# Role of Planning in Developing Grant Applications

**NJIT Funding Workshop**

June 7, 2023

# PROJECT OVERVIEW

## RARITAN RIVER AND BAY COMMUNITIES

- The Resilient NJ (RNJ) Program, administered through the New Jersey Department of Environmental Protection (**NJDEP**), includes initiatives in four regions of the state, including **Raritan River and Bay Communities.**
- **Resilient NJ – Raritan River and Bay Communities** is a partnership between **Middlesex County, Old Bridge, Woodbridge, Sayreville, South Amboy, South River, Carteret, Perth Amboy,** and the **YMCAs of Middlesex County**.
- The project is focused on developing a **regional resilience action plan** to address **flood-related hazards**.
- Input **from the people who live, work, and play** in the region was a critical part of plan development.
- The Action Plan was **released in October 2022.**


**Resilient NJ – Raritan River and Bay Communities Study Area**

RARITAN RIVER AND BAY COMMUNITIES

# WHAT DOES THIS PLAN INCLUDE?

## PROPOSED PHYSICAL PROJECTS

***Examples:***

**"Nature-based solutions" like wetland restoration**

**Flood protection of critical assets**

## RECOMMENDED CHANGES TO POLICIES, ORDINANCES, AND GOVERNANCE

***Examples:***

**Higher standards for new development**

**Changes to local land use policies**


## OUTREACH, EDUCATION, AND CAPACITY BUILDING OPPORTUNITIES

***Examples:***

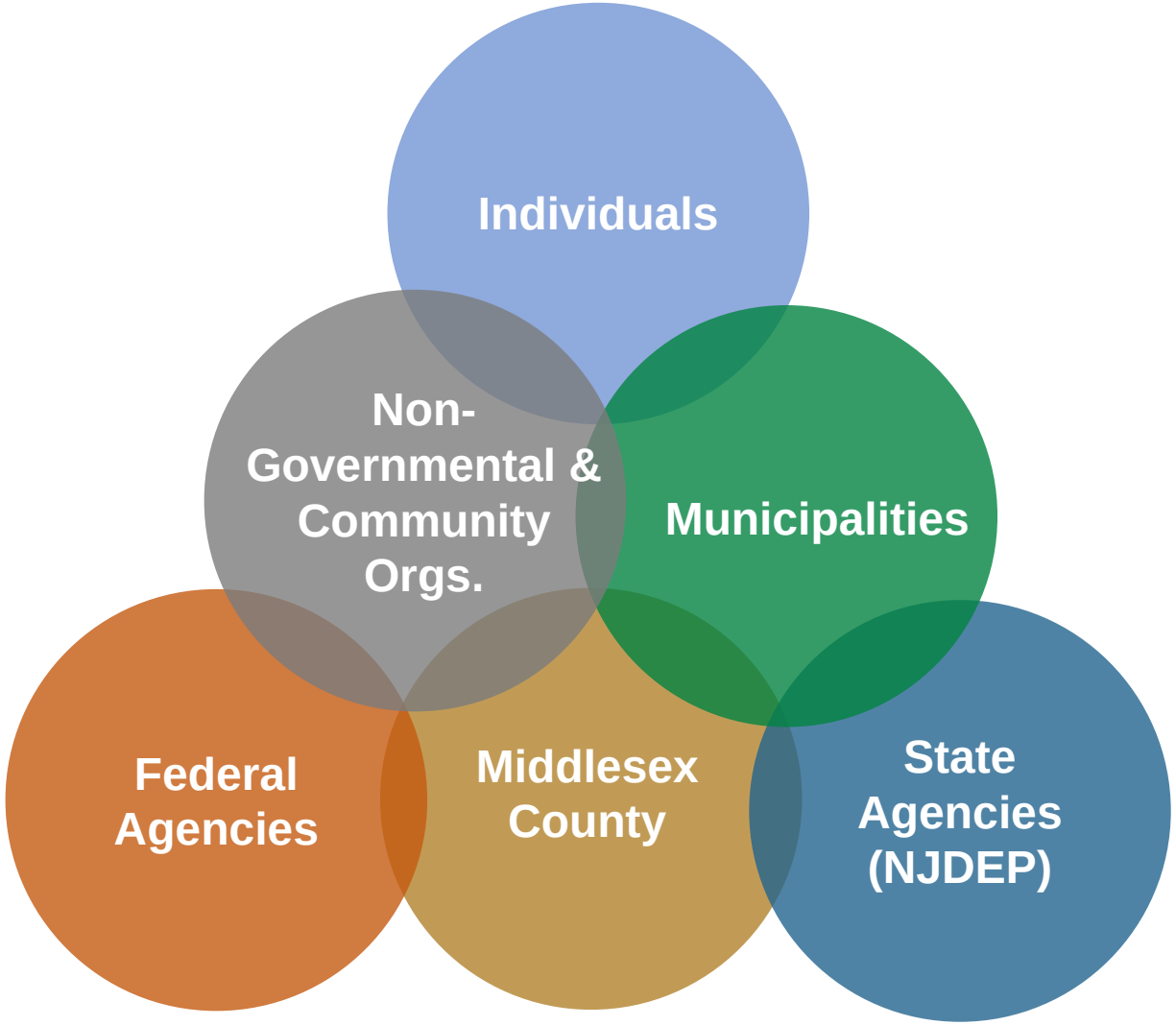
**Public outreach and educational campaigns**

**Funding for flood mitigation and green infrastructure**

RARITAN RIVER AND BAY COMMUNITIES

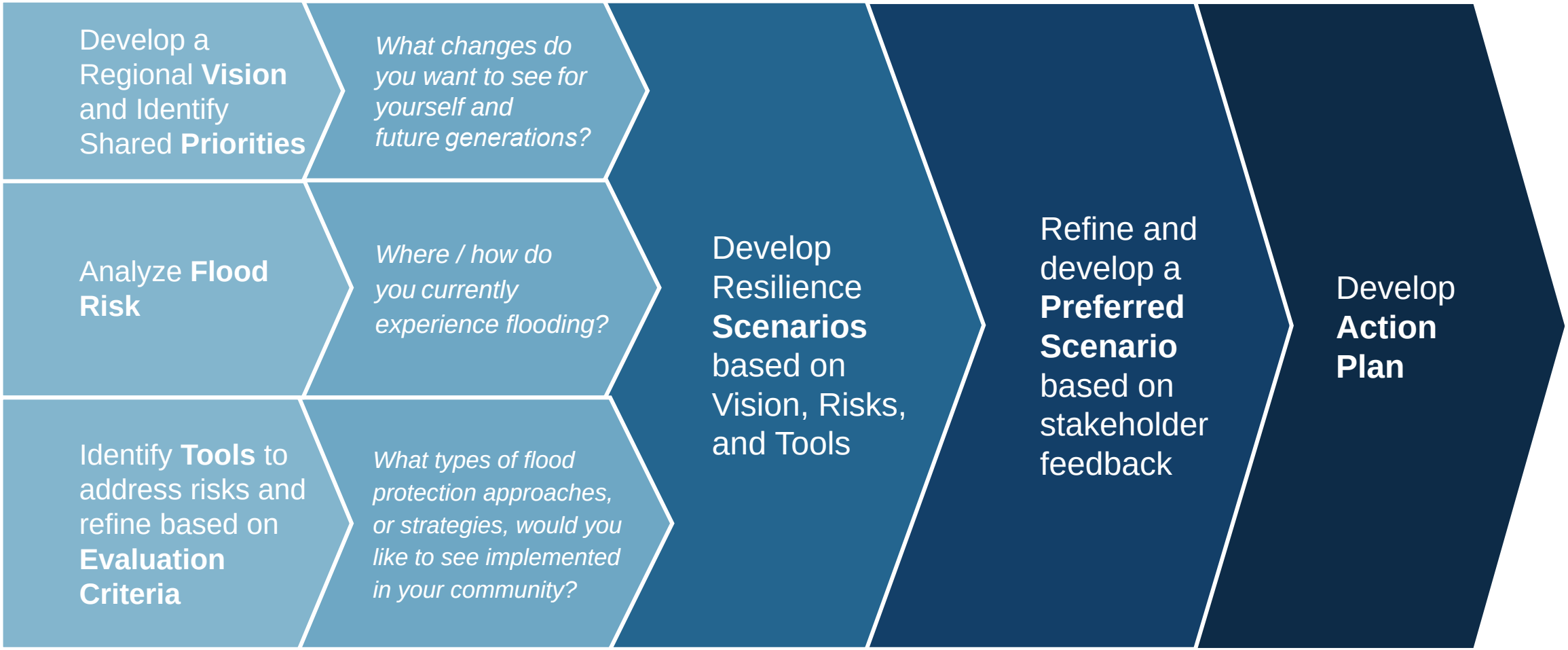
# WHO WILL IMPLEMENT THIS PLAN?

## IMPLEMENTATION REQUIRES COORDINATED ACTION AT MULTIPLE SCALES




RARITAN RIVER AND BAY COMMUNITIES

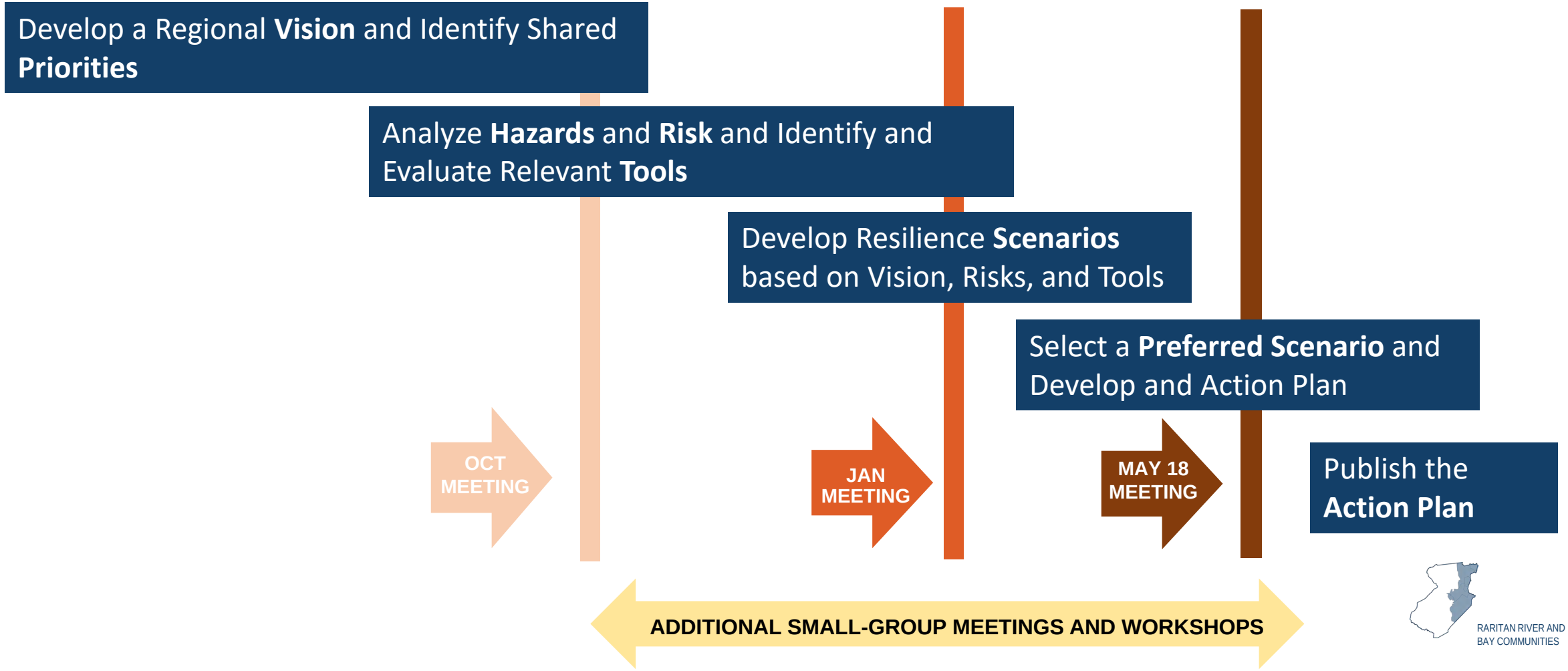
# HOW DID WE GET HERE?



# PROJECT SCHEDULE

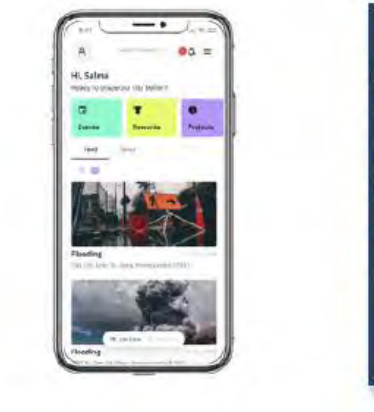
## REGIONAL COMMUNITY MEETINGS

**Spring 2021** | **Summer 2021** | **Fall 2021** | **Winter 2021/22** | **Spring 2022**



# COMMUNITY ENGAGEMENT PROCESS

## ANYTIME ENGAGEMENT TOOLS



**ENGAGEMENT APP**
**IYRS**
Project updates and surveys


**INTERACTIVE WEBSITE**
www.resilient.nj.gov/rrbc


**SURVEYS**
Online and paper surveys, translated into multiple languages


**MEETING IN A BOX**
Presentation for partners to get feedback at small group meetings

# ABOUT OUR REGION REPORT

**RELEASED AUGUST 2021**

- Region's history and interconnected systems
- Profiles of individual municipalities
- Recent and ongoing resilience initiatives and projects

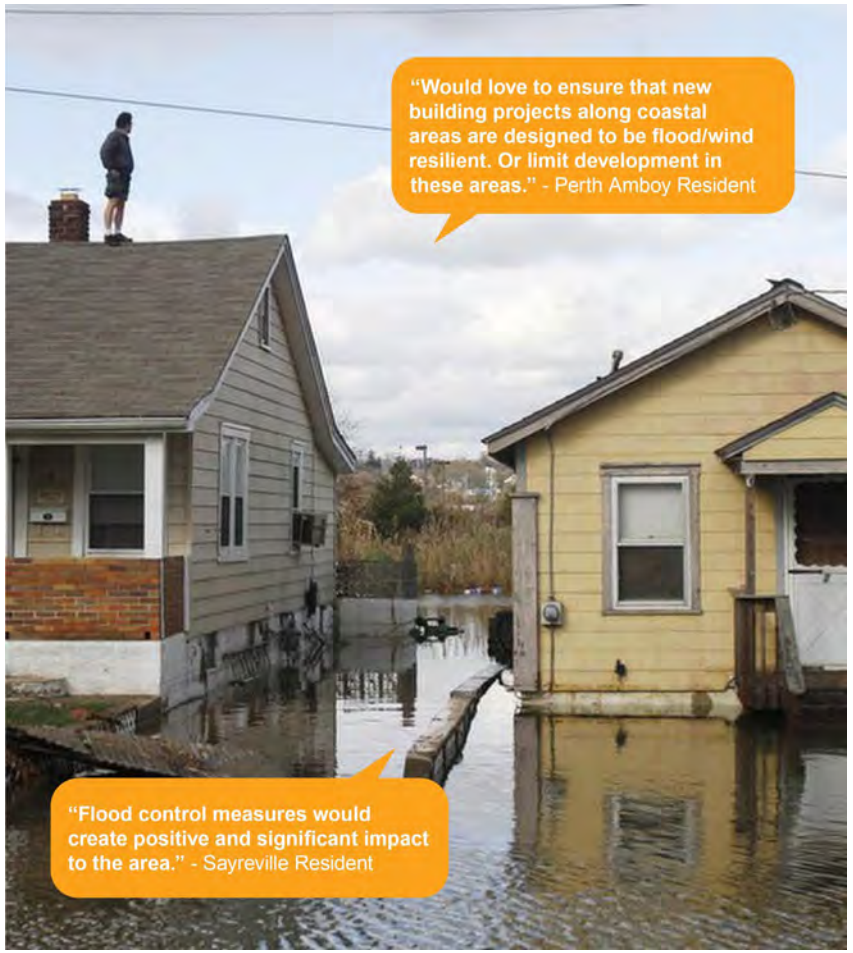

resilientnewjersey.com/about-the-region

RARITAN RIVER AND BAY COMMUNITIES

# VISIONING REPORT

**RELEASED MARCH 2022**

- Feedback received through community engagement process
- Flood related challenges
- Community values and priorities





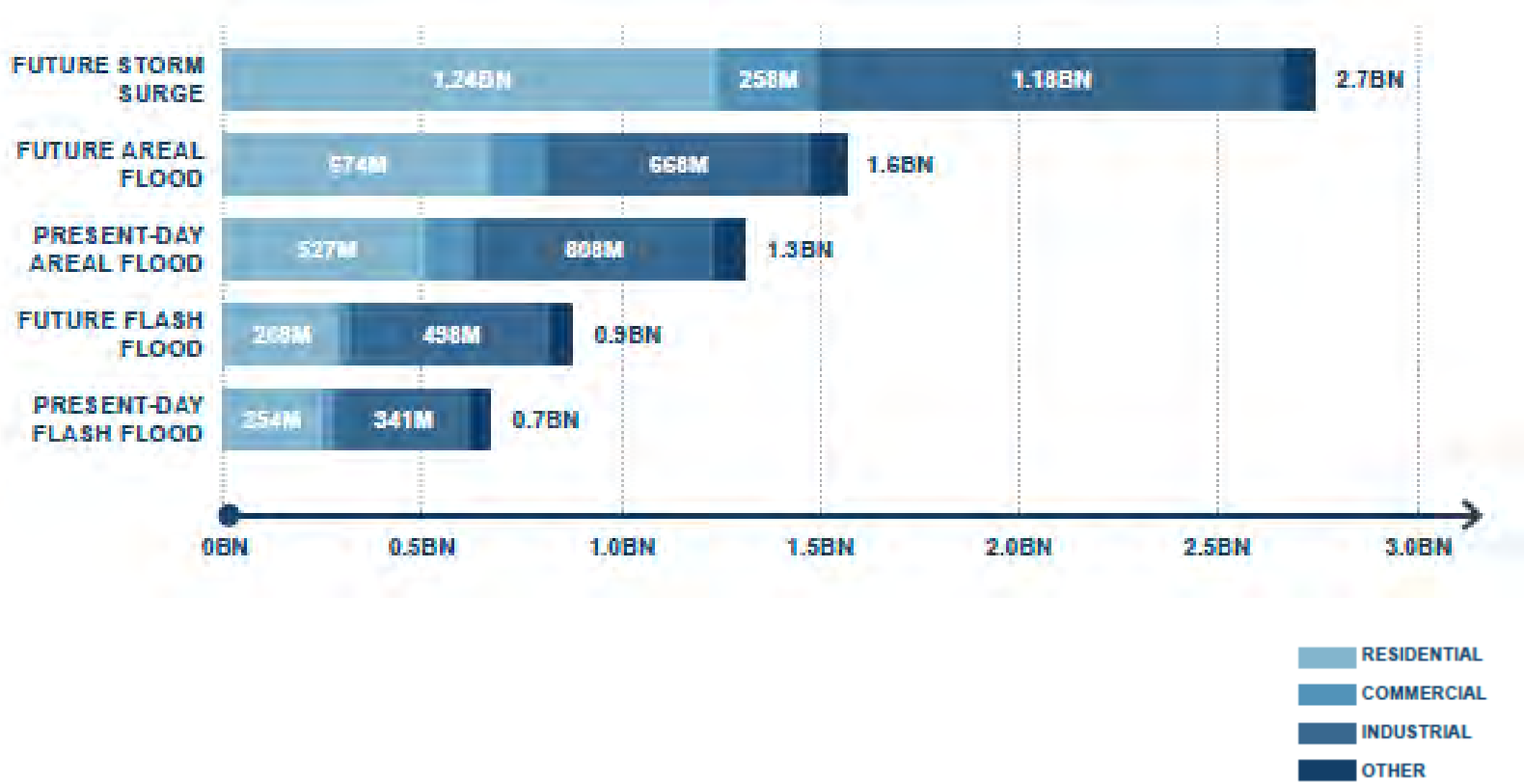
www.resilient.nj.gov/rrbc

RARITAN RIVER AND BAY COMMUNITIES

# FLOOD IMPACT ASSESSMENT

**RELEASED JULY 2022**

- By 2070, a coastal storm like Sandy could cause **$2.7 billion in losses.**
- By 2070, a heavy rainfall event could **cause $1.6 billion in losses.**
- Without action, 32 structures housing 44 residents flooded **on a daily basis** by 2070 .




RARITAN RIVER AND BAY COMMUNITIES

# FLOOD IMPACT ASSESSMENT

## TYPES OF IMPACTS ANALYZED

### DIRECT PHYSICAL DAMAGE
Damage to Structures
Contents and Inventory Loss

### HUMAN IMPACTS
Residential Displacement
Mental Stress and Anxiety
Injuries Lost Productivity

### BUSINESS IMPACTS
Business Relocation
Loss of Employment
Economic Output Loss
Tax Revenue Impacts

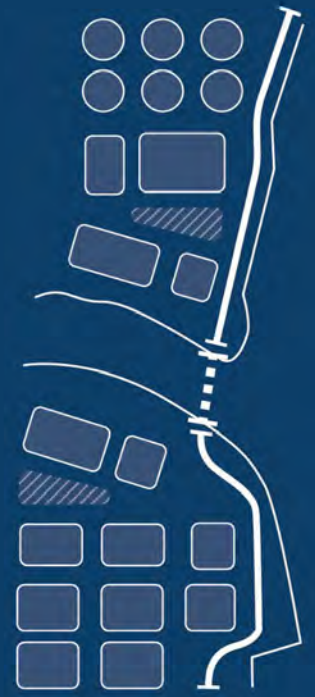
### PUBLIC AND ESSENTIAL SERVICES
Loss of Function

### REGIONAL IMPACTS
Indirect Economic Loss
Induced Economic Loss

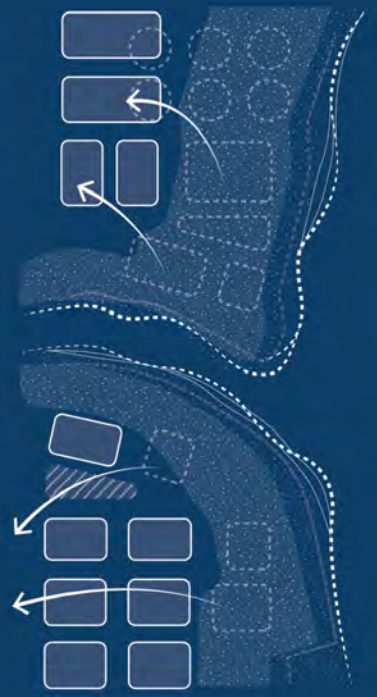
### OTHER ASSETS
Transportation
Ecological
Recreation
Community Services

# SCENARIOS

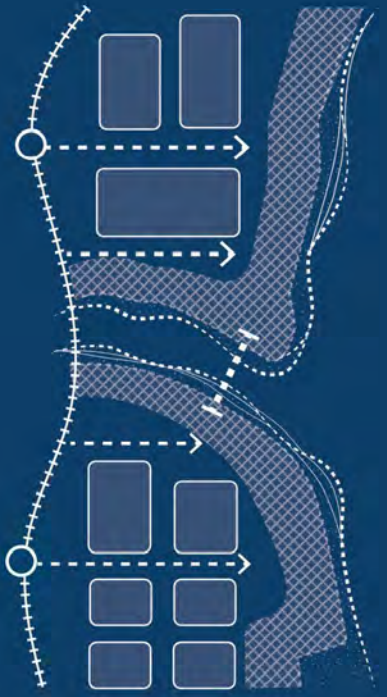
Three scenarios for how the region could be more resilient to flooding were developed.



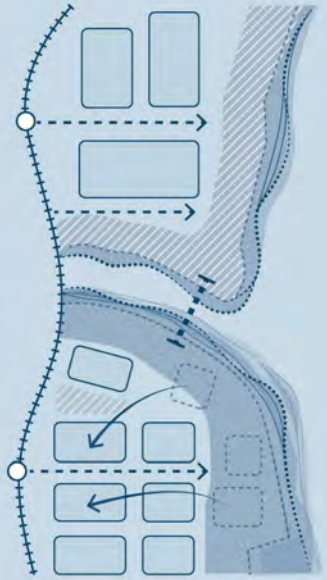
**PROTECT** Critical Assets & Economic Centers



**RESTORE** Natural Systems & Minimize Exposure



**TRANSITION** to Smart Growth for a New Economy



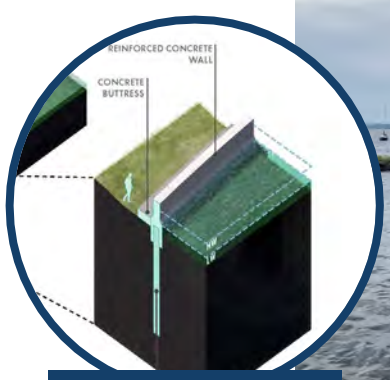
# PREFERRED SCENARIO

## PROTECT, RESTORE, AND TRANSITION

Combines elements of all three scenarios to create a long-term plan for more **resilient development** patterns, feasible **flood mitigation** projects, and transformational **open space/ecological improvements.**

### Includes:

- Implementable **physical and nature-based infrastructure strategies** such as flood barriers, stormwater infrastructure, and wetland restoration
- **Policy and governance** actions to promote more resilient development and improve coordination across levels of government
- **Outreach, education and capacity building programs** to improve flood risk awareness and promote community adaptation




FLOOD BARRIERS

*Perth Amboy Waterfront Bulkhead Repair*

RESILIENT REDEVELOPMENT

*Future Ferry Terminal. South Amboy, NJ*


ACQUISITION & RESTORATION

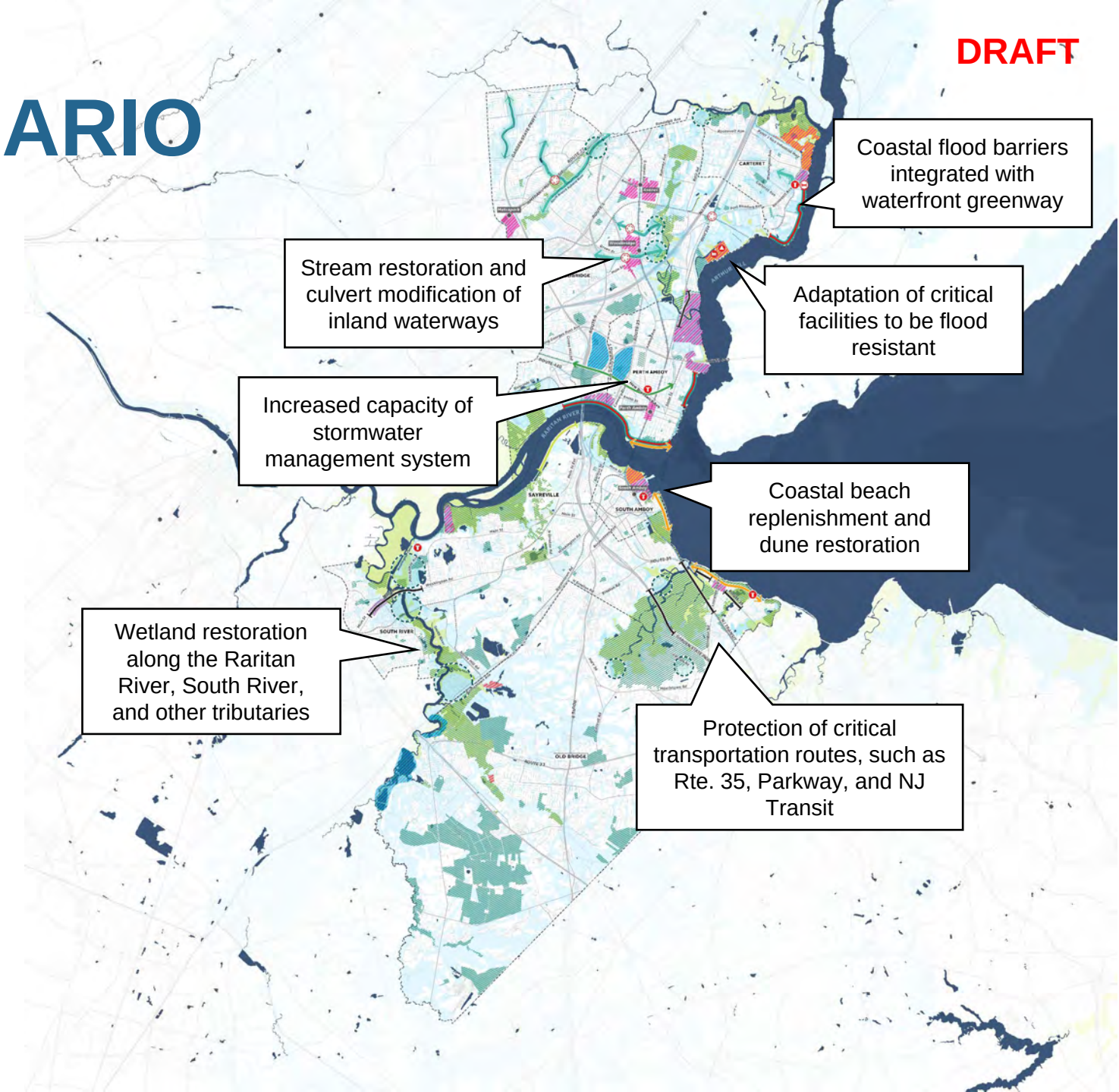
*Watson Crampton Buyout and Restoration Project. Woodbridge, NJ*

DRAFT

# PREFERRED SCENARIO

## PHYSICAL AND NATURE BASED INFRASTRUCTURE STRATEGIES

- Site or building level adaptation of critical facilities
- Restore wetlands and riparian zones
- Create floodable spaces on publicly owned lands
- Increase stormwater system capacity or diversion upstream
- Restore or daylight riparian zones
- Replenish and restore beaches
- Multi-purpose coastal flood barrier with bike & pedestrian paths
- Enhance resiliency of mobility systems
- Tide/Surge Gate
- Construct new pump station / retrofit existing pump station
- Culvert modification

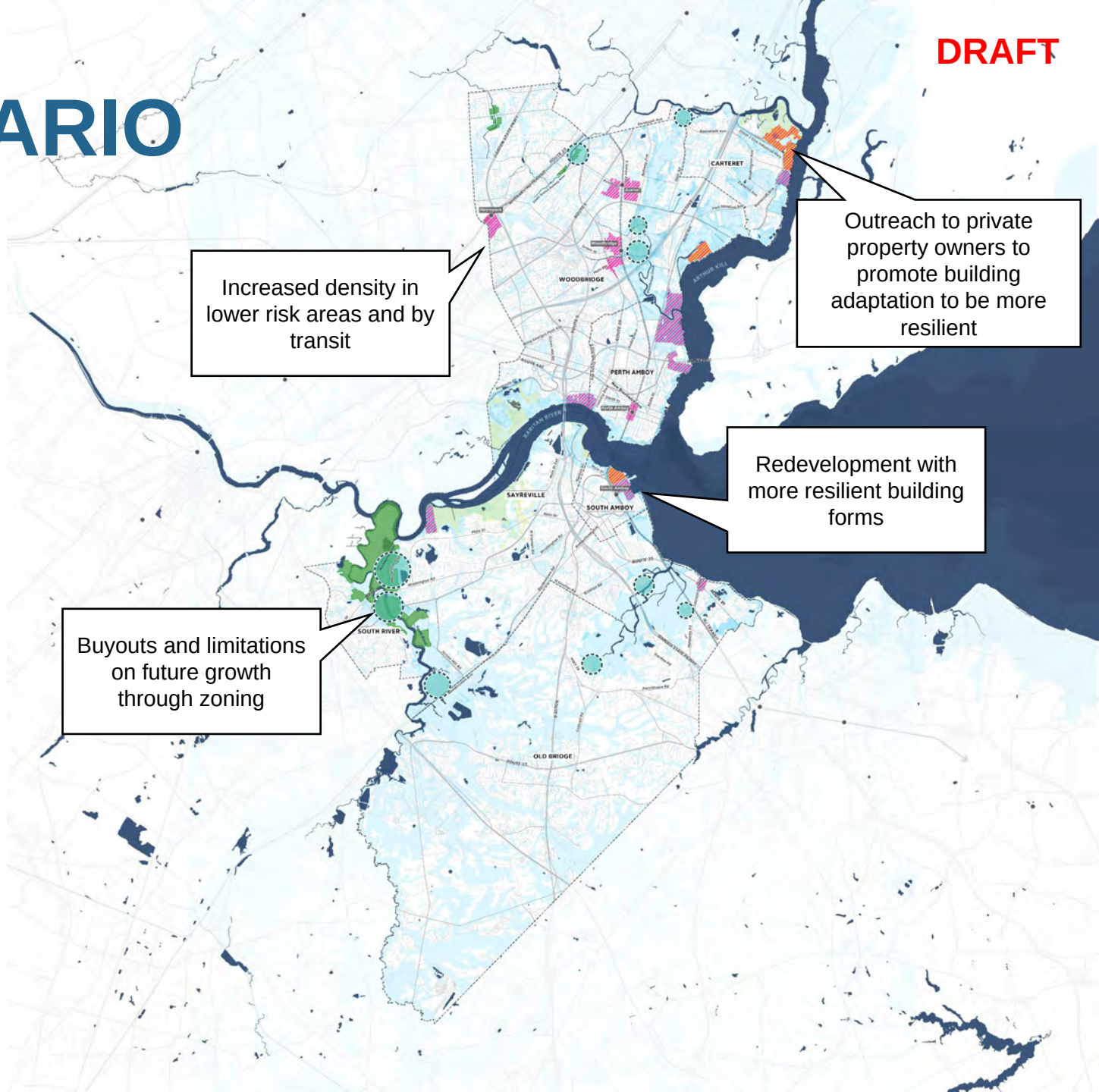


DRAFT

# PREFERRED SCENARIO

## POLICY AND GOVERNANCE ACTIONS

- **Manage growth** by reducing density in highly at-risk areas through strategic buyouts and zoning changes, and increasing density in lower risk areas
- Promote **resilient development** through updating codes and policies
- Provide technical assistance and targeted outreach to property owners to **promote building mitigation and flood insurance**
- Promote regional, **watershed coordination** among municipalities and county

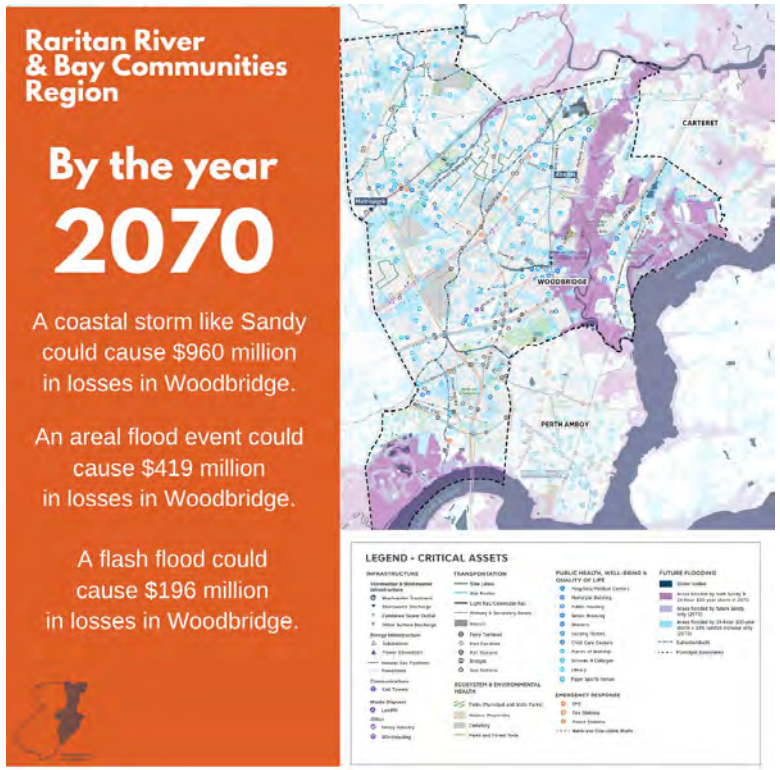



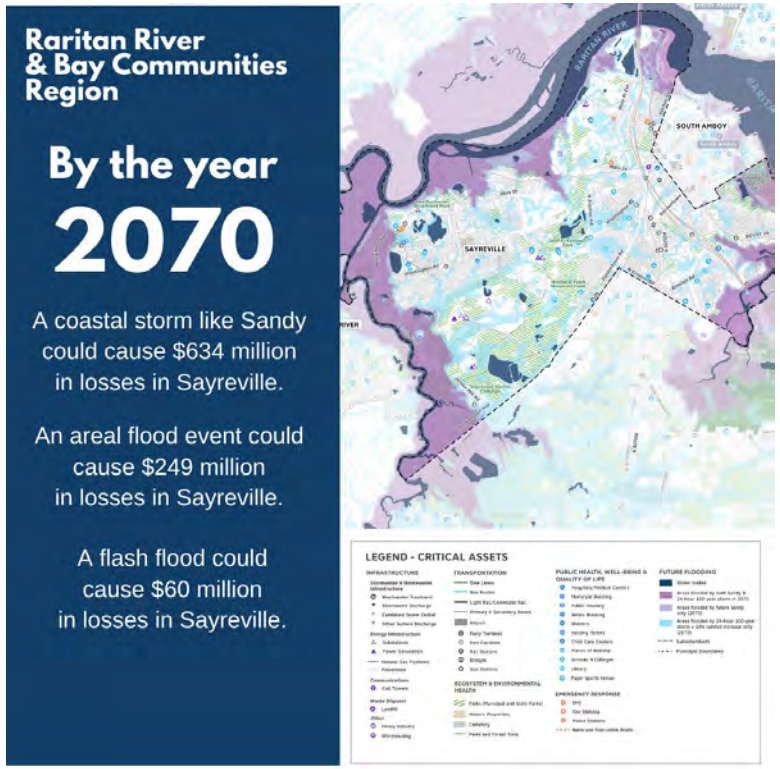
DRAFT

# PREFERRED SCENARIO

## OUTREACH, EDUCATION, AND CAPACITY BUILDING

- Increase **awareness of flood risk** through public outreach
- Develop **funding program** for flood mitigation and green infrastructure for private property owners
- Conduct targeted outreach to **incentivize relocation** of residences and businesses away from most flood-prone areas




**As an initial step towards implementation of a public outreach campaign, we're developing postcards for each municipality to send to residents to increase awareness of flood risk.**

# HEARDS BROOK

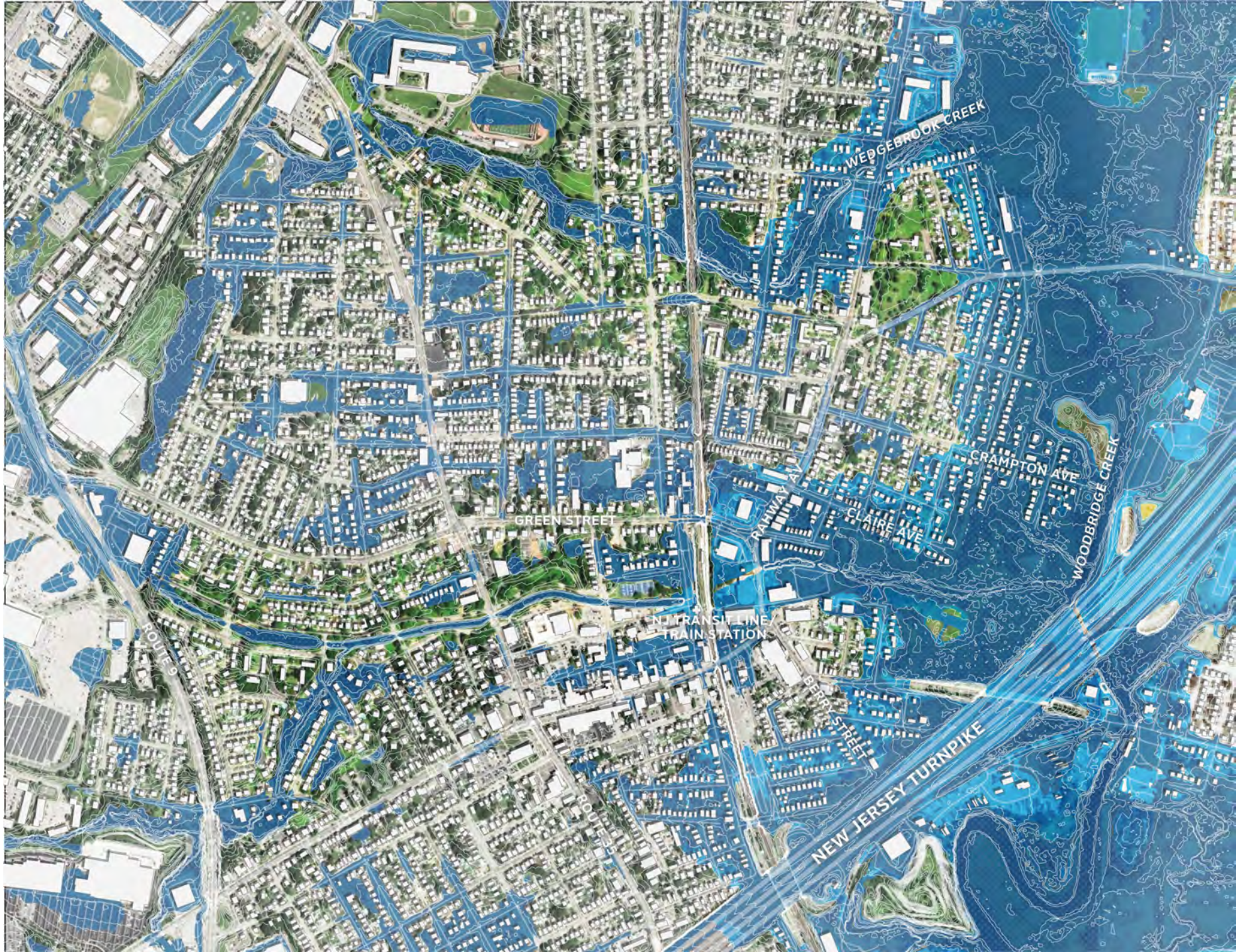
## COSTS OF INACTION

Without action a future coastal storm could result in:

**$100M in damages**

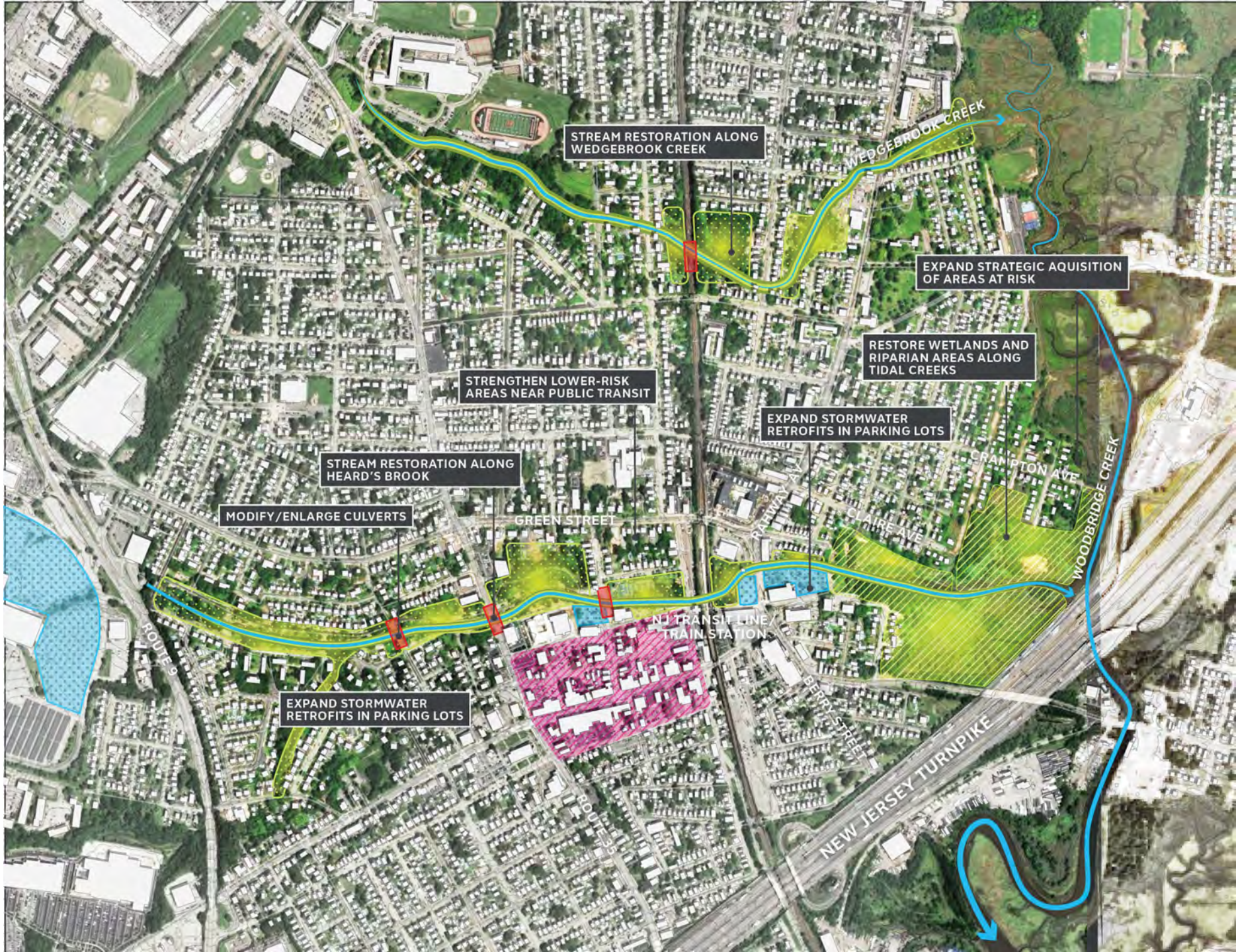
Without action a future heavy rainfall could result in:

**$14M in damages**



# HEARDS BROOK

## PROJECT CONCEPT




LEGEND

- Resilient Redevelopment
- Stream Restoration
- Flood storage on public lands
- Restore Wetlands and Riparian Areas
- Culvert Modification/ Enlargement
- Increase Infiltration in Impervious Areas

# HEARDS BROOK

## STREAM RESTORATION AND CULVERT ENLARGEMENT

# HEARDS BROOK

| | NEAR-TERM (Next 3 years) | MID-TERM (3-10 Years) | LONG-TERM (10+) |
|---|---|---|---|
| **NJDEP** | | | |
| Pursue additional funding for expansion of Blue Acres program | | | |
| **Woodbridge** | | | |
| Incorporate resiliency standards into redevelopment | | | |
| Promote additional voluntary buyouts in highly vulnerable areas | | | |
| Develop monitoring program for tidal wetlands along Woodbridge Creek | | | |
| Identify restoration needs for resiliency and health of tidal wetlands | | | |
| Pursue funding for further study of Wedgewood Brook and Heards Brook stormwater improvements | | | |
| Assessment of feasibility and benefits of stream restoration and culvert improvements | | | |
| Implement stream restoration projects along Wedgewood Brook and Heards Brook | | | |
| Site-specific assessment and improvements of culverts on Heards Brook at Elmwood Ave. and School St. | | | |
| **NJ Transit** | | | |
| Site-specific assessment and improvements of culvert at Wedgewood Brook and Rail Line | | | |
| **NJDOT** | | | |
| Site-specific assessment and improvements of culvert at Heards Brook and Route 35 | | | |
| **NJ Turnpike Authority** | | | |
| Examine sections of the NJ Turnpike (I95) at risk of future flooding and identify mitigation measures | | | |

# MX COUNTY GREENWAY EXTENSION

## COSTS OF INACTION

Without action a future heavy rainfall could result in:

**$87M in damages**

# MX COUNTY GREENWAY EXTENSION

## PROJECT CONCEPT


LEGEND

- Multi-use Path
- Flood storage on public lands
- Improve Drainage System

# MX COUNTY GREENWAY EXTENSION

## MULTI-USE PATH AND STORMWATER MANAGEMENT

# MX GREENWAY EXTENSION

## IMPLEMENTATION ROADMAP

| | NEAR-TERM (Next 3 years) | MID-TERM (3-10 Years) | LONG-TERM (10+) |
|---|---|---|---|
| **Middlesex County** | | | |
| Assess opportunities for improved connections as part of Bike/Ped Master Plan | | | |
| Assess feasibility of greenway extension and incorporating stormwater improvements | | | |
| Design and permitting of greenway & stormwater improvements | | | |
| **Perth Amboy** | | | |
| Explore opportunities for expanded stormwater storage on municipal-owned facilities and rights of way | | | |
| Improve capacity of stormwater system as part of LTCP implementation | | | |
| Implement stormwater improvements into Washington Park | | | |
| **Woodbridge** | | | |
| Explore opportunities for expanded stormwater storage on municipal-owned land | | | |
| **NJDOT** | | | |
| Explore opportunities for expanded stormwater storage on highway right of way | | | |
| Implement expanded stormwater storage | | | |

# Physical Infrastructure

**Target larger federal funding sources, may require multiple funding sources:**

- ARPA
- Bipartisan Infrastructure Bill
- USACE
- FEMA HMGP, PA, BRIC
- HUD CDBG-DR
- U.S. Department of Transportation DOT
- SRF funding through I-Bank

# Nature-Based Infrastructure

**Target larger federal funding sources as well as state funds.**

- FEMA BRIC
- NJDEP grant programs
- NOAA / USFW grants
- U.S. Department of Transportation DOT (opportunities for multi-benefit projects)
- SRF funding through I-Bank

RARITAN RIVER AND BAY COMMUNITIES

# Non-Physical Solutions

## Policy & Governance

- FEMA BRIC
- C-PACE
- NJEDA Brownfields Impact Fund
- NJDEP / NJEDA Hazardous Discharge Site Remediation Fund (HDSRF)
- DOT RAISE (Rebuilding American Infrastructure With Sustainability And Equity) Discretionary Grant (Formerly Build Grant Program),
- DOE Energy Efficiency And Renewable Energy Grant

*Collaboration requires across local, state, municipal agencies*

## Outreach and Education & Capacity Building

- FEMA BRIC Capacity Building
- Partners for Places Mini Grants, Funders Network (TNF) and Urban Sustainability Directors Network
- NJDEP Community-Based Art Grant Program
- NJDEP New Jersey Clean Communities Grant

*Look for local partners and opportunities for private grants*

*Project planning and capacity building grants*

# Role of Planning in Developing Successful Grant Applications

## Key Conclusions

- Planning is critical to **define the problem**: What issue(s) are you seeking to solve?
- Understand **the context**: Are there related projects already being planned? Who is leading them? What have been the result of related prior planning initiatives? What community engagement has already been done on this issue? Who needs to be involved in shaping the project?
- Examine and evaluate **potential options**: What are different ways of addressing this problem? What are the pros and cons of different approaches?
- Get **input** from community members and other stakeholders (early and often): Who will be impacted by the project? Who can be a champion for the project?
- Develop an **implementation pathway**: Who will lead implementation? Who else needs to be involved? What are the immediate next steps? What funding is needed? What are potential funding sources?