



# RESILIENT NORTHEASTERN NJ

## SCENARIO DEVELOPMENT NEWARK - DOWNTOWN & UPPER PASSAIC



WAVE 3 MEETING IN A BOX  
SPRING 2022

### PLEASE NOTE:

All content is working DRAFT for planning and discussion purposes only  
This document can be used either for individual review or to help guide a meeting

# NOTES TO THE FACILITATOR

**HIDE THIS SLIDE WHEN PRESENTING BY RIGHT CLICKING ON THE SLIDE IN THE PANEL AND SELECTING “HIDE SLIDE” (or delete it)**

- First, thank you so much for helping to ensure there is widespread public involvement in this important project!
- We recommend that one person presents this slide deck, while another takes notes either directly in the form accessible through the QR code to the right or separately such that it can be later logged as feedback via the QR code to the right.
- This deck is intended to help support and guide conversations to obtain the input needed at this phase of the project, but it is not intended to be prescriptive. All content is working DRAFT for planning and discussion purposes only.
- It can be helpful at the beginning of meetings with people new to you to set ground rules to help guide the meeting. Example possible ground rules include: Participate fully, give everyone the chance to speak, seek first to understand then be understood, respect the group’s time.
- Please share your thoughts about what worked and didn’t work about the information provided herein, and how our next rounds of materials can be even better in the feedback form.



**PLEASE  
LOG  
FEEDBACK  
FROM THE  
MEETING  
[HERE](#)**



# Community Meeting Guidelines

**TO ENSURE THAT WE ARE ABLE TO MAXIMIZE OUR TIME TOGETHER AS A GROUP**

- **Please remain on mute unless speaking**
- **During the main presentation:**
  - Please submit questions in the chat
  - Please turn off video to allow for ASL accessibility
- **During the breakouts:**
  - If you are able and willing to, please consider turning on your camera
  - Use one mic and stack
  - Acknowledge everyone's voice and time. If you find yourself speaking frequently, consider opening the floor to your group members. We look forward to hearing what everyone has to say!
  - Please speak from your own experience
  - If there are several group members with things to share, please use the 'raise hand' function, the chat, or gesticulating in Zoom and a facilitator will call on you
- **Please save discussion for the breakouts and report out**



**Join the conversation!**

**Please use the chat function to ask questions as we go!**

**If the meeting abruptly ends, please be patient and re-join using the same Zoom link. You will also receive an email with the meeting link.**

# TOPICS

- **What's important and at risk in this neighborhood?**
- **For each solution scenario:**
  - **Possible actions**
  - **How the area might change**
  - **Key considerations**
  - **What do you think?**
- **Discussion**
  - **Of everything we discuss, what is most important to advance?**
  - **What do you want to not happen?**



***“We have tools and ideas, like a carpenter, but this is your house”***

***For this regional level plan, we have broken the community down into geographic areas. This means that there is nuance and community boundaries that might not always be honored. Let us know when we don't get it right.***

All content working DRAFT for planning and discussion purposes

# AREA CONTEXT

- Economic and transportation hub
- Arts, cultural, and academic centers
- Treasured neighborhood parks

## Land Use

### Residential

- High Density
- Medium to Low Density (Single Unit)

### Commercial & Industry

- Commercial/Services
- Cultural Attractions
- Industrial & Commercial Complexes
- Industrial
- Transportation, Services & Utilities
- Other Urban/Built-Up Land

### Natural & Open Space

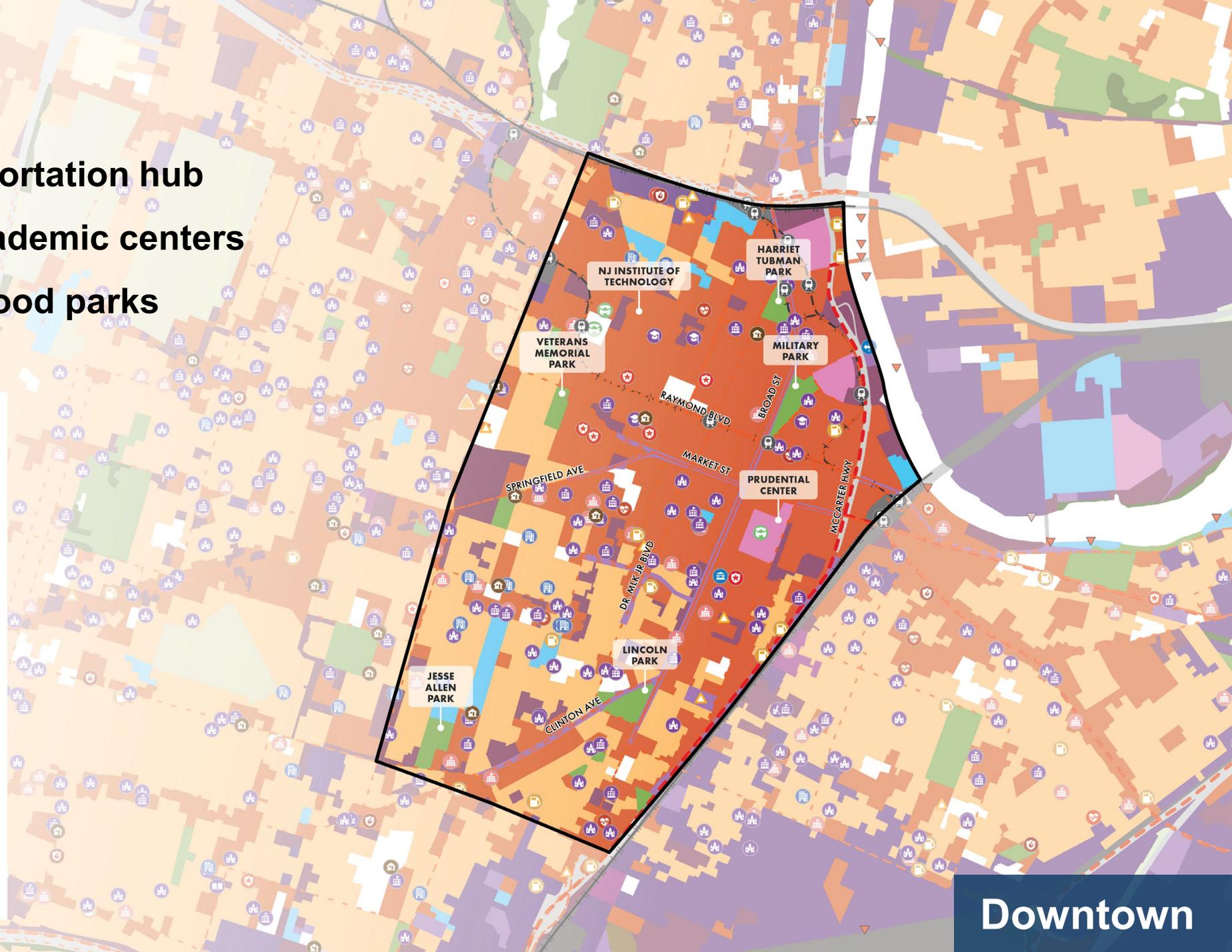
- Mixed Forests
- Coniferous Forests
- Deciduous Forests
- Wetlands/Marshes
- Agriculture
- Recreational Land
- Open Field (< 25% Covered)
- Cemetery
- Phragmites Dominate Areas
- Beaches

### Other

- Barren Lands
- Altered Lands
- Military Installations
- Transitional Areas

## Asset\_Type

- Hurricane Evacuation Route
- Bus Routes
- Light Rail/Commuter Rail
- Child Care Centers
- Colleges
- Combined Sewer Outfall
- EMS
- Ferry Terminal
- Fire Stations
- Gas Stations
- Hospitals/Medical Centers
- Landfill
- Library
- Major Sports Venue
- Municipal Building
- Nursing Homes
- Other Surface Discharge
- Places of Worship
- Police Stations
- Power Generation
- Public Housing
- Rail Stations
- Schools
- Senior Housing
- Shelters
- Stormwater Discharge
- Substations
- Wastewater Treatment



Downtown

# AREA CONTEXT

- Industrial border to the Passaic River
- Proximity to Branch Brook Park
- Preserved historic homes

## Land Use

### Residential

- High Density
- Medium to Low Density (Single Unit)

### Commercial & Industry

- Commercial/Services
- Cultural Attractions
- Industrial & Commercial Complexes
- Industrial
- Transportation, Services & Utilities
- Other Urban/Built-Up Land

### Natural & Open Space

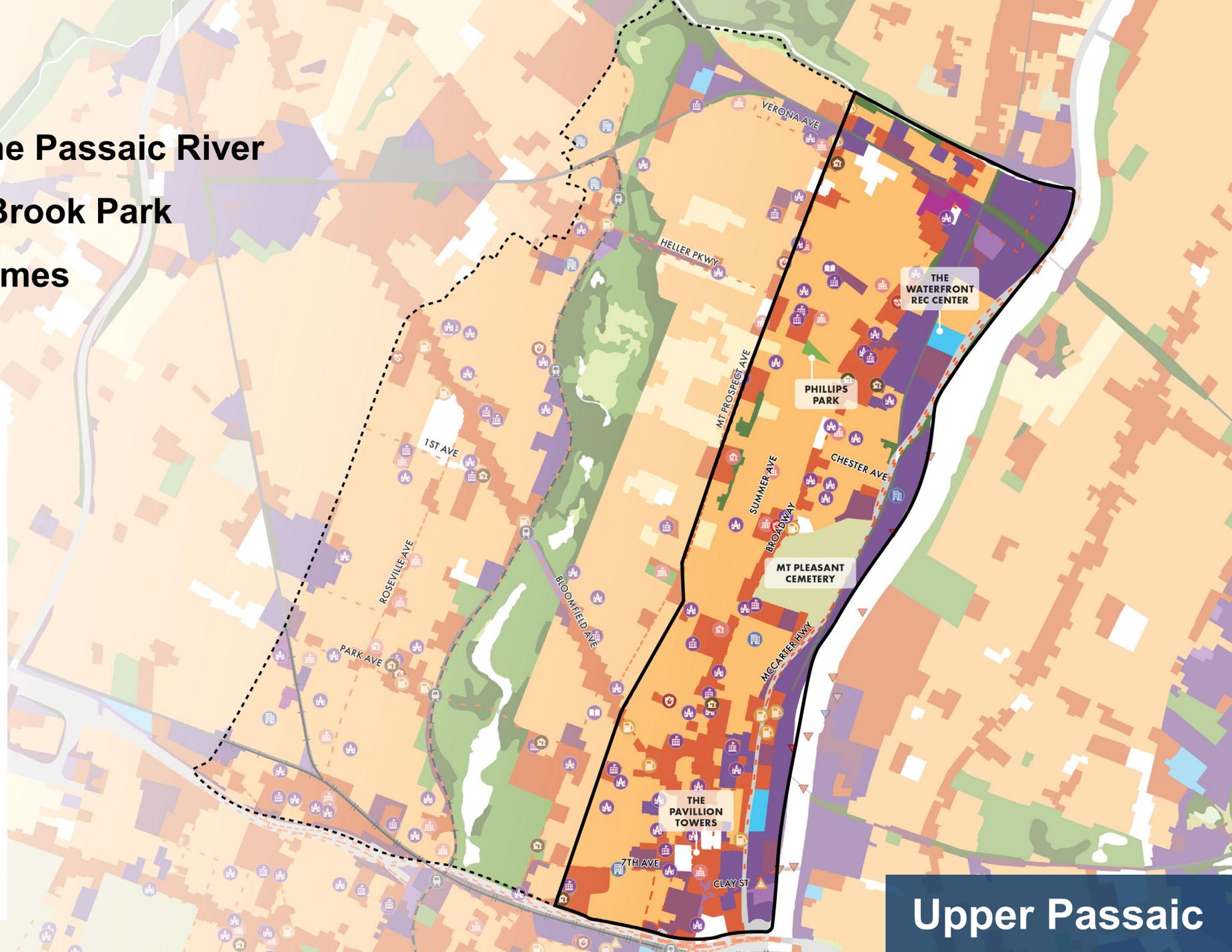
- Mixed Forests
- Coniferous Forests
- Deciduous Forests
- Wetlands/Marshes
- Agriculture
- Recreational Land
- Open Field (< 25% Covered)
- Cemetery
- Phragmites Dominate Areas
- Beaches

### Other

- Barren Lands
- Altered Lands
- Military Installations
- Transitional Areas

## Asset\_Type

- Hurricane Evacuation Route
- Bus Routes
- Light Rail/Commuter Rail
- Child Care Centers
- Colleges
- Combined Sewer Outfall
- EMS
- Ferry Terminal
- Fire Stations
- Gas Stations
- Hospitals/Medical Centers
- Landfill
- Library
- Major Sports Venue
- Municipal Building
- Nursing Homes
- Other Surface Discharge
- Places of Worship
- Police Stations
- Power Generation
- Public Housing
- Rail Stations
- Schools
- Senior Housing
- Shelters
- Stormwater Discharge
- Substations
- Wastewater Treatment



Upper Passaic

# RISK CONTEXT

Rainfall flooding can impact large swaths of this area. Riverine and tidal flooding may have limited impact.

## 24 HOUR, 100 YEAR STORM

2070 MODEL (HIGH TIDE + SLR + 10% RAINFALL INCREASE)

## STORM SURGE

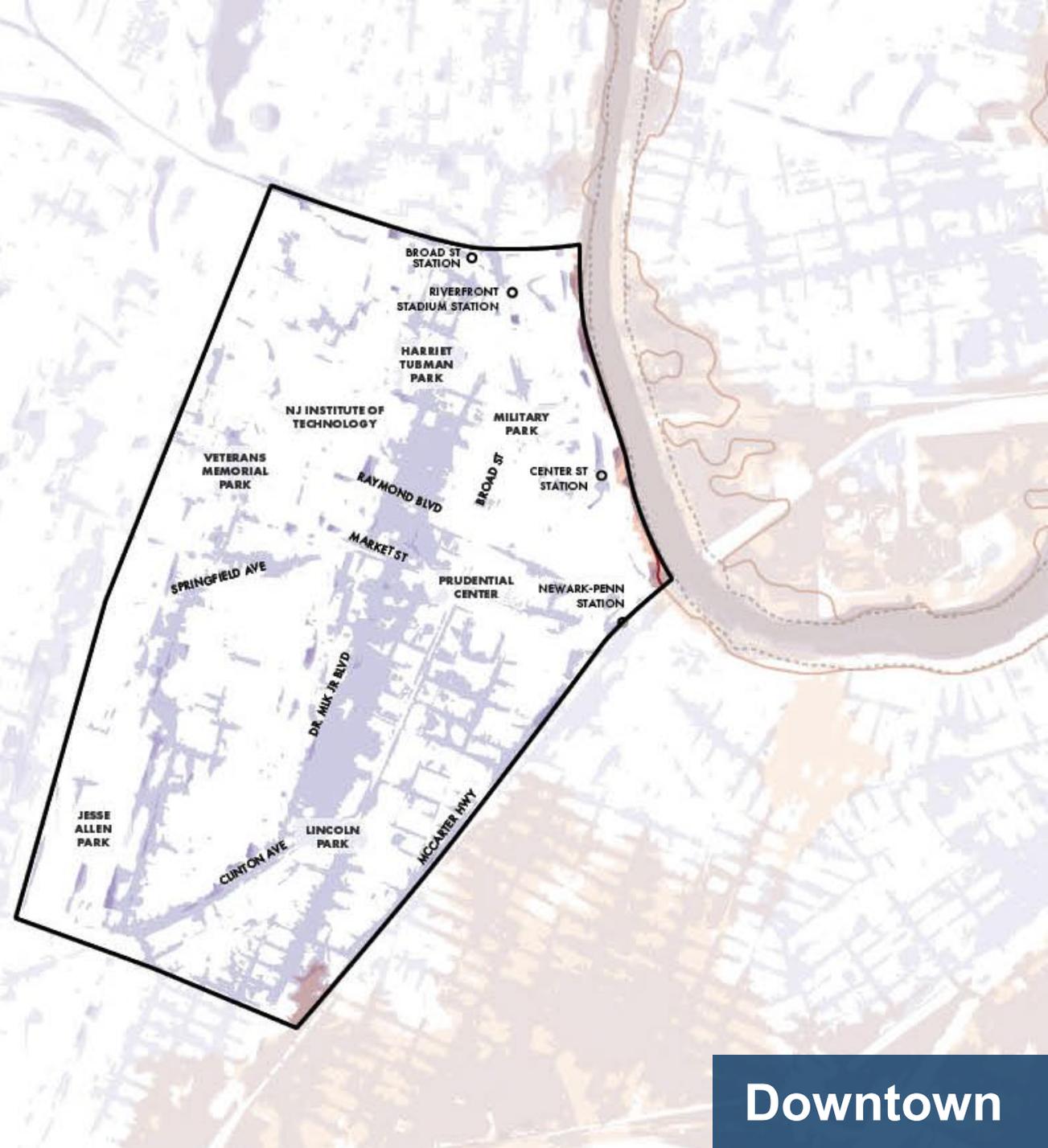
2070 EXTENT (HURRICANE SANDY + SEA LEVEL RISE)

AREAS OF OVERLAP

## SEA LEVEL RISE

2070 MHHW + 2.4' SLR

2070 MHHW + 5.0' SLR



# RISK CONTEXT

Rainfall flooding can impact large swaths of this area. Riverine and tidal flooding may have limited impact.

## 24 HOUR, 100 YEAR STORM

2070 MODEL (HIGH TIDE + SLR + 10% RAINFALL INCREASE)

## STORM SURGE

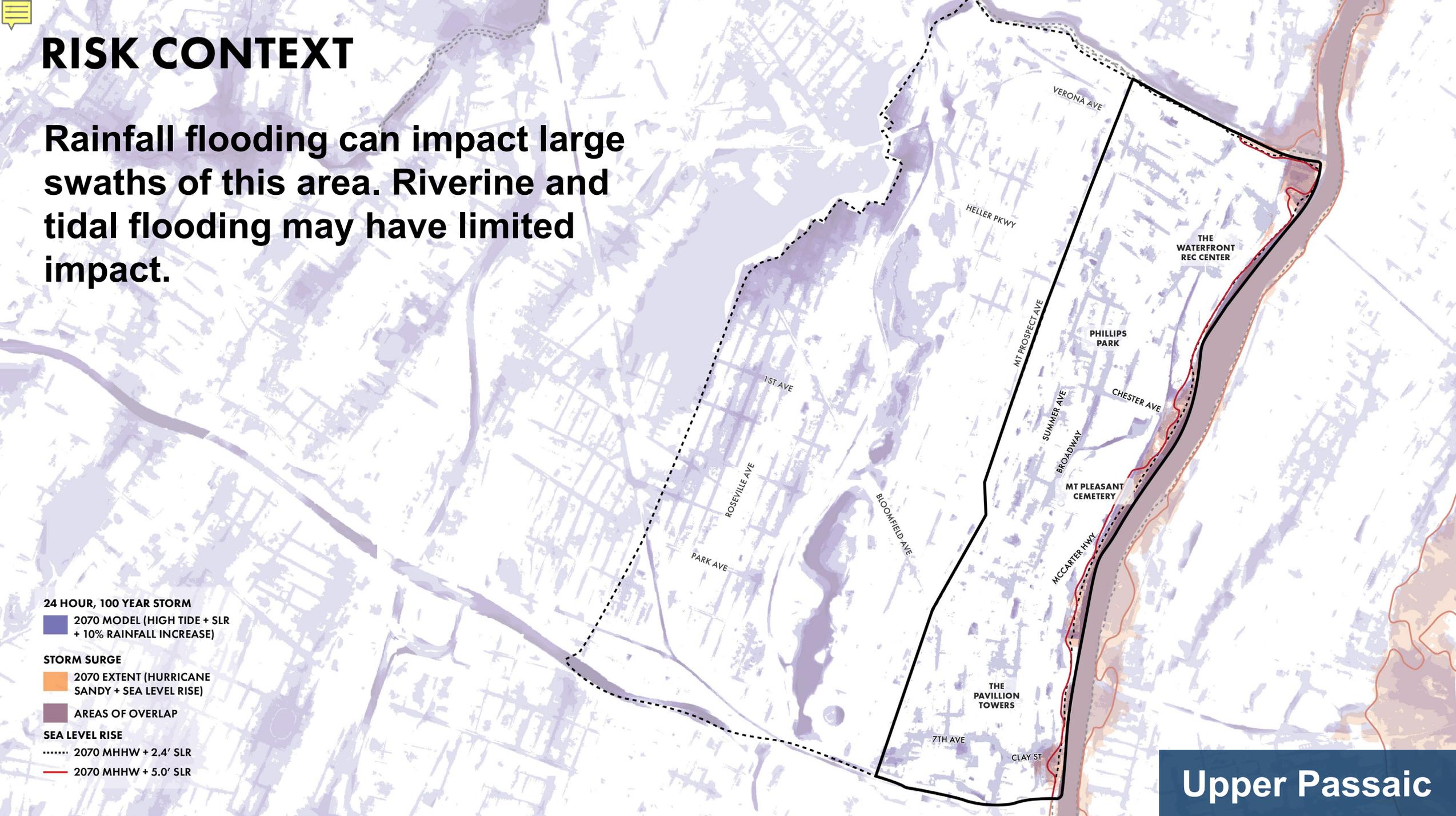
2070 EXTENT (HURRICANE SANDY + SEA LEVEL RISE)

AREAS OF OVERLAP

## SEA LEVEL RISE

..... 2070 MHHW + 2.4' SLR

— 2070 MHHW + 5.0' SLR

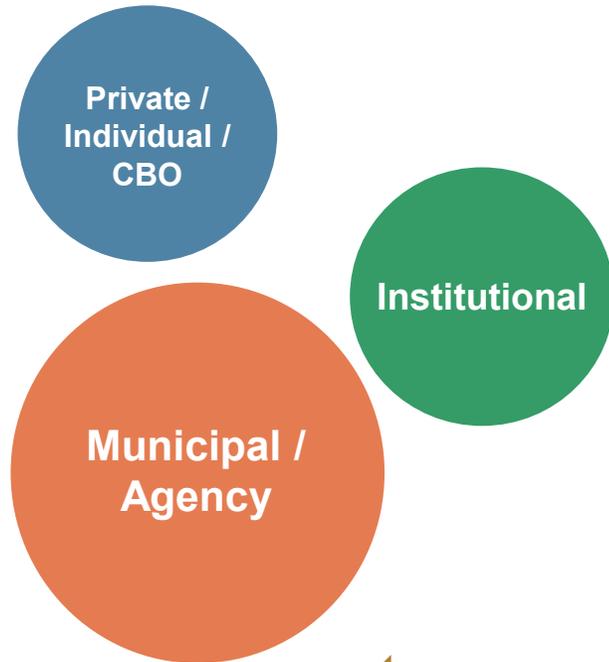


# SCENARIOS

*The scenarios are not alternatives.  
The action plan could be a combination  
of actions from the different scenarios.*

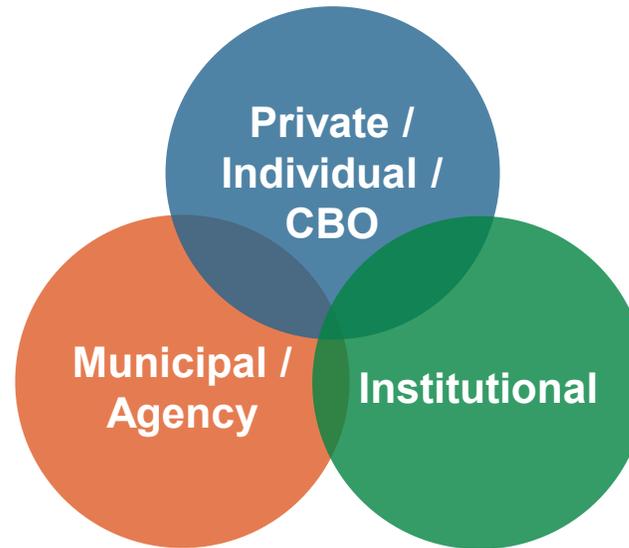
## Scenario 1

Individual  
Initiative



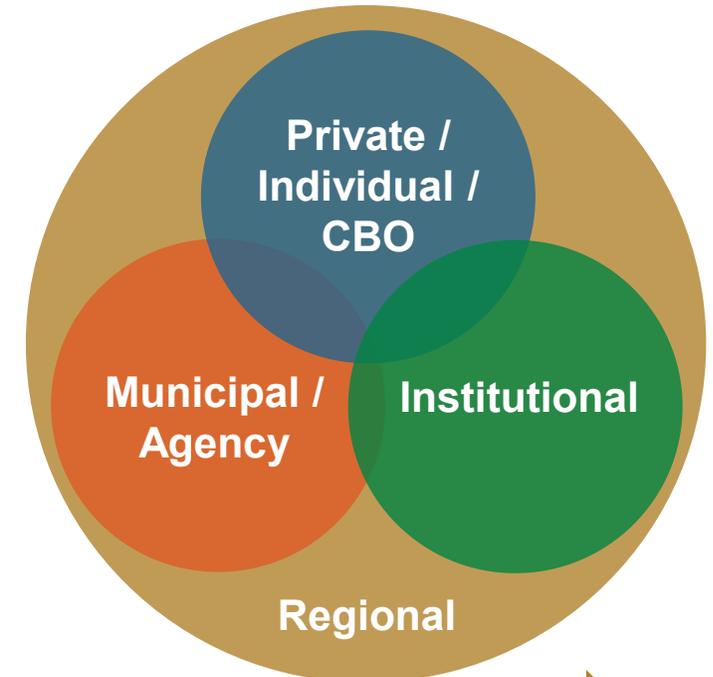
## Scenario 2

Shared  
Responsibility



## Scenario 3

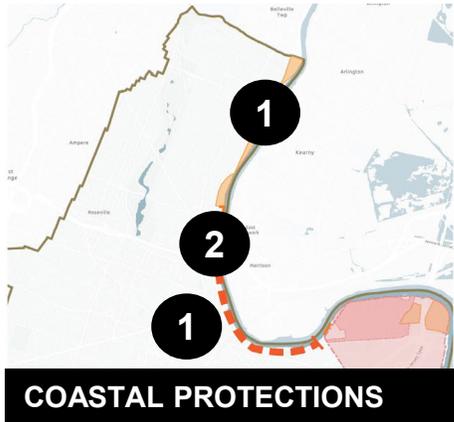
Regional  
Coordination



**CBO's are  
community-based  
organizations**

← **ENGAGEMENT WITH RESIDENTS AND OTHER STAKEHOLDERS ACROSS ALL** →

# KEY CHANGES, SCENARIO 1 – INDIVIDUAL INITIATIVE



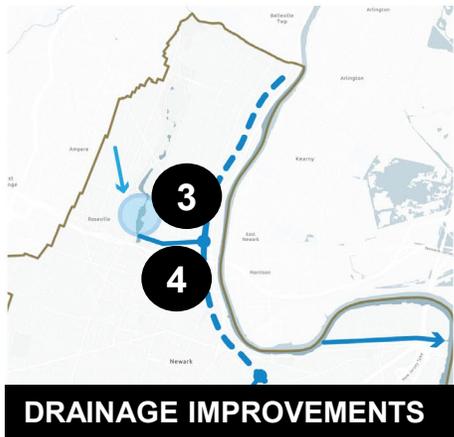
## 1. INDIVIDUAL BUILDING PROTECTIONS

Reading, United Kingdom



## 2. BULKHEAD RAISING

LaPlace, Louisiana

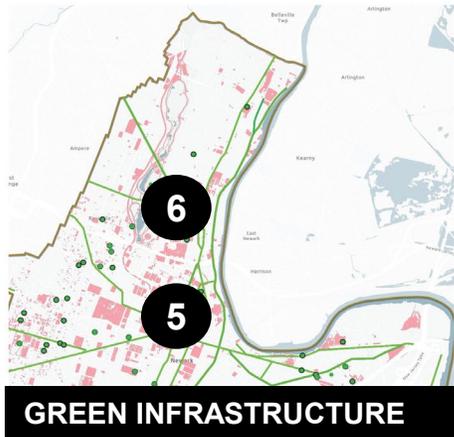


## 3. IMPROVED STORMWATER SURFACE CONVEYANCE

Waterplein Benthemplein  
Rotterdam, Netherlands



## 4. STORMWATER MEDIAN



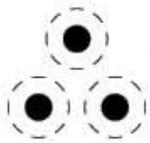
## 5. PERMEABLE PARKING SURFACES

TU Delft  
Netherlands



## 6. R.O.W GREEN INFRASTRUCTURE

Queens, New York City



# SCENARIO 1 INDIVIDUAL INITIATIVE

-  PROJECTS ALREADY PLANNED OR IN PROGRESS
-  COASTAL PROTECTIONS
-  ROW GREEN INFRASTRUCTURE
-  SUGGESTED BLUE AND GREEN ROOFS
-  SUGGESTED PIPED FLOW PATHS
-  SUGGESTED PIPED FLOW PATHS TO DEEP TUNNEL
-  SUGGESTED PIPED FLOW PATHS TO RETENTION SITES
-  SUGGESTED DITCH DRAINAGE FLOW PATHS
-  RESILIENCE HUB
-  REDEVELOPMENT AREAS
-  EXISTING OUTFALLS

## NON-PHYSICAL SOLUTIONS

- 1** ADOPT ORDINANCES TO STATE MODELS & GUIDANCE
- 2** GI PROGRAM FOR CITY PROPERTIES
- 3** GUIDELINES FOR GI ON OPEN SPACE
- 4** TREE CANOPY PROGRAMS
- 5** RESILIENCE HUBS AT CITY PROPERTIES
- 6** MUNICIPAL TRASH CLEANUP & CATCH BASIN PROGRAMS
- 7** PROMOTE & INCORPORATE RESIDENT FLOOD REPORTING
- 8** INTER-DEPARTMENT & MUNICIPAL COORDINATION

All content working DRAFT for planning and discussion purposes

**1** REVIEW & STRENGTHEN RESILIENCE MEASURES OF PLANNED REDEVELOPMENT

IMPROVE DRAINAGE PROVISIONS ALONG THE ESSEX FREEWAY

EXPLORE EXTENSION OF RIVERFRONT PARK BULKHEAD RAISING

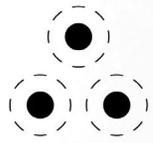
FOCUSED GI ON PRIMARY CORRIDORS IN AREAS OF REPEAT FLOODING

COMPLETED RIVERFRONT PARK BULKHEAD RAISING

LTCP : PARALLEL INTERCEPTOR TO PVSC PLANT

DIRECT IRONBOUND DRAINAGE TO NEW PARALLEL INTERCEPTOR

Downtown



# SCENARIO 1 INDIVIDUAL INITIATIVE

## EXISTING CONDITIONS

◇ PROJECTS ALREADY PLANNED OR IN PROGRESS

▼ EXISTING OUTFALLS

— PROPOSED LTCP INTERCEPTOR

## RESILIENT NJ MEASURES

— COASTAL PROTECTION ALIGNMENTS

— POTENTIAL ALTERNATE COASTAL ALIGNMENTS

— GREEN INFRASTRUCTURE CORRIDORS

→ SUGGESTED FLOW PATHS

● SUGGESTED RETENTION AREAS

▼ NEW STORMWATER OUTFALLS

— PROPOSED GREENWAY CORRIDORS

— AREAS OUTSIDE PROTECTIONS

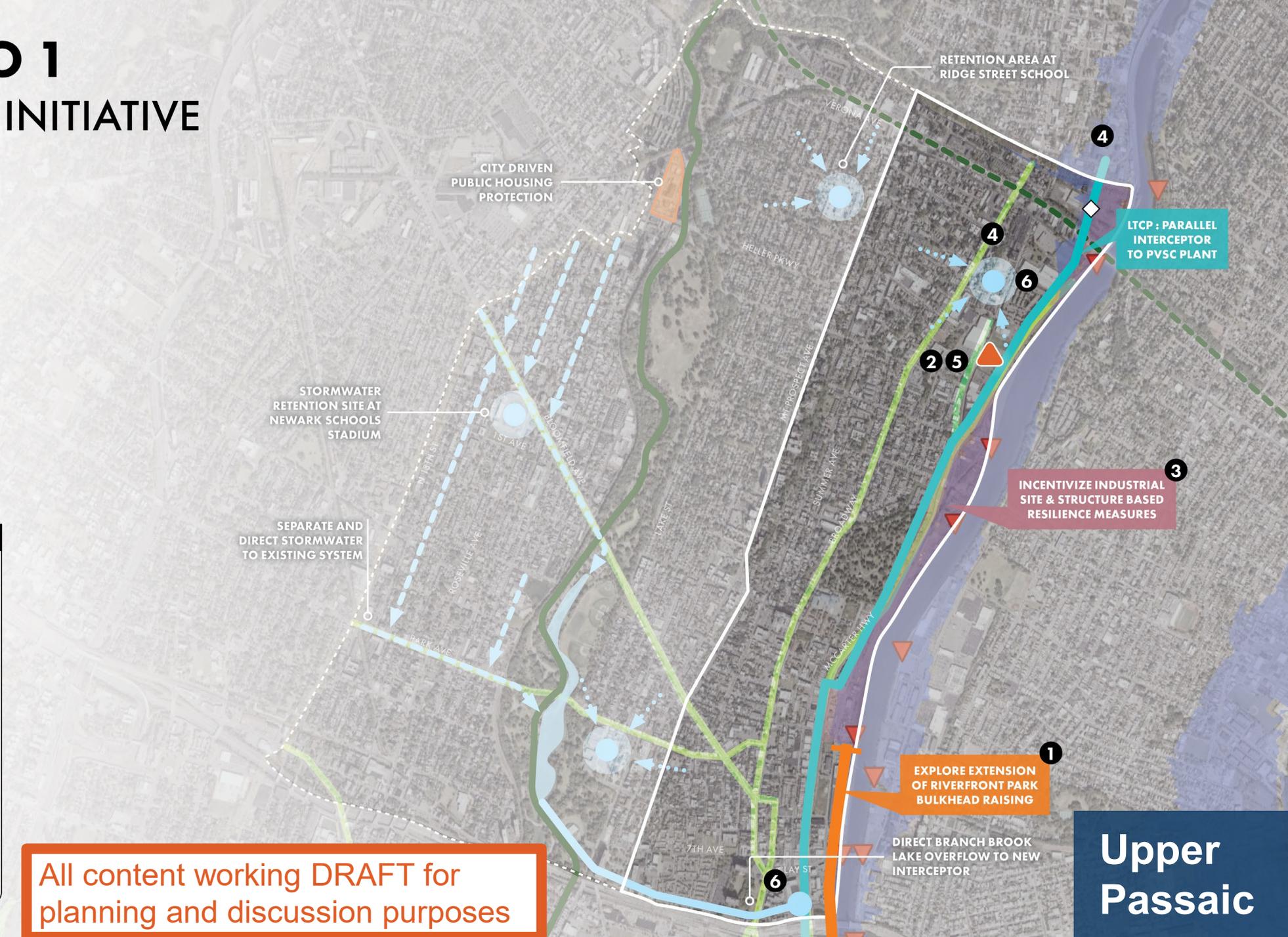
— SITES TO ADAPT

▲ POSSIBLE RESILIENCE HUB LOCATION

## NON-PHYSICAL SOLUTIONS

- 1 ADOPT ORDINANCES TO STATE MODELS & GUIDANCE
- 2 GI PROGRAM FOR CITY PROPERTIES
- 3 GUIDELINES FOR GI ON OPEN SPACE
- 4 TREE CANOPY PROGRAMS
- 5 RESILIENCE HUBS AT CITY PROPERTIES
- 6 MUNICIPAL TRASH CLEANUP & CATCH BASIN PROGRAMS
- 7 PROMOTE & INCORPORATE RESIDENT FLOOD REPORTING
- 8 INTER-DEPARTMENT & MUNICIPAL COORDINATION

All content working DRAFT for planning and discussion purposes





**COASTAL PROTECTIONS**

**OBJECTIVES, SCENARIO 1**

Extend Riverfront Park bulkhead farther north and implement site protection measures for coastal properties.

**KEY CONSIDERATIONS, SCENARIO 1**

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION



**ISSUES TO CONSIDER**

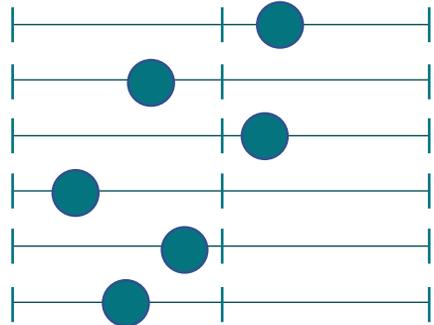
Extending protection within a public park allows for continuous protection **BUT** would have impacts to how the public accesses the waterfront.



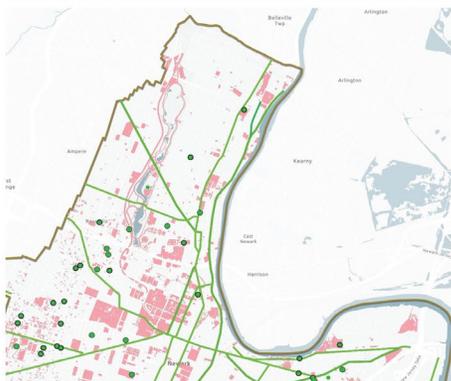
**DRAINAGE IMPROVEMENTS**

Improve drainage capacity and tie into increased interceptor capacity in conjunction with the LTCP.

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION



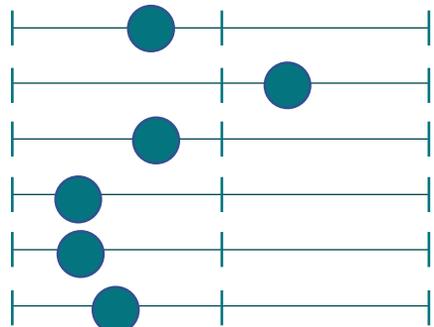
Upgrades to the current system can be phased to facilitate construction and provide immediate benefit **BUT** upgrades to the existing system will not greatly expand the existing sewer capacity and could exceed treatment plant capacity.



**GREEN INFRASTRUCTURE**

Expand green infrastructure installations on public property targeting key primary corridors and lots with significant impervious area.

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION



Green infrastructure projects can treat stormwater at the source and add other benefits to the city **BUT** will compete with other needs in the public right of way and is limited in treating large storm events.

# NON-PHYSICAL SOLUTIONS, SCENARIO 1



**COASTAL PROTECTIONS**



**DRAINAGE IMPROVEMENTS**

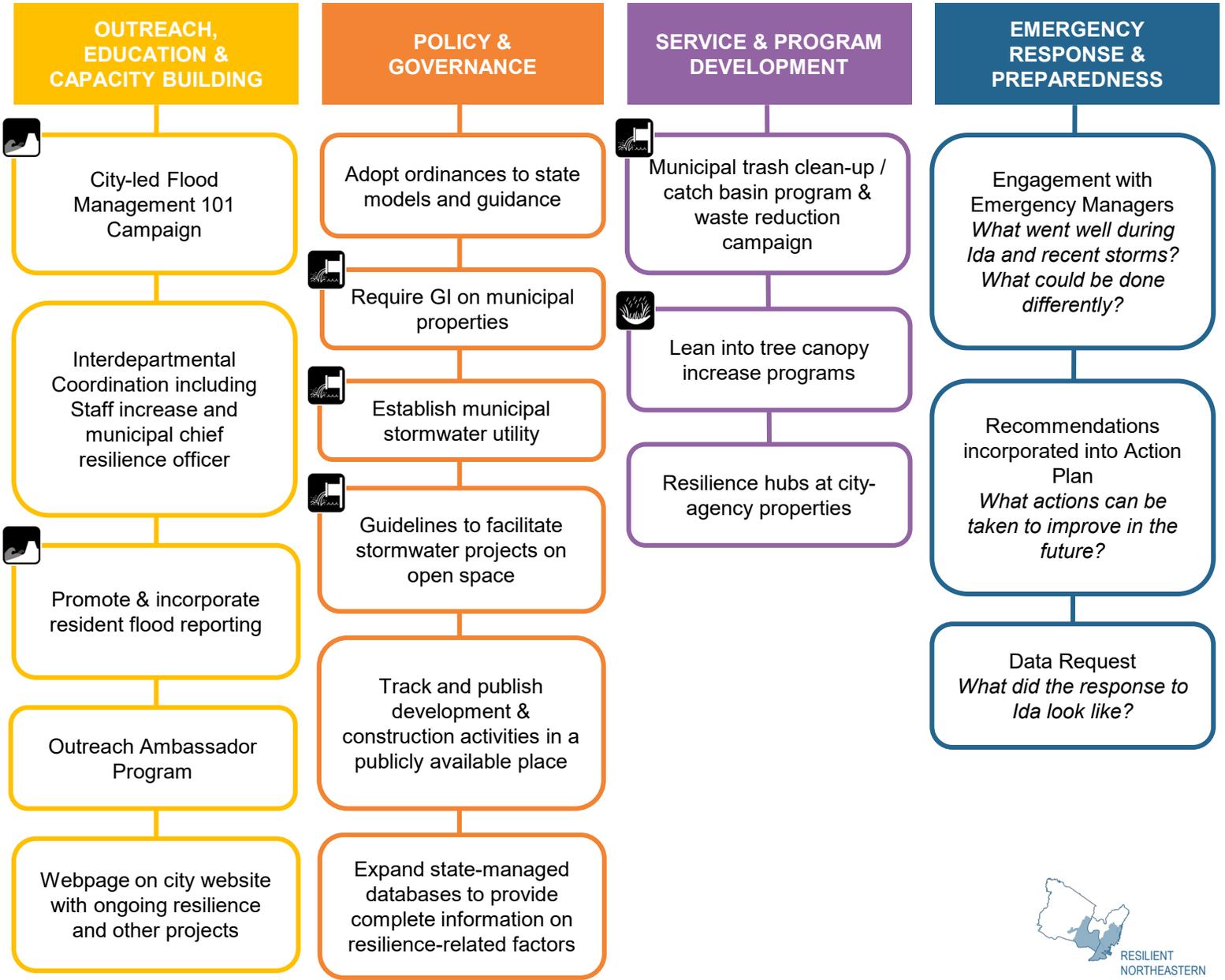


**GREEN INFRASTRUCTURE**

Policy based coastal measures are needed for areas outside of protections & for areas integrated with inland alignments.

Policy based measures like trash clean-up & catch basin programs help with drainage efficiency while larger measures like a Municipal Stormwater utility increase resilience equity.

Measures like tree programs and Green Infrastructure requirements on public open-space are essential to meeting resilience goals in Scenario 1.

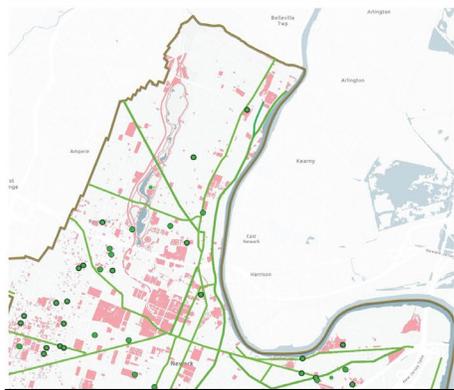




**COASTAL PROTECTIONS**



**DRAINAGE IMPROVEMENTS**



**GREEN INFRASTRUCTURE**

**QUESTIONS TO CONSIDER**

- Which streets or city properties do you want to see transformed?
- What Greening projects would appeal to you most?
- Where would you like to see Resilience Hubs?



**PLEASE  
LOG  
FEEDBACK  
FROM THE  
MEETING  
[HERE](#)**

**WHAT DO YOU LIKE ABOUT SCENARIO 1?**

Empty dashed box for feedback on Scenario 1.

Empty dashed box for feedback on Scenario 1.

Empty dashed box for feedback on Scenario 1.

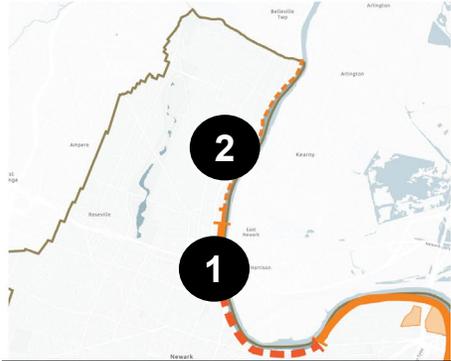
**WHAT DO YOU DISLIKE ABOUT SCENARIO 1?**

Empty dashed box for feedback on Scenario 1.

Empty dashed box for feedback on Scenario 1.

Empty dashed box for feedback on Scenario 1.

## KEY CHANGES, SCENARIO 2 – SHARED RESPONSIBILITY



**COASTAL PROTECTIONS**



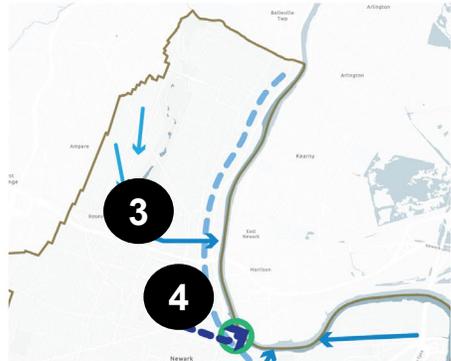
### 1. RIVERWALK WITH COASTAL PROTECTIONS

Newark Riverfront Park



### 2. FLOODWALL ALONG ROADWAY

Fargo, North Dakota



**DRAINAGE IMPROVEMENTS**



### 3. STORMWATER DETENTION



### 4. DEEP TUNNEL STORMWATER CONVEYANCE & STORAGE

DigIndy  
Indianapolis, Indiana



**GREEN INFRASTRUCTURE**



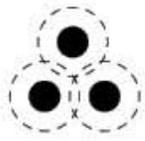
### 5. GREEN INFRASTRUCTURE ON PRIVATELY OWNED SPACES

First Avenue Water Plaza  
Manhattan, New York City



### 6. BLUE & GREEN ROOFS

Osbourne Association  
South Bronx, New York City

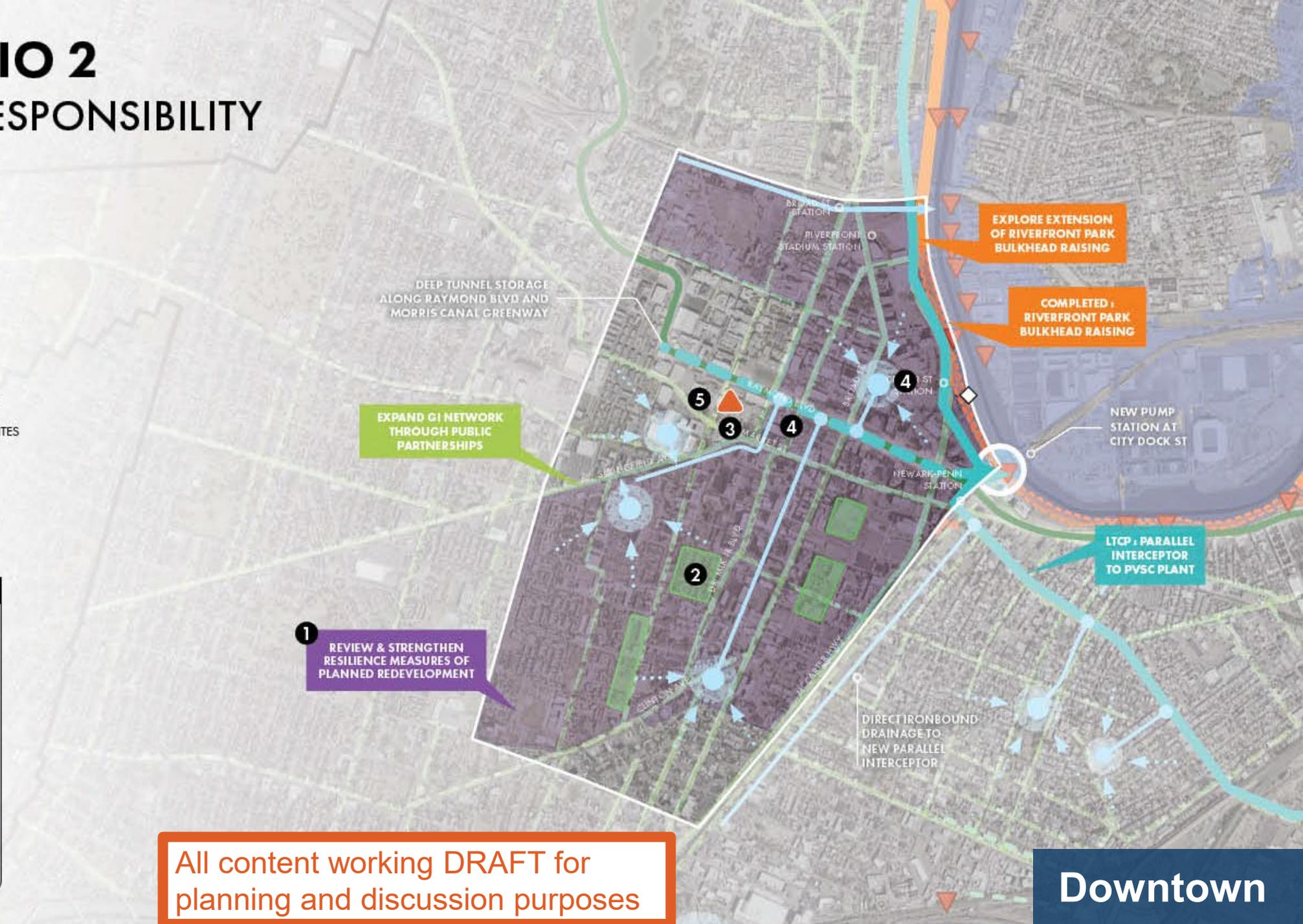


# SCENARIO 2

## SHARED RESPONSIBILITY

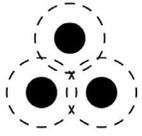
-  PROJECTS ALREADY PLANNED OR IN PROGRESS
-  COASTAL PROTECTIONS
-  ROW GREEN INFRASTRUCTURE
-  SUGGESTED BLUE AND GREEN ROOFS
-  SUGGESTED PIPED FLOW PATHS
-  SUGGESTED PIPED FLOW PATHS TO DEEP TUNNEL
-  SUGGESTED PIPED FLOW PATHS TO RETENTION SITES
-  SUGGESTED DITCH DRAINAGE FLOW PATHS
-  RESILIENCE HUB
-  REDEVELOPMENT AREAS
-  EXISTING OUTFALLS

- NON-PHYSICAL SOLUTIONS**
- 1** INCORPORATE RESILIENCE INTO REDEVELOPMENT PLANS
  - 2** INCENTIVIZE GI ON PRIVATE PROPERTIES
  - 3** RESILIENCE LEADER OUTREACH AND TRAINING PROGRAM
  - 4** TRASH CLEAN-UP DAYS AND COMMUNITY GARDENS THROUGH PARTNERSHIPS
  - 5** RAIN BARREL DISTRIBUTION & GUIDE FOR INSTALLATION



All content working DRAFT for planning and discussion purposes

**Downtown**



# SCENARIO 2

## SHARED RESPONSIBILITY

### EXISTING CONDITIONS

◇ PROJECTS ALREADY PLANNED OR IN PROGRESS

▼ EXISTING OUTFALLS

▬ PROPOSED LTCP INTERCEPTOR

### RESILIENT NJ MEASURES

▬ COASTAL PROTECTION ALIGNMENTS

▬ POTENTIAL ALTERNATE COASTAL ALIGNMENTS

▬ GREEN INFRASTRUCTURE CORRIDORS

▬ SUGGESTED FLOW PATHS

● SUGGESTED RETENTION AREAS

▼ NEW STORMWATER OUTFALLS

▬ PROPOSED GREENWAY CORRIDORS

▬ AREAS OUTSIDE PROTECTIONS

▬ SITES TO ADAPT

▲ POSSIBLE RESILIENCE HUB LOCATION

### NON-PHYSICAL SOLUTIONS

- 1 INCORPORATE RESILIENCE INTO REDEVELOPMENT PLANS
- 2 INCENTIVIZE GI ON PRIVATE PROPERTIES
- 3 RESILIENCE LEADER OUTREACH AND TRAINING PROGRAM
- 4 TRASH CLEAN-UP DAYS AND COMMUNITY GARDENS THROUGH PARTNERSHIPS
- 5 RAIN BARREL DISTRIBUTION & GUIDE FOR INSTALLATION

All content working DRAFT for planning and discussion purposes

SEPARATE AND DIRECT STORMWATER TO EXISTING SYSTEM

INCREASE STORAGE CAPACITY OF BRANCH BROOK LAKE IN COORDINATION WITH COUNTY

INTEGRATE IMPROVED DRAINAGE ALONG GREENWAY CORRIDORS

LTCP : PARALLEL INTERCEPTOR TO PVSC PLANT

ALT : EXPLORE EXTENSION OF BARRIER TO SECOND RIVER

EXPLORE EXTENSION OF RIVERFRONT PARK BULKHEAD RAISING

DIRECT BRANCH BROOK LAKE OVERFLOW TO NEW OUTFALL

Upper Passaic





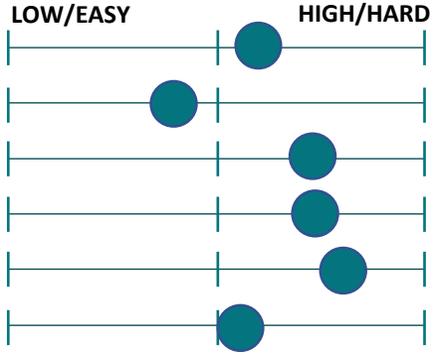
**COASTAL PROTECTIONS**

**OBJECTIVES, SCENARIO 2**

Extend barrier along Passaic River up to Second River.

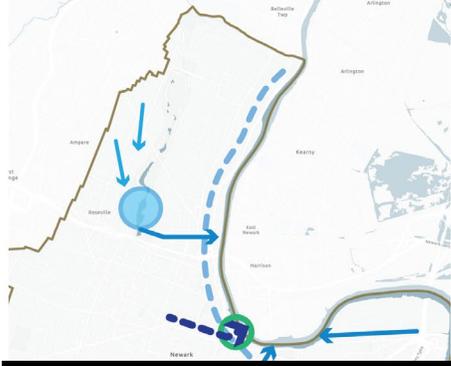
**KEY CONSIDERATIONS, SCENARIO 2**

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION



**ISSUES TO CONSIDER**

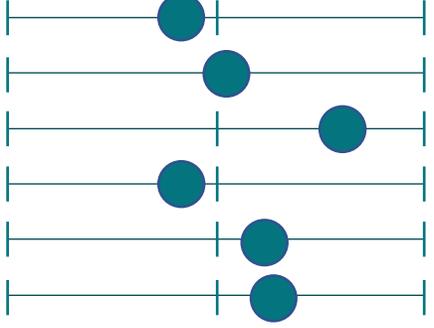
Expanding protection along the river provides a continuous barrier that protects all properties **BUT** will require additional coordination with other property owners with little additional benefit.



**DRAINAGE IMPROVEMENTS**

Consolidate drainage infrastructure to create new and expanded conveyance pathways and outfalls, including storage and pump stations at critical locations to relieve the system.

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION



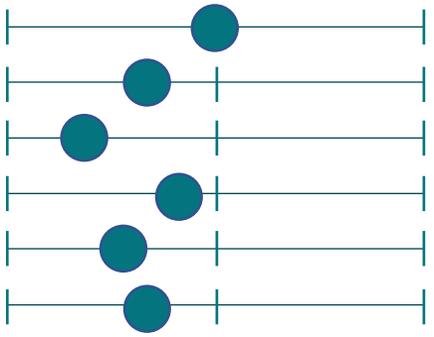
Incorporating new outfalls and pump stations relieves the sewer system before it floods upland areas **BUT** would need to be accompanied by storage to prevent water quality impacts.



**GREEN INFRASTRUCTURE**

Expand green infrastructure through strategic partnerships with downtown properties and integrating into green boulevards.

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION



Expanding GI to private properties provides broader watershed management **BUT** results in a greater number of assets that need to be inspected and maintained to provide protection.



**COASTAL PROTECTIONS**

**NON-PHYSICAL SOLUTIONS, SCENARIO 2**

Resilience advancements deepened through collaboration with community members, schools, and community-based organizations



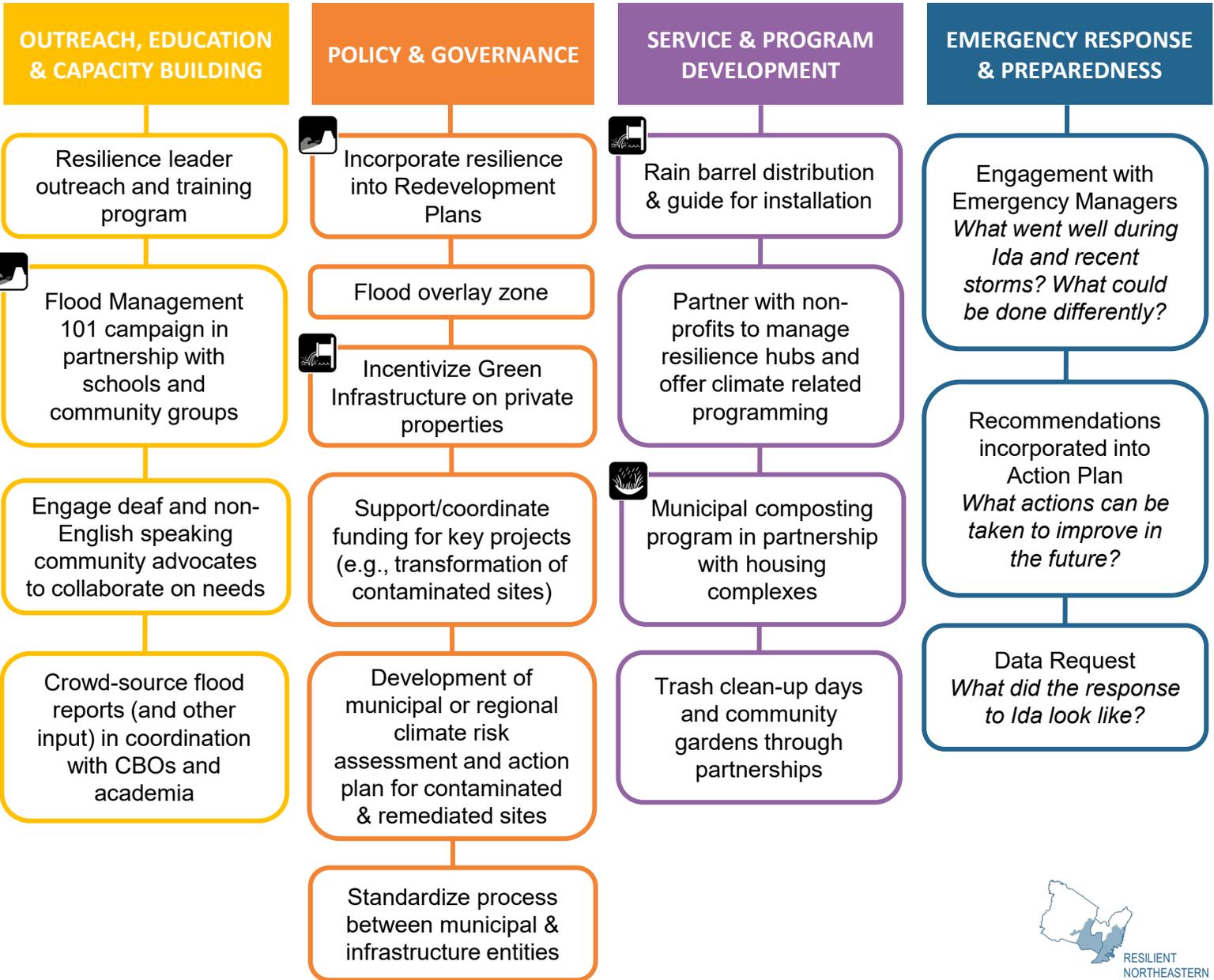
**DRAINAGE IMPROVEMENTS**

Partnerships in composting and trash clean-up help reduce drainage system clogging



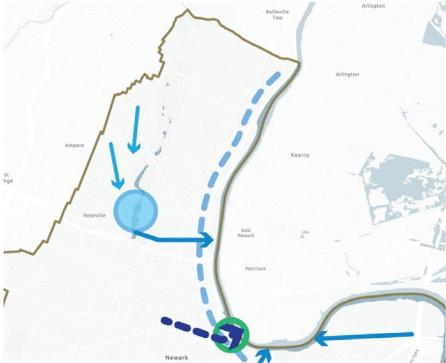
**GREEN INFRASTRUCTURE**

Public private partnerships expand green infrastructure benefits





**COASTAL PROTECTIONS**



**DRAINAGE IMPROVEMENTS**



**GREEN INFRASTRUCTURE**

**QUESTIONS TO CONSIDER**

- Which streets or city properties do you want to see transformed?
- What Greening projects would appeal to you most?
- Where would you like to see Resilience Hubs?



**PLEASE LOG FEEDBACK FROM THE MEETING [HERE](#)**

**WHAT DO YOU LIKE ABOUT SCENARIO 2?**

Empty dashed box for feedback.

Empty dashed box for feedback.

Empty dashed box for feedback.

**WHAT DO YOU DISLIKE ABOUT SCENARIO 2?**

Empty dashed box for feedback.

Empty dashed box for feedback.

Empty dashed box for feedback.

## KEY CHANGES, SCENARIO 3 – REGIONAL COORDINATION



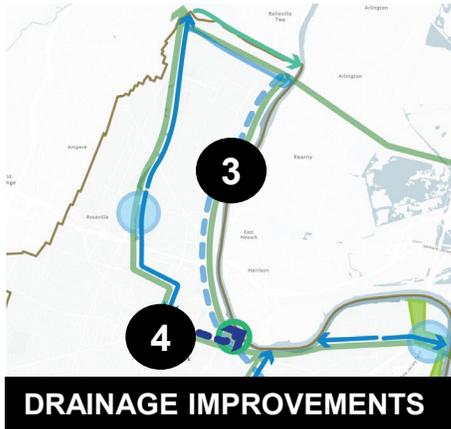
### 1. RIVERTRAIL INTEGRATED WITH GI COASTAL PROTECTIONS

Hunters Point  
New York City



### 2. FLOODABLE PUBLIC INFRASTRUCTURE

Domino Park  
Brooklyn, New York City



### 3. STORMWATER RETENTION INFRASTRUCTURE ALONG GREENWAY

Space Center Boulevard  
Houston, Texas



### 4. DEEP TUNNEL STORMWATER CONVEYANCE & STORAGE

DigIndy  
Indianapolis, Indiana



### 5. REGIONAL URBAN GREENWAY

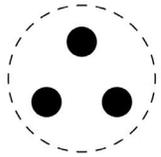
The BeltLine  
Atlanta, Georgia



### 6. R.O.W GREEN INFRASTRUCTURE FOR STORMWATER MANAGEMENT

Swale on Yale  
Seattle, Washington





# SCENARIO 3 REGIONAL COORDINATION

## EXISTING CONDITIONS

◇ PROJECTS ALREADY PLANNED OR IN PROGRESS

▼ EXISTING OUTFALLS

▬ PROPOSED LTCP INTERCEPTOR

## RESILIENT NJ MEASURES

▬ COASTAL PROTECTION ALIGNMENTS

▬ POTENTIAL ALTERNATE COASTAL ALIGNMENTS

▬ GREEN INFRASTRUCTURE CORRIDORS

▬ SUGGESTED FLOW PATHS

● SUGGESTED RETENTION AREAS

▼ NEW STORMWATER OUTFALLS

▬ PROPOSED GREENWAY CORRIDORS

▬ AREAS OUTSIDE PROTECTIONS

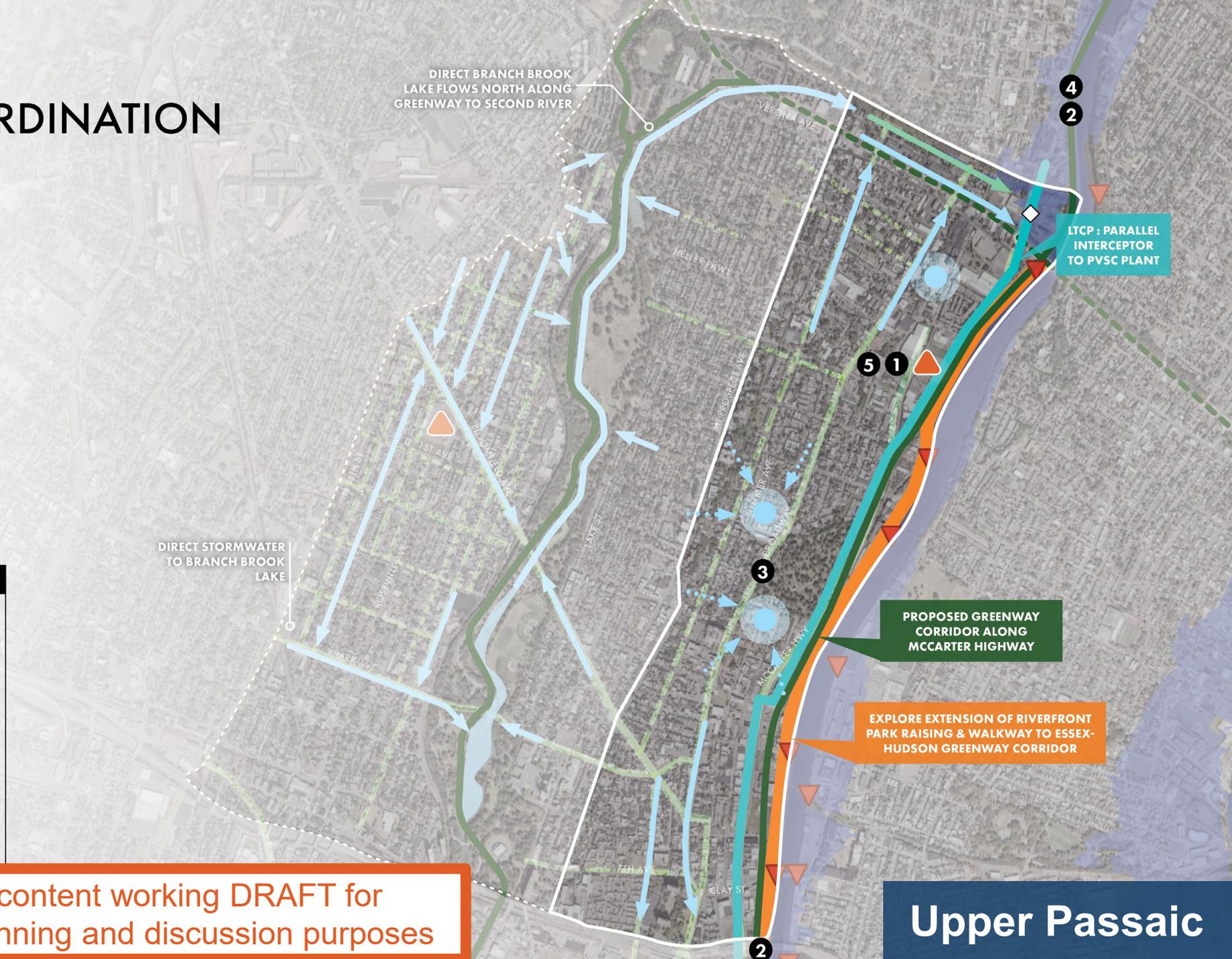
▬ SITES TO ADAPT

▲ POSSIBLE RESILIENCE HUB LOCATION

## NON-PHYSICAL SOLUTIONS

- 1 CREATE A "SINGLE SOURCE OF TRUTH" FOR RESILIENCE-RELATED INFORMATION AND RESOURCES
- 2 REGIONAL GI CHAMPIONS TRAINING PROGRAM
- 3 DEVELOP PIPELINE OF SITES FOR STORMWATER MANAGEMENT / RESILIENT TRANSFORMATION OF BROWNFIELDS & CONTAMINATED SITES
- 4 REGIONAL TREE PLANTING PROGRAM
- 5 REGIONAL NETWORK OF RESILIENCE HUBS
- 6 REGIONAL PROGRAM DEVELOPMENT AND SUPPORT FOR COMPOSTING AND WASTE REDUCTION CAMPAIGNING

All content working DRAFT for planning and discussion purposes



# Upper Passaic



**COASTAL PROTECTIONS**



**DRAINAGE IMPROVEMENTS**



**GREEN INFRASTRUCTURE**

**OBJECTIVES, SCENARIO 3**

Expand the bulkhead along Riverfront Park north and integrate as part of a continuous riverfront walkway connecting to Second River.

Re-direct stormwater to Branch Brook Park and other direct outfalls to relieve the pressure on the combined sewer system.

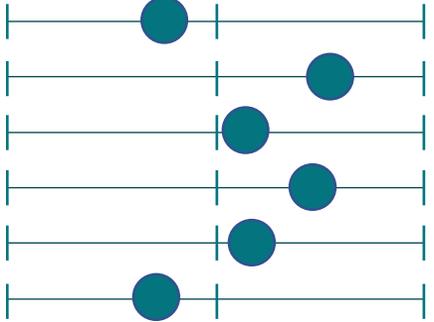
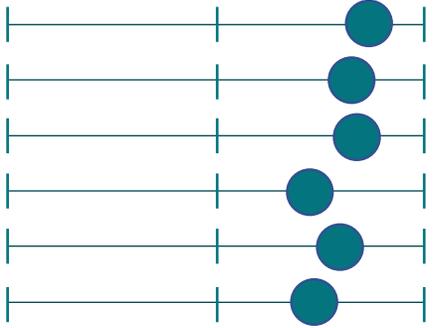
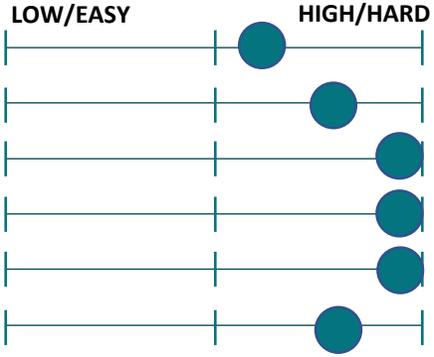
Build additional green infrastructure improvements into the Morris Canal Greenway to serve as both storage and conveyance.

**KEY CONSIDERATIONS, SCENARIO 3**

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION

- CONSTRUCTION TIME
- IMPACT TO PUBLIC ACCESS & USE
- COSTS
- PERMITTING
- CONSTRUCTABILITY
- LEVEL OF PROTECTION



**ISSUES TO CONSIDER**

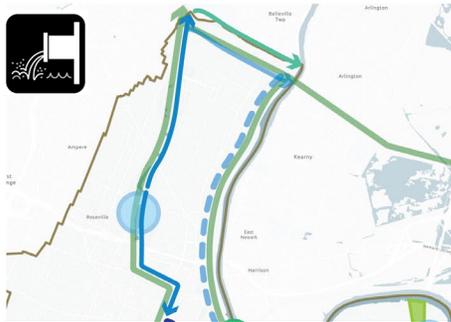
A walkway integrated into a continuous coastal barrier provides greater waterfront access to the public **BUT** would require partnerships with private properties along the coast.

Eliminating stormwater from the combined sewer system results in additional capacity **BUT** using existing and expanded natural areas for stormwater management can conflict with current uses.

Taking advantage of larger regional corridors can provide more cohesive GI solutions **BUT** could compete with other needs within a limited space.



### COASTAL PROTECTIONS



### DRAINAGE IMPROVEMENTS



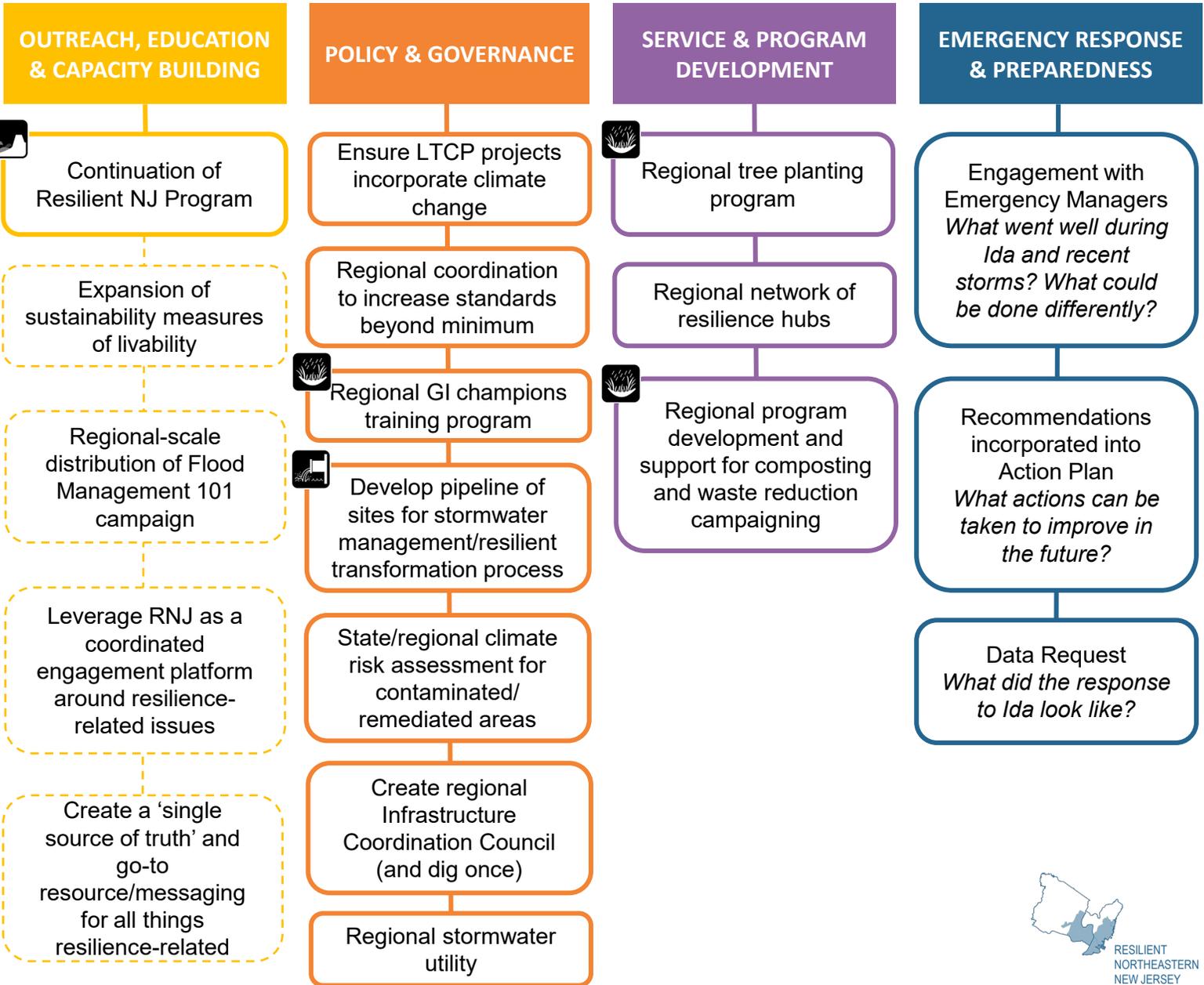
### GREEN INFRASTRUCTURE

## NON-PHYSICAL SOLUTIONS, SCENARIO 3

Continuing and expanding the Resilient NENJ program could allow the region to learn from, build on, and advance work completed to date

A regional infrastructure coordination council help maximize resilience in planned infrastructure improvements and limit disruption to communities

A regional network of resilience hubs could help CBOs and municipalities coordinate and share resources and information in times of disaster





**COASTAL PROTECTIONS**



**DRAINAGE IMPROVEMENTS**



**GREEN INFRASTRUCTURE**

**QUESTIONS TO CONSIDER**

- Which streets or city properties do you want to see transformed?
- What Greening projects would appeal to you most?
- Where would you like to see Resilience Hubs?



**PLEASE LOG FEEDBACK FROM THE MEETING [HERE](#)**

**WHAT DO YOU LIKE ABOUT SCENARIO 3?**

Empty dashed box for feedback on Scenario 3 likes.

Empty dashed box for feedback on Scenario 3 likes.

Empty dashed box for feedback on Scenario 3 likes.

**WHAT DO YOU DISLIKE ABOUT SCENARIO 3?**

Empty dashed box for feedback on Scenario 3 dislikes.

Empty dashed box for feedback on Scenario 3 dislikes.

Empty dashed box for feedback on Scenario 3 dislikes.

# DISCUSSION & QUESTIONS

*Of everything we've discussed, what is the most important thing to advance in this area?*

*What do you want to make sure does not happen?*

