

ACCR Resilient NJ Virtual Open House

May 18, 2022



Resilient NJ



Regional Planning for a Stronger New Jersey



Thank you for being here.

You could be anywhere else right now, but you took the time to join this meeting and we want you to know that it is appreciated by our team.

Your participation in this meeting and other engagements will support our continued effort towards a Resilient NJ and your feedback from today's session can directly result in more funding opportunities for the scenario solutions we will review today.

PROJECT TEAM



**PERKINS —
EASTMAN**



**ENGENUITY
INFRASTRUCTURE**

**CDM
Smith**



Edward J. Bloustein School
of Planning and Public Policy



**CHPlanning
LIMITED**

LOCAL OFFICE
LANDSCAPE & URBAN DESIGN

STEERING COMMITTEE



**American
Red Cross**



AGENDA

Welcome & introductions
Timeline
Risk assessment
Scenario planning
Closing remarks

RESILIENCE & ADAPTATION PREFERRED SCENARIO

We are here!



Community & Stakeholder Engagement

Asset Collection & Risk Assessment

Resilience & Adaptation Resilient  Innovation Award

Regional Resilience & Adaptation Plan

Implementation

Resilience & Adaptation Scenario Goals

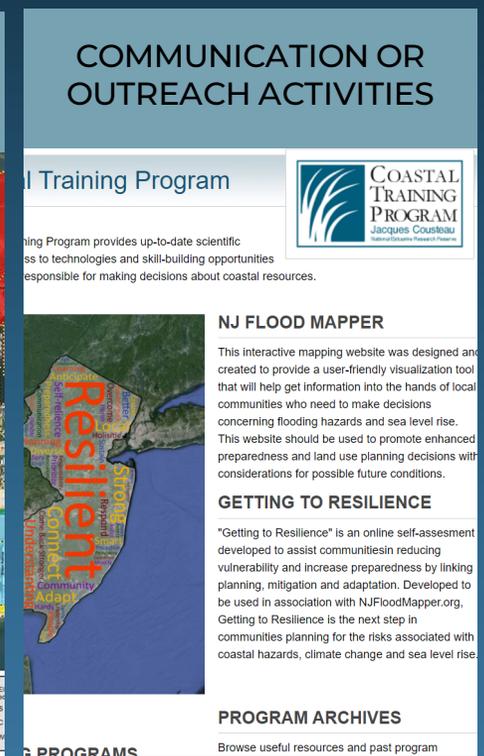
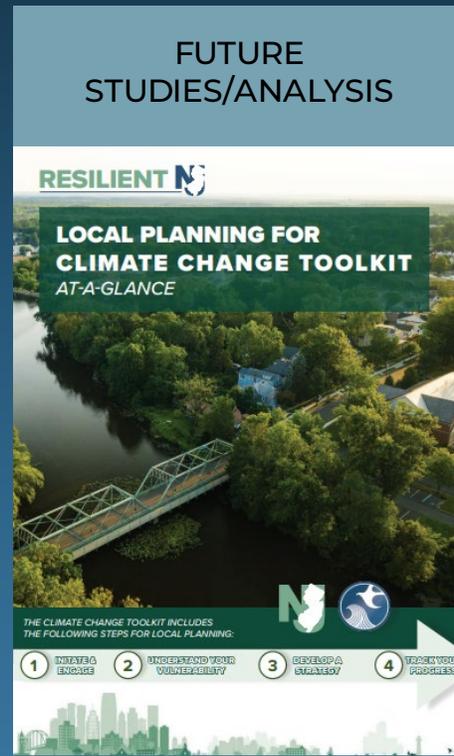
1. Respond to the vision identified by the region
2. Reduce anticipated flood impacts in 2070
3. Include actions that respond to immediate flooding concerns within the region
4. Protect or enhance natural resources and ecosystem function, as well as public access
5. Address the needs of socially vulnerable populations

RESILIENCE AND ADAPTATION SCENARIOS

What is a Resilience and Adaptation Scenario?

A suite of actions that will work collectively to increase resiliency over time.

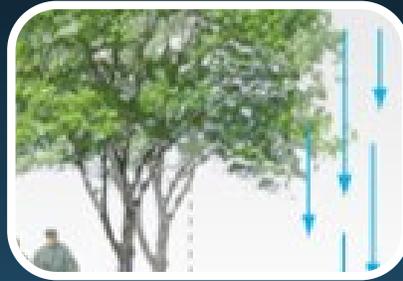
What actions should be included?



KEY CHALLENGES TO ADDRESS



SHORELINE
PROTECTION



STORMWATER
MANAGEMENT



ACCESS &
TRANSPORTATION



POWER &
COMMUNICATIONS



EQUITABLE
ECONOMIC
OPPORTUNITY



PUBLIC FACILITIES



COMMUNITY
MEMBERS

THREE SCENARIOS

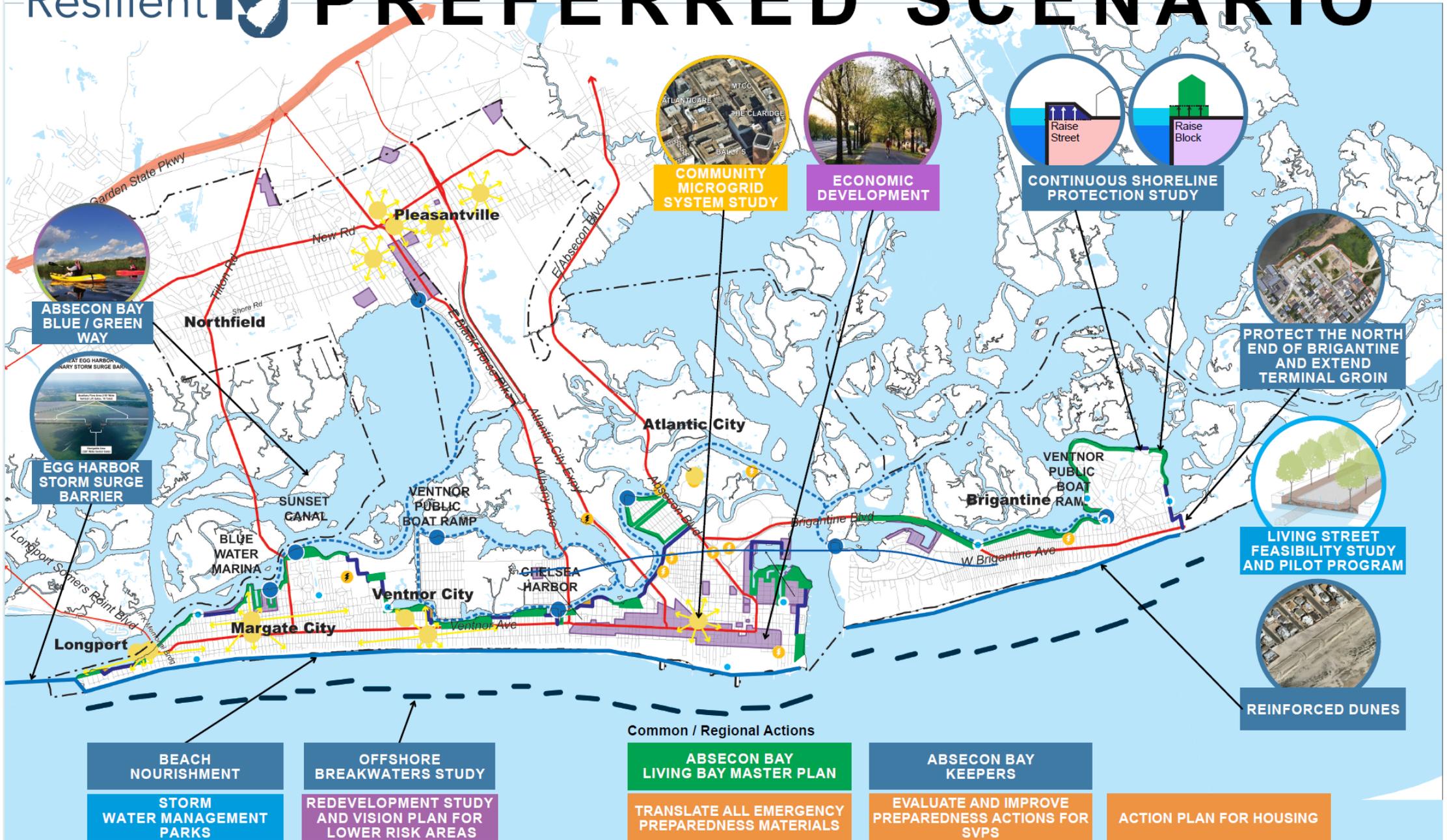
“Mix of Actors but Public Sector Leads on key projects”

“Mix of Actors but looks to State, County and Municipalities to partner on needed resiliency improvements ”

“Mix of Actors but looks to leverage private investment to help finance needed resiliency improvements”

Year	Scenario 1	Scenario 2	Scenario 3
Implementation Approach	<ul style="list-style-type: none"> Centralized Oriented toward Gray Infrastructure solutions 	<ul style="list-style-type: none"> Mix of Gray and Green solutions 	<ul style="list-style-type: none"> Decentralized Oriented toward nature-based solutions
Leadership	<ul style="list-style-type: none"> Relies on Federal State and Local partnerships 	<ul style="list-style-type: none"> Relies on State and Local partnerships 	<ul style="list-style-type: none"> Relies on State, Local, Non-Profit and Private Sector Partnerships
Shoreline Protection	<ul style="list-style-type: none"> US Army Corps Back Bay Plan featuring floodwalls and floodgates 	<ul style="list-style-type: none"> Raised bayside and Continued Beach Nourishment 	<ul style="list-style-type: none"> Private investment Offshore breakwaters
Stormwater Management	<ul style="list-style-type: none"> Raised Streets and Pump Stations 	<ul style="list-style-type: none"> Blue Streets & pump stations 	<ul style="list-style-type: none"> Living Streets
Power and utilities	<ul style="list-style-type: none"> Expand current microgrid Atlantic City plan New Microgrids centered on community facilities 	<ul style="list-style-type: none"> Community Microgrids based on new solar generation at community facilities 	<ul style="list-style-type: none"> Decentralized Solar and battery power plan
Vulnerable Populations	<ul style="list-style-type: none"> Translate all emergency preparedness material to the region’s eight languages Adaptation Action Plan for all Atlantic City Housing Authority Communities and Senior Communities 		
Economic Development	<ul style="list-style-type: none"> Encourage Blue economy uses at Gardners Basin 		
Capacity Building	<ul style="list-style-type: none"> Absecon Bay Keepers 		
Access	<ul style="list-style-type: none"> Raise approaches to all bridges to secure <ul style="list-style-type: none"> Raise Black Horse Pike 		
Natural Resources	<ul style="list-style-type: none"> Absecon Bay Living Bay Master Plan <ul style="list-style-type: none"> Blue way /Green way 		

Resilient PREFERRED SCENARIO



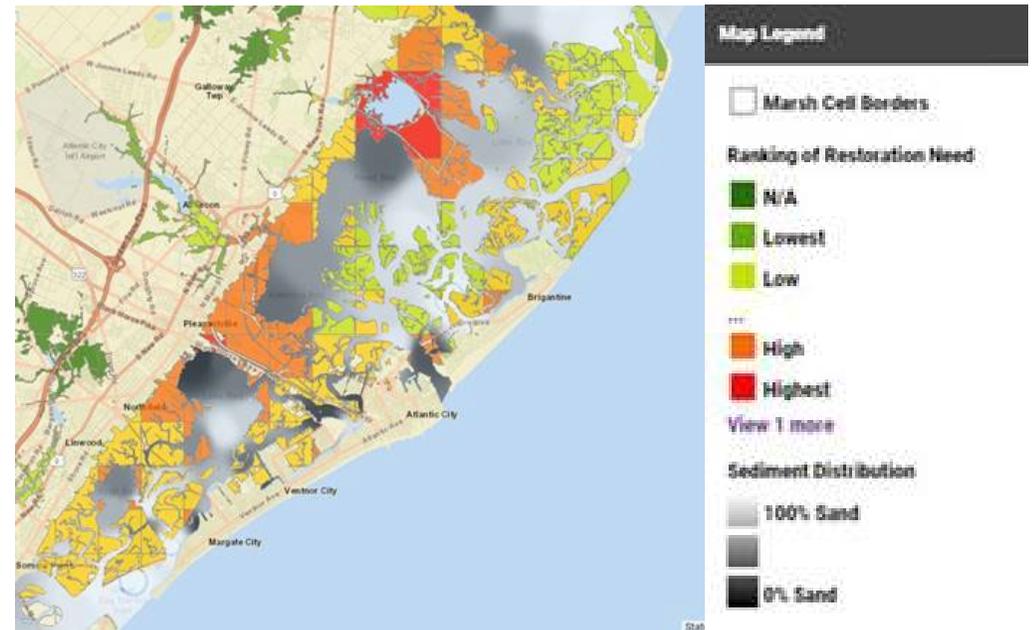
LIVING BAY MASTER PLAN

Challenges

- Prolonged inundation, erosion and loss due to sea level rise in Back Bay Marshes will weaken protection of the surrounding communities and infrastructure from damage due to storm surge.
- Long term maintenance of the back bay tidal marshes requires **coordinated and securely funded intervention**.
- Implementing coastal resiliency **projects within the region will likely face delays due to a backlog** of applications

Goals

- Provide a framework to establish condition monitoring,
- Prioritize actions to restore habitats through thin-layer sand deposition in targeted locations and living shoreline improvements and coordinated use of resources (dredge sand) and funding.
- Create a means to streamline permit reviews resiliency projects, establish broader or more flexible limits for General Permits and expand use of In-Lieu-Fee mitigation option.
- Public Education to recognize the importance and value of back bay tidal wetlands in protecting the region from storm surge.



THE ABSECON BAY KEEPERS

Establish a new non-profit organization: the Absecon Bay Keepers

Absecon Bay Keepers will be a non-profit organization focused on stewardship of Absecon Bay, and working on behalf of the people and wildlife that depend on Bay through environmental action, advocacy, education.



- **Carry out the mission through a combination of:**
 - formal and nonformal environmental education programs designed to raise awareness of the residents and visitors to the region.
 - Work to protect, preserve and restore the various fish and wildlife habitats that exist within the watershed.
- **Act as steward for Absecon Bay by:**
 - Promoting responsible, sustainable development.
 - Working with local, county and state planners to ensure that land-use planning decisions reflect up-to-date science.
 - Provide a resource to assist local, state and federal agencies to identify threats to the resiliency of the Bay and the abutting communities;
 - Promoting comprehensive planning to guide the future of Absecon Bay

EVALUATE AND IMPROVE PREPAREDNESS ACTIONS FOR SVPS

- **Shelters**

- Designated shelter for people w/ disabilities; children w/ special needs
- Power outlets for medical devices & accessible bathrooms
- Program focused on single parents
- Support services for residents w/ pets
- Food services to accommodate allergies/special diets

- **Evacuation**

- Evacuation vehicles to accommodate people with medical issues or medical devices
- Evacuation personnel training/planning (e.g., movement of medical equipment, people w/ disabilities, older adults in high-rise buildings)

- **Outreach and Education**

- Consistent region-wide evacuation plan information (social media and non-digital channels)
- Training on how to digitize documents/storage of essential documents for evacuation
- Monthly information sessions about resources and programs available for disaster preparation and assistance (e.g., access to food, medicine, medical devices, blankets etc.)

- **Social Services and Wellness**

- Ensure social services (e.g., homeless shelters) are more accessible throughout the region
- Organize special teams to help community members access social service programs and mental health assistance during response/recovery phases.



**American
Red Cross**



**BOYS & GIRLS CLUBS
OF AMERICA**

ACTION PLAN FOR HOUSING

Adaptation Action Plan for Atlantic City & Pleasantville Housing Authority Communities and the Region's Senior Centers

Continuity of Service

- Elevate Electrical and Mechanical Equipment
- Solar Trellises on all surface parking lots
- Solar Panels on all rooftops
- Battery to provide off-grid capacity at night
- Porous paving and green infrastructure planting to aid in stormwater management



Rooftop Solar



Solar Trellises



Relocated Mechanical Equipment

Flood Mitigation

Reprogram Ground Level

Long Term Strategies

Strategic Planning for potential redevelopment of the most vulnerable communities



Altman Towers



Whittington Senior Living



Walter Buzby



Stanley Village



Charles P Jefferies

HOME ELEVATION PROGRAM & POLICY CHANGES



Improve and provide options for property owners to fund the upfront costs of home elevation.

- Need for solutions to the challenges of the existing Home Elevation Program.
- Preservation of neighborhoods in the ACCR is an immediate need.

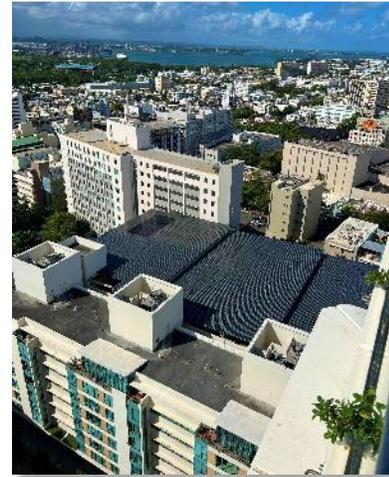
POWER AND COMMUNICATIONS

- 1 Harden all above grade utility poles, and bury utilities where possible
- 2 Install new generators at all critical facilities, Emergency Operation Centers, shelters, and schools



INSTALLATION OF SOLAR PANELS

- Incentivize installation of solar panels for renovation and new construction projects.
- Updating zoning and building codes to accommodate renewable energy.
- Adopt Incentive Program to encourage installation of solar trellises at surface parking lots and batteries at all buildings to encourage bi-directional charging for electric vehicles.
- Expand Community Solar.



Rooftop Solar



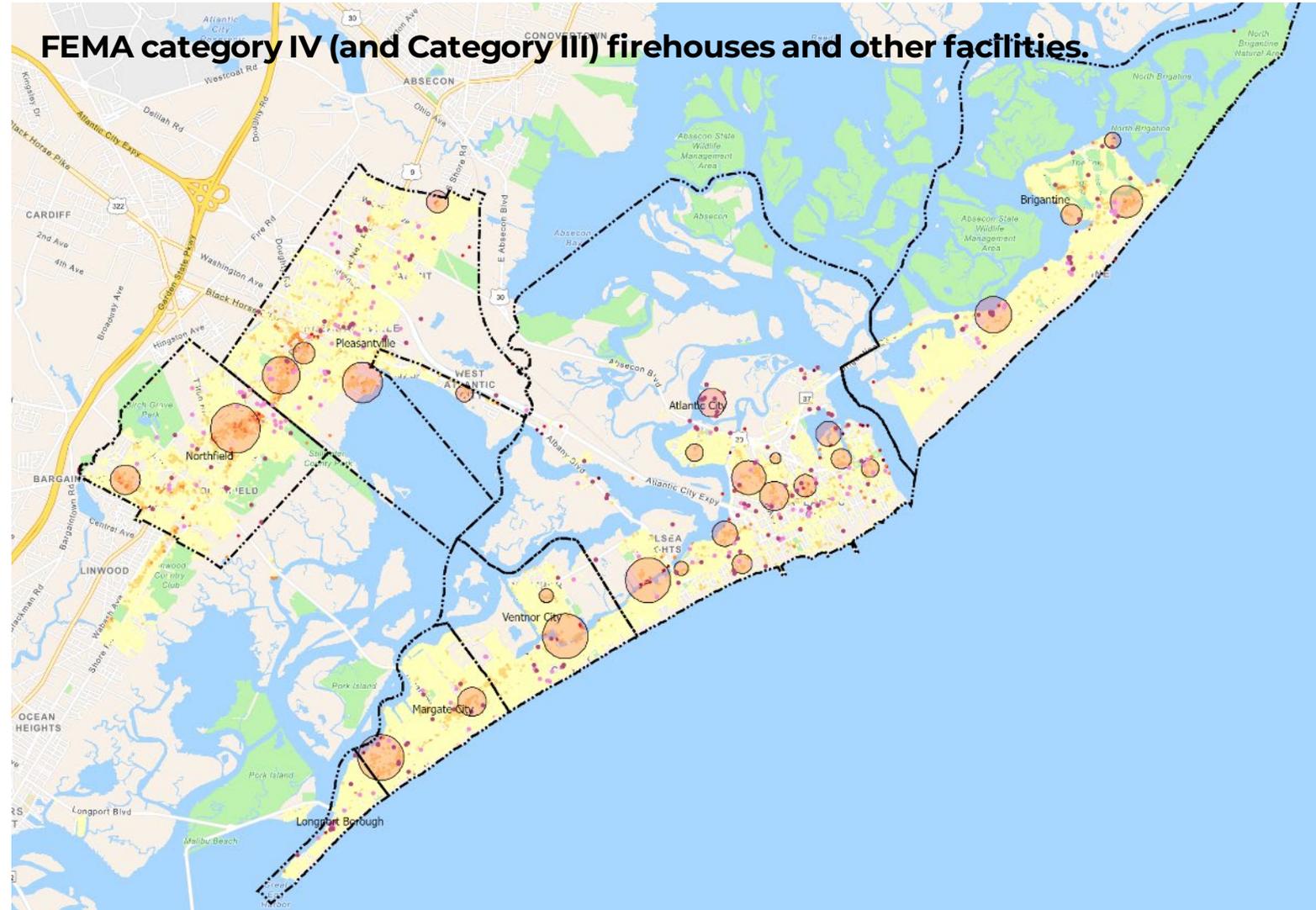
Solar Trellises



Single Housing - Rooftop Solar

COMMUNITY MICROGRID SYSTEMS STUDY

- The microgrid clusters would be associated with facilities that are “Critical Assets at Risk of Flooding” (24hr/1%)
- Microgrids can be centered around schools, public facilities, casinos /hotels or other major sites that can provide emergency services / support.
- Coordinate with Atlantic City Electric (ACE) for access/logistics.



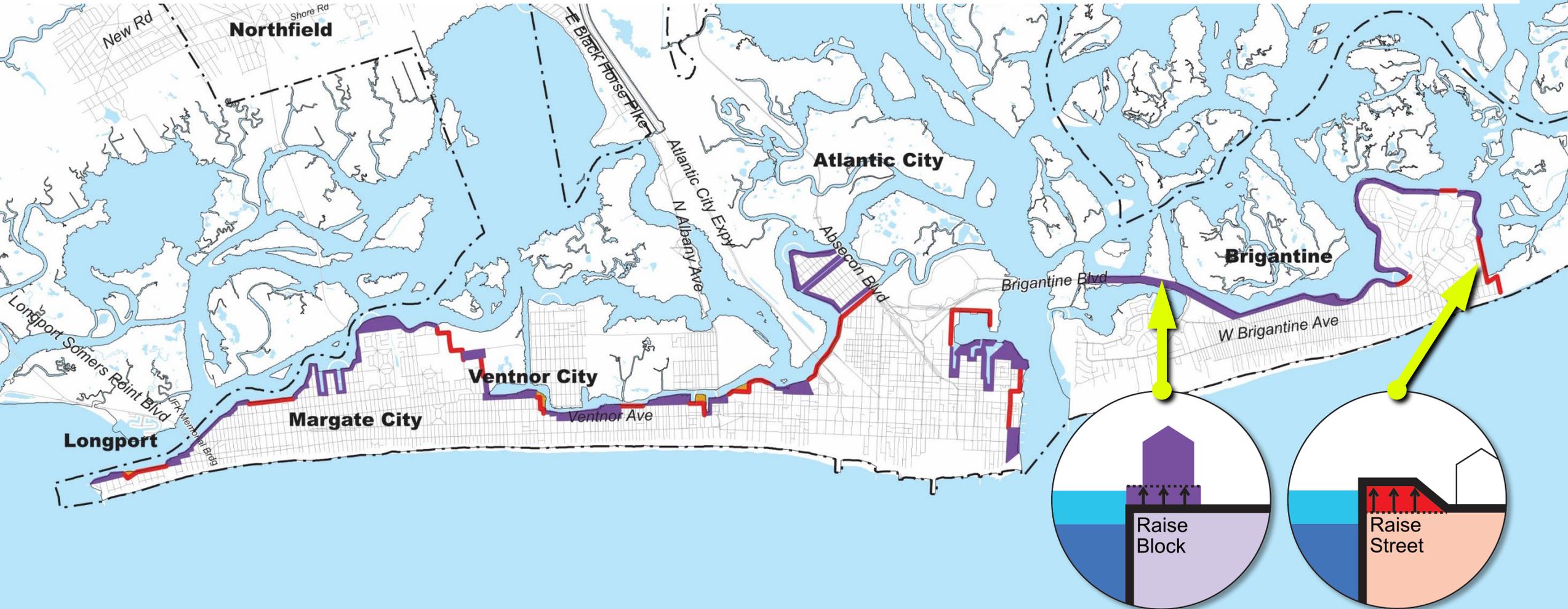
BAYSIDE AND SHORELINE PROTECTION

- 1 Continue to consider the **USACE Back Bay Plan, Great Egg Harbor Inlet SSB** to protect bayside from storm surge events
- 2 Continue beach nourishment program, with gradual elevation increase to address increased height of surge over time
- 3 Offshore Breakwaters Study
- 4 New bulkhead



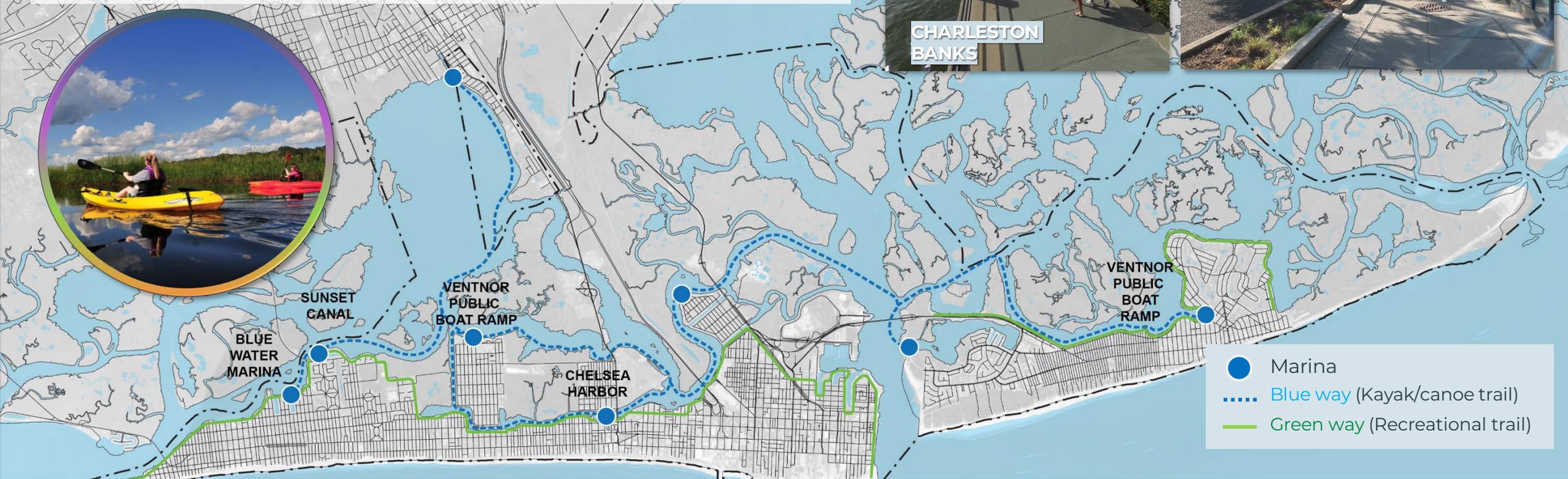
BAYSHORE CONTINUOUS SHORELINE PROTECTION STUDY

- Plan to look at a combination of raising sections of streets along the bayside and incentivizing development of key properties with bayside frontage to achieve enhanced shoreline protection measures to form a continuous bayside flood protection system.



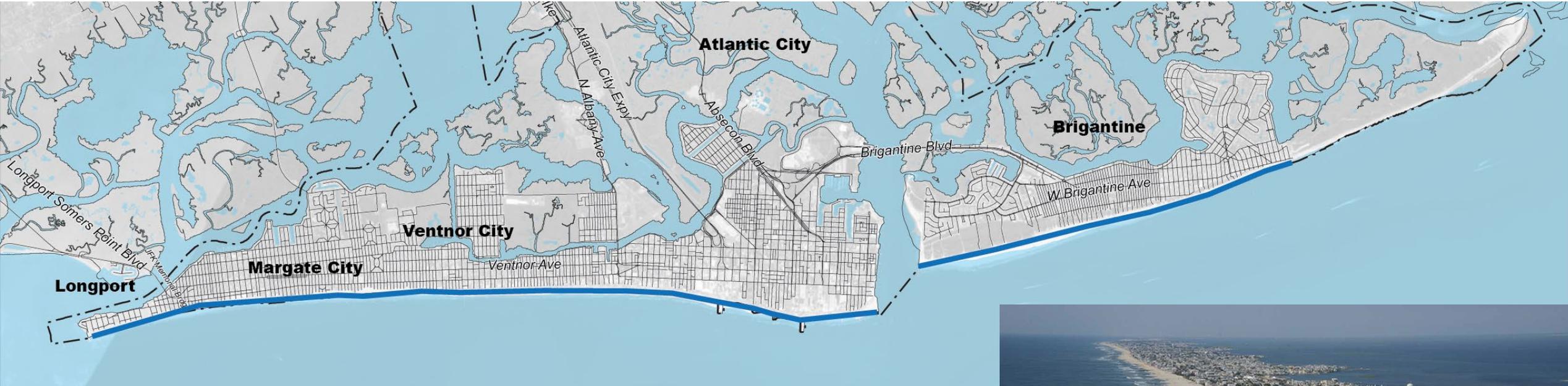
ABSECON BAY BLUE/GREEN WAY

Network of interconnected kayak/canoe trail (Blue way) connecting the Atlantic County bays developed in conjunction with new recreational trail (Green way) along the Blackhorse Pike and roads paralleling the shoreline.



BEACH NOURISHMENT

- Continue beach nourishment program, with gradual elevation increase to address increased height of surge over time



OFFSHORE BREAKWATERS STUDY



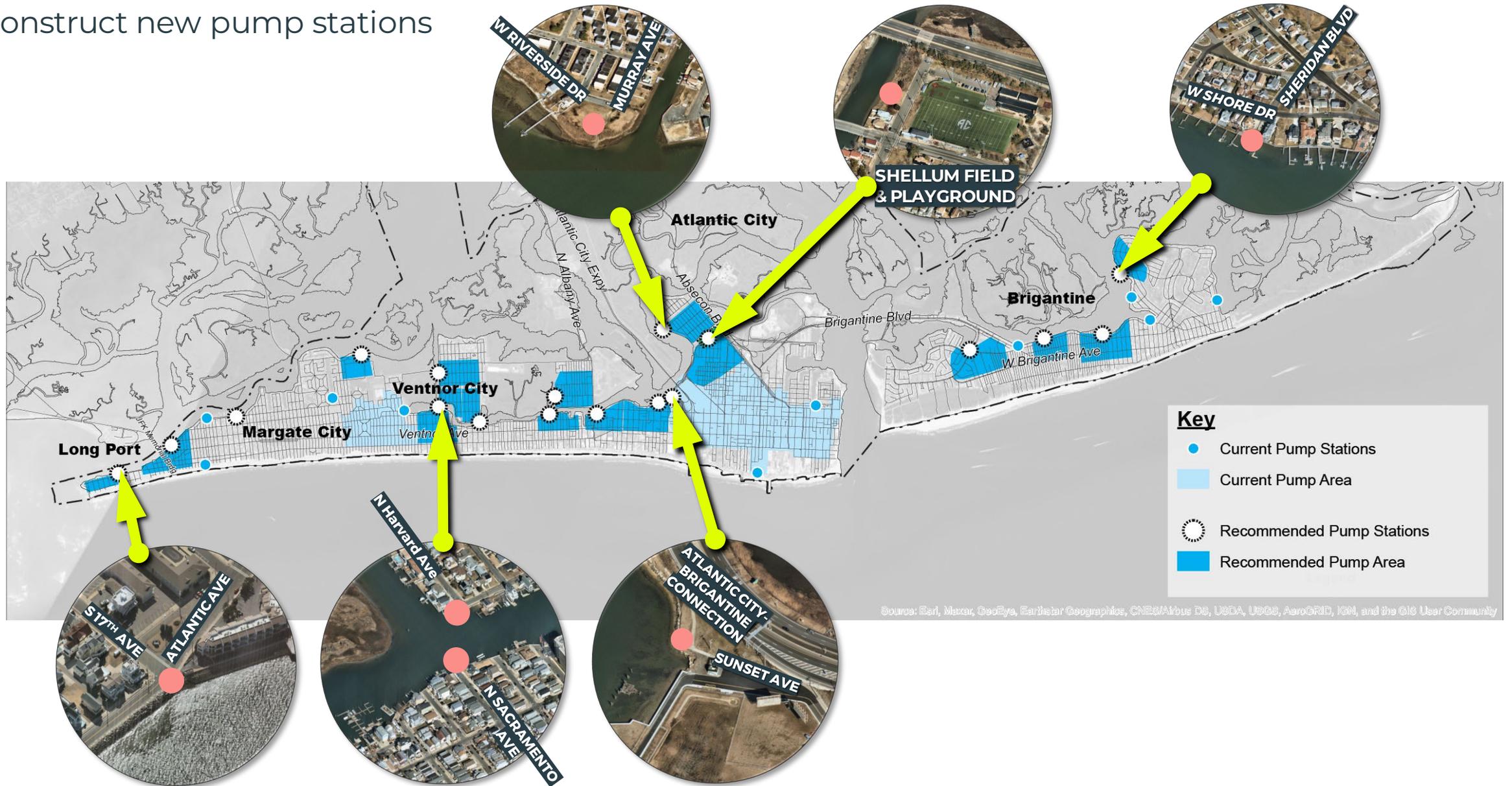
Brigantine Beach



Small-scale Breakwaters

PUMP STATIONS

1 Construct new pump stations

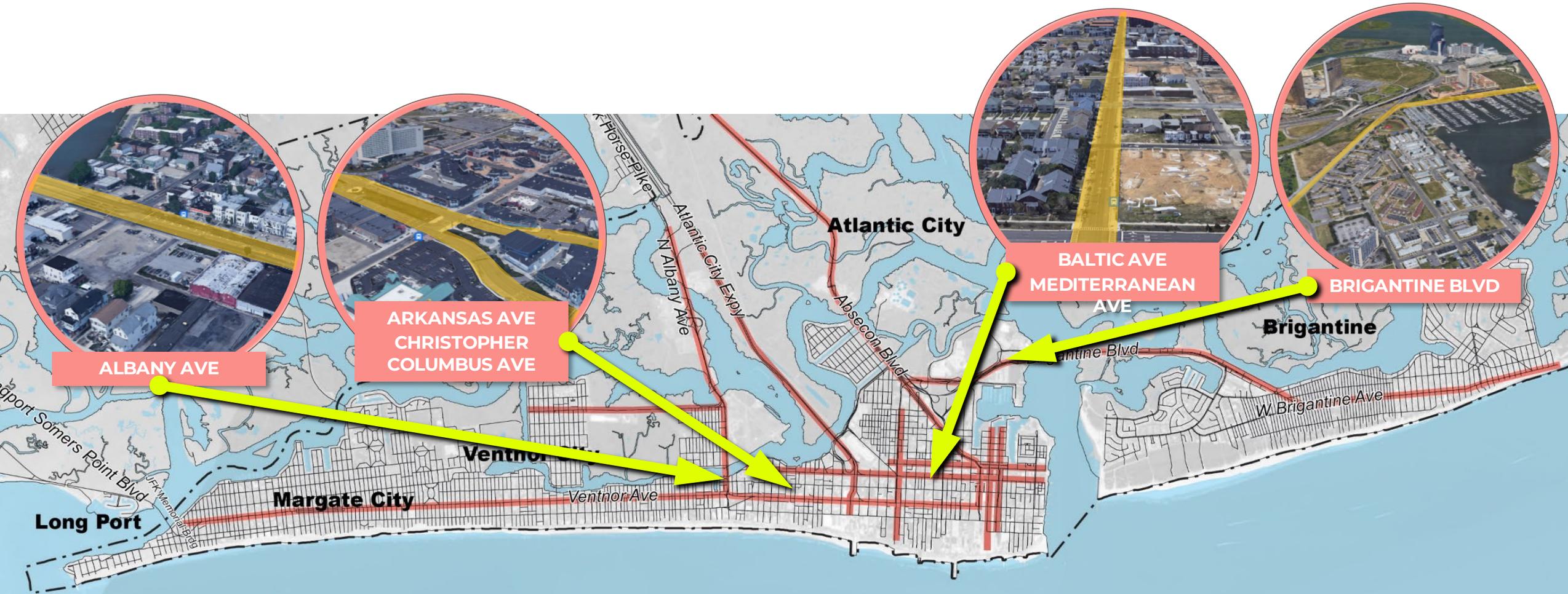


ELEVATE EVACUATION ROUTES

1 Elevate Evacuation Routes

Challenge

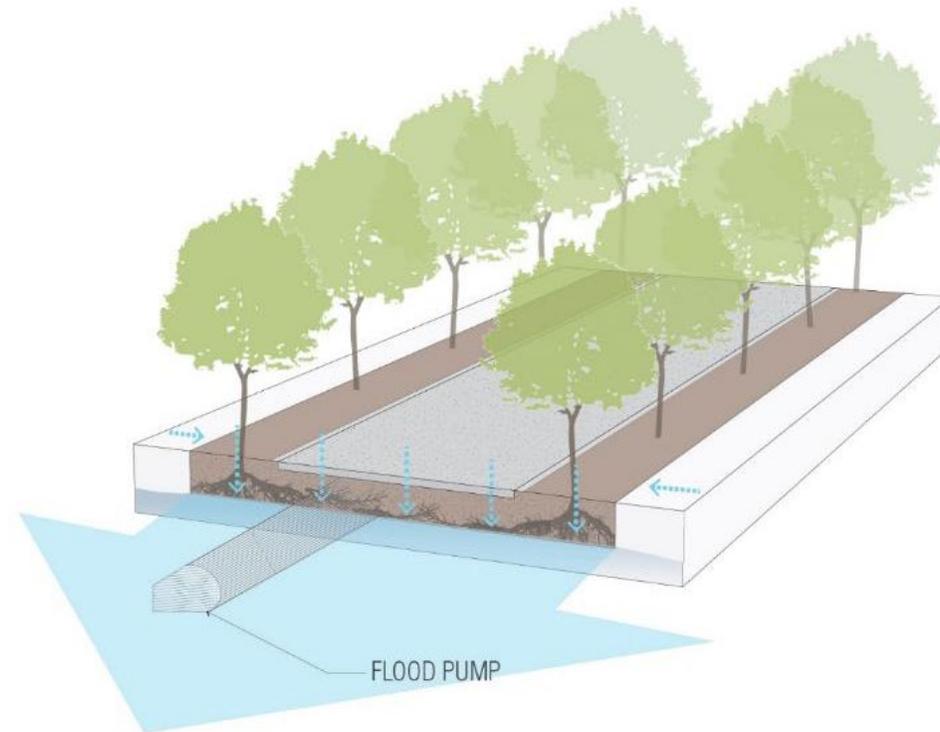
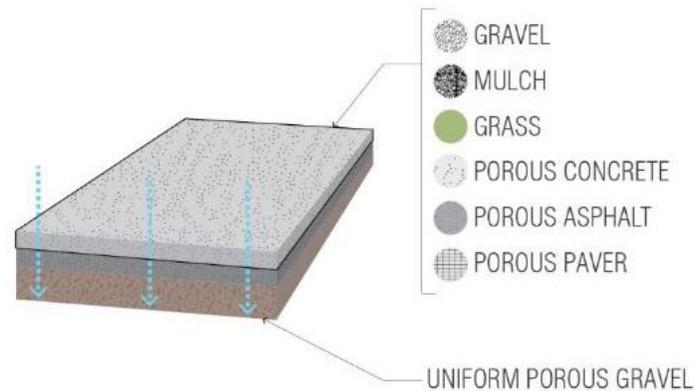
- Increase access to key evacuation routes most impacted by design storm.



LIVING STREETS FEASIBILITY STUDY AND PILOT PROGRAM

- **Living Streets** Upgrade existing streets for subsurface conveyance without pipes. Networked Green Infrastructure offer groundwater reduction through evapotranspiration and structural soils.
- Use the roadway infrastructure to function as a performative network to **mitigate downstream flash flood risks and facilitate infiltration:**

Green streets allow infiltration.



Blue streets convey water flow

STORM WATER MANAGEMENT PARKS

- Create new 'storm water management parks' on city-controlled land. Link pump stations' effluent to new wetland parks



Conovers Creek

REZONE GARDNER'S BASIN AND DELTA BASIN

Rezone area around Gardner's Basin and Delta Basin to allow for Industrial / Blue Economy related land uses

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DREDGE MANAGEMENT PLAN

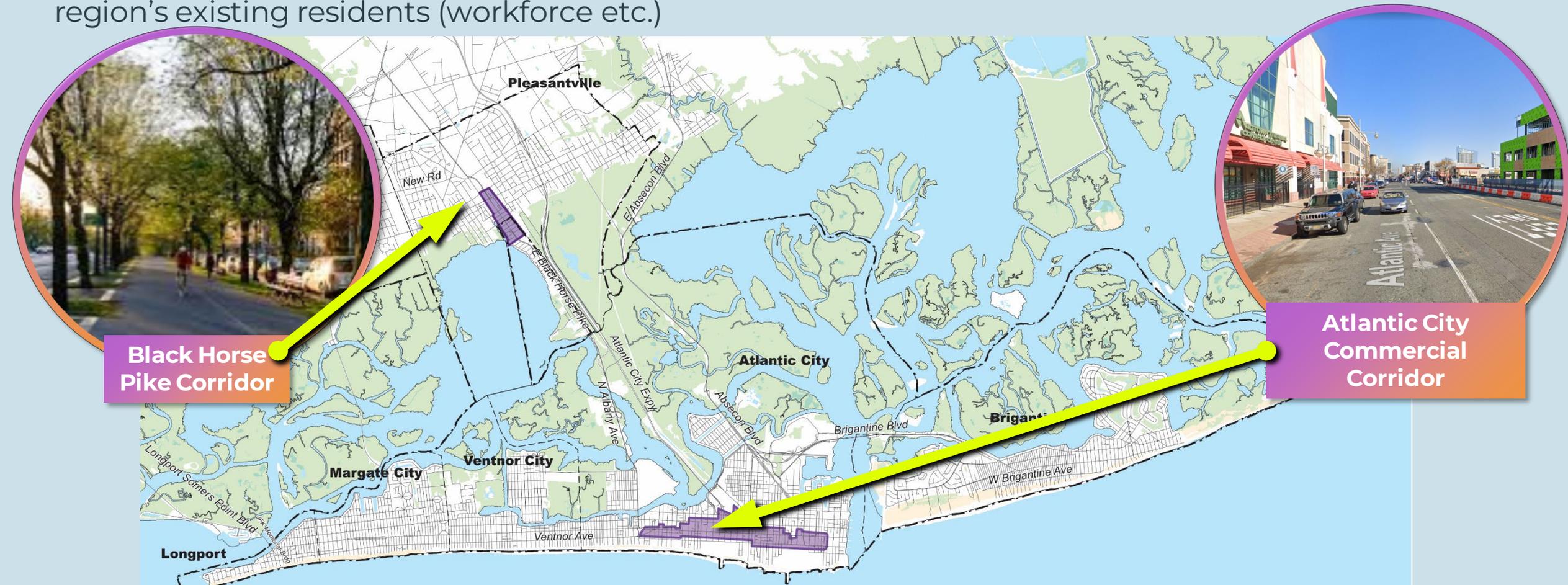
- Coordinated program to dredge spoils from all ongoing and future dredging projects in the region.
- This will provide important synergies between local projects to improve storm water capacity and maintain navigational channels, and this ongoing economic development initiative.

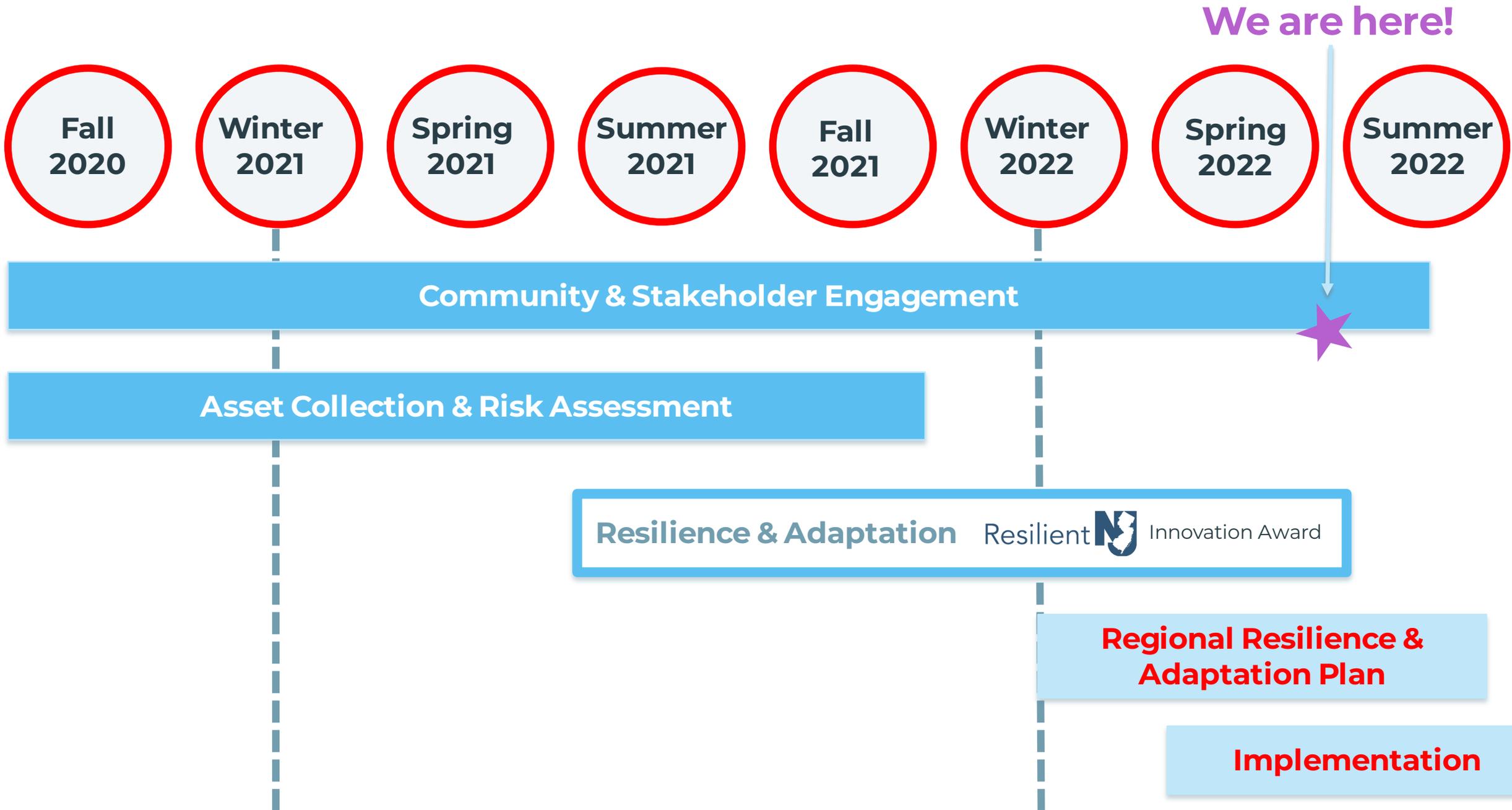
Example: *Bader Field redevelopment can serve the region by potentially providing a new economic growth and jobs and a location for those displaced over time by climate change impacts.*



REDEVELOPMENT STUDY AND VISION PLAN FOR LOWER RISK AREAS

- 1 Upzone areas in less vulnerable ('High and Dry') areas with access to housing and jobs to incentivize increased development
- 2 Study potential for increased density to accommodate more affordable housing options for the region's existing residents (workforce etc.)





Stay in Touch

- Email us: resilientaccr@dep.nj.gov
- Join a resident advisory / focus group session
- Visit: resilient.nj.gov/accr

Thank you.



American Red Cross

