

Commonwealth Flood Resilience Planning

Tom Berry, VDEM Planning Division

Robbie Coates, VDEM Grant Programs

Matt Dalon, DCR Office of Resilience Planning Program Manager



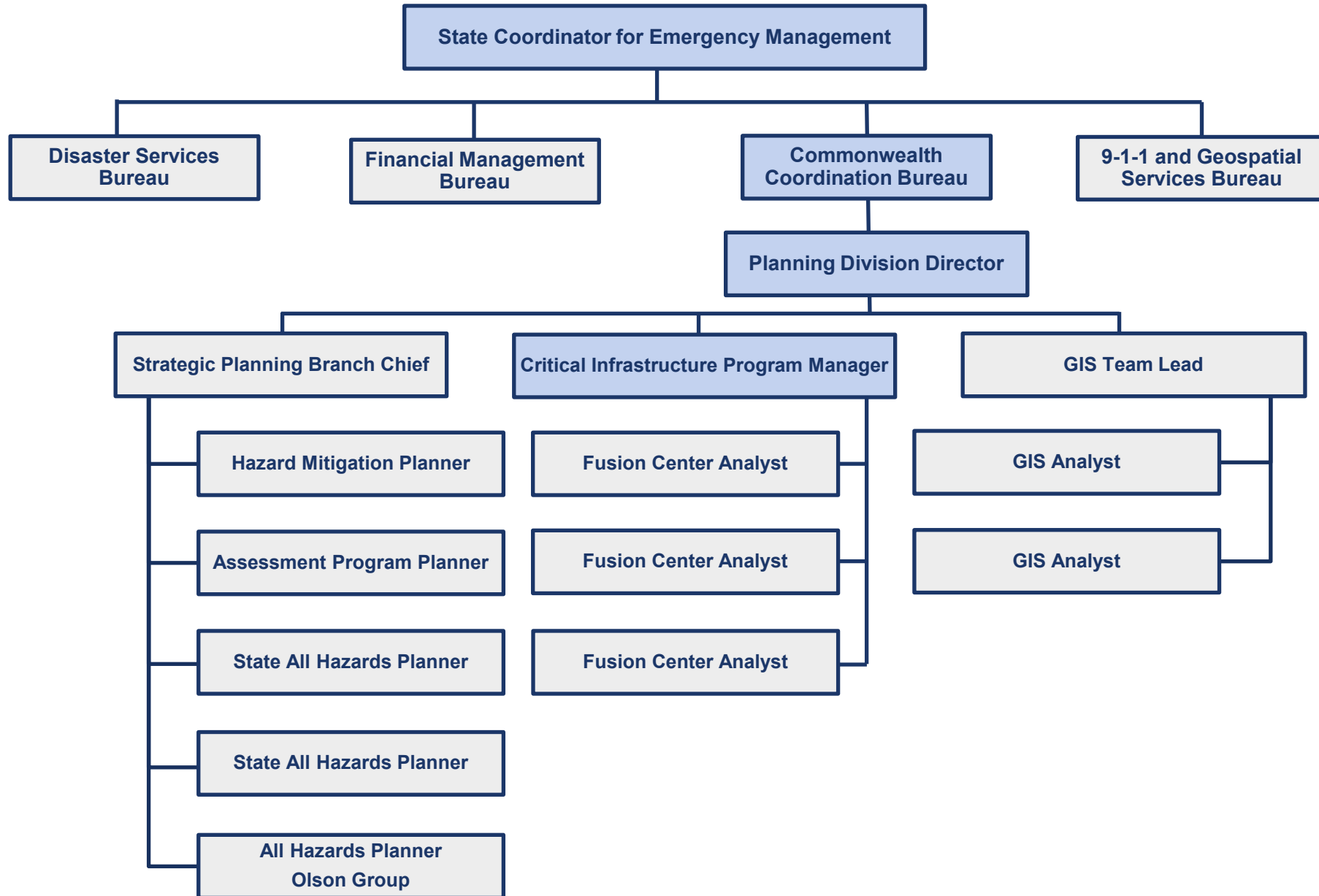
Virginia Department of
Emergency Management



Virginia Department of
Emergency Management

Critical Infrastructure Program Strategic Plan

June 28, 2023



Introduction

Critical Infrastructure Strategic Plan is draft
Requires coordination with other State Agencies
Modeled after efforts in National Capital Region
Includes assets, systems, and networks, whether physical or cyber
Incapacitation or destruction effects physical security, economic vitality, public health or safety at local, tribal, State, national levels
Supports mitigation, preparedness, response, and recovery
VDEMs role is one of coordinating and facilitating
Meant to support and partner with other State agencies, not compete
Coordinated with federal efforts (i.e., CISA, DoD)
Public and private sector dependent



Purpose

Provides a strategic framework by which other State agencies and private sector partners collaborate to maintain a plan to implement and measure an agreed upon set of annual objectives which will then increase our resilience and ability to identify our “centers of gravity” and develop strategies to protect our community lifelines.



Risks + Centers of Gravity + Intelligence = Situation

Critical Infrastructure Assessments



A lifeline enables the continuous operation of **critical government** and **business functions** and is essential to **human health** and **safety** or **economic security**.



Clausewitz: "The Centre of Gravity is where the mass is concentrated. It is the most effective target for a blow and the defeat of the enemy consists in defeating his centre of gravity, which is his mass or strength."

Organization and Goals

State Working Group

Composed of Sector Risk Management State Agencies (SRMSAs)
SRMSAs aligned with Sector Specific Agencies at federal level and
the 16 Critical Infrastructure Sectors

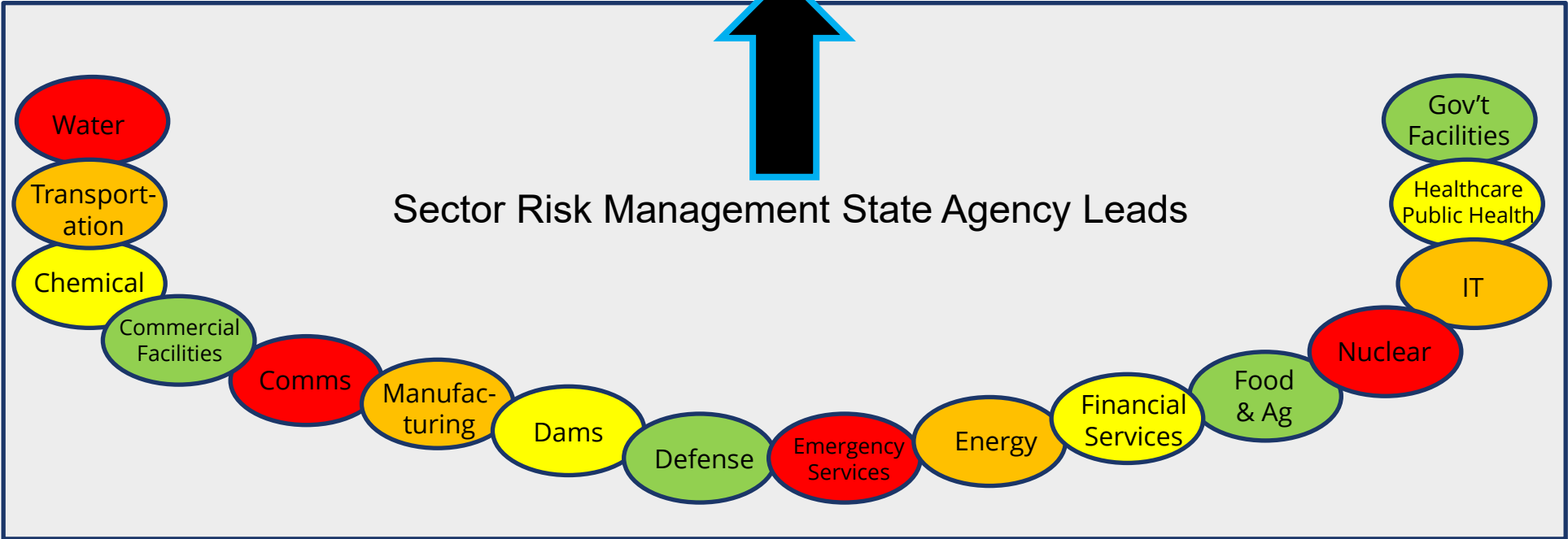
Draft concept suggests identifying State Agency Lead

Goals ...

- Develop an Implementation Plan that defines annual and multiyear priorities and objectives
- Develop a process for identifying, assessing, and documenting State critical infrastructure
- Engage critical infrastructure stakeholders from public and private sectors



State CI Working Group



Sector Risk Management State Agencies



Opportunities

- Data sharing
- Private sector engagement
- State agency support
- Determining the necessary authorities
- Considering the “vehicles” needed to conduct the assessments



The Risk if We Do Nothing





Virginia Department of
Emergency Management

Flood Preparedness Coordination Meeting

Funding Opportunities

Date: June 28, 2023

» vaemergency.gov

f [VAemergency](https://www.facebook.com/VAemergency)

t [@VDEM](https://twitter.com/VDEM)

Hazard Mitigation Assistance Grants

Building Resilient Infrastructure and Communities

Flood Mitigation Assistance

Hazard Mitigation Grant Program

Pre-Disaster Mitigation (Now Congressional Directives)

*New – Safeguarding Tomorrow Revolving Loan Fund



Intent of these programs

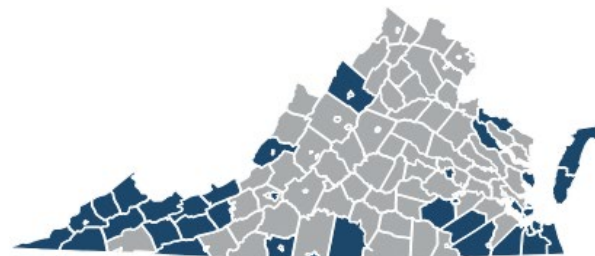
To break the repetitive damage cycle of natural hazards.



Grant Funding Strategy

Continued engagement with eligible applicants through planning, site visits for potential projects, presentations at conferences, workshops
Cycle of building applications, regardless of HMA funding opportunity

Success of program is dependent on receiving applications from local governments



40 Localities
Identified Scoring
Over 70%

Building Resilient Infrastructure and Communities

Intent



The intent of the grant, Building Resilient Infrastructure and Communities (BRIC), is to support states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from natural hazards. BRIC replaced the Pre-Disaster Mitigation (PDM) grant program. BRIC is a nationally competitive program. Eligible project types include:

- Capability- and Capacity-Building Activities
- Residential Mitigation Projects
- Wildfire and Wind Retrofit Projects
- Nature-Based Infrastructure Projects
- Nature-Based Flood Protection Projects
- Technical Assistance Projects
- Earthquake Early Warning System Projects


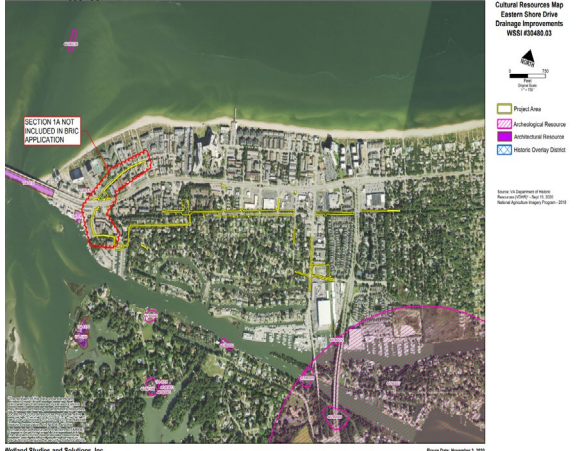

Local Qualification Factors



- Local government must have a FEMA approved, and locally adopted Hazard Mitigation Plan at the time of application, and at the time of grant award
 - The plan must have the identified project as a mitigation strategy within the plan.
- Local government must be participating in, and in good standing with the National Flood Insurance Program



Notable Projects

<p>BRIC 2021 – All Hazards Consortium Energy Scoping Project</p>	<p>BRIC 2021 – Virginia Beach - Eastern Shore Drive Drainage Improvement*</p>	<p>BRIC 2020 – Town of Tangier Microgrid Feasibility Study</p>
	 <p>Cultural Resources Map Eastern Shore Drive Drainage Improvements WSGI 030480.01</p> <p>SECTION 1A NOT INCLUDED IN BRIC APPLICATION</p> <p>Project Area Archaeological Resource Historical Resource Historic Overlay District</p> <p>Notes: See Departmental Manual for CRMP Revised/Updated Maps: August 2018</p> <p>Poland Studies and Solutions, Inc. © 2018</p> <p>Figure 1</p>	

* Project Listed in CRMP



Flood Mitigation Assistance

Intent



The intent of the Flood Mitigation Assistance Program (FMA) is to provide funding for projects to either reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program (NFIP). FMA is a nationally competitive program. Eligible project types include:

- Individual Flood Mitigation Projects
 - Property Acquisition and Structure Demolition or Relocation
 - Structure Elevation
 - Mitigation Reconstruction
 - Dry Floodproofing (non-residential structures)
 - Infrastructural, Structural, and Non-Structural Retrofitting
 - Soil Stabilization
- Community Flood Mitigation Projects
- Flood Mitigation Planning Activities
- Project Scoping
- Technical Assistance
- Management Costs

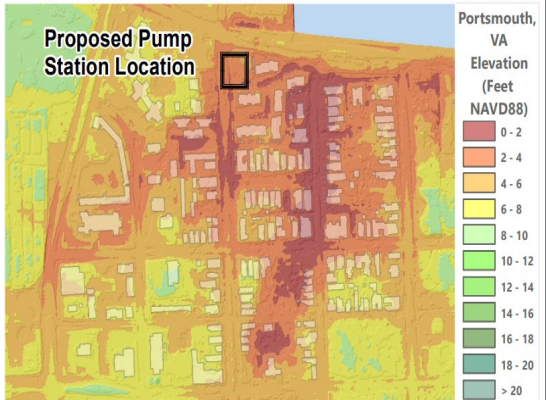


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 - The plan must have the identified project as a mitigation strategy within the plan.
- Local government must be participating in, and in good standing with the National Flood Insurance Program
- The project scope of work must benefit (protect) NFIP insured properties



Notable Projects

<p>FMA 2019 – Portsmouth Old Town Road Pump Station*</p>	<p>FMA 2020 – City of Chesapeake Acquisition and Demolition</p>	<p>FMA 2019 – Gloucester County Elevation Project</p>
		

* Project Listed in CRMP



Hazard Mitigation Grant Program

Intent



To support cost effective projects that reduce the long term risk to life and property across the Commonwealth. This program is available after a Major Disaster Declaration is declared in Virginia. Virginia receives 15% of total funds distributed to Virginia under the federal disaster relief fund for this program.

Local Qualification Factors

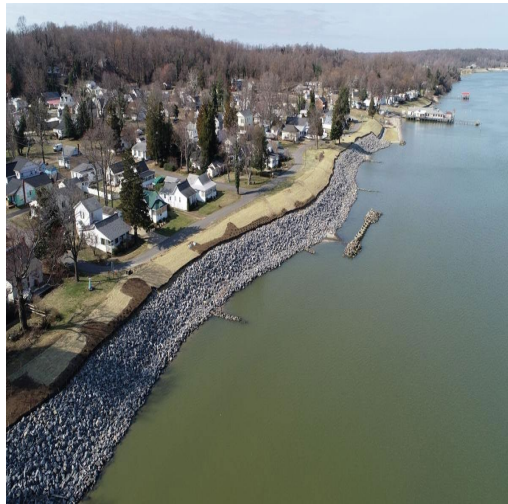


Your community has to be included in one of the regional hazard mitigation plans that has been approved by FEMA, and adopted locally. The proposed project must be included in your local hazard mitigation plan. If the proposed project is in a FEMA identified floodplain, then the community must be participating and in good standing with the National Flood Insurance Program.

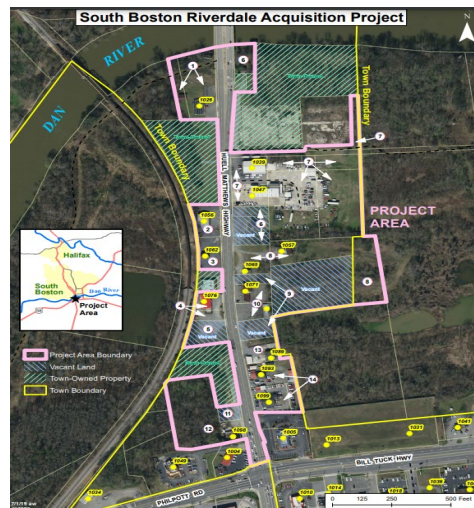


Notable Projects

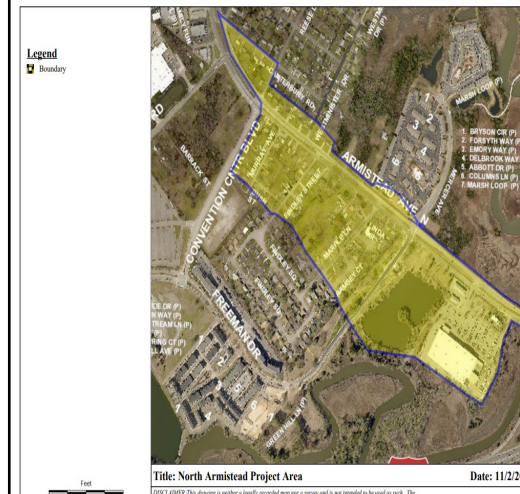
HMGP 4262 – King George Fairview Beach Soil Stabilization



HMGP 4401 – Town of South Boston Riverdale Acquisition and Demolition



HMGP 4512 – City of Hampton North Armistead Resilience Project*



HMRP 4262 – Town of Wise Acquisition and Demolitions



* Project Listed in CRMP

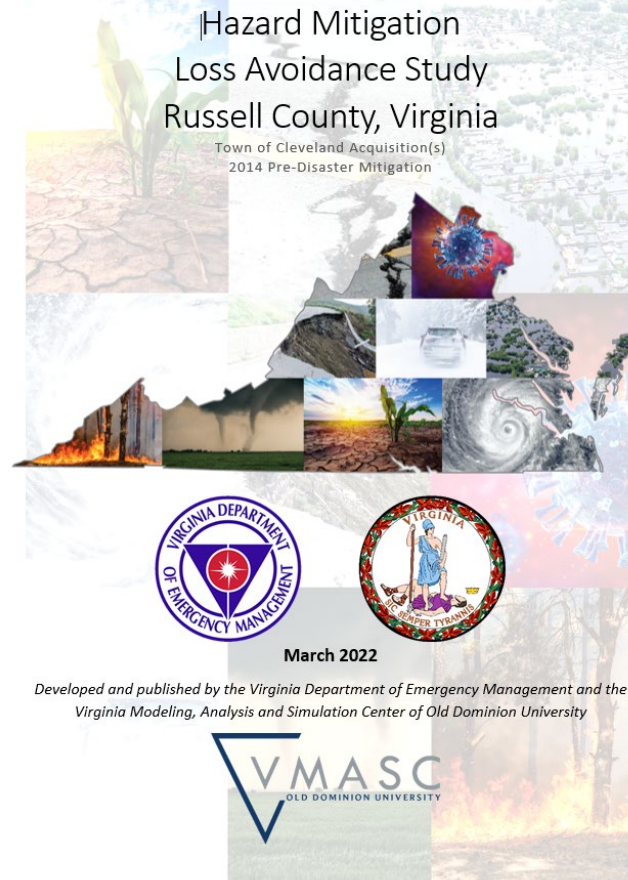


Pre-Disaster Mitigation

- Replaced by BRIC in 2020
In 2022 Congressional Earmarks introduced



Evaluate Success



Stay Informed

- <https://www.vaemergency.gov/divisions/finance/grants/>

Grants

Sign-up for Grants Email Notifications

SIGN-UP



THANK YOU!



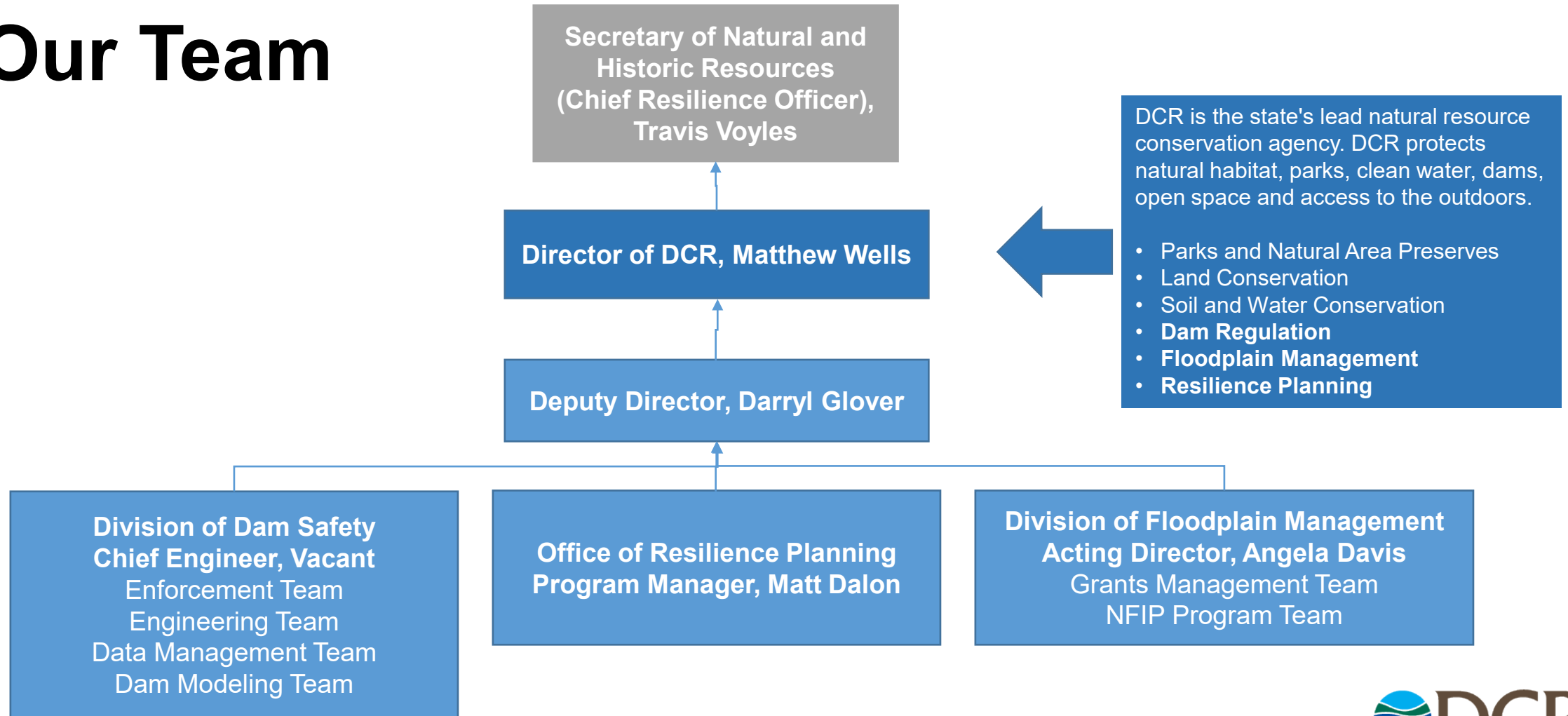
Tom Berry
804-659-5282
Thomas.berry@vdem.virginia.gov

Robbie Coates
804-516-5774
robert.coates@vdem.virginia.gov

Virginia Department of Conservation and Recreation

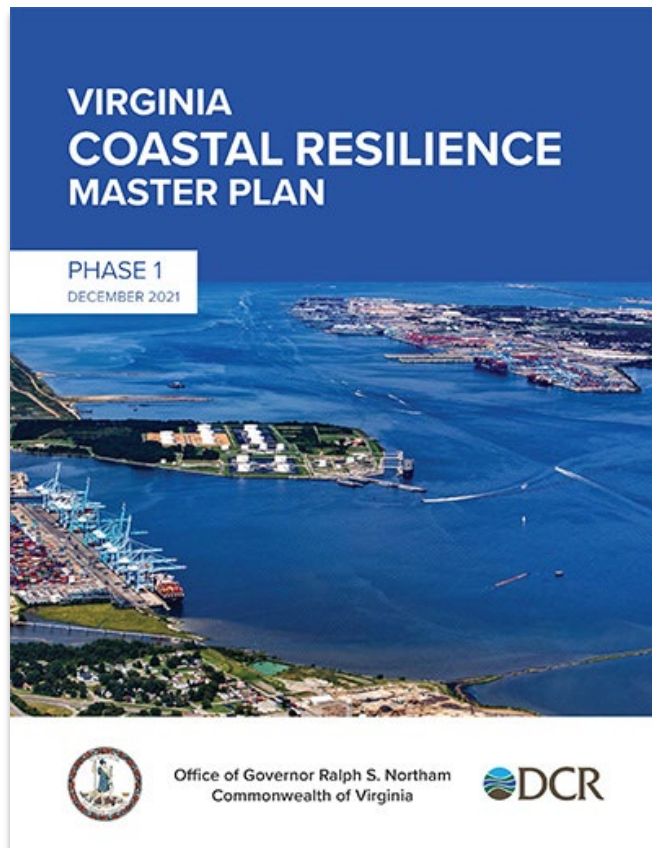


Our Team



CRO and DCR's Resilience Planning Role

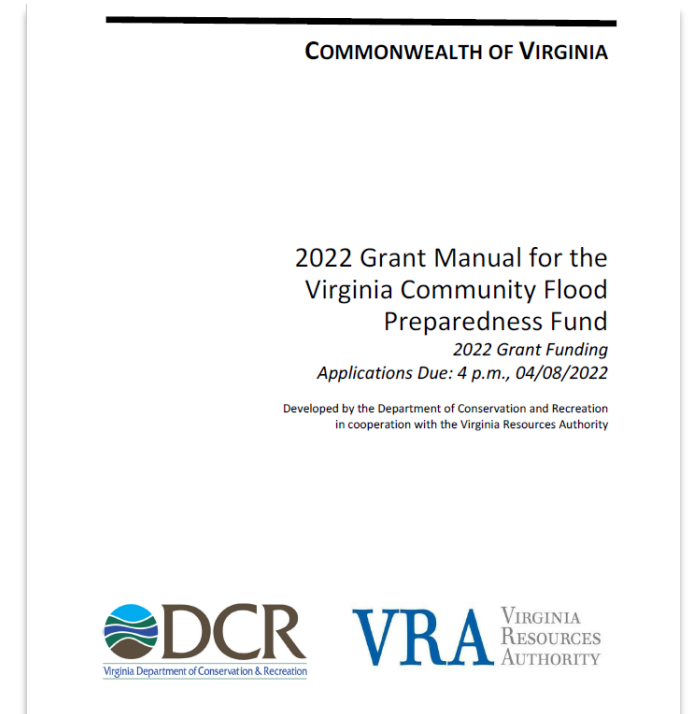
Plan Development



Plan Coordination

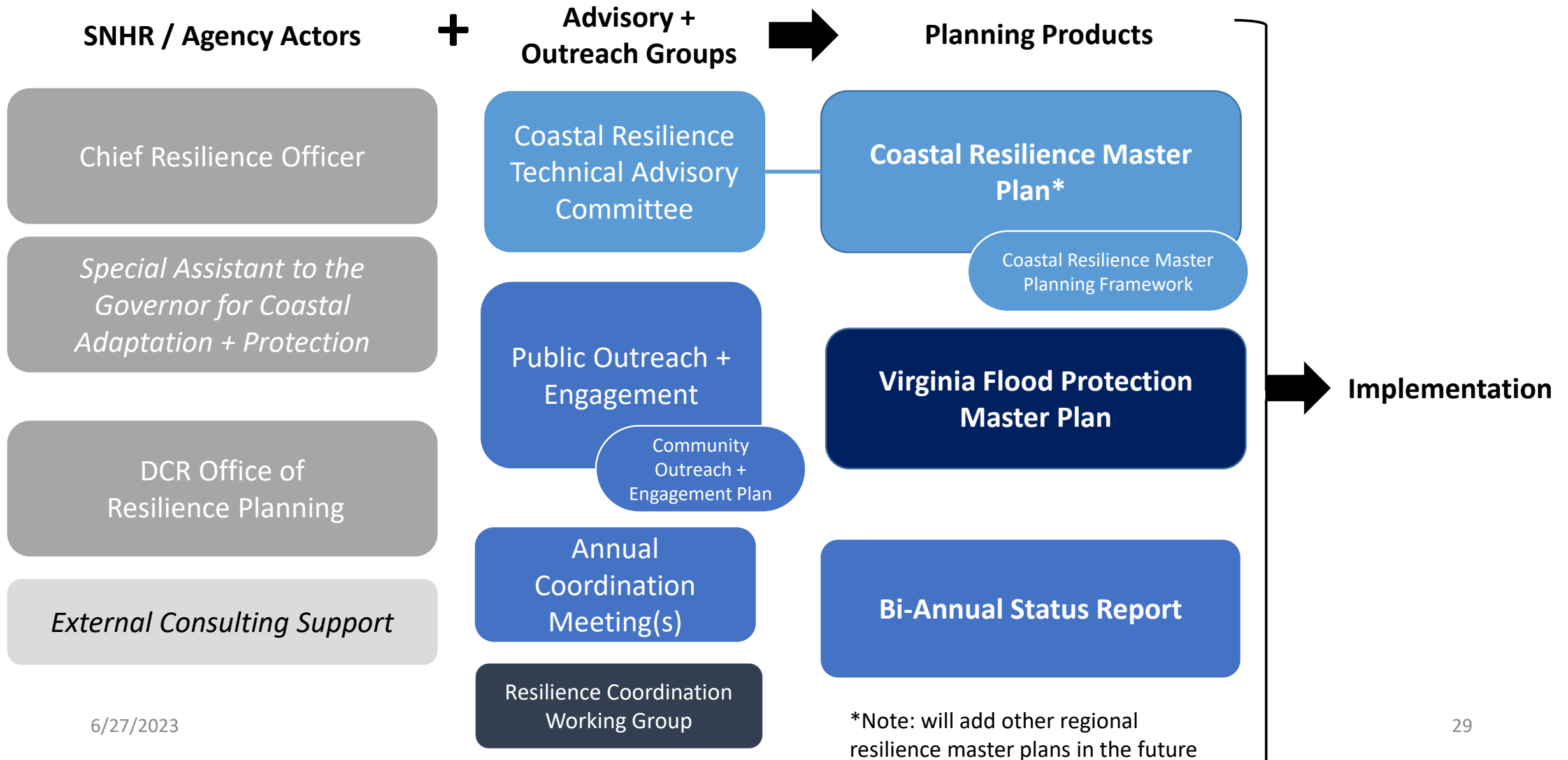


Plan Implementation Support



For more information, see Code of Virginia:
§ 10.1-602. Powers and Duties of the Department
§ 10.1-658. State interest in resilience and flood control
§ 10.1-659. Flood protection programs; coordination
§ 2.2-220.5. Chief Resilience Officer

CRO and DCR's Resilience Planning Activities



CRMP Phase II, December 2024

CRMP Deliverables:

Incorporate Major Flood Hazards:
Coastal Flooding
Riverine/Fluvial Flooding
Rainfall-Driven/Pluvial Modeling

Update Risk Assessment:
Community Resources
Critical Sectors
Natural Infrastructure

Update Project Inventory

Outreach & Engagement

CRMP Schedule:

Utilize CRMP Coastal Data

Utilize existing FEMA Fluvial Data

Apr 2024: Forward-looking pluvial modeling

Jan-Nov 2024: Compound flooding – joint probability analysis

Apr-Nov 2024: Update Phase I impact assessment using updated flood hazard exposure mapping

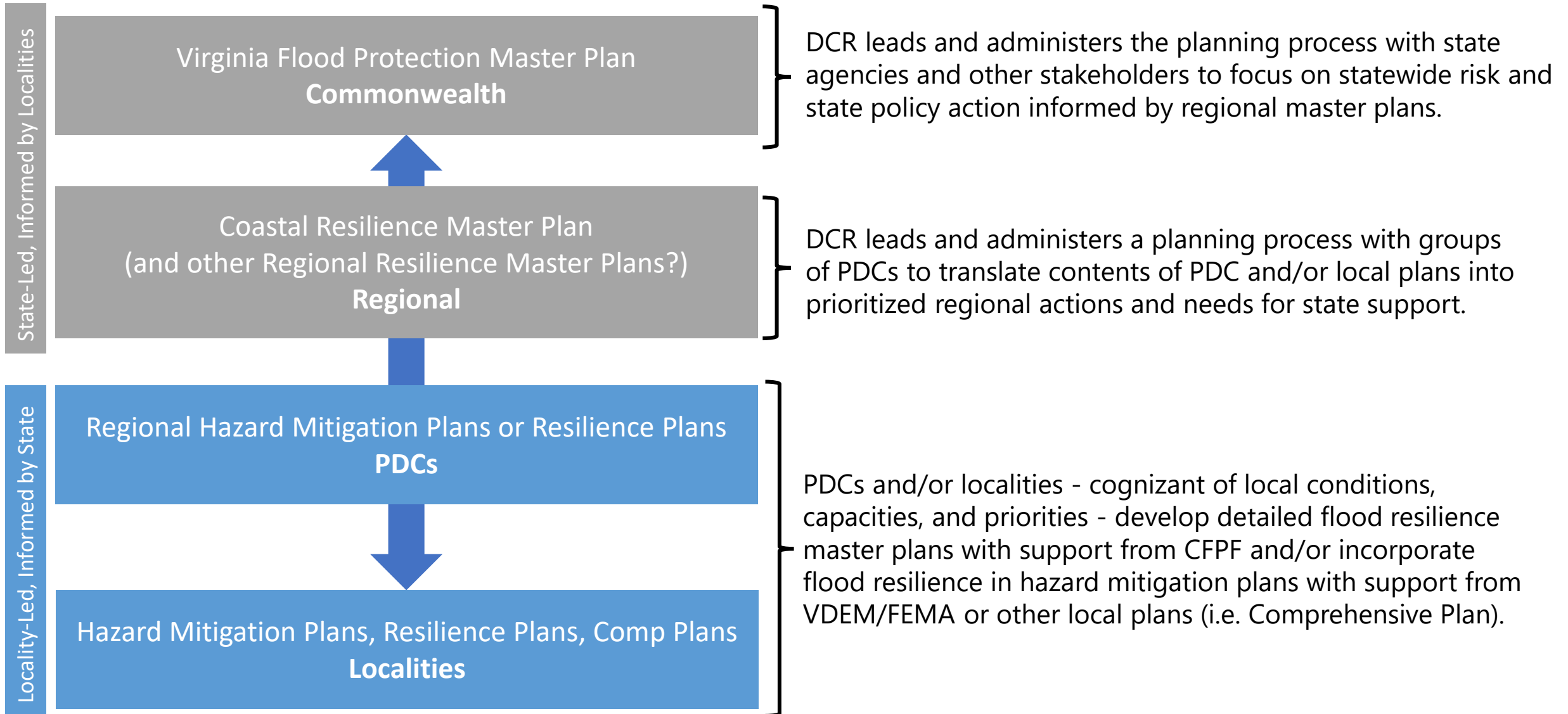
Dec 2023: Coastal PDCs submit updated list of flood resilience projects from their respective regions to DCR

Ongoing: Project updates and new projects added to Resilience database

Ongoing: Quarterly TAC + subcommittee meetings

Jan - Dec 2024: Ongoing public outreach + engagement

Looking Ahead: Multi-Level Plan Integration



Flood Protection Master Plan (Dec 2025)

Purpose:

1. Guide **state policy** to build flood resilience
2. Provide direction and resources to PDCs, localities and other stakeholders to **support and encourage local action**

Goals:

Unifying Vision:

Outline a cohesive vision and approach to flood resilience, including to provide resources in support of local action

Data Inventory:

Identify and compile actionable and accessible flood risk analysis products statewide and future data production needs

Critical Infrastructure Risk Assessment:

Identify priority concerns

State-Level Implementation Strategy:

Identify goals, actions, responsible parties, and funding

Future Coastal Resilience Master Plans

May also encompass additional regional plans in other geographic areas

Purpose:

Provide **process, structure, and resources** to support regional and local actors to conduct place-based flood resilience planning in their communities.

Goals:

Prioritize Needs + Projects

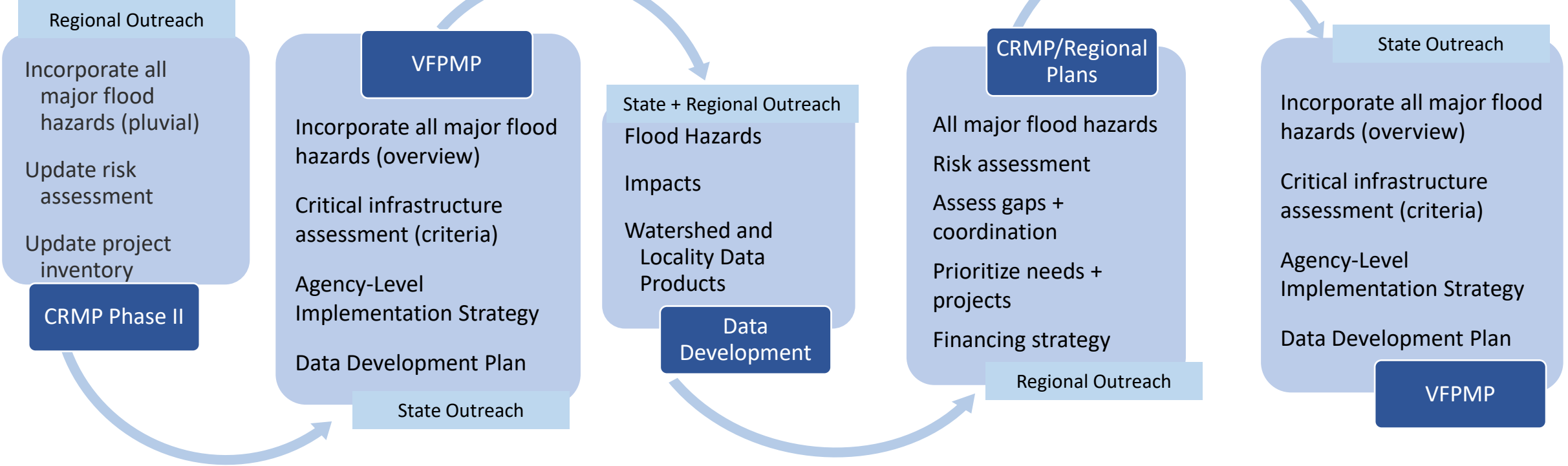
based on an assessment
of all major flood hazard
risks to critical
infrastructure

Establish a Financing Strategy

for the state to support
the projects identified as
priorities

Coordinate Efforts

between federal, state,
regional, and local action
to reduce conflict and
maximize impact of flood
resilience efforts



An adaptative management approach will provide improved flexibility.

Engaging Stakeholders in Planning

Community Outreach and Engagement Plan



Draft Engagement Guiding Principles

- Whole Community
- Transparency
- Opportunity
- Tailored Approaches

Draft Engagement Goals

1. Collaborate with existing flood resilience planning outreach and engagement efforts.
2. Seek out the participation of affected and vulnerable communities.
3. Provide access to information and opportunity for participation.
4. Incorporate the views and perspectives of affected communities into decision-making.

Bi-Annual Status of Flood Resilience Report

(§ 2.2-220.5. Chief Resilience Officer)

Responsibility: **CRO to prepare the Report** in coordination with the Director of Diversity, Opportunity, and Inclusion

Scale: **Statewide**

Purpose: report to the Governor and General Assembly on the **status of flood resilience in the Commonwealth**

Requirements:

- Serve as an evaluation of flood protection for critical infrastructure
- Include human and natural infrastructure
- Identify **risks to critical infrastructure**: transportation, energy, communication, water and food supply, waste management, health, and emergency services
- Include the **status of flood resilience planning**
- Assistance from all relevant Secretariats and agencies

Planning Horizon: **Prepared by July 2023 (every 2 years thereafter)**; draft in progress.



Critical Infrastructure

Assessing Flood Risk, Increasing Resilience

- Built, human, and natural infrastructure
- VDEM as a key partner:
 - Convening critical infrastructure sectors to define, prioritize critical infrastructure
- DCR provides flood exposure data – current and forward-looking – to conduct risk assessment
- Critical infrastructure assessment incorporated into CRO's Bi-Annual Status Report
- CRO recommends resilience-building activities
- DCR incorporates assessment and activities into VFPMP and CRMP plans



Inter-Agency Coordination

State agencies can help us to...

- Develop, implement, and monitor progress toward the VFPMP
- Identify critical infrastructure at risk of flooding, and projects, policies, or programs to mitigate risk
- Assist with developing Regional Resilience Master Plans
- Participate in annual coordination meetings and other coordination activities to share knowledge and align flood resilience plans, funding, and activities

Consulting Approach

RFPs to support Flood Resilience Planning

Resilience Planning and Consulting Contract(s)

- Qualification-based
 - Range of needed skills and capacities
- Task order-based
- May award multiple contracts
- Maximizing flexibility and resources
- DCR is developing RFP
 - Anticipated release: Jul 2023
 - Anticipated award: Nov 2023

Ongoing Dewberry Contracts:

- Pluvial modeling in coastal region
- Project and funding web app development for coastal resilience web explorer

Additional RFPs possible for IT solutions and ongoing outreach and engagement support.

Support for Local Resilience Planning

	Round 1	Round 2	Round 3	Totals
Funds Available	\$ 18,000,000	\$ 17,000,000	\$ 70,000,000	\$ 105,000,000
Number of Applications	32	37	64	133
CFPF Funds Requested	\$ 14,532,740	\$ 29,725,495	\$ 92,472,050	\$ 136,730,285
Funds Awarded	\$ 7,796,040	\$ 24,551,923	\$ 65,388,627	\$ 97,736,590
<i>Low Income Awarded</i>	\$ 3,766,515	\$ 19,759,944	\$ 42,384,643	\$ 65,911,103
<i>Non-Low Income Awarded</i>	\$ 4,029,525	\$ 4,791,979	\$ 23,003,983	\$ 31,825,487

Local Plans: Approved and Funded

FEMA National Risk Index DCR Resilience Plan Status

Combined Flood - Risk Index

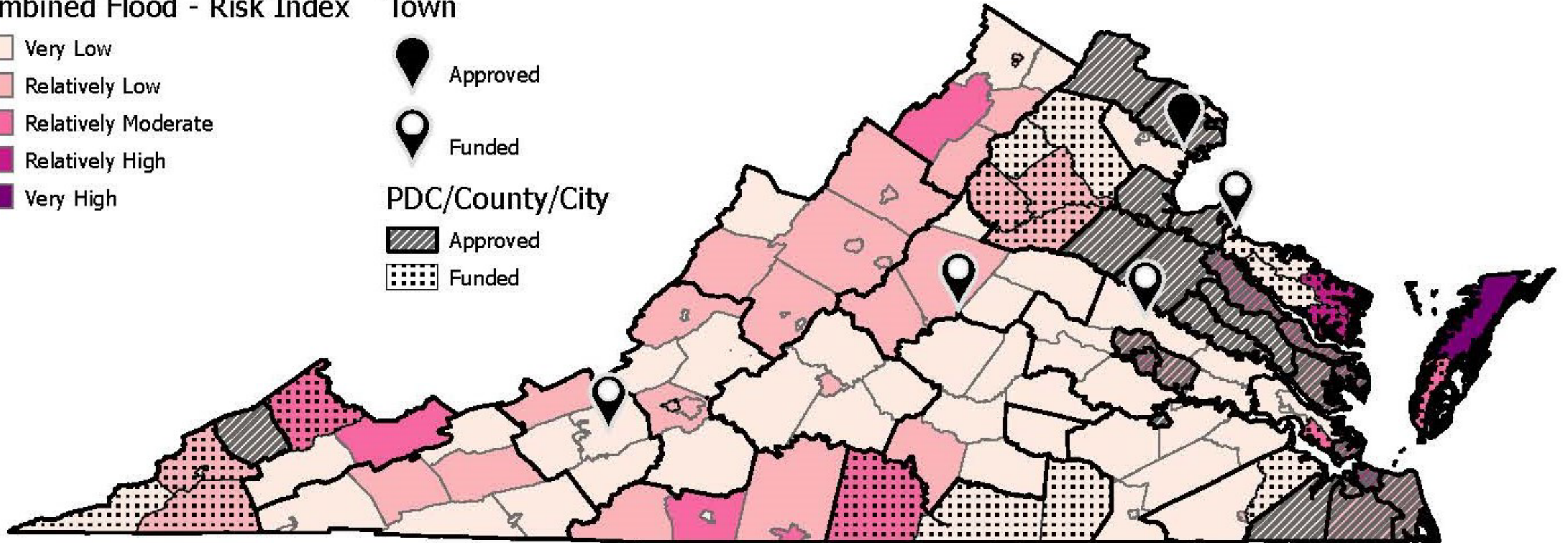
- Very Low
- Relatively Low
- Relatively Moderate
- Relatively High
- Very High

Town

- Approved
- Funded

PDC/County/City

- Approved
- Funded



Thank you!



Break