



# RESILIENT NJ

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## RARITAN RIVER AND BAY COMMUNITIES

### VISION AND PRIORITIES

*DRAFT - MARCH 2022*

# SHARE YOUR FEEDBACK ON THIS DRAFT REPORT

## PLEASE SHARE YOUR THOUGHTS USING THIS SURVEY:

<https://tinyurl.com/49d9n2sa>

We share progress and ask for comments to make sure the project is on the right track. The [About Our Region report](#) (released spring of 2021) described key features of the region and its municipalities that are important to understand when planning for reduced flood risk and better quality of life in the future. This Vision and Priorities draft report summarizes what we have heard from people so far. The project team will bring your input on this report into the final action plan.

Please visit our website at [www.resilient.nj.gov/rrbc](http://www.resilient.nj.gov/rrbc) to learn more about the project and what we've done so far. We also welcome you to share your thoughts on the broader project:

- By email: [ResilientRRBC@dep.nj.gov](mailto:ResilientRRBC@dep.nj.gov)
- By hotline voicemail: 732-661-3808
- By social media: Twitter and Facebook: @Resilient\_RRBC, Instagram: @Resilient\_RRBC
- Through our website: [www.resilient.nj.gov/rrbc](http://www.resilient.nj.gov/rrbc)
- Through the Irys app (download through Apple App Store or Google Play Store)



FEEDBACK FORM

### DISCLAIMER

This information is available in the following languages upon request:

Español 中文:繁體版 Việt-ngữ  
한국어 Tagalog Português  
Kreyòl ភាសាខ្មែរ Italiano  
Polski



# PROJECT TEAM

## Steering Committee Members

### MIDDLESEX COUNTY

Doug Greenfeld, Mirah Becker, Laurie Sobel, John Ferguson, Lakeasha Carter, Brady Smith

### CARTERET

Mike Sica

### OLD BRIDGE

Veena Sawant, Damian Gil

### PERTH AMBOY

Tashi Vazquez, Larry Cattano, Joel Rosa

### SOUTH AMBOY

Glenn Skarzynski

### SAYREVILLE

Kirk Miick

### SOUTH RIVER

Art Londensky

### WOODBIDGE

Tom Flynn, Mike Gelin, Marta Darden

### RARITAN BAY AREA YMCA

Steve Jobin, Lauren Capaci, Brenda Crespo

### RARITAN VALLEY YMCA

Gina Stravic

### GATEWAY FAMILY YMCA RAHWAY

#### BRANCH

Rodger Koerber

### OLD BRIDGE FAMILY YMCA

Christopher Nasta, Jennifer Dunn

### YMCA OF METUCHEN EDISON, WOODBIDGE AND SOUTH AMBOY

Gerry Gessie

## Consultants

### ARCADIS

### INGROUP, INC.

### SCAPE LANDSCAPE ARCHITECTURE

### ONE ARCHITECTURE & URBANISM

### IRYS

### SAM SCHWARTZ ENGINEERING

### HEYER, GRUEL & ASSOCIATES





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ERNEST L. OROS WILDLIFE PRESERVE, WOODBRIDGE  
IMAGE CREDIT: PROJECT TEAM

# 01 - INTRODUCTION



# ABOUT RESILIENT NEW JERSEY

Resilient New Jersey (RNJ) is a regional planning program that brings together resilience experts, local leaders, community organizations, residents, and regional infrastructure entities to discuss storm and flood-related issues, then develop effective solutions to reduce flood risk and build resilience. The program is administered by the New Jersey Department of Environmental Protection (NJDEP) and funded by the U.S. Department of Housing and Urban Development (HUD).

In the Raritan River and Bay Communities (RRBC) region, Middlesex County has partnered with the municipalities of Carteret, Woodbridge, Perth Amboy, South Amboy, Sayreville, South River, and Old Bridge, as well as the YMCAs of Middlesex County.

Our communities are rich in history, people, places, and experiences. We are experiencing flooding and other hardships today, and the choices we make now can either exacerbate those risks or improve resilience and equity. We seek to build resilience against flooding now and in the future and address challenges that affect our quality of life by conducting informed, inclusive planning. As such, the Steering Committee developed the following working mission statement, which will evolve as the project progresses and as input is received from additional stakeholders.

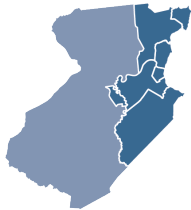


## RARITAN RIVER AND BAY COMMUNITIES PROJECT MISSION STATEMENT

*The mission of the Resilient NJ - Raritan River and Bay Communities is to create a watershed-based plan with a clear vision and roadmap for flood risk reduction, resiliency, and environmental restoration to help the multi-municipal region survive and thrive. Plan development will employ the best available data and inclusive engagement to create social, environmental, and economic benefits and bring value to all who will share in the region’s future.*

## PROJECT GOALS

To develop a regional resilience action plan that is supported by the community, addresses flood-related hazards in the region, and meets other community objectives, input from the people who live, work, and play in the region is critical. The project goals have been developed based on what we’ve heard from RRBC communities so far.



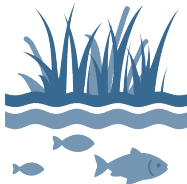
*Build off ongoing resilience planning by identifying and addressing gaps and opportunities within the region.*



*Ensure representation and participation from socially vulnerable populations to address their needs and risks.*



*Develop innovative and implementable solutions that increase resilience in both the short- and long-term.*



*Enhance the value and integrity of the ecological, recreational, and economic resources in the region.*



*Ensure collaboration among a wide variety of stakeholders.*

## WHAT IS RESILIENCE?

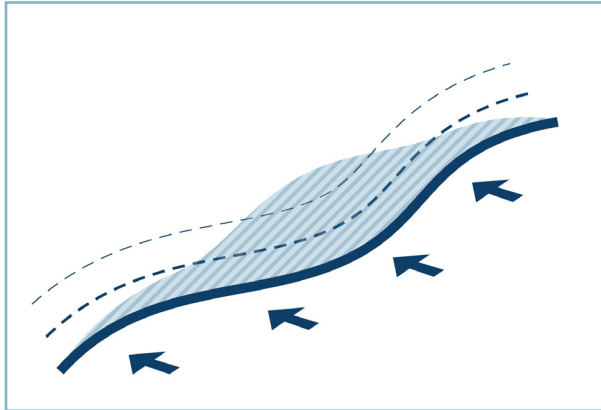
*Resilience is the ability to adapt to changing conditions and grow in the face of challenges. In the context of flooding, we mean shaping communities that have strong social fabrics and infrastructure that can bounce back after storms and adapt to changing climate conditions.*

# FLOOD HAZARDS AND RECENT EVENTS

Resilient RRBC seeks to reduce current and future flood risk. Flooding is an existing issue within our region and climate change is making it worse. This page summarizes the types of flooding RRBC is exposed to, identifies how flooding will be exacerbated by climate change and provides several examples of recent flood events in the region. For more information about the RRBC region and the flood risks it faces, check out the About our Region report, available [here](#).

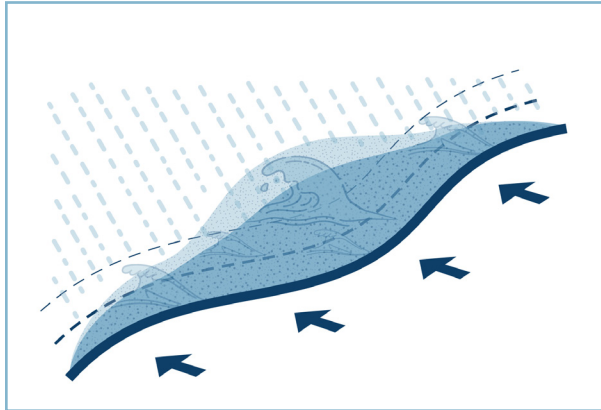
## Types of Flooding

### TIDAL FLOODING



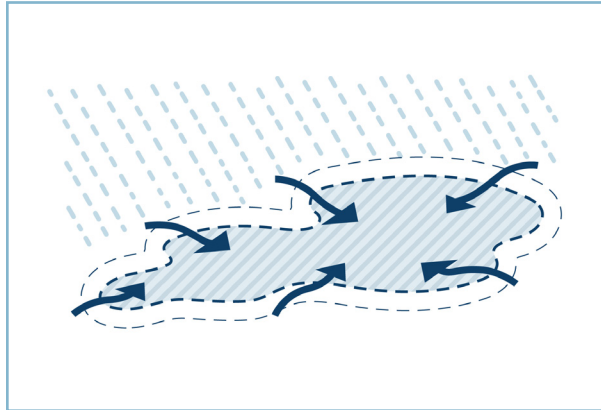
Low-lying coastal areas flood when water levels rise above ground elevation due to high tides.

### COASTAL STORMS



Coastal storms create flooding due to waves and storm surge—a rise in water levels due to storm pressure and winds—which can also lead to coastal erosion. Coastal storms can also bring high winds and heavy rains.

### RAINFALL FLOODING



Lower lying areas along waterways and inland can flood due to heavy rain events overwhelming drainage infrastructure. Rainfall flooding, including urban stormwater flooding and riverine flooding, is an issue across the region today.

## Summary of Recent Flooding By Municipality

RRBC MUNICIPALITIES IMPACTED	OCTOBER 26-27, 2021 NOR'EASTER RAINFALL (IN) <sup>1</sup>	SEPTEMBER 1-2, 2021 IDA RAINFALL (IN) <sup>2</sup>	AUGUST 22, 2021 HENRI RAINFALL (IN) <sup>3</sup>
Carteret *	-	9.31	2.44
Woodbridge	4.06	8.19	2.24
South River	-	6.01	0.30
Old Bridge	4.26	5.42	4.77
Sayreville	-	4.74	3.02

Flooding is already a serious problem across the Raritan River and Bay Communities region. With climate change, flooding will become more frequent and more severe. In 2021, several flood events impacted the RRBC region.

\* [In July, Tropical Storm Elsa dropped over 3" of rain on Carteret.](#)

1. ["New Jersey Nor'easter Rainfall Totals"](#) FOX 5 New York, 27 Oct. 2021.

2. Torrejon, Rodrigo. ["Ida Dumps Staggering 10 Inches of Rain in Parts of N.J. Latest Town-by-Town Rainfall Totals \(Updated\)."](#) NJ, 9 Sept. 2021.

3. ["Tropical Storm Henri: Rainfall totals in New York City Tri-State area."](#) ABC7 New York, 24 Aug. 2021.



# WHAT FLOODING LOOKS LIKE IN RRBC: IDA IMPACTS

The Raritan River and Bay Communities (RRBC) region was substantially damaged by Tropical Storm Ida. Middlesex County declared a county-wide state of emergency due to widespread flooding and storm damage to every municipality. Streets were closed and barricades were put in place to ensure safety and monitor traffic. The Raritan River reached new highs that have not been seen in over 50 years. Recovery from the storm and its impacts continues and will take years.

## CARTERET FLOODING



Source: *The Lakewood Scoop*  
Hurricane Ida flooded the Carteret Yeshiva and surrounding areas. The Yeshiva, an important community asset in Carteret, experienced severe basement and first-floor flooding in its Main Building and dormitories. Carteret as a whole experienced 9" of rainfall.

## WOODBIDGE FLOODING



Source: *News 12*  
As parts of the Raritan River flooded during Hurricane Ida, this image from Woodbridge shows the rising water levels submerging neighborhood backyards. Nearby in New Brunswick, residents were evacuated.



Source: *NJ Spotlight News*  
In the aftermath of the September flooding devastation that Ida caused in Woodbridge, several flood victims have considered state buyouts of their properties. When Woodbridge asked homeowners there if they would consider selling their flood-prone houses through New Jersey's Blue Acres program, many applied.

## SOUTH RIVER FLOODING



Source: *Youtube*  
In South River, the Causeway area of South River experienced significant flooding during Hurricane Ida. Barricades were placed to close the area to traffic. The road flooding due to the hurricane also limited area evacuation route access.



## MIDDLESEX COUNTY FLOODING



Source: *News 12 Bronx | CBS New York*  
Overall, Hurricane Ida impacted Woodbridge, Carteret, and South River most within the RRBC region. Throughout New Jersey, though, 30 people died as a result of the floods.



SAYREVILLE AFTER HURRICANE SANDY  
IMAGE CREDIT: BRIAN DONOHUE AND ANDRE MALOK



# ABOUT THIS REPORT

The Resilient NJ program brings together resilience experts, local leaders, community organizations, resident, and regional infrastructure entities to develop solutions to reduce flood risk and build resilience. Throughout 2021, Resilient RRBC collected feedback from stakeholders regarding their experiences with flooding, community values and resilience priorities. This report summarizes what we’ve heard so far and synthesizes our understanding of the region’s vision for itself. This feedback will guide the risk assessment, scenario development and action plan to ensure they align with community vision and priorities.

## REPORT STRUCTURE

This report summarizes the feedback collected through engagement conducted for RRBC through November 2021. Feedback received has helped us understand the region’s experiences with flooding, community values and resilience priorities. Feedback will also help the project team focus on developing resilience strategies that address community priorities.

The report is structured to share what we heard about the following:

- IMPACTS AND CHALLENGES OF FLOODING
- COMMUNITY VALUES AND TENSIONS
- PRIORITIES

We encourage you to share your thoughts with us on whether we have accurately captured community vision and priorities related to flooding. Please share your feedback with us using this form:

<https://tinyurl.com/49d9n2sa>

# DIVERSITY, EQUITY, AND INCLUSION

Marginalized groups exist everywhere. This means that some people are excluded from or have limited access to traditional or “mainstream” economic, political, cultural, and social activities. This exclusion or marginalization can have significant impacts on individuals, families, and communities. Middlesex County is recognized as one of the most diverse counties in New Jersey. Middlesex County promote diversity, equity, and inclusion by:

1. **Welcoming** marginalized groups, in particular Black and Brown people, and ensuring that they have access to the resources and opportunities necessary to connect, belong, grow and improve the quality of their lives;
2. **Acknowledging** and eliminating disparities along race, class, gender, disability status and other dimensions of diversity;
3. **Expanding** choice and for Black and Brown people, recognizing a special responsibility to plan opportunity for the needs of those who have been historically discriminated against;
4. **Fostering** racial and economic integration;
5. **Ensuring** diversity and inclusion in decision-making processes.

This project seeks to ensure the fair distribution of the burdens and benefits of resilience solutions, and the active cultivation of equitable decision-making processes and resilience outcomes. This project has the potential to impact thousands of people in underserved communities. The Resilient Raritan River and Bay Communities project team has a responsibility to:

- *Ensure that project processes incorporate input from community members.*
- *Maintain intentional commitment to respect and civility in all project engagement.*
- *Sustain action and assessment of progress towards equitable resilience goals.*





**RARITAN BAY WATERFRONT PARK, SOUTH AMBOY**  
IMAGE CREDIT: PROJECT TEAM

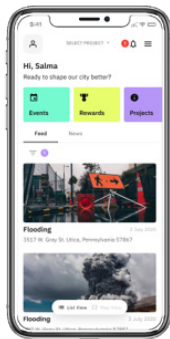
# 02 - OUR ENGAGEMENT PROCESS

# OUR ENGAGEMENT PROCESS

Community members, local leaders, business owners and other stakeholders in the Raritan River Bay and Communities region are the foremost experts on their communities. To be successful, Resilient RRBC must incorporate feedback from diverse groups of people and listen to voices that may have been unheard in the past. The region is experiencing a pandemic and recurring flood events at the same time, creating new challenges for people to take part in the project.

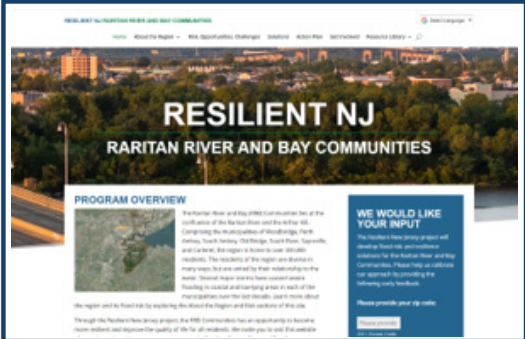
## ANYTIME ENGAGEMENT

One of the main ways the project team is collecting public stakeholder feedback is through our network of Anytime Engagement platforms. These platforms meet people where they are and expand public involvement opportunities beyond public meetings and conversations facilitated through the Steering Committee and regional YMCAs. Through Anytime Engagement, we hope to capture what works for our stakeholders and how resilience can positively and equitably transform the places they know.



ENGAGEMENT APP  
IRYS

IRYS is available on mobile phones through Google Play and the App Store. This tool provides program information, meeting schedules, surveys and enables you to submit information about flood risks in your neighborhood.



INTERACTIVE WEBSITE:  
[www.resilient.nj.gov/rrbc](http://www.resilient.nj.gov/rrbc)

The website provides an overview of the project, risks, opportunities, and challenges, and solutions. The website also includes updates from ongoing engagement efforts, a resource library and ways to get involved.



VISIONING  
SURVEY

The survey has been translated into multiple languages including Spanish, Portuguese, Simplified Chinese, Hindi, Polish, Arabic, Gujarati, Haitian Creole, Korean, and Tagalog.



VIRTUAL PUBLIC MEETINGS  
AND FOCUS GROUPS

During the visioning process, we conducted a listening tour by working with partners to reach people where they're at through existing meetings and outreach. As the project progresses and we learn more about priorities, we will host public meetings and plan additional outreach.

We welcome feedback about how we can make it easier and more rewarding to participate and are encouraging RRBC community members to contribute to the project through our Anytime Engagement suite of participation platforms.

We have provided a variety of participation opportunities to encourage equitable processes and outcomes, a critical component of the Resilient NJ - Raritan River and Bay Communities program. We have facilitated participation through the following engagement tools.

## STEERING COMMITTEE

The work of Resilient NJ – Raritan River and Bay Communities is overseen by a Steering Committee comprised of the Middlesex County Office of Planning, the municipalities of Carteret, Old Bridge, Perth Amboy, South Amboy, Sayreville, South River and Woodbridge, and the YMCAs of Middlesex County. The steering committee participates regularly in the RRBC program planning process. They routinely provide feedback on project priorities, public-facing materials, and deliverables.

### Steering Committee Members

#### MIDDLESEX COUNTY

Doug Greenfeld, Mirah Becker, Laurie Sobel, John Ferguson, Lakeasha Carter, Brady Smith

#### CARTERET

Mike Sica

#### OLD BRIDGE

Veena Sawant, Damian Gil

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#### SOUTH AMBOY

Glenn Skarzynski

#### SAYREVILLE

Kirk Miick

#### SOUTH RIVER

Art Londensky

#### WOODBIDGE

Tom Flynn, Mike Gelin, Marta Darden

As of January 2021, there have been 18 steering committee meetings soliciting feedback on a broad range of topics from developing a community vision to identifying critical assets. Please see the Appendix for more information on the topics discussed during these meetings.

#### RARITAN BAY AREA YMCA

Steve Jobin, Lauren Capaci, Brenda Crespo

#### RARITAN VALLEY YMCA

Gina Stravic

#### GATEWAY FAMILY YMCA RAHWAY BRANCH

Rodger Koerber

#### OLD BRIDGE FAMILY YMCA

Christopher Nasta, Jennifer Dunn

#### YMCA OF METUCHEN EDISON, WOODBRIDGE AND SOUTH AMBOY

Gerry Gessie



# COMMUNITY-BASED ORGANIZATION INVOLVEMENT

A coalition of regional YMCAs is a key partner in the RRBC program. The Raritan Bay Area YMCA is leading this coalition which includes:

- YMCA of Metuchen, Edison, Woodbridge, South Amboy (MEWSA)
- The Gateway Family YMCA – Rahway Branch (Carteret)
- Old Bridge Family YMCA
- Raritan Valley YMCA

These **Middlesex County YMCAs** have been actively involved in the planning process through participation in the Steering Committee and additional efforts to enhance community engagement across the region. The YMCAs have experience working with socially vulnerable and historically underserved populations in the region and are working with Steering Committee members to ensure these populations are fully represented in the planning process by:

- Sharing information about the project with their community
- Ensuring engagement of socially vulnerable and historically underserved populations
- Ensuring community priorities are clearly reflected in the planning process

On December 14, 2021, the YMCA hosted a workshop with a group of families convened as part of the YMCA's ongoing programming initiatives. The workshop collected feedback on:

- Critical places and spaces in RRBC communities
- How these places and spaces have been impacted by flooding
- What factors are most important when making decisions to reduce flood risk, and
- What people want to see in their community

## COMMUNITY WORKSHOP RESPONSES

### MY VISION FOR MY COMMUNITY'S FUTURE

Draw, sketch, write about, or photograph your vision for the future as the region adapts to rising flood risk... then snap a picture of the drawing or of yourself with the drawing and share!

I would want to see not much change but make it safer from flooding. I will still want to see more houses and small business areas.



back of small bridge here

### HOW FLOODING HAS AFFECTED ME

Draw, sketch, write about, or photograph how flooding has affected your life, your community, or where you have seen flooding... then snap a picture of the drawing or of yourself with the drawing and share!



## DECEMBER 2021 YMCA WORKSHOP



# WHAT TYPES OF FEEDBACK DID WE GATHER?

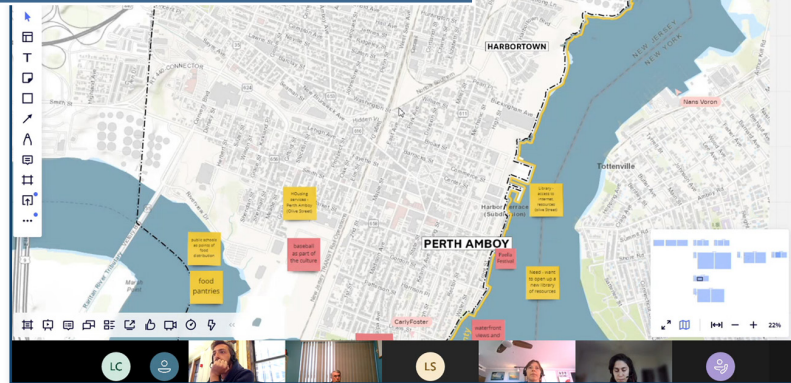
In close coordination with the Steering Committee and YMCA's, the project team collected feedback through a variety of engagement opportunities illustrated on this timeline. Throughout these engagement opportunities, the following key questions were used to guide conversations and better understand flooding impacts, community values and tensions, and priorities:

- Where / how do you currently experience flooding?
- How does flooding affect your life / community?
- What do you value most about your community?
- What do you want to make sure stays the same as the region adapts to flood risk?
- What changes do you want to see for yourself and future generations?
- What is the most important factor to consider when choosing actions that could reduce flood risk in your community?
- What do you want to see improved (beyond/in addition to flooding)?

## VISIONING BOARD



## STEERING COMMITTEE MEETING



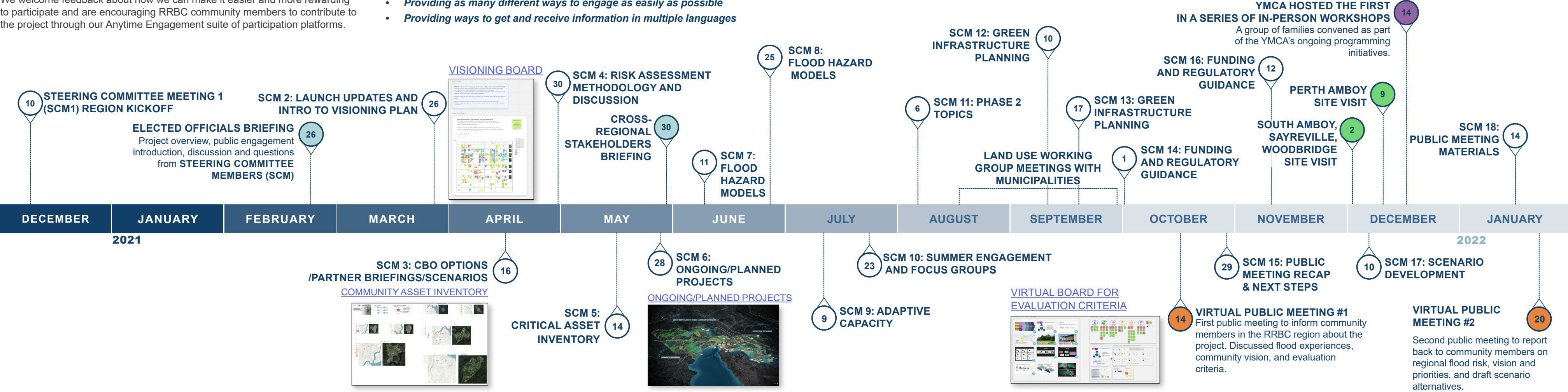
OUR ENGAGEMENT TIMELINE

Community members, local leaders, business owners and other stakeholders in the Raritan River Bay and Communities region are the foremost experts on their communities. To be successful, Resilient RRBC must incorporate feedback from diverse groups of people and listen to voices that may have been unheard in the past. The region is experiencing a pandemic and recurring flood events at the same time, creating new challenges for people to take part in the project.

We welcome feedback about how we can make it easier and more rewarding to participate and are encouraging RRBC community members to contribute to the project through our Anytime Engagement suite of participation platforms.

Throughout the RRBC engagement process, support of the Steering Committee and a coalition of regional YMCAs has been critical to the ability of the project team to collect valuable community feedback. We are working to accomplish this by:

- **Reaching out to potential partner organizations to help us make our engagement more welcoming and reaching the people they serve to receive input.**
- **Providing as many different ways to engage as easily as possible**
- **Providing ways to get and receive information in multiple languages**

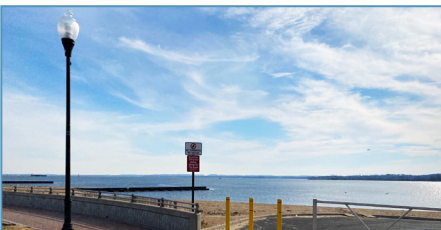




# SITE VISITS

Members of the project team participated in two site visits in the winter 2021. The first was on December 2, 2021 and included visits to South Amboy, Sayreville, Old Bridge, and Woodbridge. On December 9, members of the team visited Perth Amboy. During the visits, representatives for each Town guided the project team to key locations and helped answer questions about past projects, current challenges, and future opportunities.

## PERTH AMBOY



## SAYREVILLE



## SOUTH AMBOY



## WOODBIDGE



# OCTOBER VIRTUAL PUBLIC MEETING

On October 14, we hosted the RNJ-RBBC project's first virtual public meeting. The purpose of this meeting was to share information about the project and why it's important, how the resilience plan is being collaboratively developed and can help the region build resilience, what we've heard through community feedback, how community members can stay connected and involved throughout the entire project. The meeting was translated into both Spanish and American Sign Language.

The meeting was promoted across a variety of platforms. We shared information about the meeting through media advisory notices, RRBC email lists, and flyers/banners that were distributed through RRBC social media sites and cross-posted on municipality's social media sites.

During the October Public Meeting, the project team heard:

- **Flooding is a serious problem across the region NOW.** Immediate actions that can efficiently reduce flood risks in the near-term are a priority.
- **Flooding is not the only issue.** The regional resilience action plan's recommendations should improve overall quality of life while also addressing flooding.
- **Outreach and education are critical.** Resources about risks and individual actions to build resilience should reach different groups including vulnerable populations and youth through a variety of channels.
- **Municipalities need State and Federal support to advance resilience.** County and State laws and regulations may need to be updated to address flooding.

## RESILIENT NJ RARITAN RIVER AND BAY COMMUNITIES COMMUNITY MEETING

Thursday, October 14<sup>th</sup> | 5:30-7 PM

[tinyurl.com/Oct-14th-2021](https://tinyurl.com/Oct-14th-2021)



Scan here

### JOIN THE CONVERSATION

Please join us to share your perspectives on priorities for flood risk reduction and how strategies can improve quality of life!



[ResilientRRBC@dep.nj.gov](mailto:ResilientRRBC@dep.nj.gov)



732-661-3808



[www.resilient.nj.gov/rrbc](http://www.resilient.nj.gov/rrbc)

Image by Ken Lund, Flickr






# JANUARY VIRTUAL PUBLIC MEETING

During the January Public Meeting, the project team spoke more about different types of flood risk in the region, the impacts of climate change on future flood risk, and introduced the concept of scenario development to begin to gather community input on the best way to address flooding risks and other identified concerns.


The project team sought public input on resilience scenarios based on previously identified risks, vision, and priorities. Developing scenarios will allow stakeholders and decision makers to understand pathways to enhancing resilience within the region over the next fifty years.

The project team developed and presented **three distinct regional scenarios for 2070** that are being evaluated to identify a preferred scenario. The preferred scenario will form the basis of the **Action Plan**. Each scenario has a common theme and is comprised of a range of “**Keystone Actions**” to address flood risk. Flood mitigation benefits are evaluated against existing conditions, or the baseline scenario and assessed using evaluation criteria to ensure consistency with the project’s vision and objectives. A brief overview of each scenario is presented in the next pages. More detailed information on scenario alternatives will be published as a separate report as part of the Resilient New Jersey project in the coming months.

**RESILIENT NEW JERSEY**  
RARITAN RIVER AND BAY COMMUNITIES

### JOIN US TO DISCUSS HOW TO REDUCE FLOOD RISK IN YOUR COMMUNITY

Thursday, January 20<sup>th</sup> 2022  
6-7:30 PM



Scan here

LET YOUR VOICE BE HEARD!


Learn about current flood risk in your community, and how it is likely to change in the future

Discuss potential actions to reduce flood risk in your community

RSVP FOR THE VIRTUAL MEETING AT [tinyurl.com/Jan20th2022](https://tinyurl.com/Jan20th2022)  
Or call 732-661-3808 to RSVP.  
Registration is optional but encouraged to help us plan!

A regional collaboration between Carteret, Old Bridge, Perth Amboy, Sayreville, South Amboy, South River, Woodbridge, Middlesex County, Middlesex County YMCAs, and NJDEP.

[ResilientRRBC@dep.nj.gov](mailto:ResilientRRBC@dep.nj.gov) | 732-661-3808 | [www.resilient.nj.gov/rrbc](http://www.resilient.nj.gov/rrbc)

**RESILIENT NJ**  
RARITAN RIVER AND BAY COMMUNITIES


39 posts 79 followers 26 following

Message

Resilient Raritan River + Bay  
Developing an action plan to mitigate flood risk for those who live, work + play in the Raritan River and Bay Communities in Middlesex County.  
[resilient.nj.gov/rrbc](http://resilient.nj.gov/rrbc)

Followed by andringabk, altmanx, dunbardeli +3 more


POSTS



**RESILIENT NJ**  
RARITAN RIVER AND BAY COMMUNITIES  
VIRTUAL COMMUNITY MEETING  
TODAY FROM 6-7:30PM

Please join us to share your perspectives on priorities for flood risk reduction and how strategies can improve quality of life!

RSVP: [tinyurl.com/Jan20th2022](https://tinyurl.com/Jan20th2022)  
Zoom: <https://us06web.zoom.us/j/81575437475>  
Dial In: +1 646 558 8656  
Meeting ID: 815 7543 7475




**RESILIENT NJ**  
RARITAN RIVER AND BAY COMMUNITIES  
VIRTUAL COMMUNITY MEETING  
Thursday, January 20<sup>th</sup> | 6-7:30PM

Learn about current flood risk in your community, and how it is likely to change in the future

Discuss potential actions to reduce flood risk in your community

[tinyurl.com/Jan20th2022](https://tinyurl.com/Jan20th2022)




**RESILIENT NJ**  
RARITAN RIVER AND BAY COMMUNITIES  
VIRTUAL COMMUNITY MEETING  
Thursday, Jan. 20<sup>th</sup>  
6-7:30 PM  
RSVP at [tinyurl.com/Jan20th2022](https://tinyurl.com/Jan20th2022)

Learn about current flood risk in your community, and how it is likely to change in the future

Discuss potential actions to reduce flood risk in your community

[ResilientRRBC@dep.nj.gov](mailto:ResilientRRBC@dep.nj.gov) | 732-661-3808

TAGGED



Resilient Raritan River and Bay Communities is focused on developing a regional resilience action plan to address flood-related hazards

## Scenario Alternative #1

Protecting Critical Assets and Economic Centers

*This scenario focuses on protection of critical infrastructure assets and developed areas*

**Example Keystone Actions:**

- Site-specific adaptation of critical utilities
- Shoreline barrier strategies to protect substantially built-up waterfront areas
- Guidelines for new development to integrate flood risk mitigation and stormwater management



SCREENSHOTS FROM JANUARY 2022 VIRTUAL PUBLIC MEETING BREAKOUT GROUPS

## Scenario Alternative #2

RESTORING NATURAL SYSTEMS AND MINIMIZING EXPOSURE

*This scenario focuses on flood risk mitigation measures that have ecological benefits and planning for a transition to less vulnerable development.*

**Example Keystone Actions:**

- Tidal wetland and riparian zone restoration
- Use of open space for stormwater management
- Transition of highly vulnerable areas/ brownfield sites to open space



## Scenario Alternative #3

TRANSITIONING TO SMART GROWTH FOR A NEW ECONOMY

*This scenario focuses on planning for new economic opportunities in conjunction with climate adaptation – protecting critical assets while directing growth to areas that are less vulnerable.*

**Example Keystone Actions:**

- Transitioning industrial uses away from oil and gas
- Strengthening developed areas outside of the floodplain
- Enhancing resiliency of mobility systems



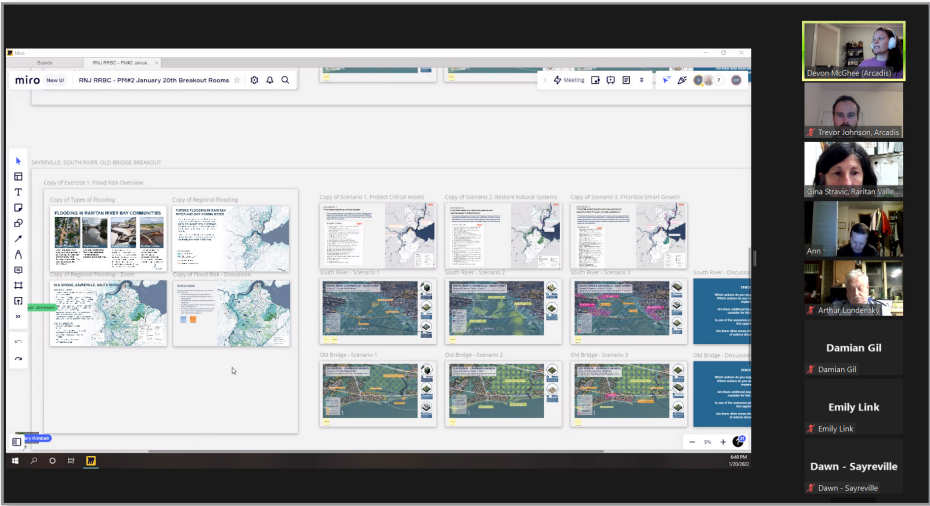


# JANUARY VIRTUAL PUBLIC MEETING (CONTINUED)

The project team zoomed into specific neighborhoods to provide a more detailed discussion of flood risks and the three scenarios and elicited feedback on preferred scenarios:

**What types of actions do you want to see to reduce flood risks?**

- Overall, community members expressed an interest in solutions that could be implemented quickly and cost-effectively to directly address current flooding. There is need for more immediate actions as many existing programs, such as the Blue Acres Buyout program, can take time.
- There was an understanding of the importance of implementing projects on a regional scale to ensure their effectiveness. While there is an understanding of the need to protect critical infrastructure and evacuation routes, community members expressed a concern for the costs of these projects.
- Community members expressed interest in maximizing buyouts by removing infrastructure in buyout areas and offering incentives.
- Interest in elements of Scenario 1 (“Protecting Critical Assets and Economic Centers”) and Scenario 2 (“Restoring Natural Systems and Minimizing Exposure”), particularly stormwater retention, increased pumping capacity, and tide gates was shared.
- Scenario 3 (“Transitioning to Smart Growth for a New Economy”) was the overall preferred scenario with a strong interest in nature-based solutions and stormwater management, especially through solutions such as pervious surfaces and rain gardens. There was an emphasis on the need for connectivity between stormwater management and green infrastructure projects. We heard about the need for a clear and organized regional planning process that reduces flood risks, while keeping recreational access to the waterfront available and bettering the community.



SCREENSHOTS FROM JANUARY 2022 VIRTUAL PUBLIC MEETING



WATSON CRAMPTON BUYOUT AND RESTORATION PROJECT. WOODBRIDGE, NJ  
IMAGE CREDIT: PROJECT TEAM





RARITAN RIVER, VICTOR REYNOLDS  
IMAGE CREDIT: PROJECT TEAM

# 03 - SUMMARY OF FINDINGS



# SUMMARY OF FINDINGS

Through the engagement activities described in the previous section, the project team has collected an abundance of information about the region’s experiences with flooding, values, and priorities. As the project team works towards developing a regional action plan, this feedback will be incorporated in a variety of ways including by informing the risk assessment and scenario development and ensuring the action plan aligns with community vision and priorities. A summary of this feedback is provided here.

## EMERGING THEMES

- **GREEN INFRASTRUCTURE:** Residents and municipal officials want to see green infrastructure strategies such as bioswales, living shorelines, and wetland restoration prioritized.
- **WATERSHED-SCALE PLANNING:** Local stakeholders want to see greater collaboration and coordination of land use decisions between levels of government and at the watershed-scale.
- **IMPROVED OUTREACH AND AWARENESS:** Many attendees have expressed the need for greater awareness of flood risk to build a sense of urgency.
- **LOCAL CAPACITY BUILDING:** Municipalities lack resources and staffing to proactively address resiliency.
- **IMPROVE QUALITY OF LIFE:** Beyond flooding, the issues that community members want to see addressed included improving access to green spaces, minimizing impacts of industrial uses, revitalizing waterfront areas, and improving transit connectivity and transportation options.

## FLOODING IMPACTS & CHALLENGES

Flooding has a profound impact on the quality of life in the RRBC region. This section summarizes the feedback we heard in response to questions like:

- **Where/ how do you currently experience flooding?**
- **How does flooding affect your life/ community?**

### Flood-Prone Areas

Many areas of the region were impacted by Hurricane Sandy in 2012 and continue to be impacted by flood events today despite repairs made to seawalls and revetments and other risk reduction measures undertaken after Sandy. The RRBC community identified the following places as especially flood-prone:

- **Low-lying and waterfront areas** including the Perth Amboy Waterfront and the Harbortown areas. Flooding of industrial waterfront areas is a major concern. Community members worry flooding of these areas may negatively impact public health and safety.
- **Along rivers and creeks** including the South Branch of the Rahway River, South River, Raritan River, Woodbridge River and Arthur Kill.
- **Roadways** throughout the Region are vulnerable to various types of flooding. Stakeholders indicated that in some areas,

roadways act as barriers and prevent flood water from efficiently dispersing. Stakeholders specifically mentioned experiencing or observing flooding on these roadways (see flood-prone areas map on the next two pages).

- **Community and critical assets** in RRBC are vulnerable to flooding. These include community spaces such as waterfront parks and the YMCA in Perth Amboy. Downtown areas throughout the study area are also vulnerable to flooding. Critical facilities including a firehouse, schools, and public library in South Amboy are also vulnerable to flooding.
- **Socially vulnerable communities** including low-income and affordable housing units and mobile homes in and around the floodplain including Winding Woods, an apartment complex in Sayreville and a mobile home community east of Rahway Avenue in Woodbridge.

### FLOOD-PRONE AREAS MAP (P 35-36)

Data Source: Flood depth calculated in HEC-RAS 2D models by Michael Baker for RNJ. Scenario, revised by Arcadis: Future Sandy Scenario 2070 MHHW relative to NAVD88. MHHW plus SLR to 2070 and 1% AEP 24-hour rainfall (rainfall increased by 10% over current design storm).

## FLOOD-PRONE AREAS CARTERET, PERTH AMBOY, WOODBIDGE

### LEGEND

#### FUTURE FLOODING

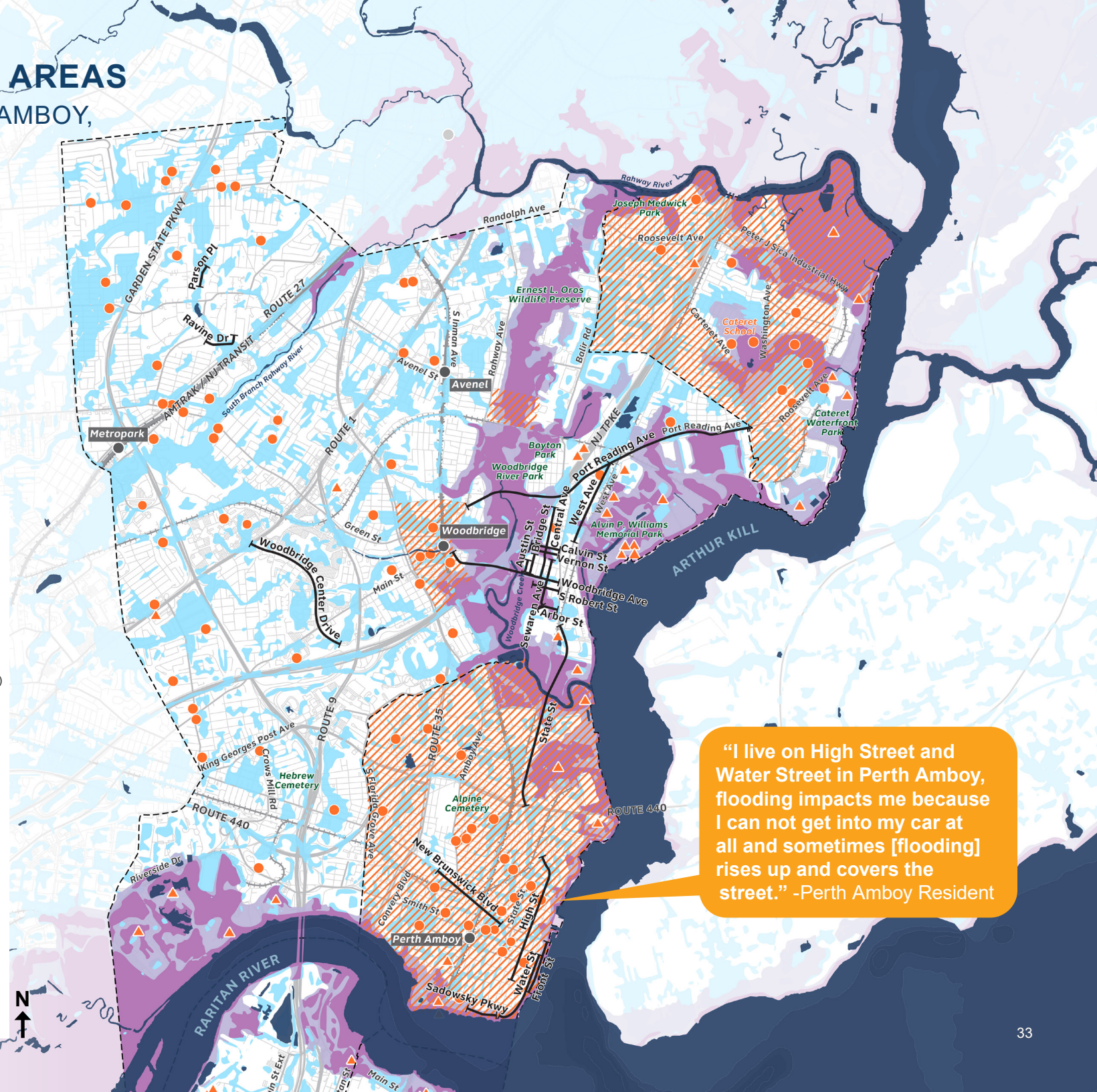
- Water bodies
- Areas flooded by both Sandy & 24-hour 100-year storm in 2070
- Areas flooded by future Sandy only (2070)
- Areas flooded by 24-hour 100-year storm + 10% rainfall increase only (2070)

#### CRITICAL ASSETS

- Utilities & Facilities (inc. Power Generation, Wastewater Treatment, Heavy Industry, Warehousing)
- Community Assets (inc. Municipal Buildings, Nursing Homes, Schools & Colleges, Libraries, Fire Stations)
- Socially Vulnerable Communities (SVI > 0.75)

#### TRANSPORTATION

- Community reports of flood-prone streets
- Light Rail/Commuter Rail
- Primary & Secondary Roads
- Municipal Boundaries



“I live on High Street and Water Street in Perth Amboy, flooding impacts me because I can not get into my car at all and sometimes [flooding] rises up and covers the street.” -Perth Amboy Resident



# FLOOD-PRONE AREAS

SAYREVILLE, SOUTH AMBOY, SOUTH RIVER, OLD BRIDGE

“Flooding causes issues for Main Street redevelopment.”  
-South River Resident

## LEGEND

### FUTURE FLOODING

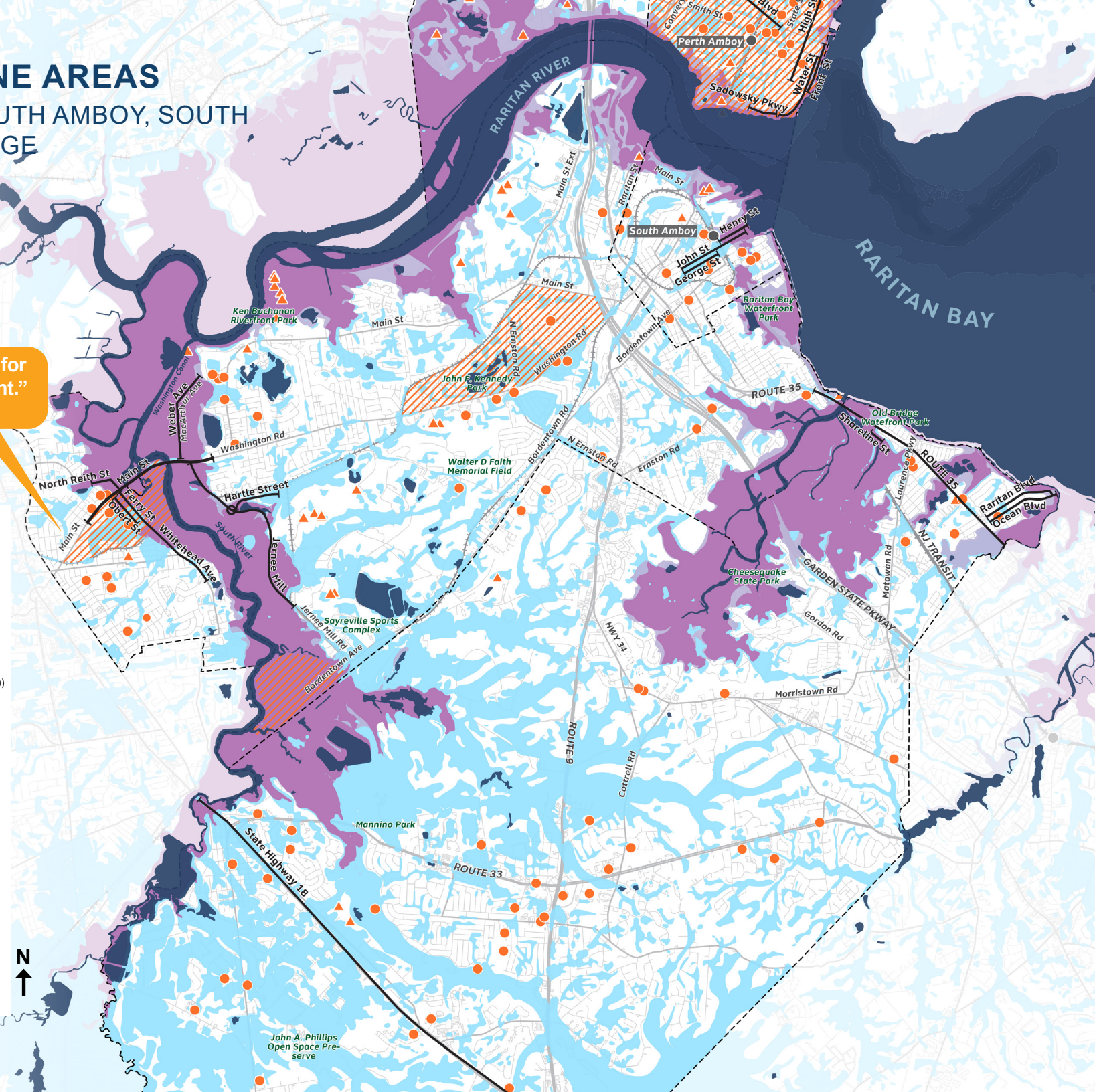
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- Socially Vulnerable Communities (SVI > 0.75)

### TRANSPORTATION

- Community reports of flood-prone streets
- Light Rail/Commuter Rail
- Primary & Secondary Roads
- Municipal Boundaries



## Flood-Related Challenges

In the RRBC region, stakeholders noted there are many challenges associated with flooding in their neighborhoods. During heavy rainfall events, participants noted that many roadways become impassable and basements throughout the area flood. Stakeholders also expressed overarching concerns about the drainage and sewage systems in the area and their ability to handle heavy rainfall. This is of particular concern in Perth Amboy, where there is a combined stormwater and wastewater drainage system. When these combined systems cannot handle increased flows due to heavy rainfall, combined sewer overflow (CSO) events may happen. During a CSO event, stormwater and untreated wastewater flow into nearby streams, rivers and other water bodies, creating environmental and public health issues.

Participants also specifically expressed concern over the impact of flooding on emergency services which are especially vital during the ongoing COVID-19 pandemic. One meeting participant noted that Tropical Storm Ida disrupted COVID-19 services by preventing families from getting around and affecting the distribution of goods and services. Relatedly, community officials in Woodbridge expressed concerns about the lack of redundancy and subsequent vulnerability of their evacuation system.

**Communities such as Perth Amboy need additional support to address resilience and economic development goals simultaneously.**

Concerns over the impact of development on flooding was also a common theme of discussion during RRBC's preliminary outreach efforts. Stakeholders were curious whether flooding was getting worse, if new development was impacting flooding and if there would be room to implement flood risk reduction measures in dense, low-lying areas. A related concern was rehabilitation and redevelopment of brownfields, or potentially contaminated areas, along industrial waterfronts. The community expressed a strong preference towards using these areas for parks or other community amenities.



Flooding in Woodbridge during Hurricane Ida  
Image Source: Woodbridge Township (2021)



# COMMUNITY VALUES AND PRIORITIES

The action plan will have the potential to shape our communities for generations to come. Because of this, Resilient RRBC asked people from the region what they value about their community. This feedback will help the project:

- **Identify solutions that reduce flood risk to places people value most**
- **Where possible, add or improve the places and spaces that people love**
- **Align with the values of people who could be affected by the outcomes of the action plan**

## What do you value most about your community?

When asked what they value most about their communities, RRBC participants identified diversity as a core value. They value the population’s cultural, racial, and ethnic diversity and the area’s diversity in terms of density (suburban, rural, and urban space). Community members expressed that many families have lived in the region for generations, and that they value the sense of community connectiveness that comes from their shared history. The RRBC region values the critical services provided by small and underrepresented populations and organizations such as Spanish-speaking youth and small, faith-based organizations.

Participants also identified some of the region’s most-used and well-loved facilities including waterfront areas and local and county parks throughout the region. Critical assets including fire houses, schools, and libraries are also valued by RRBC communities

## What do you want to make sure stays the same as the region adapts to flood risk?

When asked what they want to make sure stays the same as the region adapts to flood risk, many of the responses echoed the characteristics, qualities, and places that the community values most. One stakeholder noted that in Old Bridge, specifically, the community is generally resistant to change. However, in South River some residents have already elevated their homes and other areas throughout the RRBC region have participated in the Blue Acres Buyout Program.

The tension between development and flood risk reduction was a common theme across nearly all discussions with the RRBC community. The RRBC community expressed:

- concerns with the impact of the industrial waterfront on quality of life
- concerns with the impact of development on aging infrastructure, flooding, and treasured waterfront public spaces
- interest in more resilient development along the waterfront
- interest in limited development in flood-prone areas
- interest in requirements to manage runoff
- interest in expanding and enforcing riparian buffer requirements along waterways and wetlands (a recommendation of the Coastal Vulnerability Assessment in Woodbridge)
- concerns about inconsistent participation in the Blue Acres buyout program and the maintenance of bought out properties



“Waterfront Park in South Amboy was an escape during the pandemic. It allowed my family to get fresh air and feel safe.” - South Amboy Resident

We asked people about the challenges and issues they would like to see addressed with respect to flooding and other issues in their communities.

## What changes do you want to see for yourself and future generations?

When asked what changes they wanted to see for themselves and future generations community members emphasized the importance of safe, clean, and healthy spaces. Increased access to the waterfront and other community green spaces was a priority in addition to increased amenities in these areas like public boardwalks, food trucks, permanent bathroom facilities, exercise areas and safe playgrounds. They also indicated the importance of a good school system, community centers, and other community resources for youth.

**In Old Bridge, the community’s top flood resilience priority is the beach front.**

Community members hope that in the future new development will be more resilient by incorporating green infrastructure and that there will be restrictions on waterfront development or requirements that waterfront development be incorporate resilience strategies to reduce the impacts of flooding. They would like to see brownfields turned into public amenities that increase access to a clean waterfront for all to enjoy.



Image Source: Perth Amboy Now (2019)

**Residents and officials in Perth Amboy expressed that managing combined sewer overflows is a top priority in their community.**



Flooding

To address flooding, the community had a number of suggestions including improving the resilience of critical assets like firehouses and others, updating ordinances, reducing risk in repetitive loss areas, improved communication and awareness of flood insurance, and encouraging grassroots advocacy and education. There is significant interest in resilience strategies that work with natural systems, including living shorelines, green infrastructure, and wetland restoration. Communication and outreach to increase awareness of flooding and changes to flood insurance were also noted as priorities. Residents specifically spoke to the need for communication materials that let people know what they should do in advance of flooding and who to contact about flooding issues.

What do you want to see improved (beyond/in addition to flooding)?

In addition to flooding, RRBC community members would like to see improvement to the region’s environment, economy, quality of life, and physical infrastructure. Although community priorities are organized by topical area below, there is significant overlap between topic areas. The RRBC Action Plan will look to incorporate these priorities as resilience scenarios and recommendations are developed for the region.



Image Source: Project Team

In Perth Amboy, addressing erosion along the waterfront is a top priority.



Image Source: Project Team

The Lower Raritan Watershed Partnership expressed interest in securing funding to advance flood resilience, ecological restoration, and possible retreat planning.

Environment

Community members in the RRBC region greatly value their environment. In the future, they would like to see the **preservation and expansion of green spaces, reduction in impervious surfaces and paving, and improved access to the waterfront and other green spaces.** To improve waterfront access, many are interested in the extension of waterfront greenways to connected existing and new waterfront parks. To **minimize the environmental impact of CSO events** in Peth Amboy, they suggested modernizing related infrastructure. **Restoring salt marshes, incorporating green infrastructure, and remediating brownfields** were also mentioned as ways to improve the region’s environment.

Improving waterfront access through the extension of greenways to existing and new waterfront parks is a priority for many communities.



“My family walks in Waterfront park every day. It would be great if there was a dog walk park in our community and a biking path. The park became inundated with dogs and bicycles at times and the walking path is difficult to maneuver.” - South Amboy Resident



Image Source:Project Team

“Sewer separation should be considered and maintenance of the existing system needs to be increased” - Perth Amboy Resident



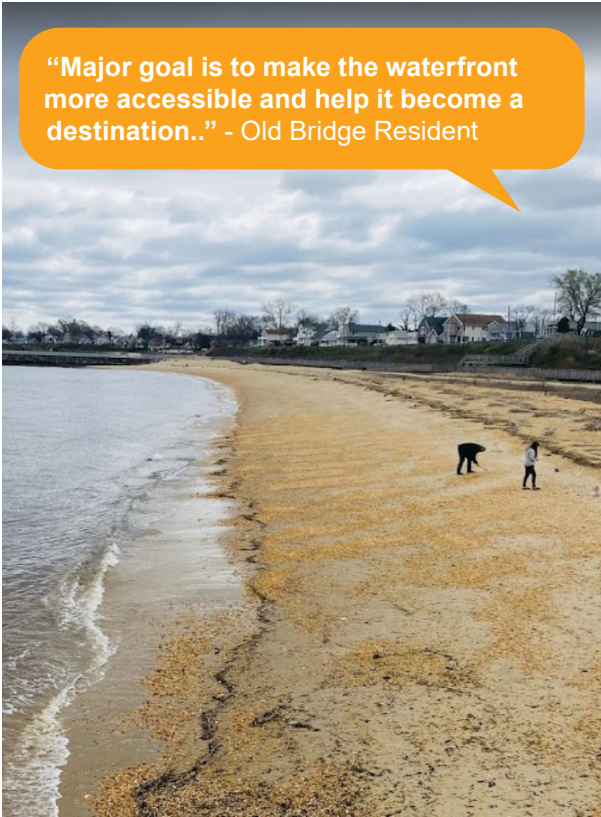
Economy

Ideally, the community would like to **see waterfront areas turn into economic drivers for the area**. They suggested doing so by increasing waterfront amenities and waterfront development that would attract tourists. Better restaurants and outdoor dining opportunities may also help bolster the region’s future economy. Community members also expressed a desire to see more **assistance to local business owners** who have suffered during COVID and from flooding.

*Resilient redevelopment in waterfront areas is a priority for many municipalities in the region.*



“Our needs have been met. I wish there were more resources available to the business owners who have suffered during this time.” - South Amboy Resident



“Major goal is to make the waterfront more accessible and help it become a destination..” - Old Bridge Resident

Image Source: Project Team

Social (Community, Equity, Quality of Life)

Quality of life issues are at the forefront of community concerns in RRBC. Specifically, community members expressed an interest in **improving quality of life issues associated with nearby industrial areas**. The maintenance and **expansion of community resources and amenities** such as libraries, supermarkets, hospitals, and senior centers were also a priority. Further, the community expressed great interest in continuing to engage, involve, and connect with **socially vulnerable populations** throughout the region.

*In Carteret environmental quality and waterfront access is a top priority for the community’s quality of life.*



“People are moving out of the region due to the impact of industry on quality of life.” - Carteret Resident

Oil and Gas Facility in Carteret  
Image Source: Mark Lennihan

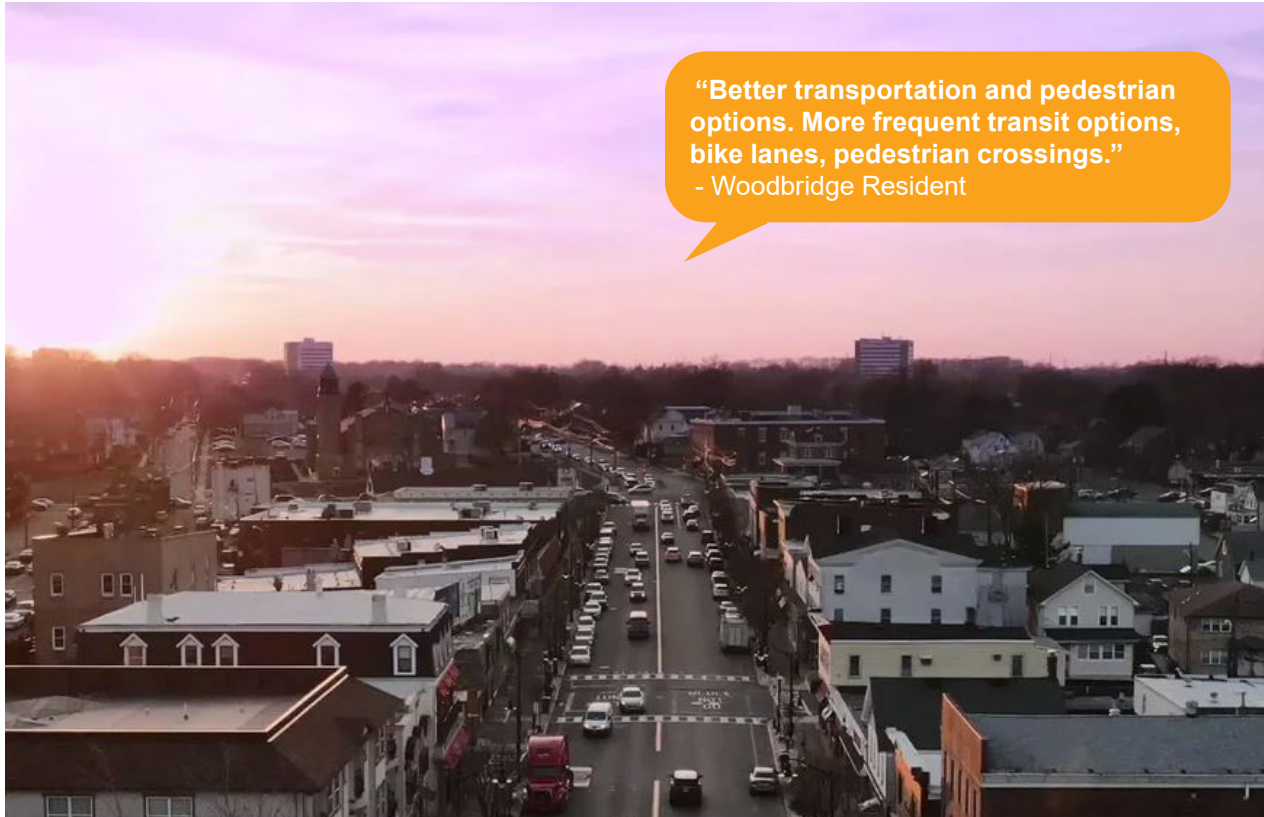


Physical Infrastructure

Physical infrastructure concerns dominated much of the feedback received from RRBC communities. Priorities include addressing concerns related to increased development, improving multi-modal transportation infrastructure, and maintaining or improving the combined sewer system in Perth Amboy.

*In Perth Amboy, addressing erosion along the waterfront is a top priority.*

Transit-oriented development is an ongoing focus in many of the RRBC communities. New ferry terminals are planned in Carteret and South Amboy and may catalyze changes to the broader regional transit network. Improved bus connections to NJ Transit stops across the region and particularly in underserved areas, like Carteret, and new developments like the Riverton in Sayreville is also a priority for the region.



Institutional / Governance

Capacity-building within local government and development of related resources is a priority to address resilience and other challenges within RRBC. Participants also expressed that, in the future, communities should work collaboratively to better understand how their development goals may impact other communities.

In many RRBC communities, there is an ongoing tension between economic development and resilience goals. Reduction of permitting and regulatory challenges and increasing resources available to communities would help them better navigate this challenge. Several communities expressed interest in increasing standards for new development to build resilience and achieve other goals.





# INCORPORATING YOUR FEEDBACK

## WHAT WE HEARD

Redundancy of evacuation routes and a regional approach to evacuation are critical issues.

Flooding problems are not limited to municipal boundaries.

Diversity, Equity, and Inclusion is a priority in Middlesex County.

Flooding is an immediate concern.

Incorporating green infrastructure is a priority

Resilience solutions should address intense rainfall.

## HOW WE ARE USING IT

The project team has already incorporated community feedback into the project in a variety of ways.

The action plan will develop recommendations for improving the redundancy of the regional evacuation system.

Resilience strategy recommendations in the action plan will take a watershed-based planning approach to account for the fact that flooding does not follow municipal boundaries.

The RRBC program is focused on engaging a wide range of community members through partnership with the YMCA.

The regional resilience action plan will include a number of strategies to address flooding in the near-term. These strategies will be complemented by longer-term implementation pathways to build resilience to future conditions.

Action plan recommendations will incorporate opportunities for green infrastructure and natural and nature-based strategies wherever appropriate and feasible.

In addition to addressing coastal flooding and sea level rise, resilience strategies will mitigate the impacts of intense rainfall events.



## RARITAN RIVER AND BAY COMMUNITIES' VISION FOR THE FUTURE IS:

*“A thriving region of interconnected watersheds, with complementary environmental, social, economic, and governance systems working together to reduce flood risk of communities and infrastructure, restore natural systems, and adapt to a changing climate.”*

OLD BRIDGE WATERFRONT PARK  
IMAGE CREDIT: PROJECT TEAM





CHEESEQUAKE STATE PARK, OLD BRIDGE  
IMAGE CREDIT: PROJECT TEAM

# 04 - MOVING TOWARDS RESILIENCE



# MOVING TOWARDS RESILIENCE

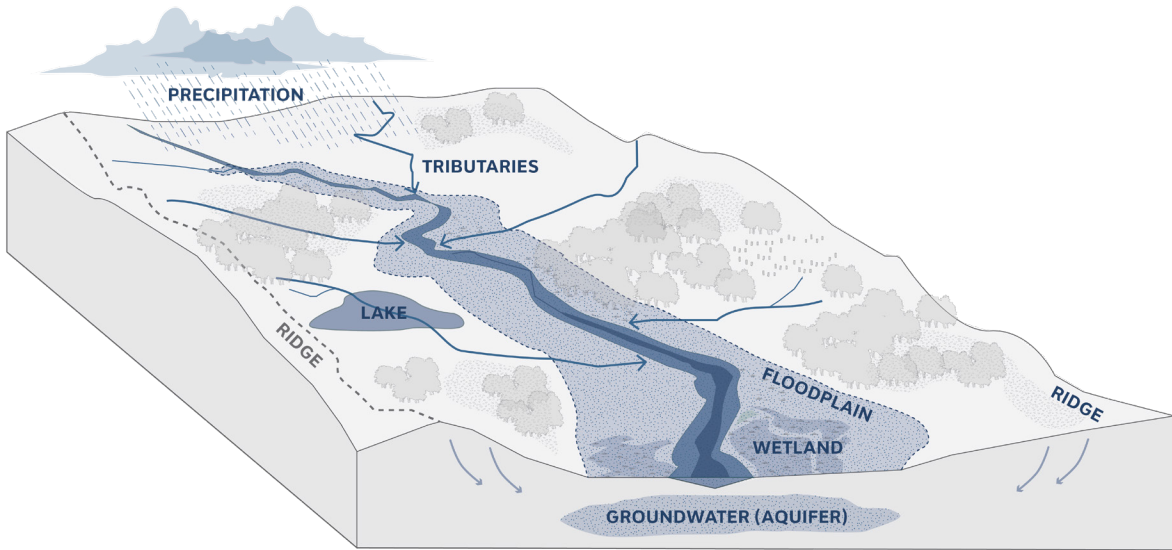
This report synthesizes engagement conducted for this project through January 2022. Feedback received through various engagement opportunities helped us understand community flood experiences, values, and priorities. In the next steps of this project, feedback on community values, vision and priorities will inform and guide the development and evaluation of potential resilience strategies. This section provides an overview of the project's next steps and provides background information on key terms and tools the project team will be using as we move RRBC towards resilience through the development of a regional resilience action plan.

## WATERSHED-BASED PLANNING

The need for watershed-based planning was identified by stakeholders numerous times during the engagement process. As we move towards the delivery of an action plan in Spring 2022, a watershed-based planning approach, described here, will form the foundation of our recommended resilience strategies.

A watershed can most easily be thought of as an area within which, wherever water falls, it will all eventually flow to the same place. Watersheds can cross municipal and state boundaries, which can present a challenge when planning for flooding and risk reduction.

To address this challenge, RRBC will take a watershed-based planning approach in the development of resilience strategies for this region. A watershed-based approach will lead to more effective outcomes in reducing flood risk and help to institutionalize mechanisms of intergovernmental coordination to address shared risks. The Raritan River and Bay Communities project area is divided into six focus areas based on local sub-watersheds and land uses. Though feedback for this project has, and will continue to be, primarily collected at the municipal level, the project team will use the focus area to develop resilience strategies that address flood risks across municipal boundaries.



**WATERSHED DIAGRAM**  
Image Source: Project Team

## Focus Areas

**South Branch of Rahway River/Pumpkin Patch** is bounded by the Woodbridge Creek subwatershed to the east, Raritan River subwatershed to the south and the Woodbridge municipal boundary to the north.

**Woodbridge Creek** is bounded by the Woodbridge Creek subwatershed and Rahway River to the north.

**Arthur Kill Industrial Waterfront** is bounded by Arthur Kill Waterfront Subwatershed (below Grasselli), Rahway River to the north and Harbortown to the south.

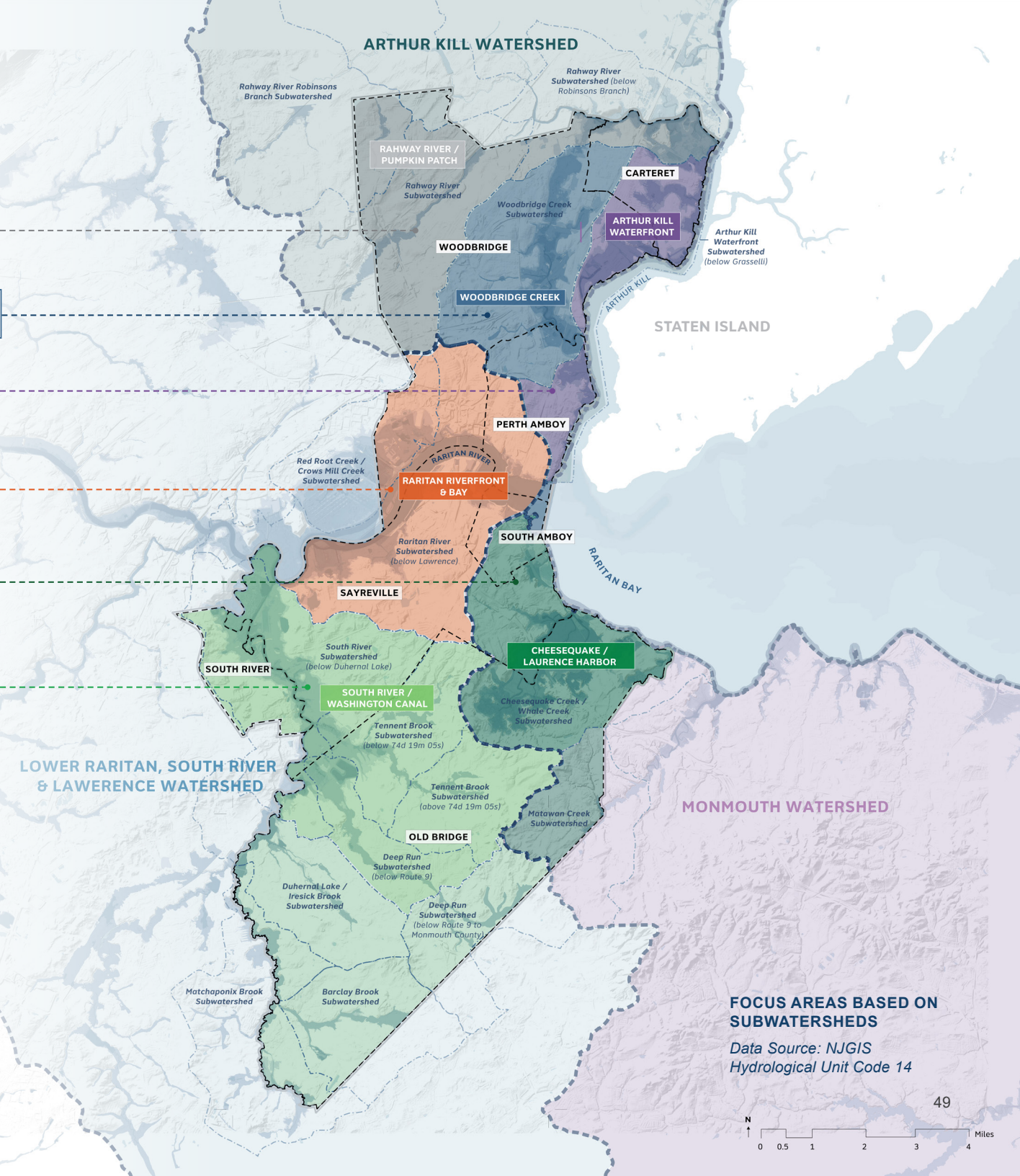
**Raritan Riverfront and Bay** is bounded by Harbortown to the north, Raritan River subwatershed (below Lawrence) to the south, Woodbridge and Sayreville municipal boundaries to the west.

**Cheesequake / Laurence Harbor** is bounded by Cheesequake Creek / Whale Creek subwatershed and the Old Bridge municipal boundary to the east.

**South River / Washington Canal** is bounded by South River Subwatershed (below Duhernal Lake), Tennant Brook and Deep Run subwatersheds and the South River municipal boundary to the west.

### LEGEND - FOCUS AREAS (SUB-WATERSHEDS)

- Arthur Kill Industrial Waterfront
- Woodbridge Creek
- South Branch of Rahway River / Pumpkin Patch
- Raritan Riverfront and Bay
- South River / Washington Canal
- Cheesequake / Laurence Harbor / Raritan Bay Waterfront Park
- Watershed Management Areas
- Subwatersheds
- Municipal Boundaries



**FOCUS AREAS BASED ON SUBWATERSHEDS**  
Data Source: NJGIS  
Hydrological Unit Code 14



# RESILIENCE PLANNING PROCESS

The Resilient NJ – RRBC program will result in the development of a regional resilience action plan to address flood-related hazards. The diagram below summarizes how the regional resilience action plan will be developed.

The final regional resilience action plan will include:

- Near-term resilience strategies to address immediate flood-related issues
- Long-term resilience strategies to build resilience in the region over time
- Actionable recommendations that prioritize and expand accessible public spaces along the waterfront
- Actionable recommendations that improve the region’s environment, economy, and quality-of-life
- Recommendations for physical infrastructure and adaptation of critical assets and facilities
- Recommendations for policy changes at the local, state, and federal levels



# Resilience Toolkit

Resilience is the ability of communities and systems to withstand and recover from extreme, damaging conditions, including weather and other stresses. The recommendations included in the regional resilience action plan will span a wide range of resilience strategies, from strategies to keep water out to opportunities to move away from water. There are a variety of different strategies within each of the categories.

These include:

- Physical interventions such as flood defense systems or green infrastructure
- Changes to policy or regulations like building codes and zoning
- New operations or emergency response strategies including early warning systems or storm drain maintenance

The full resilience toolkit is available on the [project website](#) for reference.



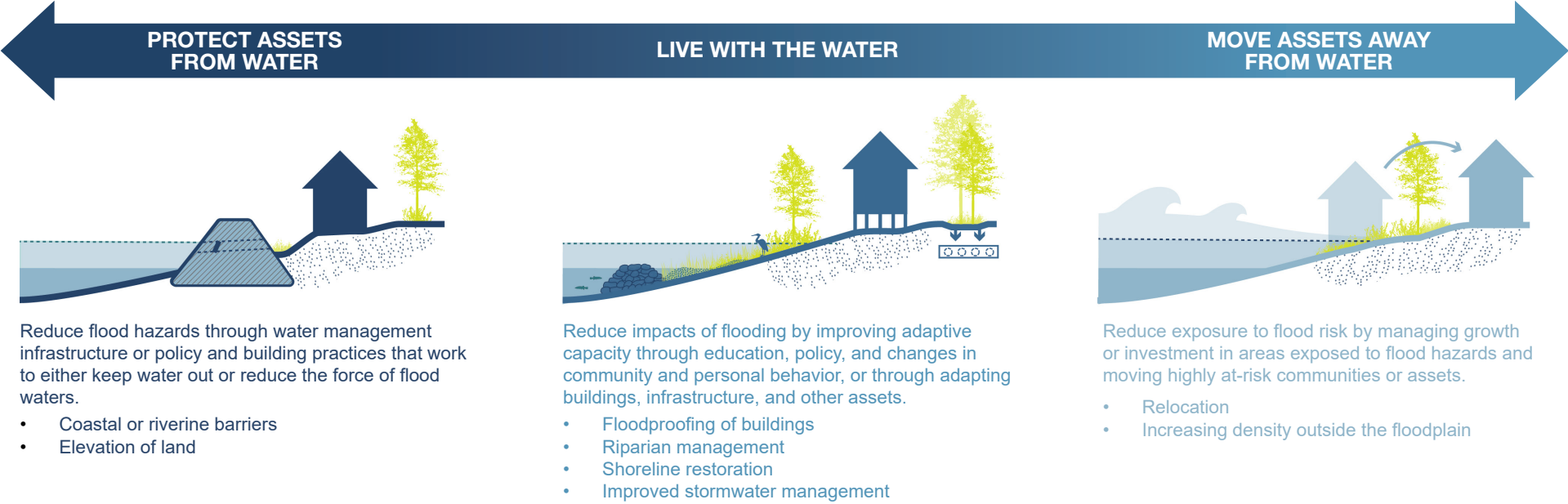
Sayreville Pump Station Floodwalls



Perth Amboy Waterfront Living Shoreline



Sayreville Weber Ave After Buyouts





Evaluation Criteria

Evaluation criteria are community priorities and desired outcomes from resilience strategies. Evaluation criteria are founded on feedback collected from the community and help ensure that the strategies ultimately recommended are in line with the region's vision and goals.

The project team uses the evaluation criteria to help determine which resilience strategy, or

combination of strategies, would work best in different areas of RRBC. Evaluation criteria also help the project team and community members understand how different resilience strategies compare to one another and evaluate resilience scenarios based on the input and priorities described in this report.



DESIGN LIFE /  
ADAPTABILITY

What is the design life of the strategy? Can it be adapted to future risks?



COST AND  
FEASIBILITY

Can the strategy be implemented given technical, regulatory, funding, community support, operations and maintenance considerations?



RISK  
REDUCTION /  
EFFECTIVENESS

Does the strategy reduce flood risks?



ENVIRONMENT

How does the strategy affect the environment over time?



COMMUNITY  
AND HEALTH

How does the strategy affect human communities over time?



PARTNERSHIP  
AND EQUITY

Does the strategy help improve community wellbeing and build partnerships?

NEXT STEPS IN THE PLANNING PROCESS

Throughout early spring of 2022, the project team will be refining the three scenarios presented at the January Public Meeting. These scenarios are based on the region's risk, community vision, and applicable resilience strategies. Scenarios allow stakeholders and decision-makers to understand the various pathways to enhancing resilience within the region over the next fifty years, given the challenges of climate change.

The scenarios present different pathways to reduce anticipated flood risk in the region by 2070. Based on the feedback collected at the January public meeting and additional technical evaluation, the project team will develop a preferred scenario which will then be the basis for the action plan. This preliminary preferred scenario will be shared for public feedback in the Spring.

GET INVOLVED!

- 1. We're looking for your feedback on this report! Please share your thoughts using this [form](#).
- 2. Visit our [website](#) for more information and project updates.
- 3. Sign up for [Resilient NJ emails](#).
- 4. Keep an eye out for upcoming meetings and other engagement opportunities.

PROJECT FEEDBACK  
Please share your thoughts using the survey



FEEDBACK FORM

SOCIAL MEDIA

@ResilientRRBC to find us on Twitter, Facebook, and Instagram.

PROJECT HOTLINE

Leave a voicemail at 732-661-3808 in any one of 6 languages (English, Spanish, Portuguese, Mandarin, Hindi, Polish)

PROJECT EMAIL ADDRESS

Reach us at ResilientRRBC@dep.nj.gov



# APPENDIX



# STEERING COMMITTEE MEETINGS

## Steering Committee Meeting 1: Region Kickoff (12/10/2020)

- Developed a shared understanding of roles and responsibilities, expectations, goals, and relationship possibilities for the core team
- Clarified measures of success and what is needed from each core member to accomplish those measures

## Steering Committee Meeting 2: Launch Updates and Intro to Visioning/Planning (3/26/21)

- Aligned around materials, resources, and actions leading into launch
- Developed a shared understanding of appropriate risk visualization, visioning, and the approach to the no action scenario and scenario 1
- Presented lookahead on next steps for the project and coordination moving forward

## Steering Committee Meeting 3: CBO Options/ Partner Briefings/Scenarios (4/16/21)

- Discuss project launch objectives and immediate next steps
- Discuss additional CBO options
- Began to conceptualize risks in the RRBC region through future scenarios
- Clarified objectives and goals for upcoming Steering Committee meetings

## Steering Committee Meeting 4: Risk Assessment Methodology and Discussion (4/30/21)

- Checked in on project launch
- Developed a shared foundation of the risk assessment methodology, use of out-comes, and next steps once models are received

## Steering Committee Meeting 5: Critical Asset Inventory (5/14/21)

- Provided an update on CBO formal partnership
- Presented CAI and refined asset prioritization approach through municipality feedback
- Began to identify community-centered assets

## Steering Committee Meeting 6: Scenario 0 & Ongoing/Planned Projects (5/28/21)

- Introduce the RRBC CBO (Raritan Bay YMCA)
- Recapped feedback from the asset identification workshop (SC #5)
- Launched breakouts to obtain feedback on planned and existing projects in the region

## Steering Committee Meeting 7: Flood Hazard Models (6/11/21)

- Presented and provide overview of flood hazard models provided by NJDEP
- Received feedback on models through breakout group sessions
- Provided update on status of partnership with YMCA and next steps

## Steering Committee Meeting 8: Flood Risk Toolkit (6/25/21)

- Provided overview of the flood risk toolkit and our criteria for evaluating flood risks in the RRBC area
- Steering Committee Meeting 9: Adaptive Capacity (7/9/21)
- Shared review by Enterprise Community Partners of national best practices for building adaptive capacity and community-based resiliency planning

## Steering Committee Meeting 10: Summer Engagement and Focus Groups (7/23/21)

- Reviewed next steps on public engagement
- Previewed upcoming topic-specific steering committee meetings planned for August and September. The proposed focus topics included land-use planning, transportation, brownfields, and green infrastructure/stormwater management

- **Steering Committee Meeting 11: Phase 2 Topics (8/6/21)**
- Discussed the Phase 2 Preliminary Scope of Work, including the development of a watershed-based plan and interjurisdictional management strategies
- Began planning for the September Virtual Public Meeting, which included conversations around accessibility plans and questions, along with potential formats for the meeting

## Steering Committee Meeting 12: Green Infrastructure Planning (9/10/21)

- Heard from Steering Committee members on Ida impacts, recovery, and needs.
- Confirmed plans for September public meeting
- Phase 2 scoping: Green Infrastructure for Stormwater Management
- Woodbridge presented on ongoing floodplain management and flood mitigation strategies in the municipality.

## Steering Committee Meeting 13: Public Meeting Overview (9/17/21)

- Provided an overview for the virtual public meeting
- Discussed logistics and breakout materials for the public meeting, including the breakout group topics and format, which were delivered via Miro

## Steering Committee Meeting 14: Funding and Regulatory Guidance (10/1/21)

- Discussed the BRIC application process and eligible project categories
- Provided an overview of New Jersey state regulatory requirements
- Continued public engagement discussion and confirmed final approach for public meeting, including individual follow-ups on the municipal level to be led by the YMCAs

## Steering Committee Meeting 15: Public Meeting Recap and Next Steps (10/29/21)

- Updated steering committee on project trajectory and schedule over the next nine months

- Discussed outcomes and lessons learned from the public meeting
- Coordinated on follow-up municipality community meetings with the YMCAs
- Provided an update to the watershed-based planning implementation

## Steering Committee Meeting 16: Engagement, Strategies, and Scenarios (11/12/21)

- Discussed logistics, plan, and content for municipal meetings
- Defined a resilience analysis strategy for evacuation routes / service sheds
- Provided an update on the preliminary framework for scenarios

## Steering Committee Meeting 17: Scenario Development (12/10/2021)

- - Provided an update on planned public engagement
- - Provided an update on flood models and risk assessment
- - Discussed preliminary framework for scenarios

## Steering Committee Meeting 18: Public Meeting Materials Preview (01/14/2022)

- - Provided an update on planned public engagement
- - Previewed and received feedback on content to be shared at January 20th public meeting.

## Additional Meetings

### Elected Officials Briefing (2/26/21)

- Project overview, public engagement introduction, discussion and questions from steering committee members

### Cross-Regional Stakeholders Briefing – 5/17/21

### Virtual Public Meeting #1 (10/14/21)

- First public meeting informed community members in the RRBC region about the project.
- Breakout groups discussed flood experiences, community vision, and evaluation criteria

### Virtual Public Meeting #2 (01/20/22)

- Second public meeting reported back to community members in the RRBC region on vision and priorities, regional flood risk models, and draft scenario alternatives.
- Breakout groups discussed flood experiences in more detail, reviewed draft scenario alternatives for the region and provided feedback on scenario alternatives for opportunity sites.