



# VIRGINIA COASTAL RESILIENCE MASTER PLANNING FRAMEWORK

Principles and Strategies for  
Coastal Flood Protection and  
Adaptation

Technical Advisory Committee Meeting

December 14, 2020

Secretary Matthew J. Strickler

Secretary of Natural Resources and Chief Resilience Officer

Commonwealth of Virginia

Email: [ResilientCoastVA@governor.virginia.gov](mailto:ResilientCoastVA@governor.virginia.gov)





# Guiding Principles

## ➤ Acknowledge Climate Change

Acknowledge **climate change** and its consequences and base decision-making on the **best available science**.

## ➤ Enhance Equity

Identify and address **socioeconomic inequities** and work to **enhance equity** through coastal adaptation and protection efforts.

## ➤ Nature-Based Solutions

Recognize the importance of protecting and enhancing **green infrastructure** like natural coastal barriers and fish and wildlife habitat by prioritizing **nature-based solutions**.

## ➤ Region-Specific Approach

Utilize **community and regional scale planning** to the maximum extent possible, seeking region-specific approaches tailored to the needs of individual communities.

## ➤ Cost-Effective Solutions

Understand **fiscal realities** and focus on the most **cost-effective solutions** for protection and adaptation of our communities, businesses and critical infrastructure.

# Primary Goals

**1**

## Identify and Prioritize Projects

Identification of priority projects for the Master Plan

**2**

## Financing Strategy

Establishment of a financing strategy

**3**

## Incorporation of Climate Change Projections

Effective incorporation of climate change projections in state programs

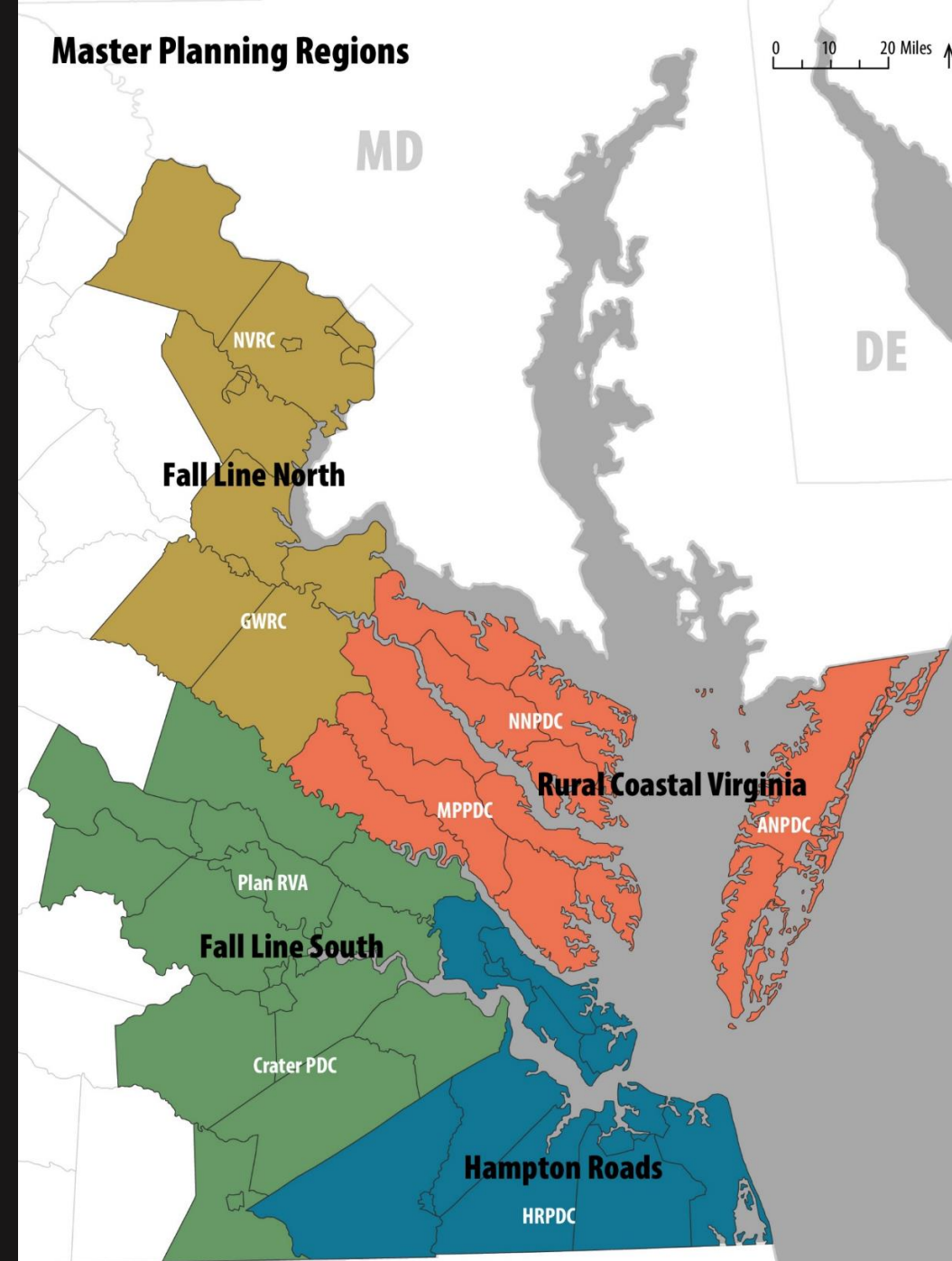
**4**

## Coordinate Efforts

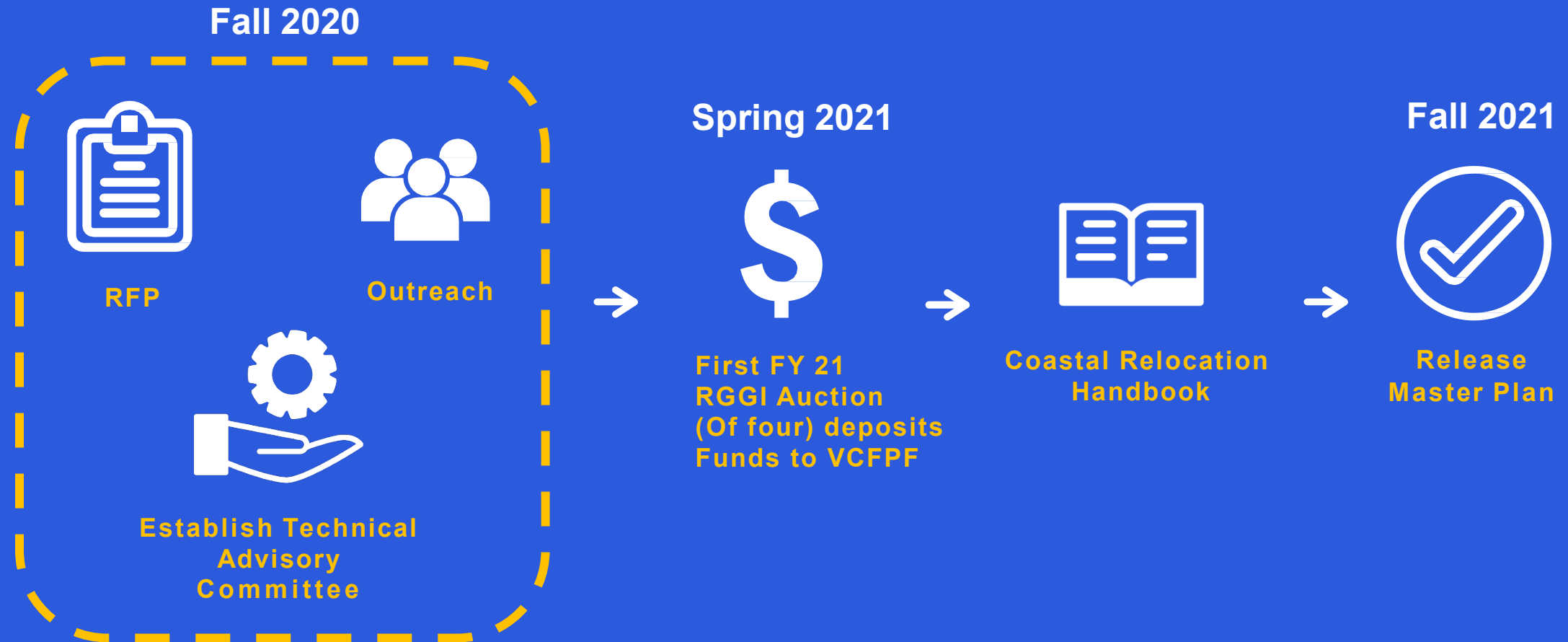
Coordination of state, federal, regional and local coastal efforts

# Four Master Planning Regions

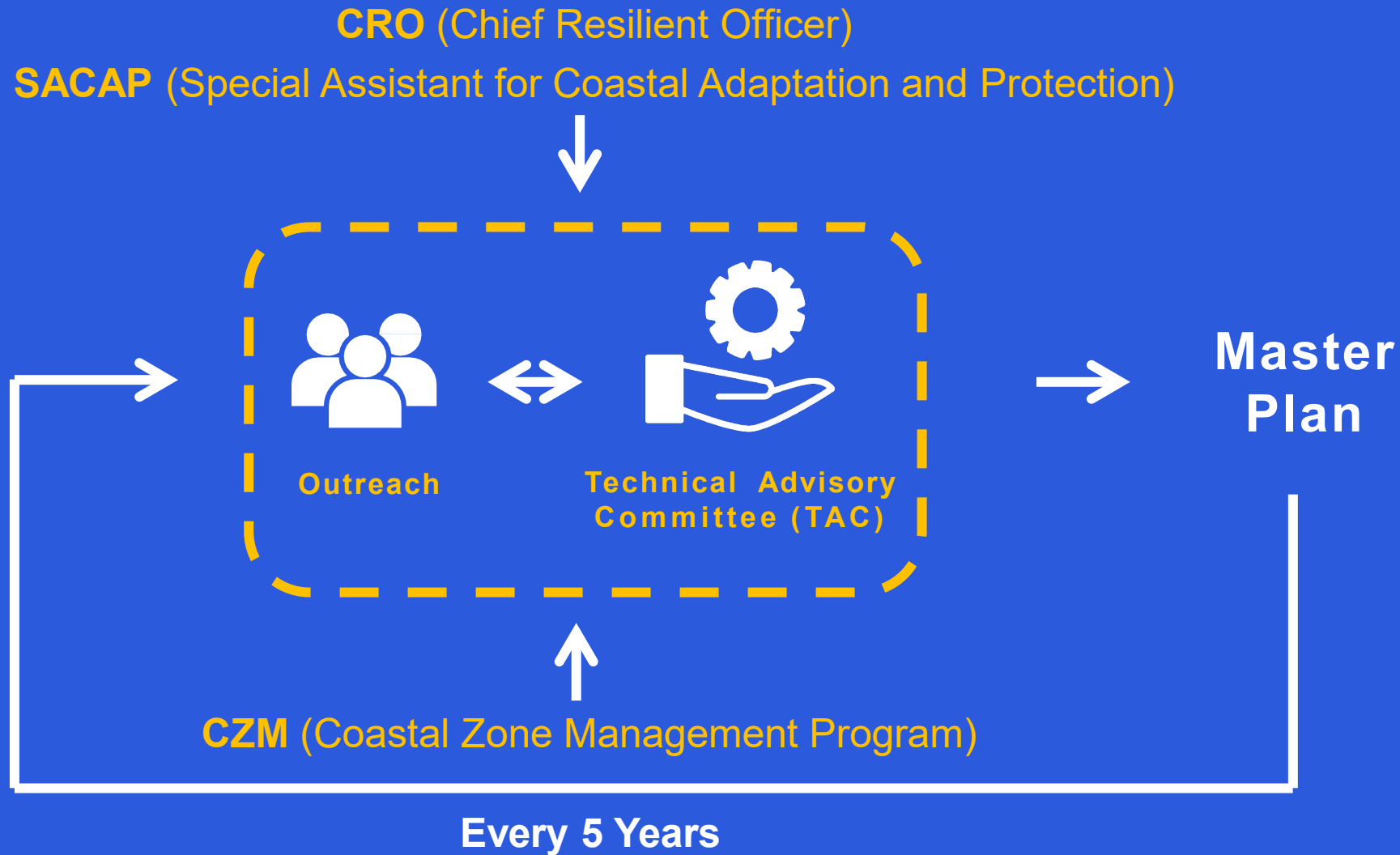
- Hampton Roads (HRPDC)
- Rural Coastal Virginia (A-NPDC, MPPDC, NNPDC)
- Fall Line North (GWRC and NVRC)
- Fall Line South (Crater and PlanRVA)



# What's next



# Towards a Master Plan





# RFP (request for proposal)

Full coastal analysis to identify critical built and natural infrastructure / identify gaps/ conduct economic impact analysis  
Assist with developing database for prioritization process



TAC, CRO, SACAP



Develop protocol for prioritization



First list of priority projects

# Immediate Actions



## Technical Advisory Committee (CRO, SACAP)

The TAC will work closely with the CRO and SACAP in creating a Master Plan and **prioritized project list and financing model based on the guiding principles, goals, and actions identified in the Framework.**



## Coastal Zone Management Program

The nature of the TAC's work will require some significant administrative and technical support. This will include: **decision option identification; stakeholder and advisor input management; data collection and synthesis; and performance monitoring.** To meet these needs, we will utilize the CZM Program.



## Community Engagement

A key element of our efforts going forward is **direct outreach to individual communities across the Framework's four coastal regions.**



# TAC Responsibilities –


## The “Charge” to the TAC



Developing protocols, and identifying and prioritizing projects



Developing a funding and financing strategy



Tracking scientific developments and recommending studies



Aligning economic development initiatives



Strengthening partnerships with federal installations

# Next TAC Meeting ~ Mid February

1. An update on the RFP/ Presentation by Selected Contractor
2. A discussion on the Community Flood Preparedness Fund (CFPF) guidelines
3. Other suggestions

# *Discussion*

# RFP - Overview / Status Update

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



# VDEM – BRIC Overview



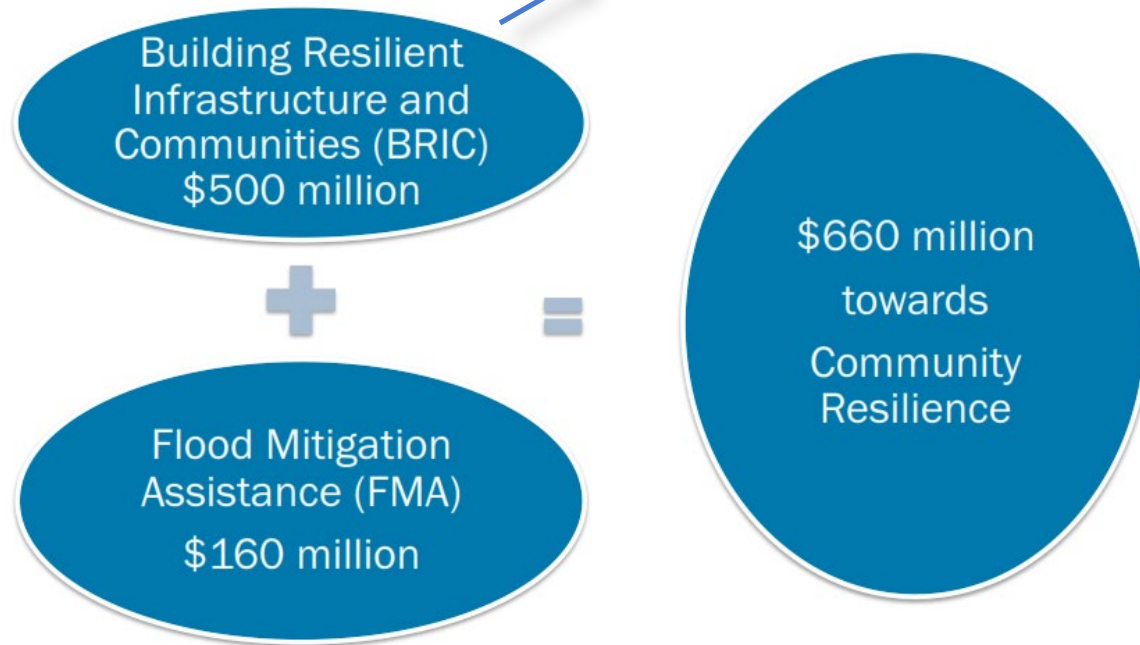
Virginia Department of  
Emergency Management

---

## **Building Resilient Infrastructure and Communities (BRIC)**

# FY 2020 Funding

BRIC is funded by a 6% set-aside from federal post-disaster grant funding



# BRIC Priorities/Eligible Activities

Incentivize public infrastructure projects

Incentivize projects that mitigate risk to one or more of the FEMA lifelines

Incentivize projects that incorporate **nature based solutions**

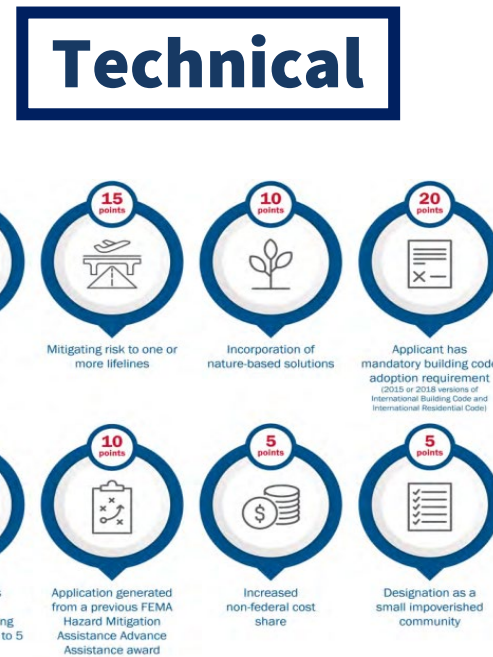
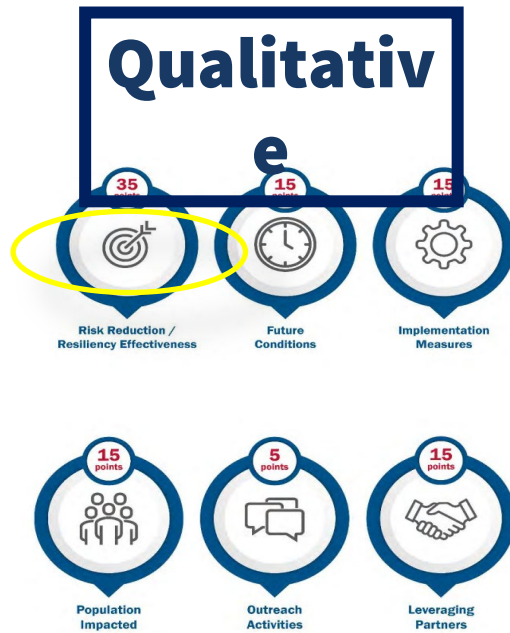
Increase funding to Applicants that facilitate the **adoption and enforcement of the latest published editions of building codes**

- Stormwater Management
- Localized Flood Control Projects
- Infrastructure Protection – Wasterwater Treatment Plants, Water Facilities, Fire Stations, and Hospitals
- Floodwater Storage and Diversion





# BRIC Qualitative and Technical Criteria



# BRIC 2020 By The Numbers

- 42 project applications submitted totaling over \$301M (almost three times the amount submitted last year)
- 36 project applications selected for peer review totaling \$300M

Project Type	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Total
Planning/Advanced Assistance	2	1	1		2	1	1	8
Acquisition/Elevation/MR					2			2
Floodwater Storage/Diversion					2			2
Generators for Critical Facilities	1				2	1		4
Localized Flood Control Projects							2	2
Infrastructure Protection	1				4			5
Stream Restoration/Living Shore			1		2			3
Stormwater/Drainage Mgmt	1	1			3			5
Water/Sanitary Sewer Protection	2		1		1		1	5
Total								36



# BRIC/FMA Deadlines

Notice of Funding Opportunity (NOFO) was released **August 4, 2020**

FEMA Application Period Opens: **September 30, 2020**

Pre-applications/Applications Due to VDEM: **November 10, 2020**

Peer Review Process: **December 2020**

Applications Due to FEMA **January 29, 2021** (VDEM's deadline)

Projects Selected/Identified for Further Review by FEMA: approximately **July 2021**



**DHCD – NDRC CDBG Grant Update /  
RGGI Energy Efficiency Fund Update**





**VIRGINIA DEPARTMENT OF HOUSING  
AND COMMUNITY DEVELOPMENT**

Partners for Better Communities

# VA DHCD's Community Development Block Grant – National Disaster Resilience Grant

## City of Norfolk's Ohio Creek Watershed Project

- Road Re-alignment and raising
- Storm water improvements
- Living Shoreline
- Community Resiliency Park
- Construction is 30% complete



## RISE, Resilience Innovations

- First Round Six challenge awards
- Second Round six challenge awards
- Current Challenge Urban Mobility Resiliency 5 applicants
- Next challenge will begin in early 2021





VA DHCD's  
Community Development Block Grant – National Disaster Resilience Grant  
Ohio Creek Watershed Project





# City of Norfolk's Ohio Creek Watershed Project

## Pump Station and Resiliency Park





# City of Norfolk's Ohio Creek Watershed Project

## Road Raising and Re-alignment



# Home Innovations in Energy Efficiency (HIEE) Program

First Stakeholder Advisory Group and Public Meeting

December 15, 2020

2:00pm – 4:00 pm



# Home Innovations in Energy Efficiency (HIEE) Program

- DHCD created the HIEE program for implementing RGGI proceeds
- 50 percent of RGGI proceeds will be directed to DHCD for affordable housing programs (per SB 1027/HB 981)
- Estimated \$50 million to go towards affordable housing programs
- Funding consideration for completing upgrades that would not have been feasible otherwise, which will allow projects to be more sustainable over the life of the project and will lower utility costs for low-income residents.

# Objectives for RGGI funds

**Deep energy retrofits** (exceeding energy code requirements) that complement existing affordable housing construction and rehabilitation incentives, to ensure lowest income population benefits from long-term cost savings;

**Incorporate innovative approaches** that will overcome traditional barriers to building and retrofitting affordable housing at scale;

**Prioritize long-term sustainability/durability and occupant health** (e.g. preventing moisture issues, improving ventilation) along with energy efficiency upgrades

# HIEE Program Development - Timeline

- November 2020 - Named agency meetings (DEQ, DHCD, DMME)
- December 15, 2020 – First Advisory Group public meeting (monthly through March 2021)
- Quarter 1 2021 – Draft guidelines for review & first RGGI auction

**DCR – Virginia Community Flood  
Preparedness Fund Update/ EO 45 Update**

# The Community Flood Preparedness Fund and EO 45

**Clyde Cristman**  
**Department of Conservation and Recreation**





# EXECUTIVE ORDER 45

- Established the Virginia Flood Risk Management Standard will improve flood protection in coastal areas by discouraging building in floodplains and incorporating sea level rise projections
- Established a “freeboard” standard that increases protection of buildings in both coastal and riverine floodplains by requiring that they be built to certain elevation standards that will protect them from flooding.
- Established an inter-agency workgroup to develop National Flood Insurance Program (NFIP) compliant standards for development by state agencies (workgroup is currently developing standards)

## **The Community Flood Preparedness Fund** **(Established by HB 981 (2020))**

§ 10.1-1330 (C) (1)

**“Forty-five percent of the revenue [from RGGI auctions] shall be credited to the account established pursuant to the Fund for the purpose of assisting localities and their residents affected by recurrent flooding, sea level rise, and flooding from severe weather events”**

# **Guidelines will Establish Uses of the Fund**

**“The Department (DCR), in consultation with the Secretary of Natural Resources and the Special Assistant to the Governor for Coastal Adaptation and Protection, shall establish guidelines regarding the distribution and prioritization of loans and grants, including loans and grants that support flood prevention or protection studies of statewide or regional significance.”**

## **Uses of the Fund: § 10.1-603.25. (E)**

- **Allows localities to create a low-interest loan program to help residents and businesses implementing flood prevention and protection projects and studies in areas that are subject to recurrent flooding.**
- **Grants and loans to mitigate future flood damage and to assist inland and coastal communities across the Commonwealth that are subject to recurrent or repetitive flooding.**
- **No less than 25 percent of the moneys disbursed from the Fund each year shall be used for projects in low-income geographic areas.**
- **Priority shall be given to projects that implement community-scale hazard mitigation activities that use nature-based solutions to reduce flood risk.**

# **DRAFT GUIDELINES NOW AVAILABLE FOR PUBLIC COMMENT**

- Available on the [Virginia Regulatory Town Hall](#)
- Public comment accepted until January 31, 2021
- Final Guidelines to be released prior to RGGI auction in March

# For More Information

Russ Baxter, DCR Deputy Director  
[russ.baxter@dcr.virginia.gov](mailto:russ.baxter@dcr.virginia.gov)

Wendy Howard-Cooper, Division Director, Division of  
Dam Safety and Floodplain Management  
[wendy.howard-cooper@dcr.virginia.gov](mailto:wendy.howard-cooper@dcr.virginia.gov)



**DEQ – Chesapeake Bay Protection Act  
Climate Change and Sea Level Rise Update**



**VCZM – Current Coastal Resilience  
Grant Background/ Status / TAC support**



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM

# Coastal Resilience TAC Meeting: Virginia CZM Efforts



**Laura McKay, Manager, Virginia CZM Program**

**December 14, 2020**

# What is the CZM Program?

- A **network** of state agencies and coastal local governments implementing Virginia's coastal laws and policies
- Goals To protect, restore, and strengthen our coastal and ocean **ecosystem** and **economy**
- Authorized under **CZMA** of 1972 and VA Gubernatorial Continuation Letter
- Funded by NOAA at ~ \$2.5M/year, matched by grantees







### SUBAQUEOUS LANDS

Marine Resources Commission



### MARINE FISHERIES

Marine Resources Commission

### DUNES

MRC & Local Wetlands Boards



### WETLANDS

MRC, DEQ & Local Wetlands Boards



### PLANT PESTS & NOXIOUS WEEDS

Dept. of Agriculture & Consumer Services



### SHORELINE SANITATION

Dept. Health



## Virginia Coastal Zone MANAGEMENT PROGRAM



LEAD AGENCY

### WILDLIFE & INLAND FISHERIES

Dept. Wildlife Resources



### COMMONWEALTH LANDS

DWR and Dept. Conservation & Recreation



### AIR POLLUTION

Dept. of Environmental Quality

### NONPOINT SOURCE WATER POLLUTION

DEQ & Local Governments



### POINT SOURCE WATER POLLUTION

DEQ



### CHESAPEAKE BAY PRESERVATION AREAS

DEQ & Local Governments



# Virginia CZM Program and Executive Directive 13

*COMMONWEALTH of VIRGINIA*  
*Executive Department*

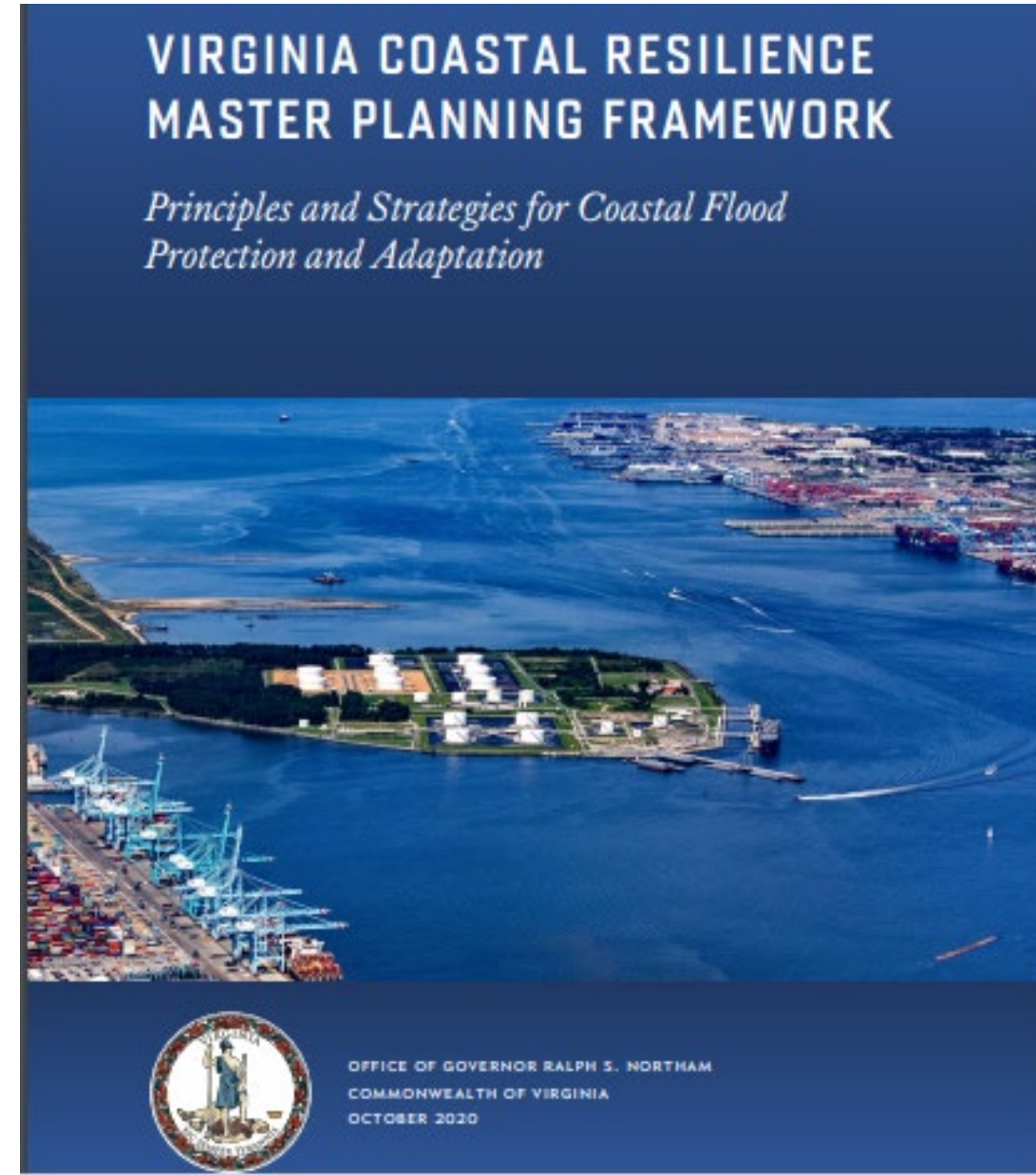
**Executive Directive Thirteen (2020)**

**Directing the Virginia Coastal Zone Management Program Regarding Responsibility and Reporting to the Commonwealth's Chief Resilience Officer**

“The Director of the CZM Program shall report directly to the Chief Resilience Officer **on matters of coastal adaptation and protection...**”

“**Consistent with the terms of its NOAA grant agreement**, the Coastal Zone Management Plan, and the Coastal Needs Assessment and Strategies, the Director of the CZM Program shall provide technical support to the CRO and the SACAP as necessary to develop and implement the Virginia Coastal Resilience Master Plan.

[Link to Executive Directive 13](#)





# CZM Natural & Community Resiliency Efforts

## \$1,140,388 in FY19 and 20

- Improving management of natural features such as wetlands, beaches
- Supporting coastal communities capacity to address climate impacts



# CZM Natural Resiliency Projects

- Projects include guidance documents, research, data collection, training and outreach

For example,  
grants to VIMS  
to document  
shoreline  
evolution from  
1937 to 2017





# CZM Community Resilience Projects

- Projects include regional technical assistance, RAFT evaluations, CRS participation, vulnerability assessments and resilience project database

For example, grant to HR PDC to assess validity of using 1<sup>st</sup> floor elevation to assess vulnerability to coastal flooding



Figure 3: Illustration of stair counting approach for estimating FFH. The count of 7 stairs equals a FFH of 4.4ft. The land elevation difference between the bottom of the stairs and lowest adjacent grade would be added to produce the final FFH estimate. Image from City of Hampton Property Information Parcel Viewer (2017).

# CZM Project of Special Merit FY 2020 \$135,678

- National competition
- Awarded by NOAA to Virginia CZM
- Purpose to help DEQ Water Division develop guidance to address flooding through the Chesapeake Bay Preservation Act
- Subcontracts to W&M Coastal Policy Center and VIMS





# FY 2020-22 CZM Technical Assistance Grants

\$30k to each of 8 PDCs for 3 years – total = \$720k

## PDCs will:

- Coordinate w/stakeholders
- Help implement the Coastal Resilience Master Plan
- Develop project proposals for the Coastal Resilience Projects Database

