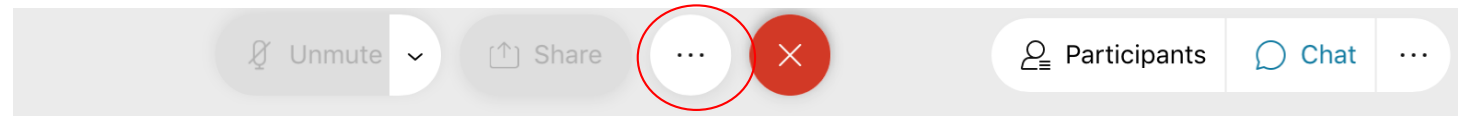
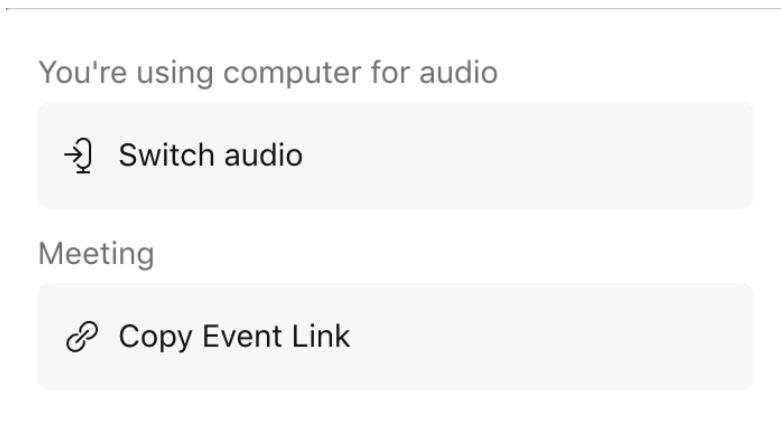


MORE OPTIONS

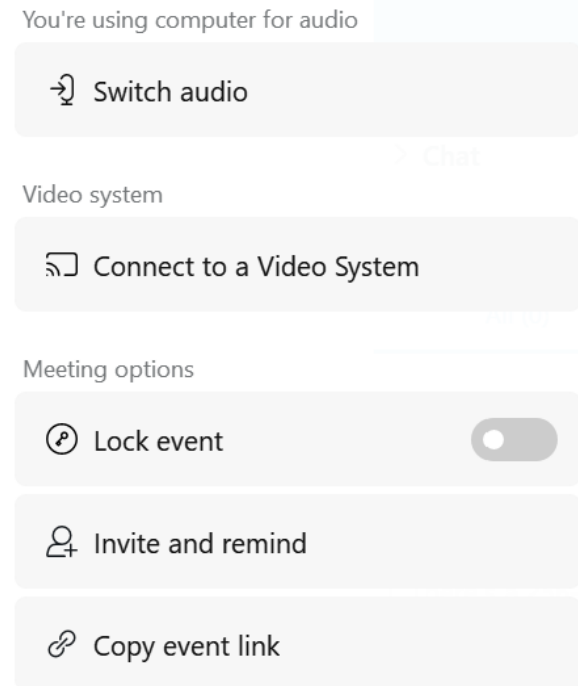


- As an **attendee**, from the “more options” menu you can:
 - Switch audio,
 - Copy the Event Link,

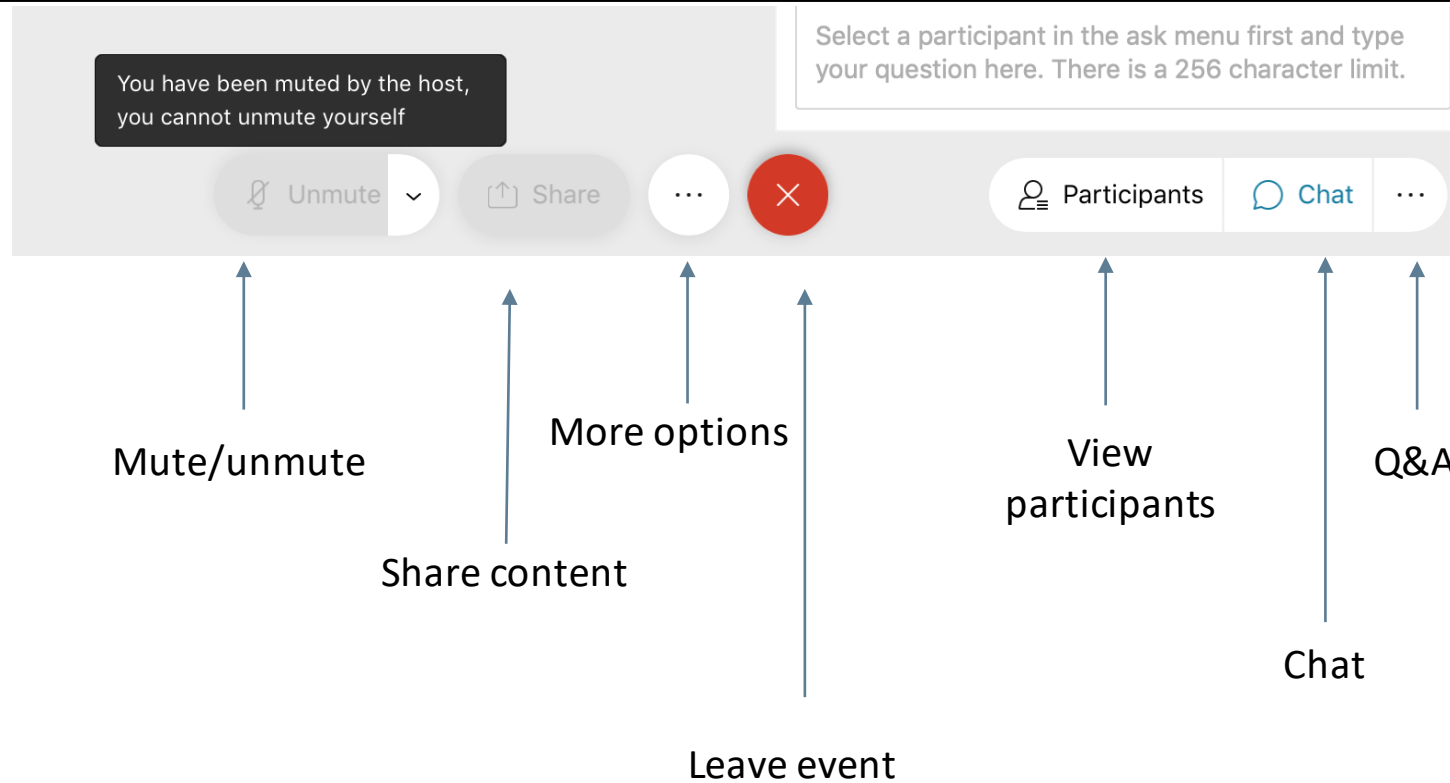
Attendee



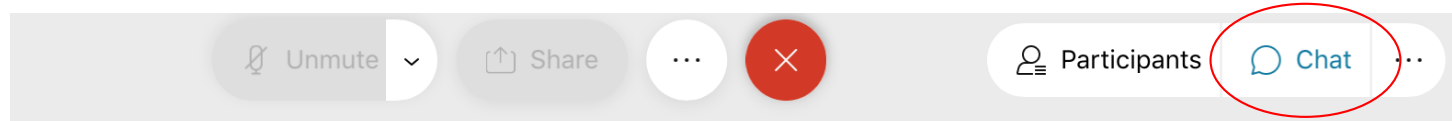
Host



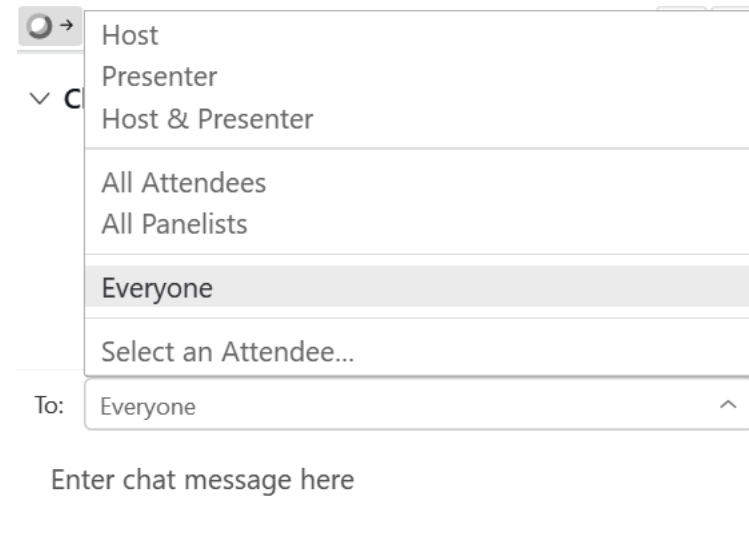
EVENT CONTROLS



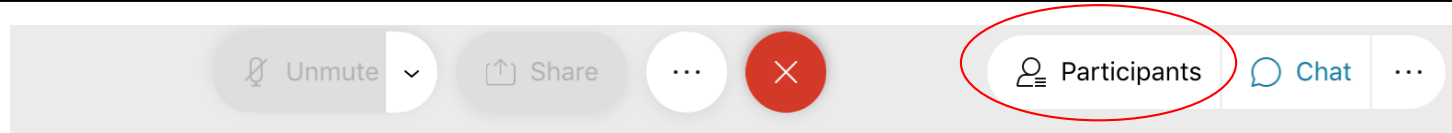
CHAT BOX



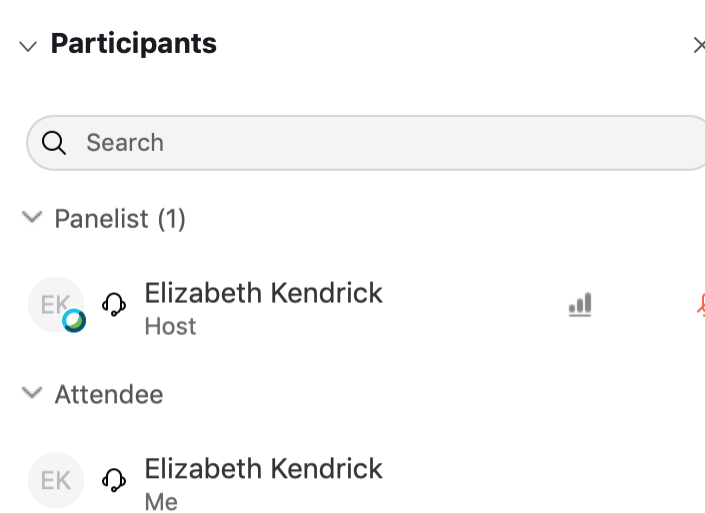
- Select the chat icon at the bottom of your screen to bring up the chat window on the right-hand side of your screen.
- Change the “Send to” field at the bottom to direct a message to a specific panelist or attendee as opposed to the whole group.
- To send a message to the entire meeting, scroll all the way to the bottom and select “Everyone.”



PARTICIPANTS



- The participants box shows you all of the hosts, panelists, and attendees in the event.
- From this window you can mute and unmute yourself and start a private chat with another attendee by selecting the speech bubble next to their name.



RAISE HAND AND PROVIDE FEEDBACK

- At the bottom of the “Participants” box, you can raise your hand and provide feedback.
- To raise your hand, click on the hand. To lower your hand, re-click the hand.

The screenshot shows a meeting interface with the following elements:

- Attendee:** Elizabeth Kendrick (Me) with a hand-raising icon and a feedback icon.
- Hand-raising icon:** A hand icon with a red arrow pointing to it and the text "To raise hand, click here."
- Feedback icon:** A megaphone icon with a red arrow pointing to it and the text "To provide feedback, click here."
- Feedback Menu:** A dropdown menu with the following options: Yes (checked), No, Too Fast, Too Slow, Applause, and Laughter. Below the menu is a button labeled "Check Feedback Result...".
- Chat:** A section labeled "Chat" with a "Send to: Host" button.

Building Coastal Resilience in Virginia



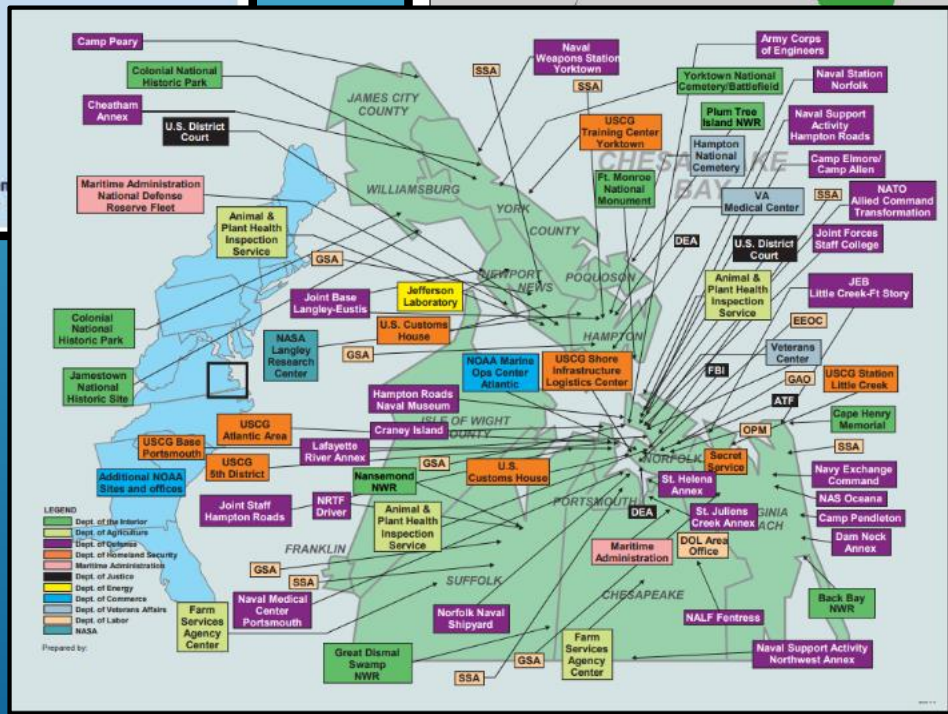
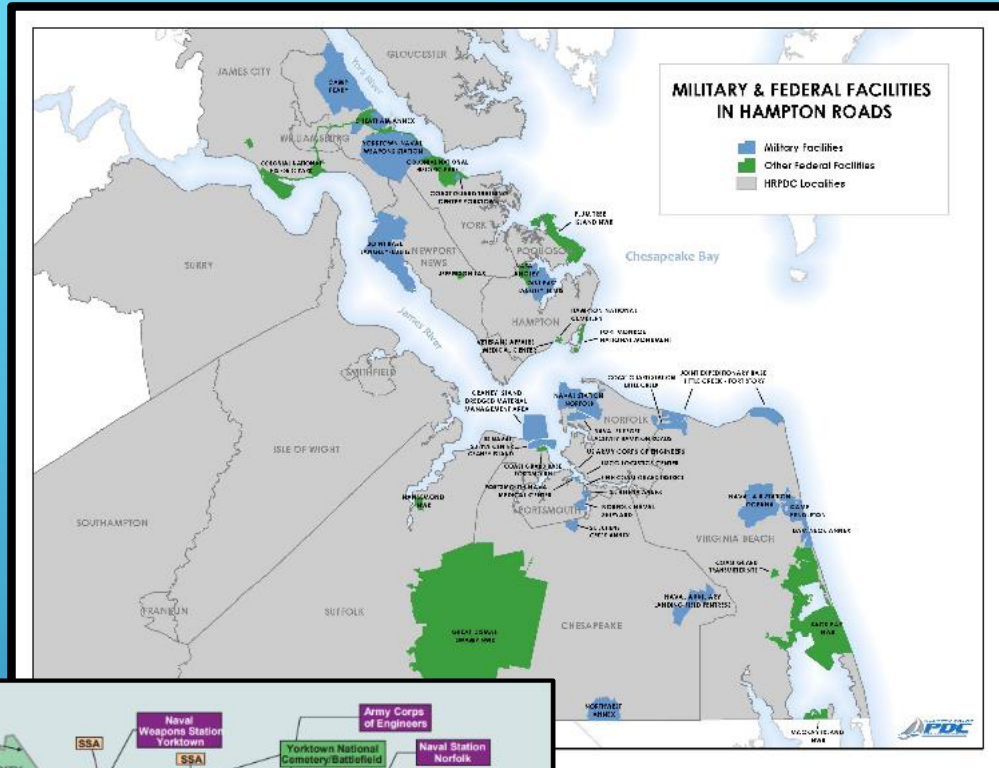
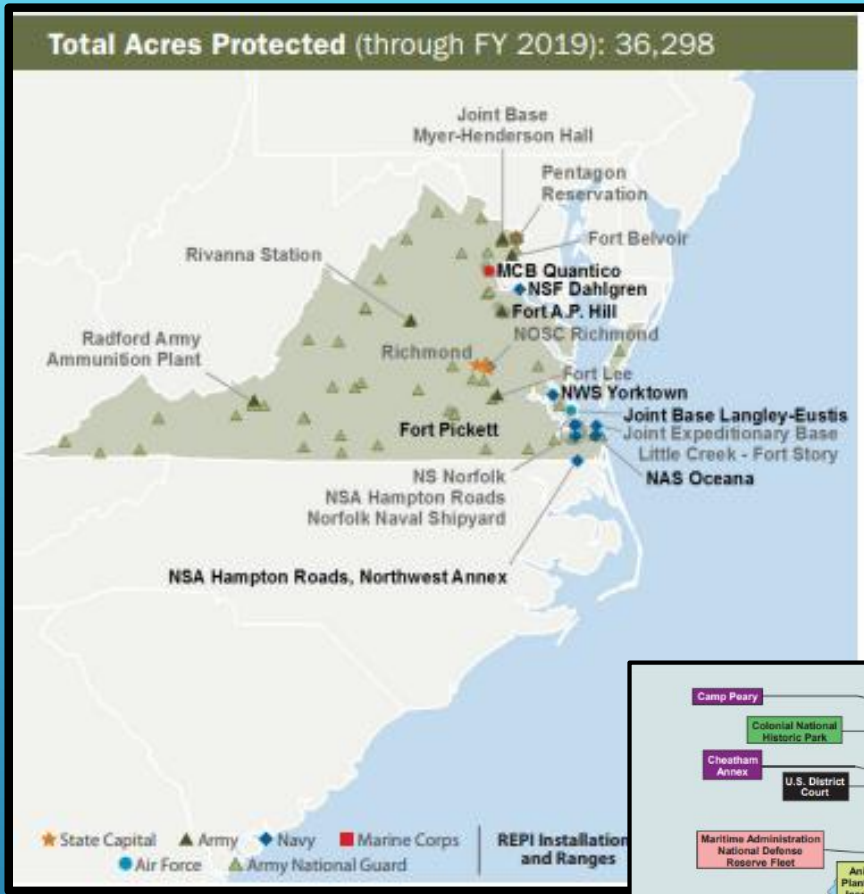
Chesterfield Heights , October, 2020 ~ photo courtesy of MEB General Contractors/
City of Norfolk

Engaging at the State and Local Level on Resilience ~ REPI - SERPPAS

October 29th, 2020

Rear Admiral Ann C. Phillips, US Navy (Retired)
Special Assistant for Coastal Adaptation and Protection
ann.phillips@governor.virginia.gov

- REPI
- JLUS (OEA)
- DAR
- DCIP
- Sentinel Landscapes (Future?)



REPI in Virginia – so far . . .

Hampton Roads Installations

Conservation / Resilience

VIRGINIA COASTAL RESILIENCE MASTER PLANNING FRAMEWORK

*Principles and Strategies for Coastal Flood
Protection and Adaptation*



- **ACKNOWLEDGE CLIMATE CHANGE**
 - Decisions based on best available science
- **NATURAL AND NATURE BASED SOLUTIONS**
 - ***First line of defense***
 - Align existing State Agency programs to support
 - Include Water Quality and Water Management Solutions
- **COLLABORATIVE PROGRAMS to build COST EFFECTIVE SOLUTIONS**
 - Incentivize multi-jurisdictional projects
- **ENVIRONMENTAL JUSTICE / EQUITY**
 - Enhance Community/Local/Regional Equity
 - Ensure equitable access to funding and technical support for underserved communities
- **INTEGRATE RESILIENCE THROUGHOUT STATE AGENCIES/PROCESSES**
- **ALIGN FEDERAL/STATE/LOCAL GRANT PROGRAM OBJECTIVES**





“Water management needs cannot wait. . .”

~Governor Ralph Northam – August 18, 2020

Building Capacity . . .



TIME AND TIDE WAIT FOR NO MAN ...

PUNGO , VIRGINIA BEACH, 25 JULY 2018, KRISTEN ZEIS, THE VIRGINIAN PILOT

ReBUILD NC



A Civilian's View of Resilience: *Looking Beyond the Installations*

Jessica Whitehead, Ph.D.
Chief Resilience Officer

Lessons learned from North Carolina



FRAME CLIMATE CHANGE AS
A THREAT MULTIPLIER



TAKE A WHOLE COMMUNITY
VIEW OF RESILIENCE



FIND PATHWAYS TO
IMPLEMENT SOLUTIONS

CLIMATE CHANGE IS A THREAT MULTIPLIER

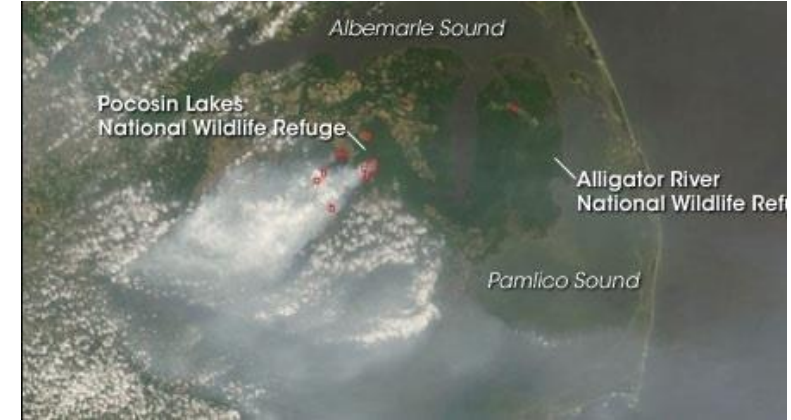
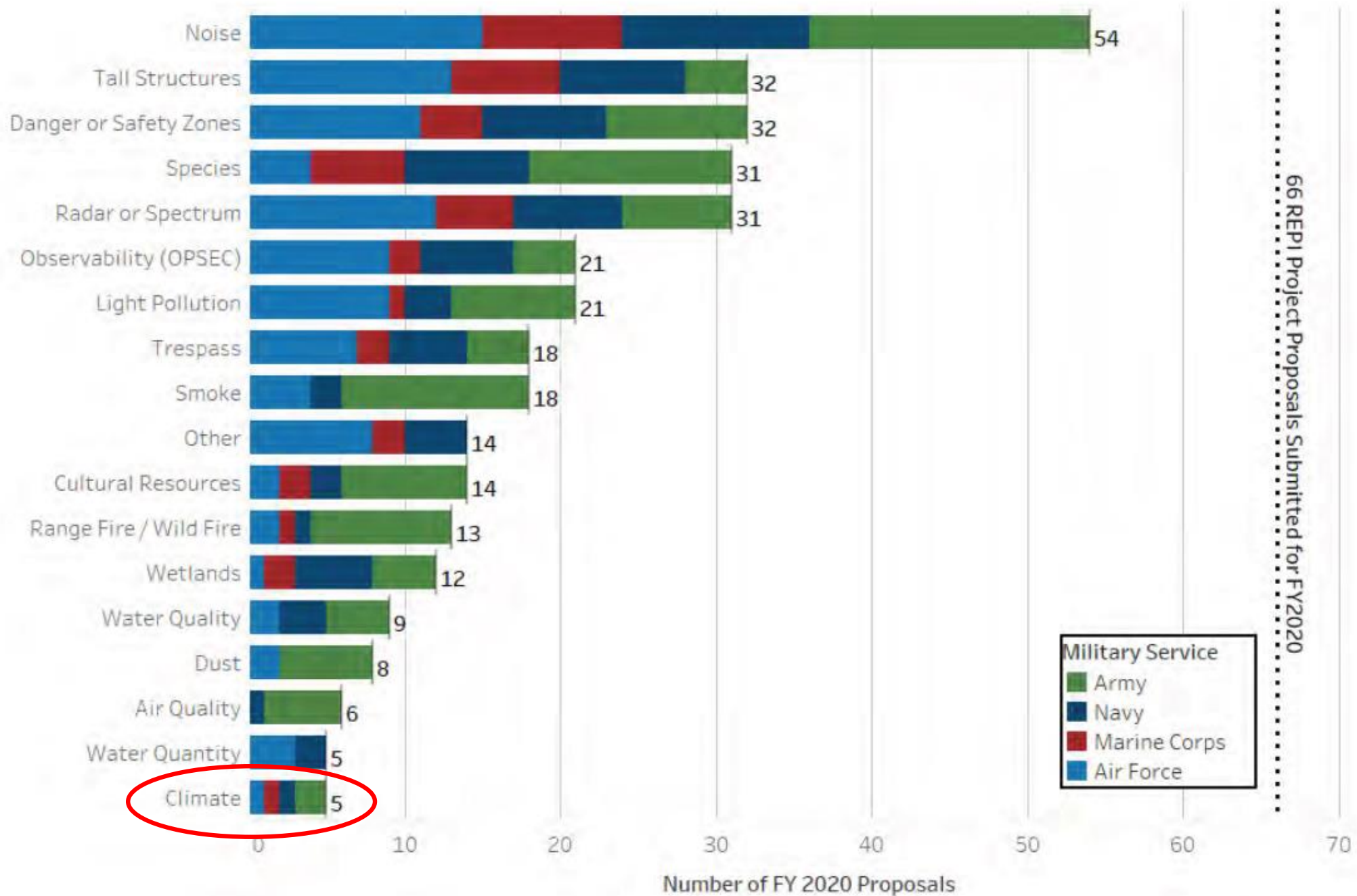
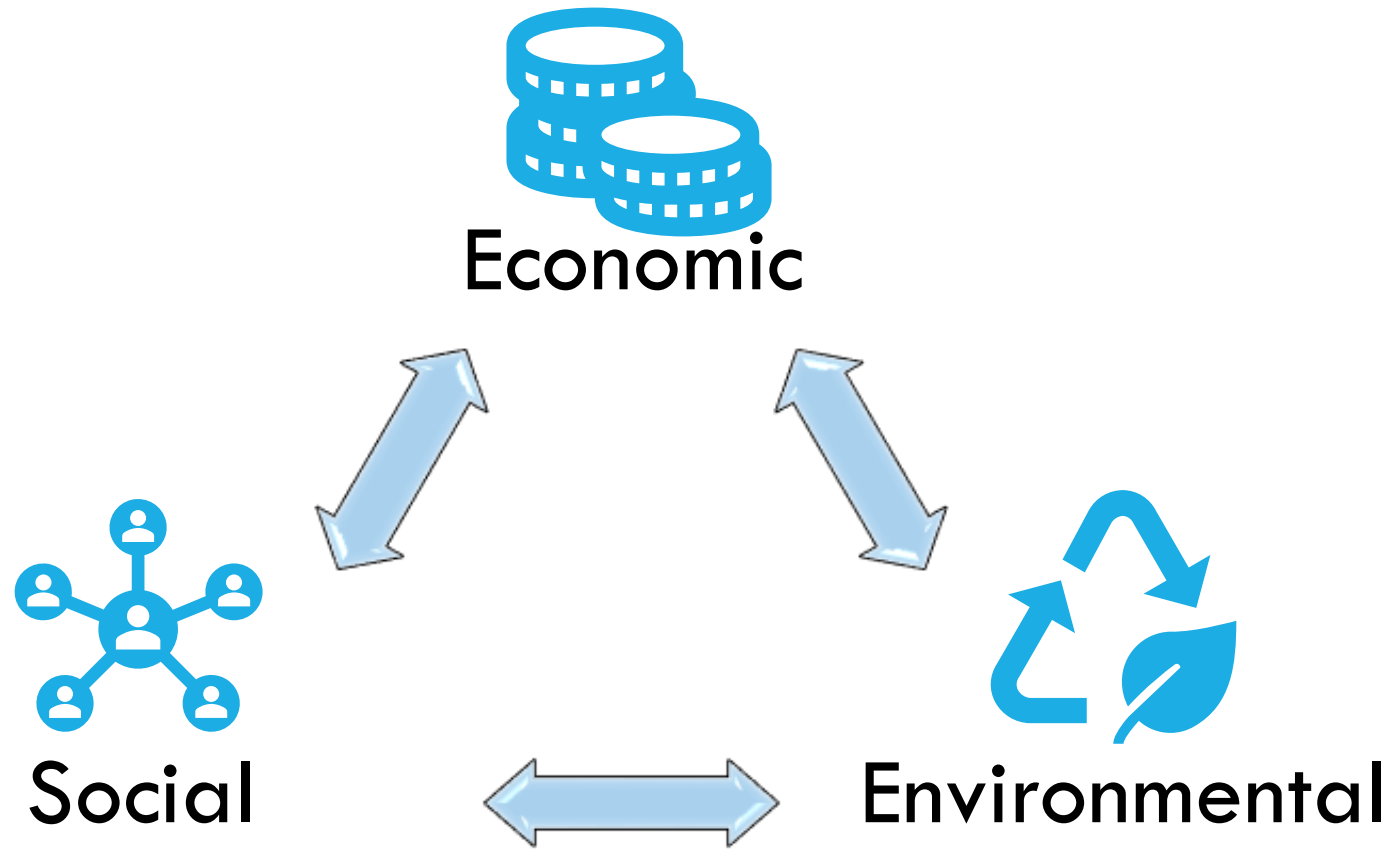


Figure 1 Encroachment Threats Identified in FY 2020 REPI Proposals¹





Resilience as systems overcoming past, present, and future harm

Maximize effort with a plan!

Goals
Principles
Values



Resilience Plans

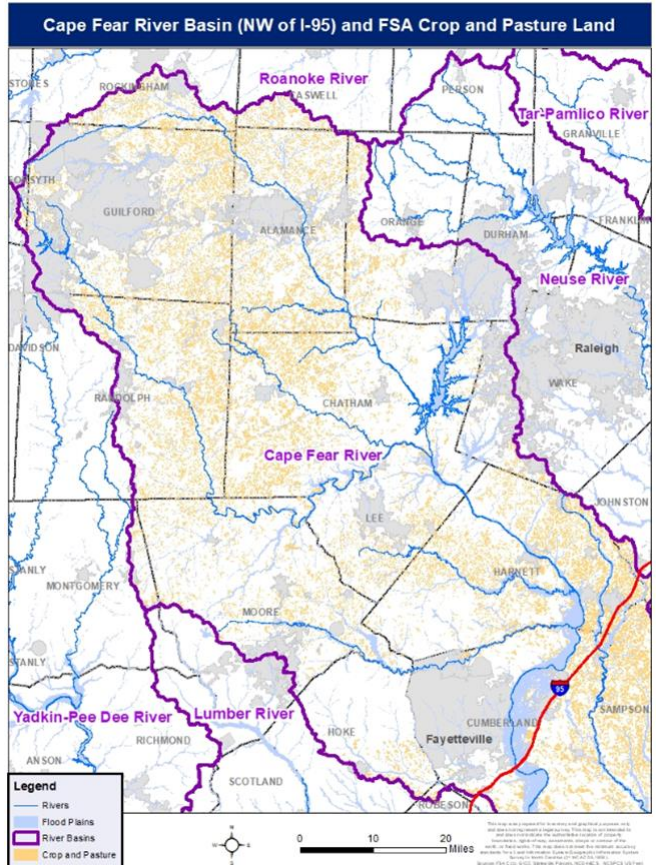
- Strategies
- Engagement
- Coordination
- Implementation paths
- Success metrics
- Uncertainty

Resilience Projects

- Prioritized
- Funding
- Success metrics
- Implementation milestones
- Uncertainty



Working Lands Resiliency from NC Ag & Consumer Services



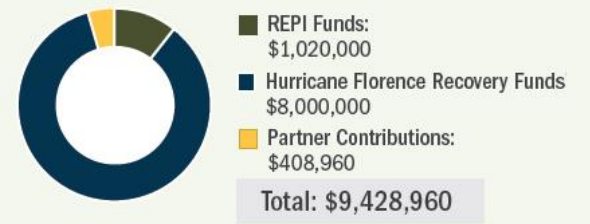
Marine Corps Air Station Cherry Point North Carolina

- This project will protect the missions of Marine Corps Air Station (MCAS) Cherry Point, which is within the **Eastern North Carolina Sentinel Landscape**. This installation supports carrier landing practice, **unmanned aerial systems**, and ground maneuver training.
- Increased commercial and residential development, coupled with sea-level rise and coastal erosion, has created significant encroachment threats to the installations' operations, infrastructure, and mission.
- This project will allow MCAS Cherry Point to create **2,100 linear feet of living shoreline** along the Neuse River's shoreline, which is rapidly eroding. Subsequently, the goal is to extend that living shoreline an additional 5,600 linear feet, which would significantly curtail erosion, promote ecosystem health, provide water quality benefits to the surrounding communities, and protect the installation from the threat of sea-level rise, thereby **enhancing the resilience** of MCAS Cherry Point.

NOMINATING PARTNER
North Carolina Sentinel Landscape Committee



Marines and Sailors with Marine Transport Squadron 1 conduct repelling and live hoisting for rescue swimmer under instruction training at Marine Corps Air Station Cherry Point.



*Congressional disaster relief funds appropriated to the Military Service.



NC DOT: Mapping as the First Step



- 2019 Season Pilot Study for Mapping Resilience
 - Neuse River Corridor (Clayton to New Bern)
 - Expanded inundation libraries; FIMAN-T functionality
 - Beta = Development server – not open to public
- 2019 BUILD Grant Application: interstate connections to military installations
 - I-95 Recurrent Flooding challenge – erodes military mission travel and reduces evacuation safety for military personnel
 - Combining flood gauges with state-of-the-art modeling will improve ability to recommend real-time detours

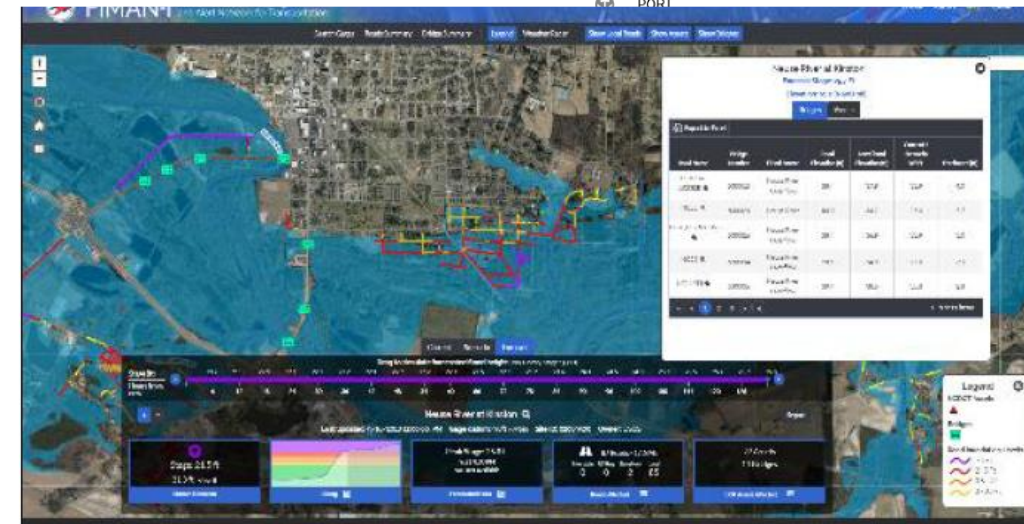
Network Development



A well-functioning freight distribution network is key to connecting eastern North Carolina's markets to ports and neighboring markets in South Carolina and Virginia

With **INFRA 2017**, a critical section of the network infrastructure was upgraded and connected to broadband

Adding infrastructure improvements with **BUILD 2019** will build out a more resilient and better connected state's highway network in eastern North Carolina



NC Resilient Communities Program



Training and
Capacity
Building

Online
Resilience
Portal

Funding for
Planning and
Implementation

- Assist communities with risk & vulnerability assessments of their people and critical assets
- Develop portfolios of prioritized resilience projects (coastal municipalities and rural regions pilots) and advance to “shovel-ready” status
- Link communities to funding streams for project implementation



NORTH CAROLINA OFFICE OF RECOVERY AND RESILIENCY

THANK YOU

JESS WHITEHEAD, Ph.D.

JESSICA.WHITEHEAD@NCDPS.GOV | 984-833-4345



Colorado Resiliency Definition

"The ability of communities to rebound, positively adapt to, or thrive amidst changing conditions or challenges—including human-caused and natural disasters—and to maintain quality of life, healthy growth, durable systems, economic vitality, and conservation of resources for present and future generations."

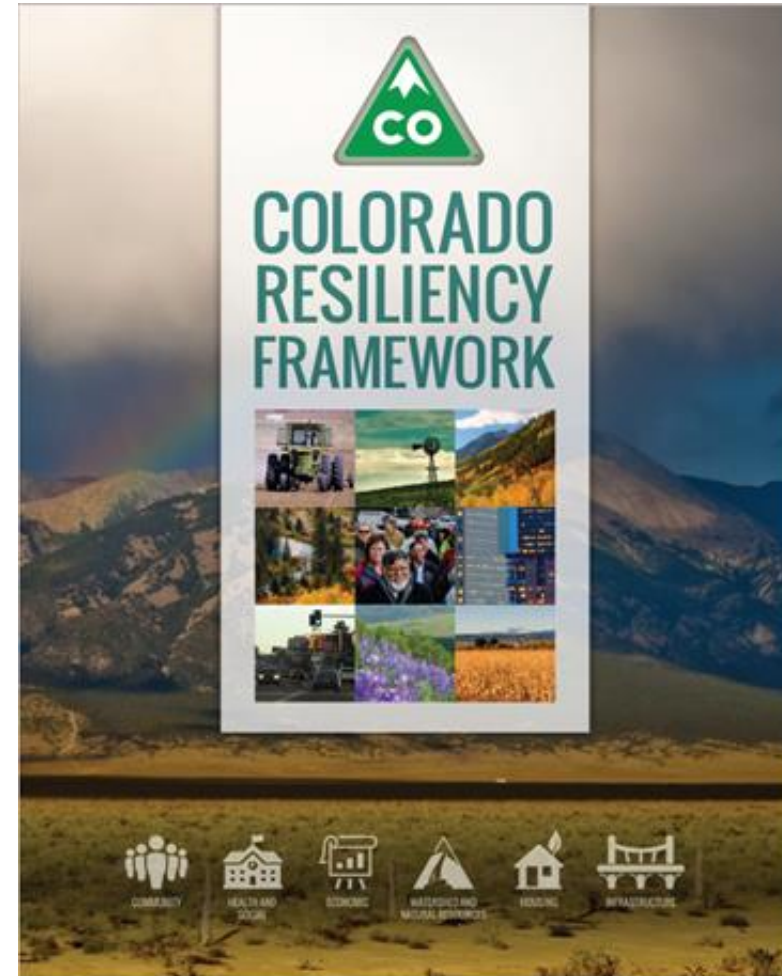
– 2018 Update to the Colorado Disaster Emergency Act



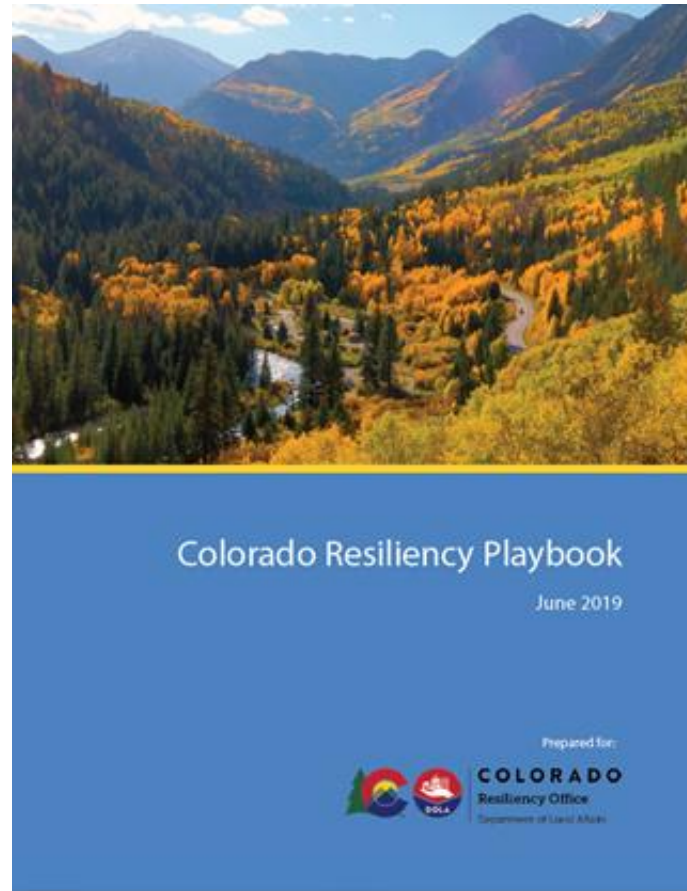
Colorado Resiliency Office

Designated State lead for resilience.

- Resiliency and community recovery program
- Long-term recovery
- State and local technical assistance
- State investments and grants programs

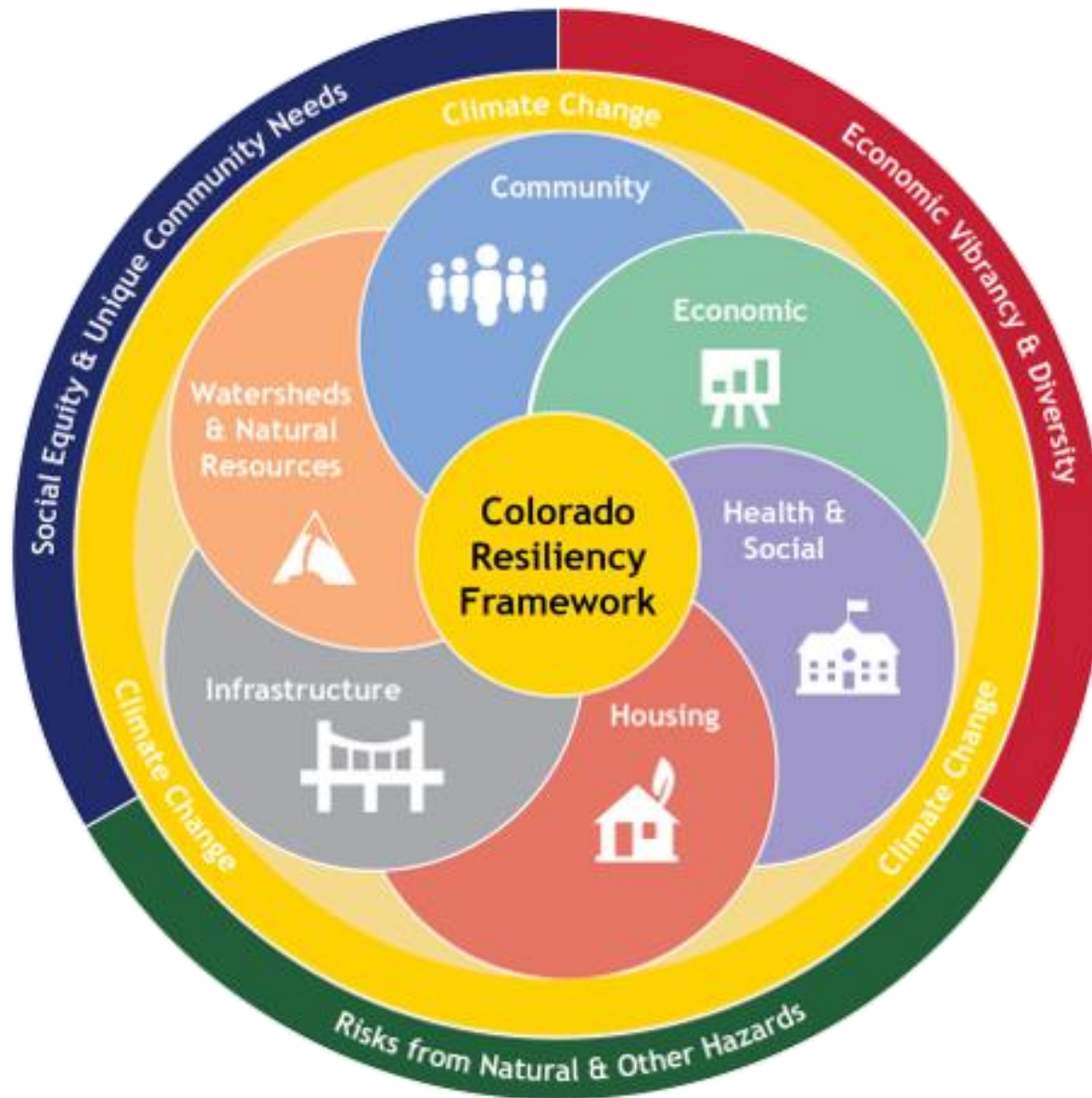


Resiliency in State Agencies



- 1 Defining Resiliency
- 2 Building Your Team
- 3 Policy Development
- 4 Building a Resilient Project
- 5 Stakeholder Engagement
- 6 Barriers
- 7 Tracking Performance





Building a Culture of Resilience



COResiliency Resource Center
www.coresiliency.com



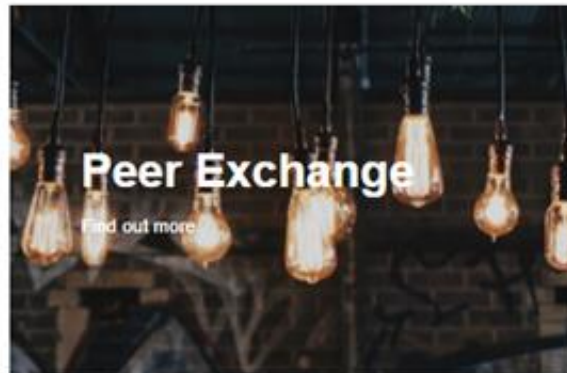
Resilient Colorado Communities
coresiliency.com/trainings



www.coresiliency.com/storymap



COVID-19 Recovery



Future Avoided Cost Explorer: Colorado Hazards

Explore economic impacts of flood, drought, and wildfire in 2050

Intro

Explore by Hazard

Explore by Sector & Region

Explore by Future Scenario

Explore by Resilience Actions



COLORADO
Resiliency Office
Department of Local Affairs

<https://cwcb.colorado.gov/FACE>



PLANNING FOR HAZARDS

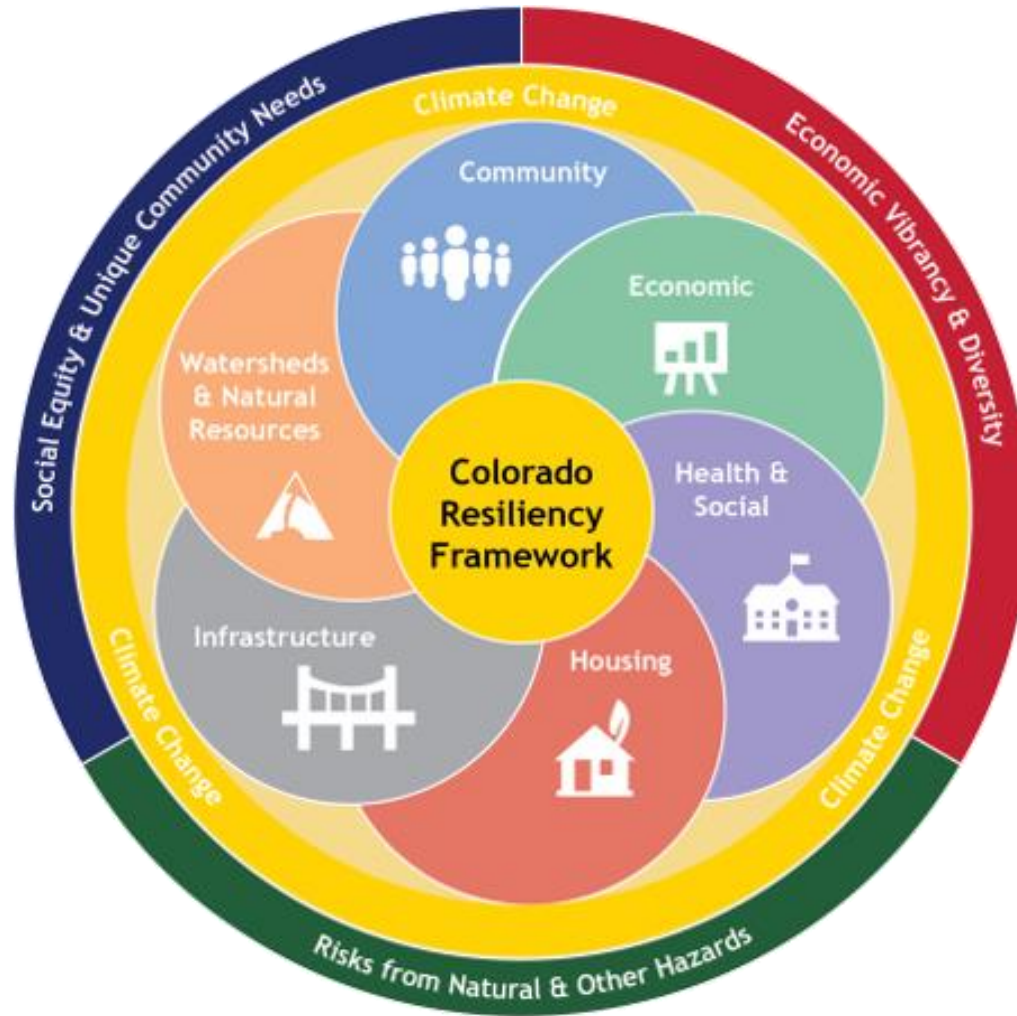
Land Use Solutions for Colorado



COLORADO
Resiliency Office
Department of Local Affairs

www.planningforhazards.com

Resiliency Lessons for the Military



- Take holistic approach
- Be good stewards of your assets
- Strengthen community partnerships
- Build adaptive capacity





Resilient305

INSIGHTS ON RESILIENCE FROM THE CITY OF MIAMI

October 29, 2020

COL (R) Alan Dodd

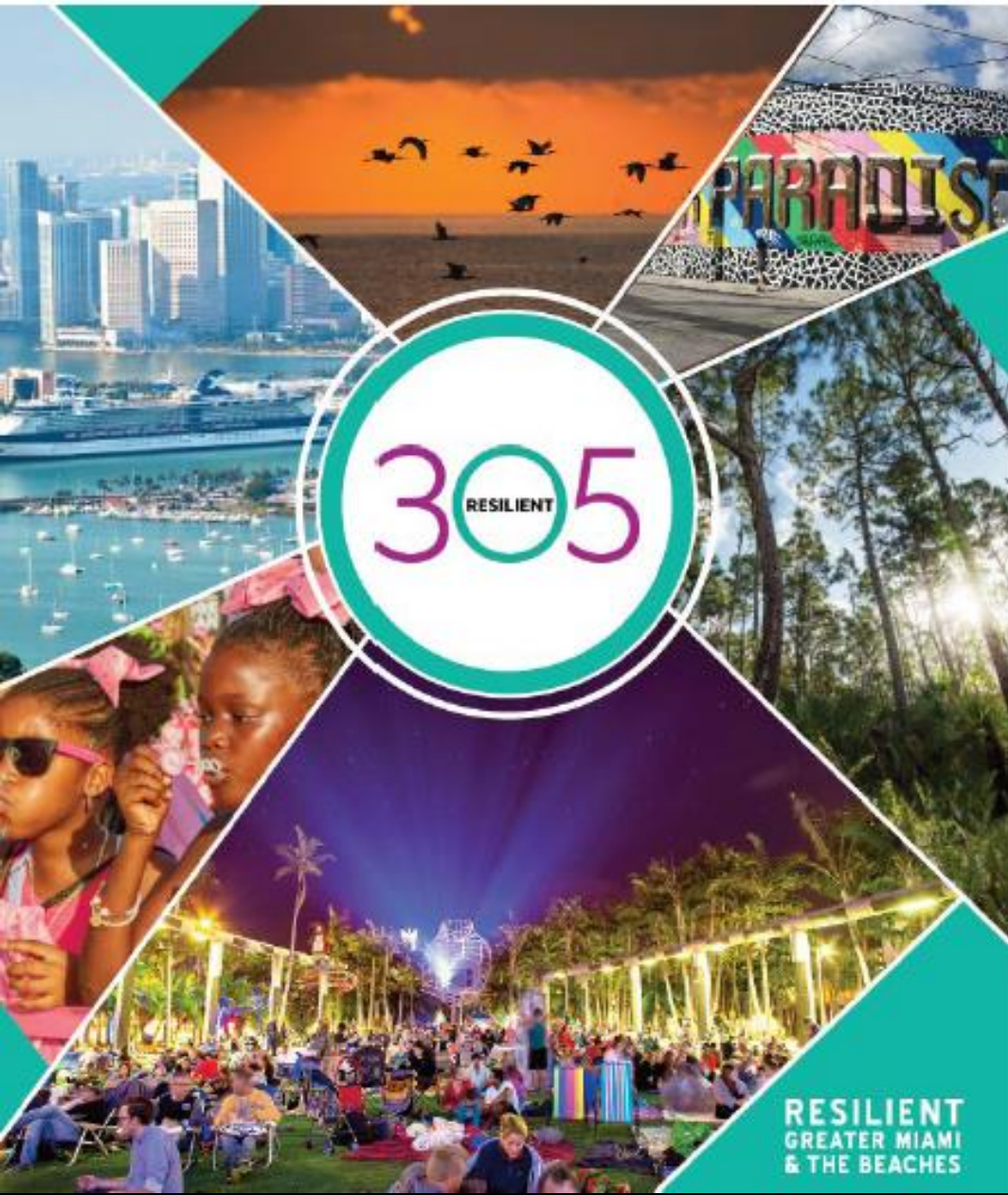
Chief Resilience Officer

Director, Department of Resilience and Public Works

City of Miami

amdodd@miamigov.com

GREATER MIAMI & THE BEACHES RESILIENT305 STRATEGY



PLACES

OBJECTIVES

- ◆ Enhance Natural Systems
- ◆ Safeguard Urban Systems
- ◆ Create Mobility Options
- ◆ Increase Energy Efficiencies
- ◆ Enhance Housing Options

19
actions

5
spotlights

11
case studies



PEOPLE

OBJECTIVES

- ◆ Cultivate Financial Stability
- ◆ Advance Public Health Priorities
- ◆ Strengthen Community Response
- ◆ Communicate the Concept of Resilience

22
actions

13
spotlights

8
case studies



PATHWAYS

OBJECTIVES

- ◆ Pre-plan for Post Recovery
- ◆ Cultivate Resilience Expertise
- ◆ Leverage our Experience
- ◆ Develop Shared Resources
- ◆ Leverage our Dollars

18
actions

6
spotlights

9
case studies

PLACES

We aim to address place-based challenges by:

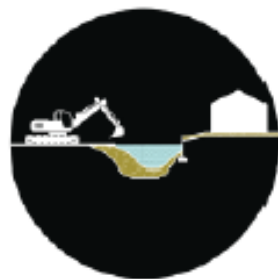
- Enhancing our **climate resilience** through design and planning for the future;
- Creating, connecting, and improving **mobility and housing** options;
- Safeguarding our **ecosystems**.



Key take-aways

- Sea level is expected to rise approximately 2 more feet by 2060
- More than 75% of Miami-Dade residents believe sea level rise is an issue that will impact them and want their government to do something about it.
- Municipalities can model their own SLR plans based on County's SLR Strategy, and study the adaptation actions that will be the best fit for their residents.
- SEFL Climate Compact unified SLR projection has been updated. The official guidance document is available here:
<https://southeastfloridaclimatecompact.org/>.

Objective: Safeguard Urban Systems *Action 7: Implement Sea Level Rise Strategy*



BUILD ON FILL

Raise the land on artificial fill



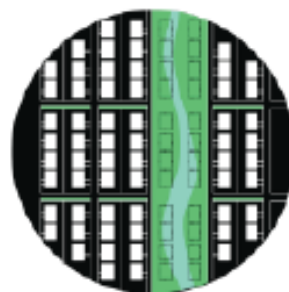
BUILD LIKE THE KEYS

Elevate structures on pilings and live with more water



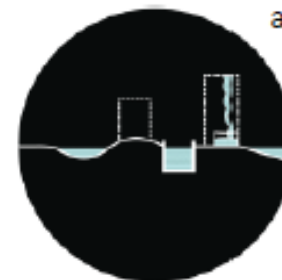
BUILD ON HIGH GROUND AROUND TRANSIT

Promote new development in the least flood-prone areas along transit corridors



GREEN AND BLUEWAYS

Expand waterfront parks and make room for canals in our most flood-prone neighborhoods



GREEN AND BLUE NEIGHBORHOODS

Create a network of small spaces for water in our yards, streets, and parks

Unified Sea Level Rise Projection Updated every 5 years

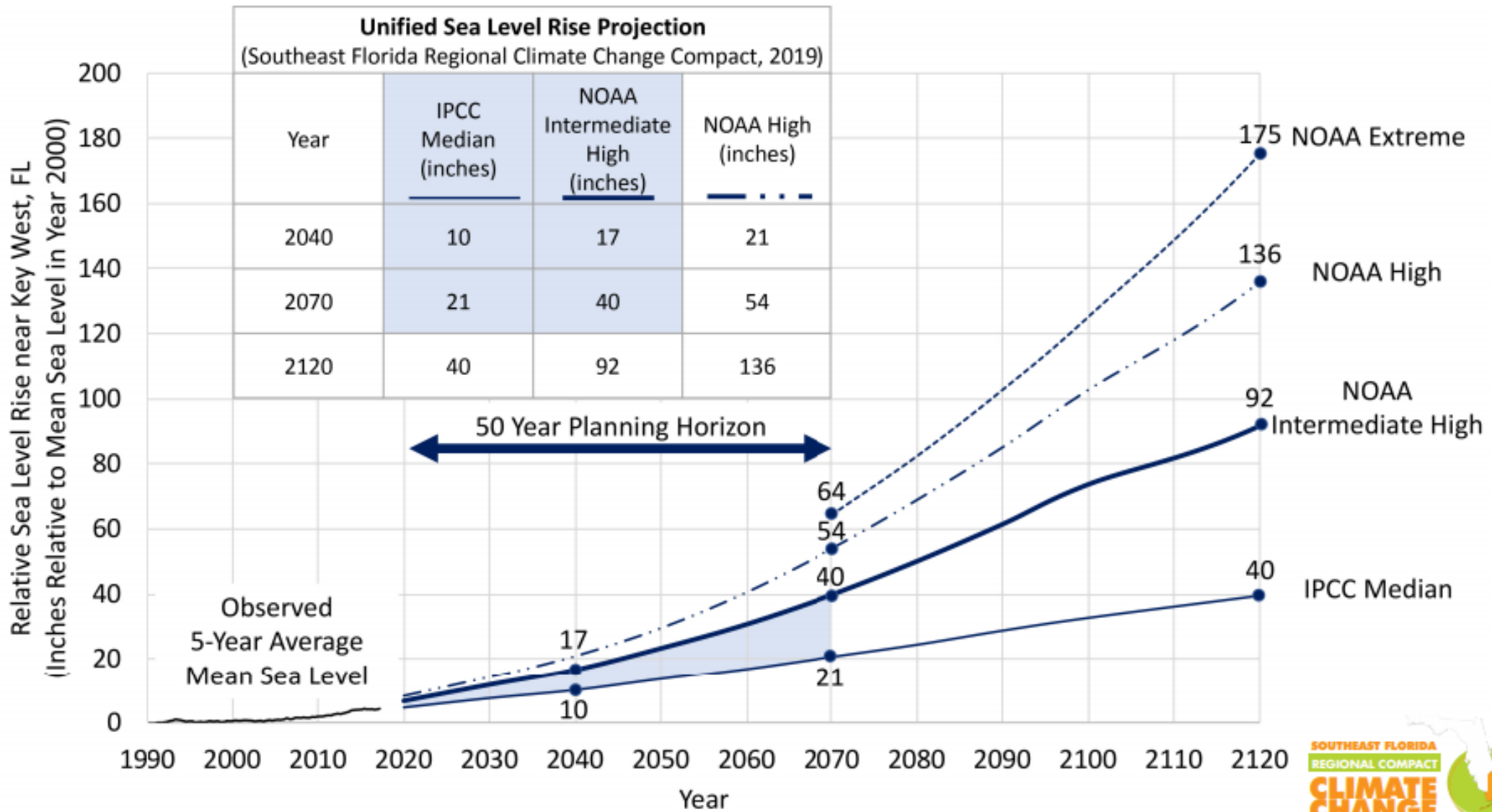


FIGURE 1: Unified Sea Level Rise Projection

Flood Mitigation Results

Purdy Ave - Dade Blvd

Maurice Gibb M



BEFORE

Tides: 2.00 ft NAVD 10/29/12



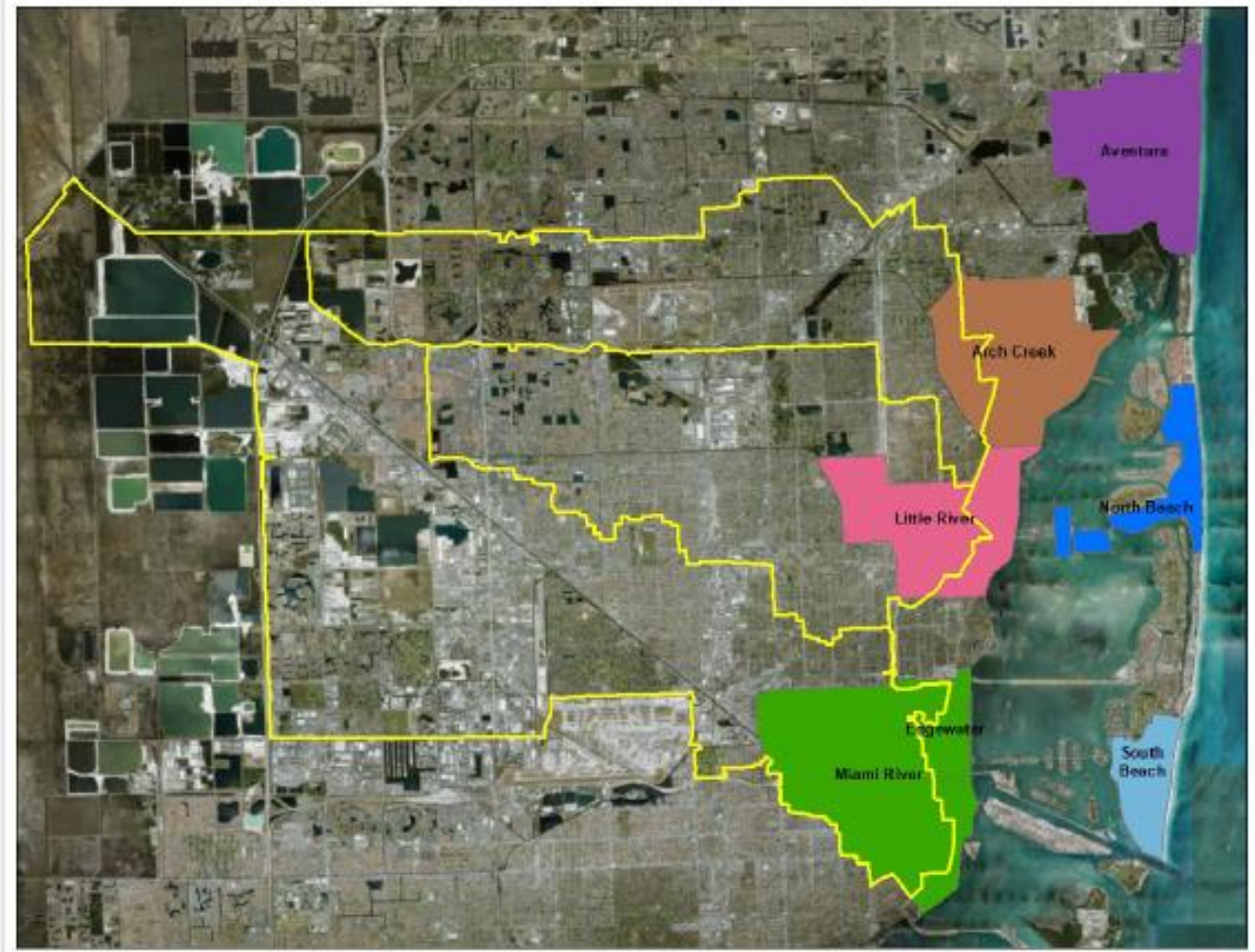
AFTER

Tides: 1.88 ft NAVD 10/15/19

Key take-aways

- U.S. Army Corps of Engineers is conducting multiple studies in Miami-Dade County
 - Back Bay Study
 - Beach Study
 - Port Study
 - South Atlantic Coastal Study
- Opportunity to leverage federal funding to increase resilience in all municipalities
- County and municipalities submitted comments on the Draft Plan to the USACE and comments are now being reviewed

Objective: Safeguard Urban Systems *Action 6: Reduce “Back Bay” Flooding*



Structural areas:
shown as yellow outlines
(correspond approximately to District drainage basin)

People

We aim to improve the lives of our citizens every day by:

- Supporting **job and wealth** creation;
- Addressing specific **health needs** for the most vulnerable among us;
- Preparing and **empowering neighborhoods** to anticipate and respond to disruptions.



Key take-aways

- Future Bound Miami is a **Children's Savings Account (CSA)** program that establishes a free, long-term **savings account** for kindergarten students, increasing their readiness for college or postsecondary education
- Research shows that children with savings accounts with as little as \$1 are more likely to enroll in college
- Municipalities can partner by providing the initial \$50 seed funding for MDCPS students in their jurisdiction

Objective: Cultivate Financial Stability *Action 26: Teach Kids to Save*



HOW IT WORKS

An early start is key when it comes to saving for our children's success. The Future Bound Miami Children's Savings Account (CSA) program is a free savings tool with reward incentives, available to eligible kindergarten students attending Miami-Dade County Public Schools (M-DCPS).

WHO IS ELIGIBLE?

During the 2019/2020 school year, Future Bound Miami is open to kindergarten students attending 30 elementary schools that feed into the five high schools within the City of Miami. Over the next five years, our goal is to make this program available to all kindergarten students in M-DCPS.

[+ List of Participating Schools](#)

Key take-aways

- Municipalities can empower their residents post-disaster via CERT training and registering to be a United Way volunteer.
- CERT training and team organized is led by Miami-Dade County Office of Emergency Management
- United Way of Miami-Dade is the County Office of Emergency Management's official volunteer and donations arm before, during, and after a disaster.

Objective: Strengthen Community Response
Action 35: Increase Neighborhood Response

JOIN THE COMMUNITY EMERGENCY RESPONSE TEAM



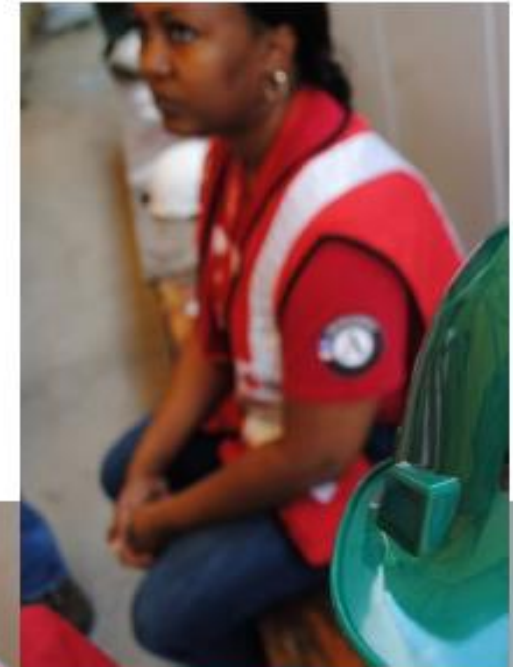
WHAT IS CERT?

The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills.

GET TRAINED

- The FREE training takes place over 2.5 days
- April 25, 27 & 28
- City of Miami Fire Training Center in Coconut Grove

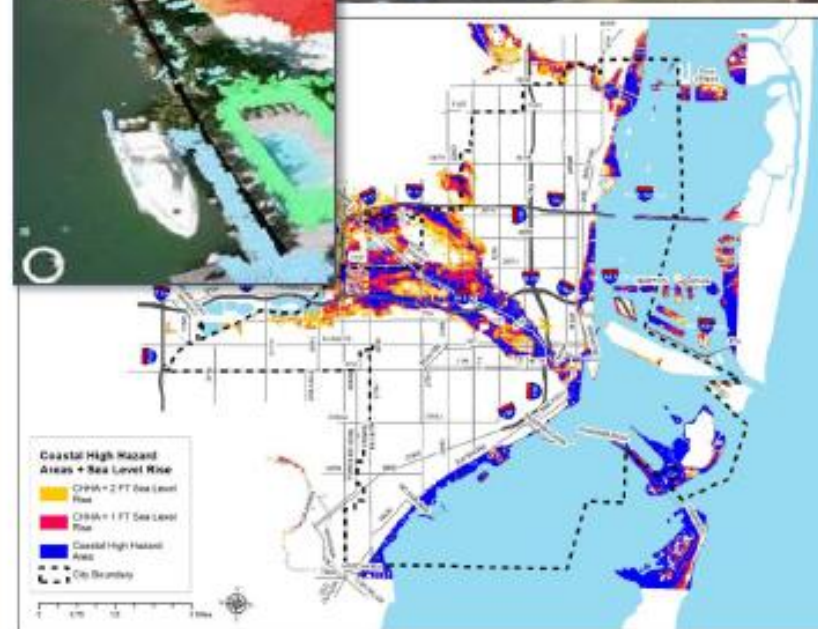
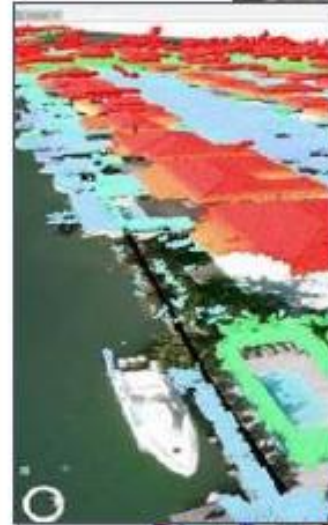
www.isc-registration.com/cityofmiamicert



Key take-aways

- Partner with private organizations to assist property owners understand their vulnerability to flooding and options to reduce risk
- Improve means to identify and communicate areas expected to be impacted and severity of flooding
- Provide residents with information on variety of flood protection methods and appropriateness with options for financing.
- Promote mitigate options including increased freeboard above BFE, raising seawalls, tidal valves

Objective: Strengthen Community Response *Action 37: Prepare Your Property*

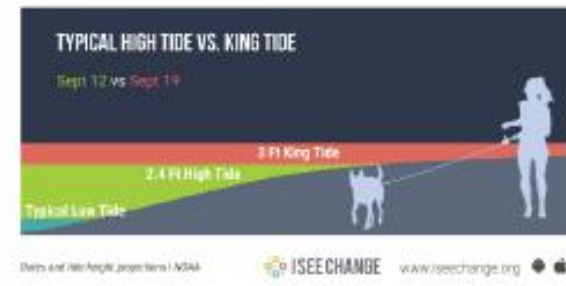


MIAMI, GET READY FOR KING TIDE SEASON

The highest high tides of the year, king tides, often cause major flooding in low lying areas across the City. **Sign up for ISeeChange** today, create your profile and post your reflections about how these tidal changes impact your daily life.

DATES TO WATCH

September 16-22 | October 14-21 | November 13-18 | December 13-15



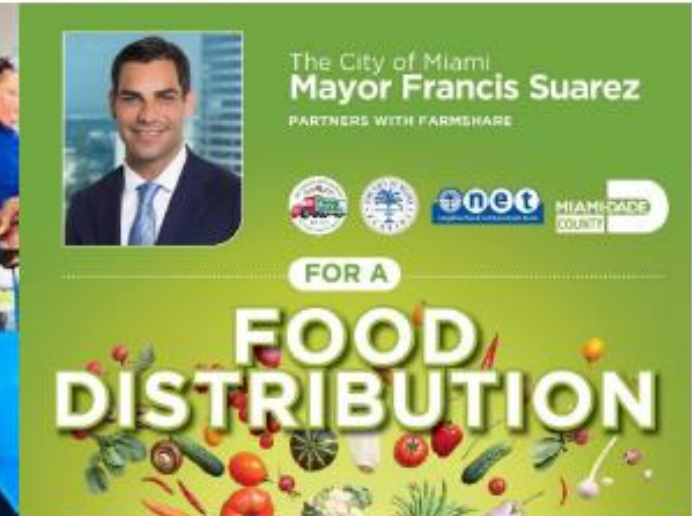
Data and tide height projections | NOAA

ISEECHANGE www.iseechange.org

Key take-aways

- Trusted and easily accessible location that is used to relay information and education, distribute resources, and provide vital services to a neighborhood year-round but also critically after a natural disaster
- Category 5 rated window and door protections, backup generator, device charging and wifi capabilities
- Post disaster provides meal, water and ice distribution and to share information about FEMA recovery opportunities

Objective: Strengthen Community Response *Action 38: Support Resilience Hubs*



Pathways

We aim to enhance collaboration and committed leadership by:

- Setting common and **equitable goals**;
- Developing **shared resources**;
- Working with our neighbors to **succeed across boundaries**.



Key take-aways

- The monthly employee READY Team works to implement the ULI Recommendations through:
 - major plans
 - polices
 - projects

from land use regulations to urban forestry to water management and more.

Objective: Cultivate Resilience Expertise *Action 47: Train Employees to be Resilient*



City Manager's READY TEAM MEETING 2.0

Resilience Enhancement Action Design for YOU

READY TEAM 2.0 is the City Manager's monthly convening of departments to ensure interdisciplinary and interdepartmental collaboration and communication. The READY Team was created on the tails of the 2018 ULI Recommendations for the City of Miami Beach Stormwater Management Program and Climate Adaptation Approach.

September 10, 2020

UPDATES

- 1) Global Resilient Cities Update + Resilient305 Update- Amy

Advisory Services Panel Report

Miami Beach
Florida
April 16-19, 2018



Key take-aways

- A PROSPEROUS CITY with a special flavor of arts, culture, education, and business.
- A SAFE CITY with a mosaic of residents enjoying life in iconic and historic NEIGHBORHOODS
- A RESILIENT COASTAL CITY with a thriving environment and modern infrastructure
- A PEOPLE FIRST CITY where the pedestrian is prioritized, and mobility option and community services are pathways to prosperity
- A SMART CITY of high quality and efficient services and employees

Objective: Cultivate Resilience Expertise
Action 47: Train Employees to be Resilient





305
RESILIENT

@resilient305

THANK YOU!