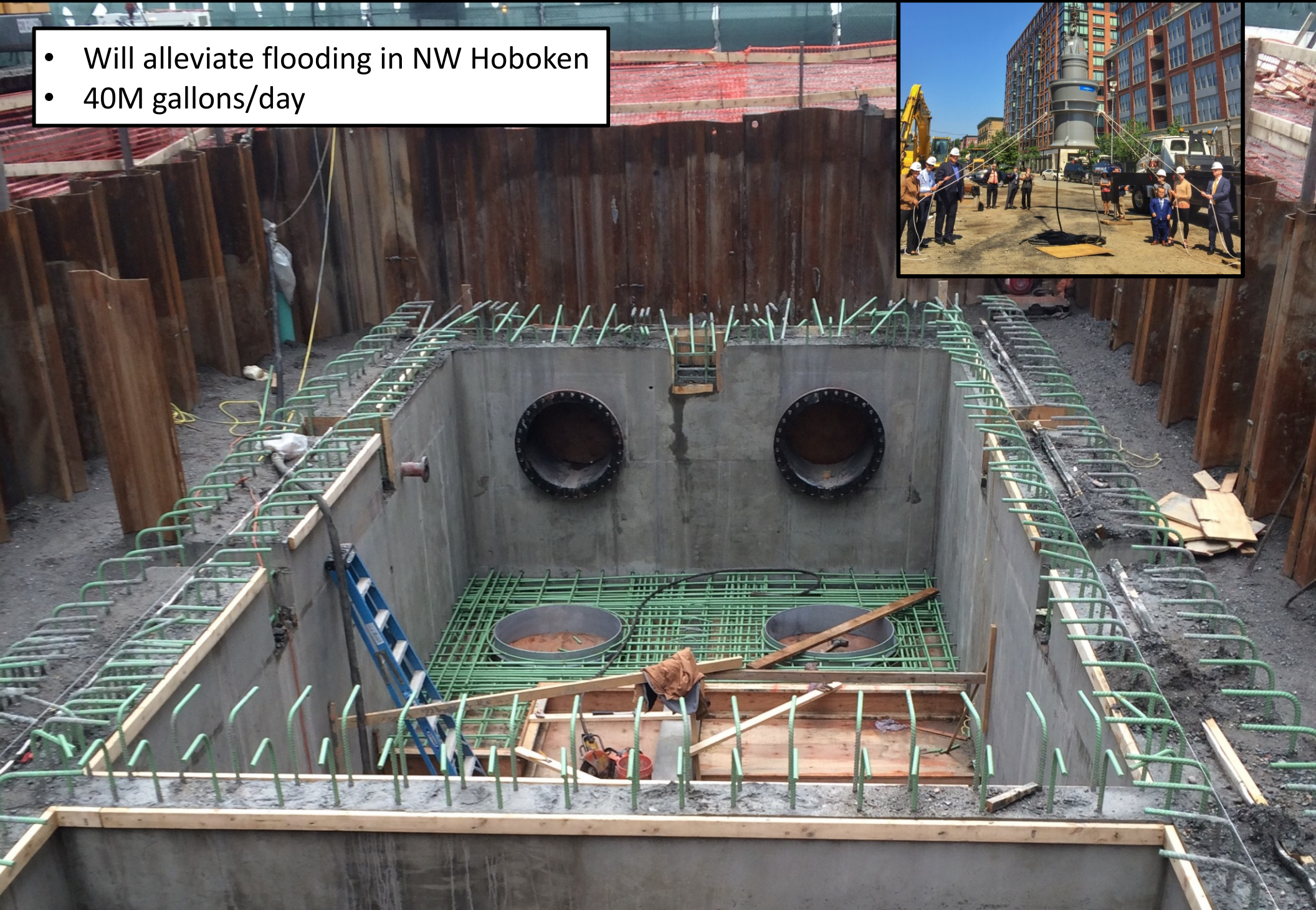
- Rain gardens, cisterns, porous concrete
- Retains all stormwater from 25-year storm





# “Discharge” - H-5 Wet Weather Pump Station

- Will alleviate flooding in NW Hoboken
- 40M gallons/day





# City Resiliency Funding Sources

- Municipal Open Space Trust Fund
- Grants
- NJ Environmental Infrastructure Trust Loans
- Redevelopment Agreements
- Infrastructure Trust Fund



# Green Roof Incentives

- Zoning Code changes incentivize green roofs
- Applications for more than 100,000 sf of green roofs approved in a few months





# “Resist” Alignment

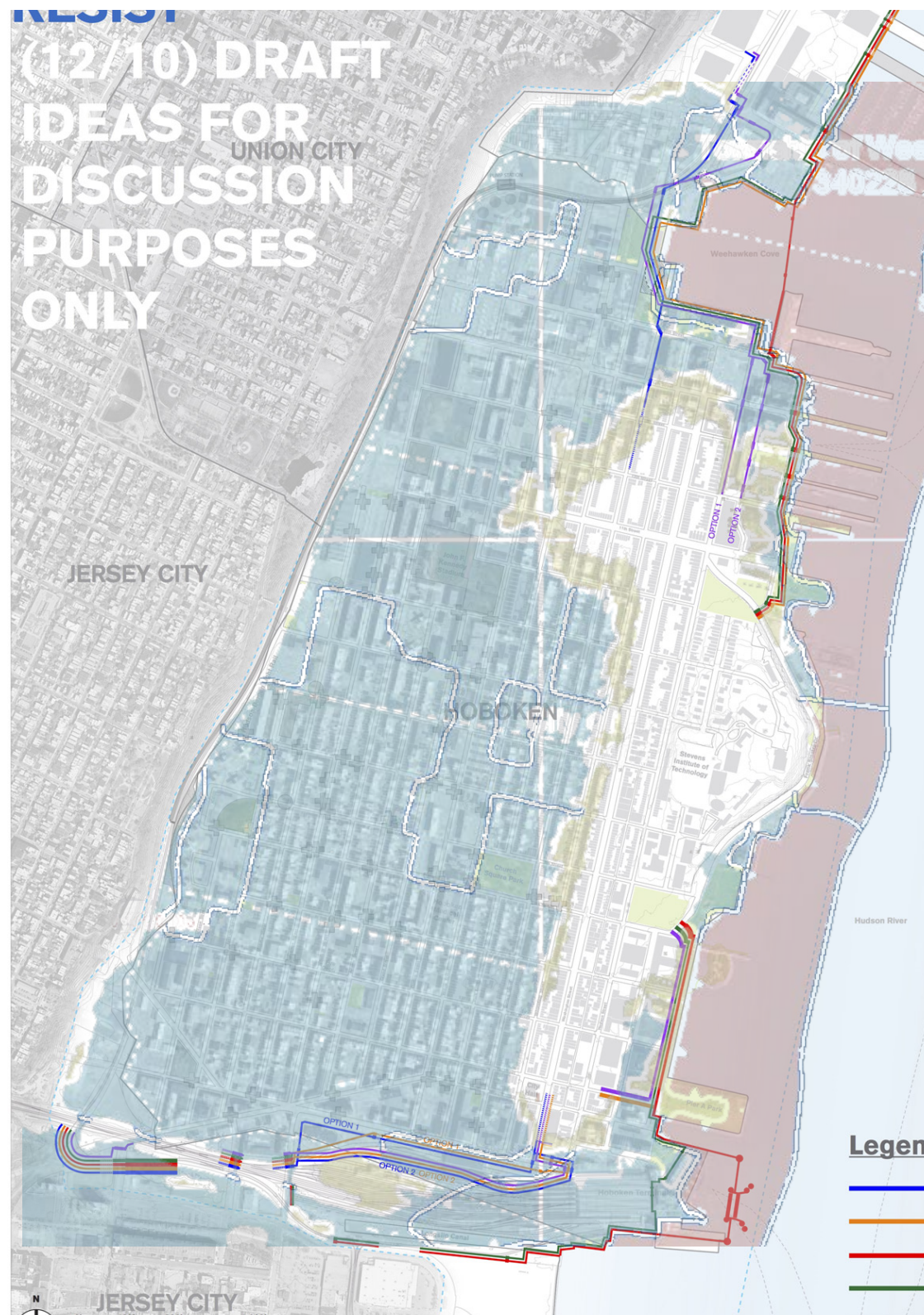
5 Concepts →

3 Alternatives →

1 Preferred Alternative

## Community Process

- Citizens Advisory Group
- Community meetings
- Drop-in sessions
- Neighborhood meetings
- Social media





# Problem solved? Not quite.

**GIZMODO**

SPLOID PALEOFUTURE IO9 FIELD GUIDE FACTUALLY

## Hoboken Residents Are Fighting a Seawall That Would Protect Their Homes From Total Devastation



Alissa Walker

2/12/16 10:20am · Filed to: NJ NIMBYS



47.9K



171



13



In 2012 Hoboken, New Jersey suffered the brunt of Superstorm Sandy when most of the city was flooded. Now a piece of infrastructure has been designed to prevent this from ever happening again, but some people who live there don't want it built. Because they think it will look ugly.

After the storm, a Department of Housing and Urban Development initiative



# Opposition to Concept A (inland, Garden St)



DO YOU KNOW THAT  
A PLAN IS BEING CONSIDERED THAT WILL

# DIVIDE HOBOKEN?

The city is looking to implement a proposal to deal with flooding. If this ill-conceived wall is built, it very likely will:

- Cause further congestion in an already congested city
- Eliminate existing parking spaces
- Cause public safety hazards
- Fail to comprehensively solve the flooding problem for the whole of Hoboken
- Increase flooding risk for previously unflooded parts of Hoboken

**SOS**

**FIGHT THE WALL**

email comments to: [rbd-hudsonriver@dep.nj.gov](mailto:rbd-hudsonriver@dep.nj.gov)  
register for email updates at: <http://www.nj.gov/dep/floodhazard/rbd-hudsonriver.htm>

**SAVE OUR STREETS!**

Many more serious issues have not been addressed as the city aggressively moves to fast track these plans.

**MAKE YOUR VOICE**

JOIN CONCERNED CITIZENS OF HOBOKEN  
OPEN MEETING SPONSORED BY THE CITY  
ADDRESS YOUR CONCERNS

**MONDAY, DECEMBER 10**

HOBOKEN HISTORICAL SOCIETY  
1301 HUDSON STREET

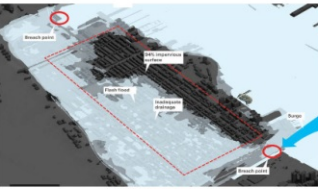
IF YOU CANNOT MAKE THIS MEETING  
THE NEXT PUBLIC MEETING IN HOBOKEN  
WILL BE HELD ON  
DECEMBER 17TH 6:00-8:30  
221 JACKSON STREET  
HOBOKEN HOUSING AUTHORITY

change.org

Petitioning Director, Office of Flood Hazard Risk Reduction Measures David Rosenblatt and 6 others

## SAY NO TO OPTION A: Stop Hoboken from Building a Wall that Doesn't Protect All Residents

Concerned Residents of Hoboken, NJ



Sign this petition

744 supporters

256 needed to reach 1000

Tracy Gavant signed this petition

First name

Last name

Email

United States

Street address

Zip code

In an effort to protect Hoboken from a repeat of the devastation of Hurricane Sandy and from rising sea levels, the city won a \$230 million federal grant in the Rebuild by Design competition. The mayor now wants to spend that money on **A WALL ON GARDEN STREET** from Weehawken Cove as far as 12th Street.

## SAVE OUR STREETS

SOS is a grass-roots organization that has literally sprouted up in the past week in response to the first public meeting on Dec. 10th that made the five concepts part of the "Rebuild by Design" made openly and available to the public.

The group emerged rapidly, organically and specifically in response to Concept A, which aims to install, permanent, 4 foot - 8 foot walls throughout residential neighborhoods in the northeast neighborhoods of town.

**WHAT?** We support **NO WALLS** throughout any streets or neighborhoods of Hoboken.

**WHY?**

- Fail to comprehensively solve the flooding problem for the whole of Hoboken.
- Causes further congestion in an already congested city.
- Eliminates existing valuable parking spaces.
- Causes public safety hazards.

**PUBLIC COMMENTS ARE OPEN ONLY THROUGH DECEMBER 31ST**

**PLEASE TAKE ACTION TODAY!**

**CAN YOU DO?**

Ask questions  
Be informed  
Join our group: <https://www.facebook.com/SOSHOBOKEN>  
Sign the petition: <https://www.change.org/p/new-jersey-dep-mayor-dawn-zimmer-say-no-to-option-a-stop-hoboken-from-building-a-wall-that-doesn-t-protect-all-residents>  
Say NO to the Wall. Public comments are due by Dec. 31st:

**Email Comments to:** [rbd-hudsonriver@dep.nj.gov](mailto:rbd-hudsonriver@dep.nj.gov)  
**Or Write to:**  
David Rosenblatt  
Director, Office of Flood Hazard Risk Reduction Measures  
401 East State Street  
Mail code: 501-01A  
PO Box 420  
Trenton, NJ 08625-0420

As a community, we need to work together. We commend the city for its effort to develop a comprehensive strategy against flash floods and storm surge - But CONCEPT A is not it!



# Opposition to All Options

4 NEW YORK Home News Weather Investigations Entertainment ... WATCH LIVE TV

Local Top Video U.S. & World Decision 2016 Health Weird Weather Tech Sports

## Hoboken Residents Lash Out Against Plans to Build Anti-Flooding Walls

By Ray Villeda

f t+ e



Residents in Hoboken are lashing out against the state's proposals to build a seawall that could obstruct the prized waterfront view of Manhattan. News 4's Ray Villeda reports. (Published Monday, Dec. 14, 2015)

Residents in Hoboken are lashing out against the state's proposals to build a seawall that could obstruct the prized waterfront view of Manhattan.

At the first of three public meetings being held on the proposal, hundreds of people

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## Residents 'flood' city with criticism over seawalls

Mayor says she won't support any plan that blocks waterfront access

by Steven Rodas  
Reporter Staff Writer

Dec 20, 2015 | 6040 views | 0 | 53 | e |

### SEAWALL



view slideshow (2 images)

Mike Baldassari's family has been in Hoboken for over 100 years. While speaking with his mother, Claire, about the possibility of the city erecting anti-flooding seawalls that might block views of the Manhattan skyline, she told him about being barred from the waterfront as a child because of the warehouses along the harbor.

"You guys have access to an incredible waterfront; you have to make sure you keep it," she said to him.


Scores of residents have recently criticized the proposed flood walls, part of proposals made public at a public meeting two weeks ago. Hundreds of residents attended a meeting Dec. 10 to discuss five potential concepts for the \$230 million federal "Rebuild by Design Hudson River: Resist, Delay, Store, Discharge" project for Hoboken, Weehawken, and Jersey City.

The federally funded project, spurred in the wake of Hurricane Sandy, aims at protecting the city from flooding caused by heavy rainfall and future storm surges.

**"My neighbors and I are all for protecting Hoboken, just not at the expense of increasing day-to-day risk of current residents." – Sean Kron.**

## Plan to Flood-Proof Hoboken Runs Into a Wall

By PATRICK MCGEEHAN FEB. 7, 2016



ction of a water pump in Hoboken, N.J., as part of storm defenses. Bryan Anselm for The New York Times

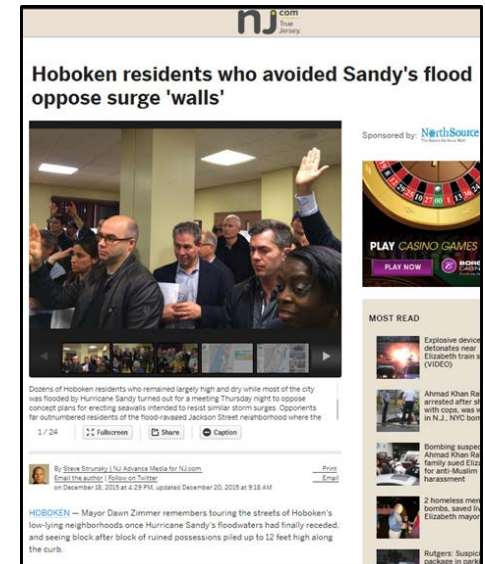
HOBOKEN, N.J. — Every time a powerful nor'easter or tropical storm threatens New York, residents of this small city on the New Jersey bank of the Hudson River start having flashbacks to the devastating inundation they endured when [Hurricane Sandy](#) hit in 2012.

Hundreds of millions of gallons of water poured in from the river and left most of Hoboken underwater and many of its residents without power for a



# How to build consensus

- Recognized everyone comes to the conversation from a different place.
- Engaged in real community process.
- Expanded communications and outreach.
- Emphasized design process.





# “Resist” Alignment

5 Concepts →

**3 Alternatives** →

1 Preferred Alternative

New alignments reflected feedback and ideas from community.

## Resist

Alternative 1

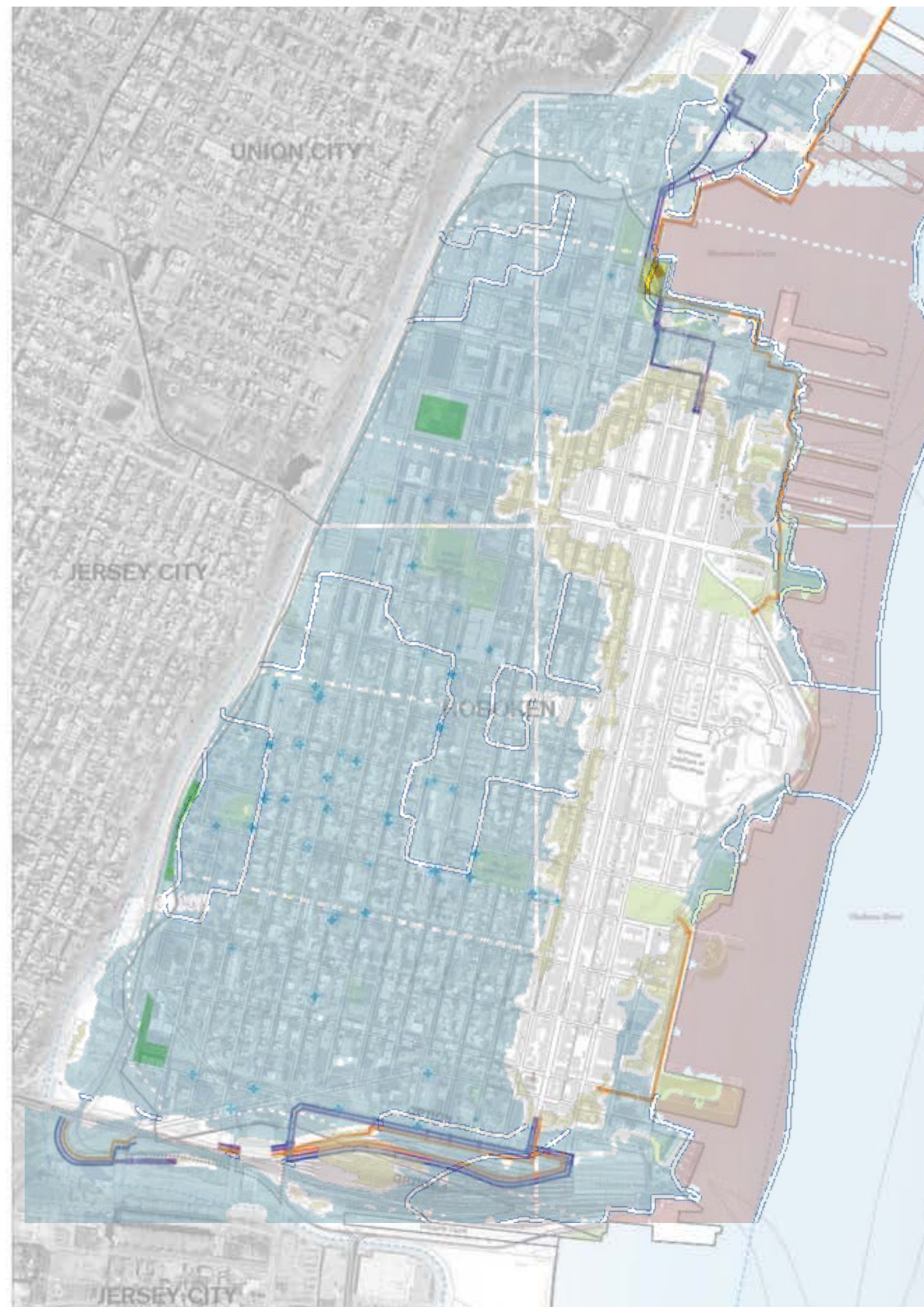
Alternative 2

Alternative 3

## Delay, Store, Discharge

Large Sites

Public Right of Way Sites





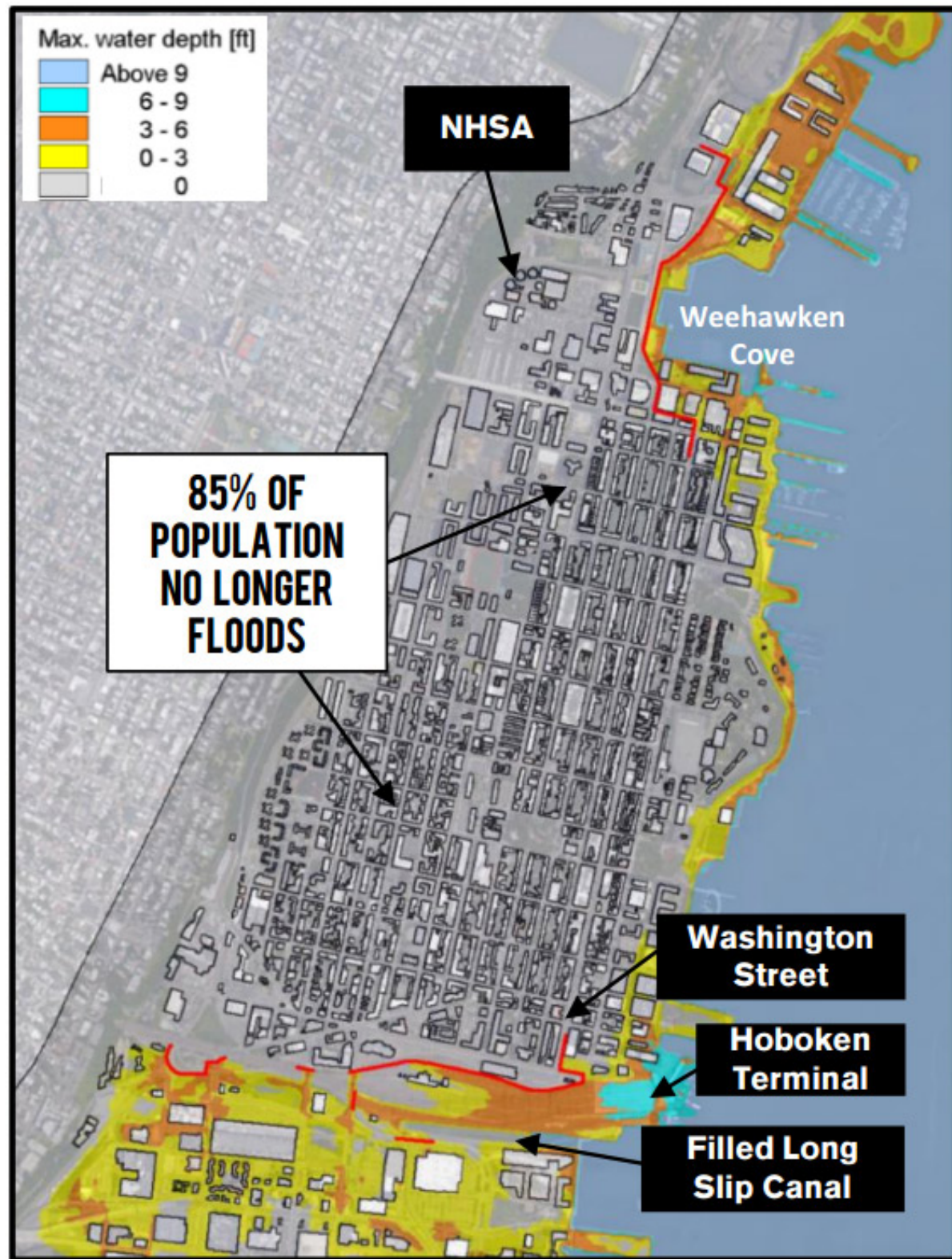
# No Action Alternative





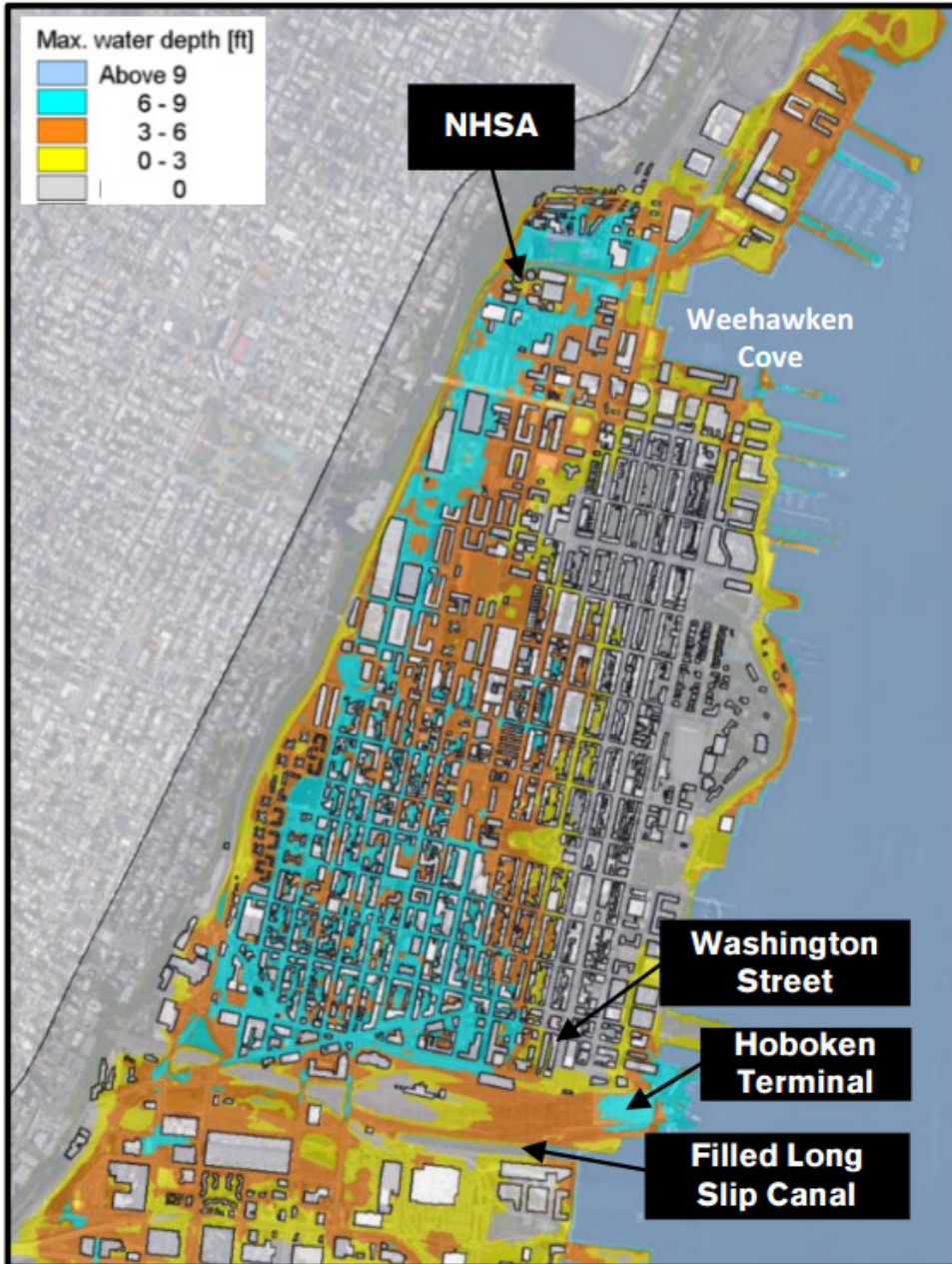
**“Resist” Alignment**  
5 Concepts →  
3 Alternatives →  
**1 Preferred**  
**Alternative (Alt 3)**

**With**  
**Alternative 3**

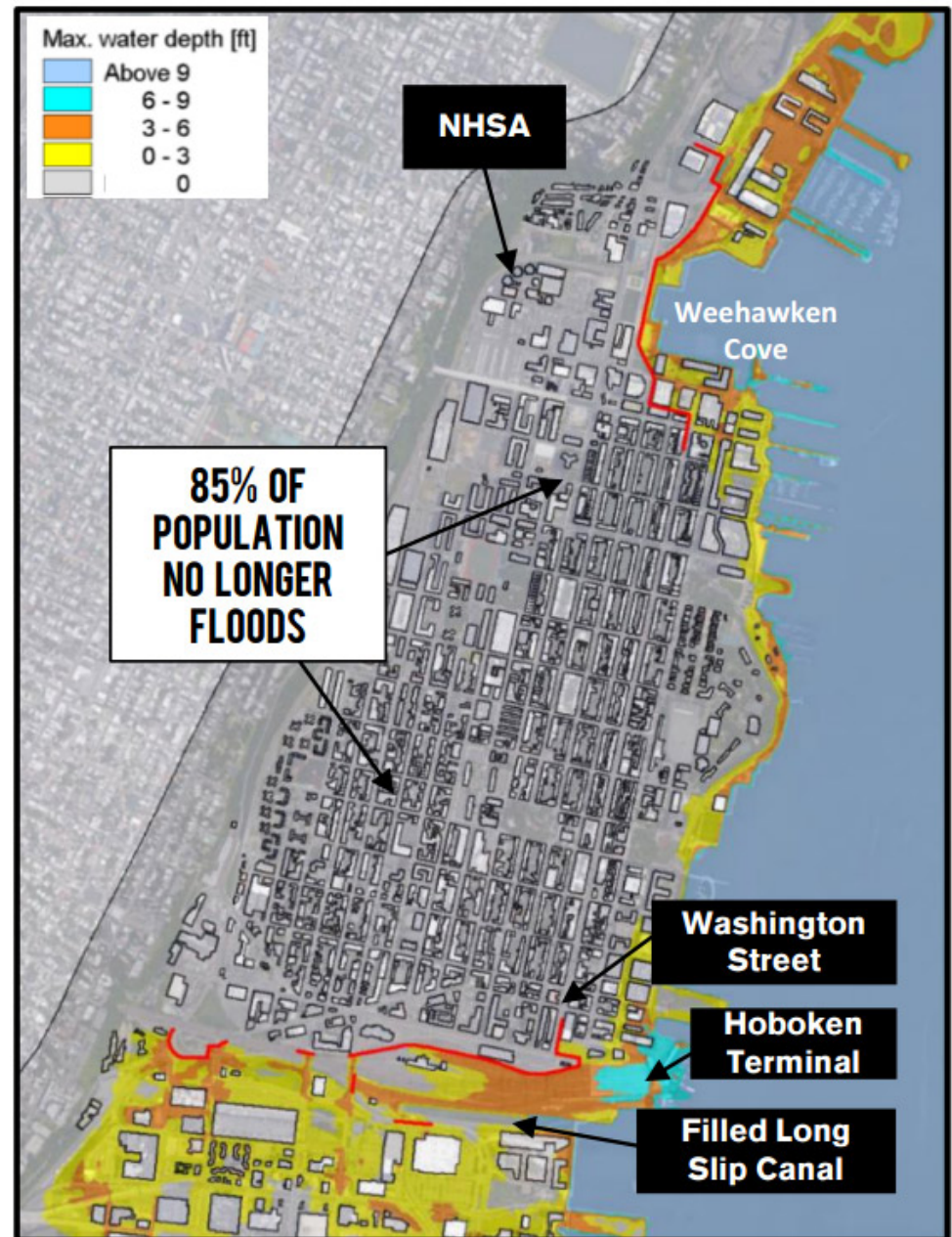




**NAA**



**ALT-3**





# Key to Success

1. Design really matters. Project must complement and add to urban landscape.
2. Need true collaboration & to listen to feedback
3. Extensive communications is critical
4. Solid engineering



# Next steps

- Promote preferred alternative
- Environmental Impact Statement hearing
- Continue involving community in design process next 18-24 months.
- Work towards comprehensive plan – provide information, workshops, possible grant program to protect 52 unprotected properties.
- Determine operations and maintenance plan and agreement.



# **Rebuild by Design**

Preferred Alternative Flyover

