

Coastal Resilience Technical Advisory Committee Quarterly Meeting

SEPTEMBER 18, 2024, 10:00 AM - 1:00 PM



Meeting Agenda

- 1) Call to Order and Roll Call
- 2) Adoption of the Agenda
- 3) Adoption of Meeting Minutes from June 18th, 2024
- 4) Reports from DCR
- 5) Reports from TAC Subcommittees
 - Recommendations Discussion
- 6) New Business
 - TAC Member Discussion and Updates
- 7) Public Comment
- 8) Adjourn



Reports from DCR

Community Flood Preparedness Fund, Round 5
 Dam Safety Regulatory and Statutory Workgroups
 Interagency Resilience Management Team
 Flood Resilience Advisory Committee
 Annual Coordination Meeting / Virginia Flood Protection Master Plan
 Office of Resilience Planning Staff Update
 Coastal Resilience Master Plan, Phase II updates



Virginia Coastal Resilience Master Plan, Phase II

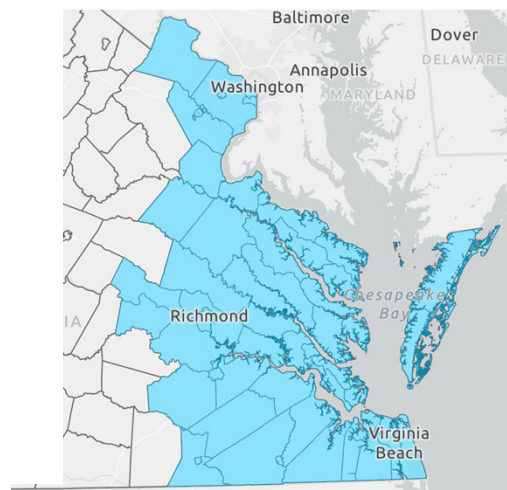
WHAT IS THE CRMP?

A **trusted resource** to assist government entities in making evidence-based decisions to mitigate severe and repetitive flooding.

- Provides a **unified baseline analysis** of the threat of increasing flood exposure and impacts in Virginia's coastal region due to sea level rise and changing precipitation patterns.
- Identifies **opportunities to prioritize impactful flood resilience solutions**, showcasing an inventory of government-led or supported projects and initiatives across the coastal region.

DELIVERY DETAILS

- Major plan elements: hazard exposure, impact assessment, planned resilience actions, financial needs, and subcommittee recommendations
- December 2024 timeline for delivery, updated every five years:
- See Code of Virginia [§10.1-658.659](#)



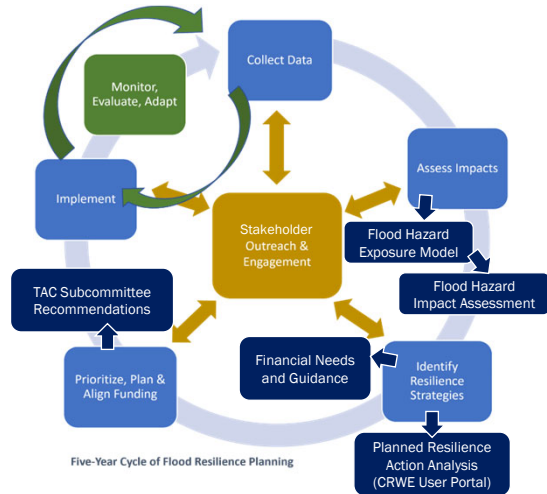
Coastal Resilience Master Plan, Phase II

DELIVERABLES

- 1) Plan Document (PDF)
- 2) Updated Coastal Resilience Web Explorer

KEY COMPONENTS

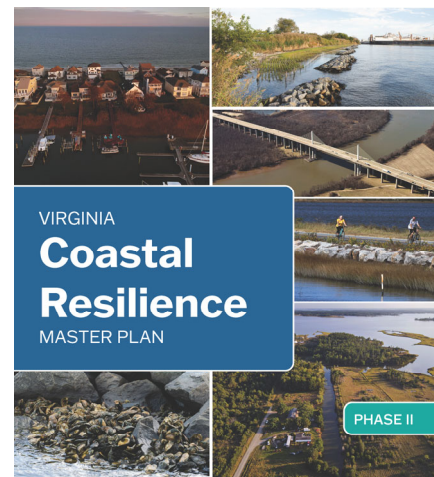
- 1) Flood Hazard Exposure Model
- 2) Flood Hazard Impact Assessment
- 3) Planned Resilience Actions
- 4) Financial Needs for Flood Resilience
- 5) TAC Subcommittee Recommendations



Document Development Update

PHASE II PLAN OUTLINE

- **Chapter 1: Introduction:** background and overview of the Coastal Resilience Master Planning effort.
- **Chapter 2: Flooding in Coastal Virginia:** presentation of key findings from the flood hazard exposure and impacts assessment for the entire planning area.
- **Chapter 3: Advancing Flood Resilience in Coastal Virginia:** summary of findings from the resilience actions analysis for the entire planning area, and recommendations of the TAC.
- **Chapter 4: Regional Resilience Profiles:** for each PDC, summary of major flood impacts, regional success stories, and findings from the resilience actions analysis.
- **Chapter 5: Looking Ahead:** recommended uses for the plan and next steps for the Office of Resilience Planning to make findings and recommendations actionable.



Draft Plan Cover Page



CRMP Phase II Planning Scenarios and Flood Hazard Data

Planning Horizon	Baseline ~2000-2020	Near Future ~2030-2060		Far Future ~2060-2100	
Scenario	-	Moderate	High	Moderate	High
Risk Tolerance	-	Moderate	Low	Moderate	Low
Coastal	2020 CRMP	2040 CRMP	2060 CRMP	2060 CRMP	2080 CRMP
Pluvial	Atlas14	2020-2070 RCP 4.5 Median	2020-2070 RCP 4.5 90 th %	2050-2100 RCP 4.5 Median	2050-2100 RCP 4.5 90 th %
Fluvial	FEMA	FEMA	FEMA	FEMA	FEMA

Coastal: 2020 CRMP MSL adjusted based on tidal observations. 2040, 2060, & 2080 CRMP based on NOAA 2017 Intermediate-High Relative Sea Level Rise Projection
 Pluvial: Precipitation values from Atlas14 and MARISA RCP 4.5 will be rounded to the nearest interval based pluvial model using conventional rounding.



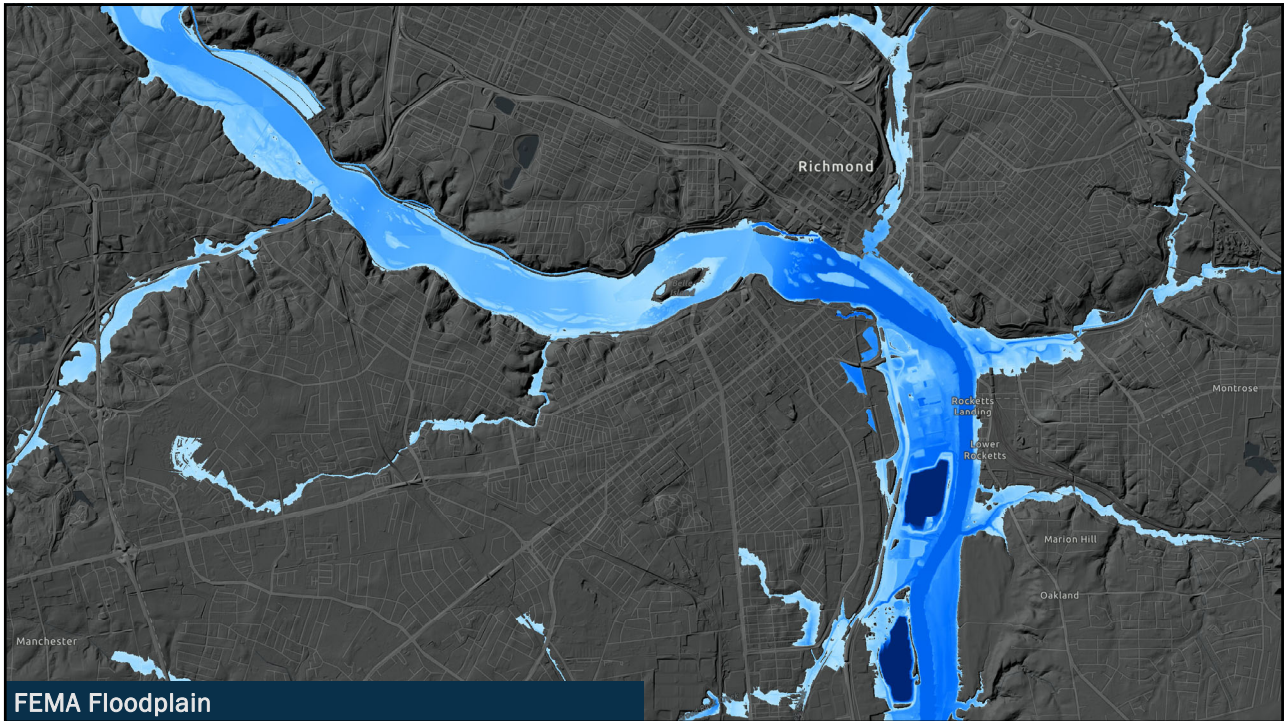
CRMP Phase II Changes from the Baseline Scenario

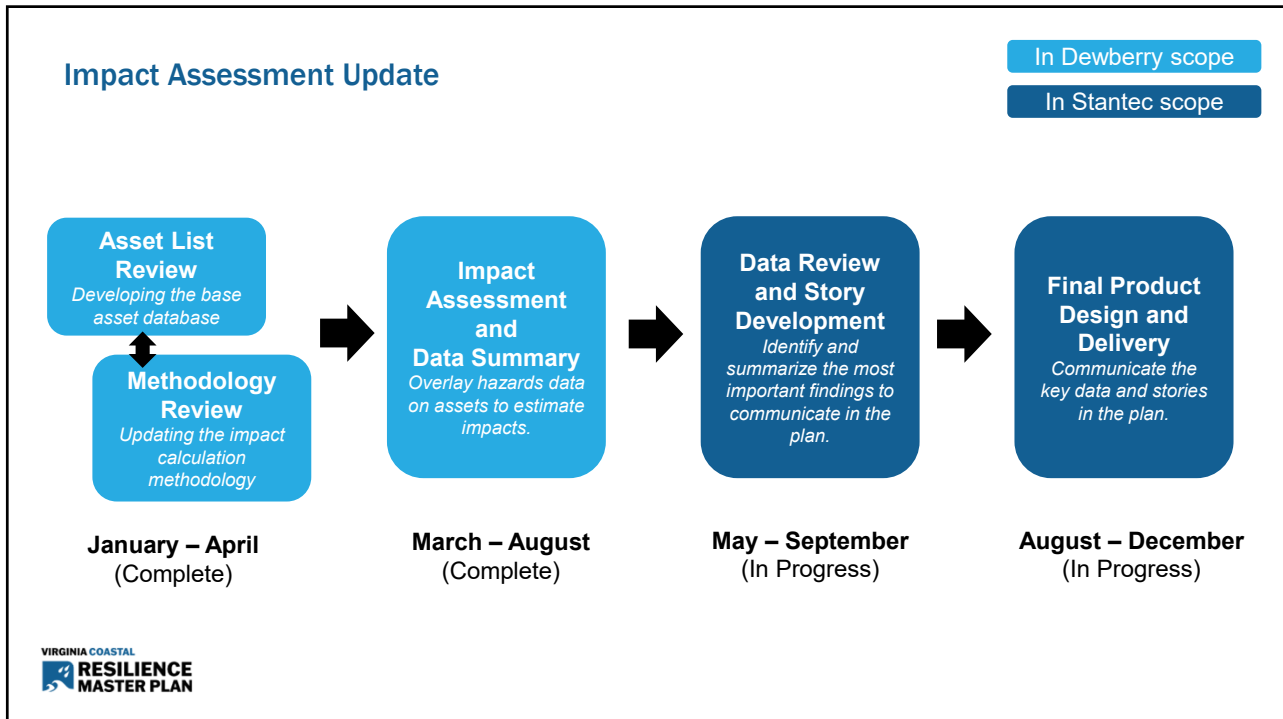
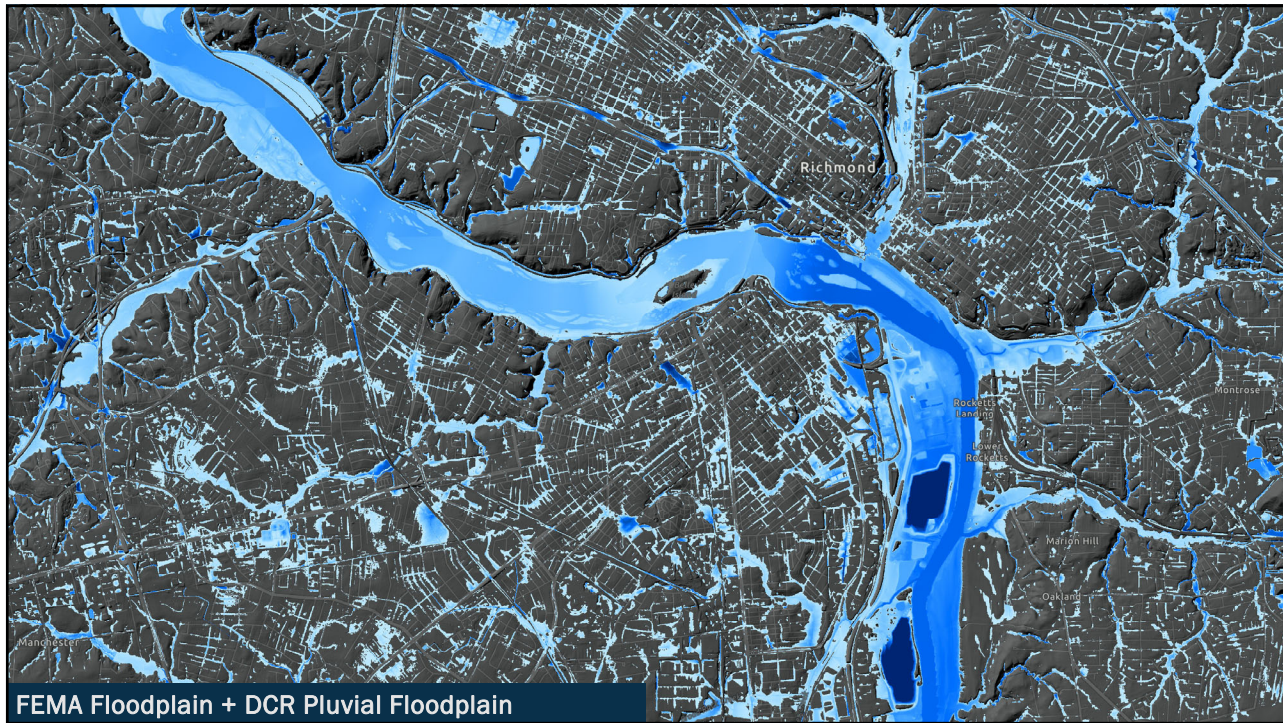
	Near Future ~2030-2060			Far Future ~2060-2100		
Flood Source	Coastal	Rainfall	Riverine	Coastal	Rainfall	Riverine
High Scenario (Low Risk Tolerance)	~+3.0 ft Sea Level Rise	~+25% Precipitation	No Change	~+4.6 ft Sea Level Rise	~+30% Precipitation	No Change
Moderate Scenario (Moderate Risk Tolerance)	~+1.7 ft Sea Level Rise	~+6% Precipitation	No Change	~+3.0 ft Sea Level Rise	~+11% Precipitation	No Change

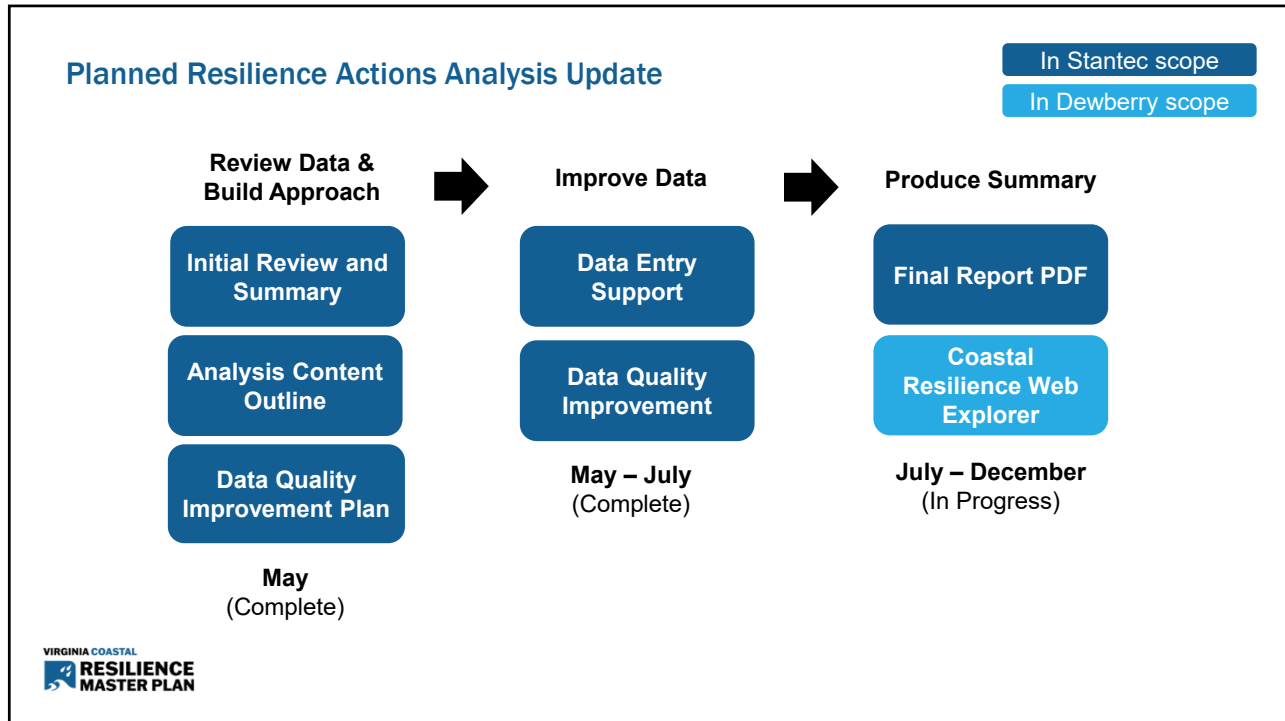


Flood Frequency Terms from CRMP Phase I

Reference Flood Event	Event Description (Likelihood)	Average Return Interval (Frequency)	Chance of occurring in...*			Example Storm Type
			5 years	10 years	30 years	
Tidal	Mean Low Water	Always Inundated	100%	100%	100%	None, Daily High Tide
	Mean High Water	Inundated Daily	100%	100%	100%	
Chronic	50% AEP	2 years	97%	100%	100%	Gale, Smaller Coastal Storm
	20% AEP	5 years	70%	90%	100%	
Moderate	10% AEP	10 years	41%	65%	96%	Tropical Storm, Nor'easter
	4% AEP	25 years	19%	30%	71%	
Major	2% AEP	50 years	10%	18%	46%	Strong Nor'easter, Category 2 hurricane
	1% AEP	100 years	5%	10%	26%	
Extreme	0.2% AEP	500 years	1%	2%	6%	Category 3+ hurricane







Activity	Complete by	Status	Audience	O&E Strategy Goals
1 Coastal Resilience TAC	Ongoing (quarterly)	In progress	Primary plan end users and partners	All goals
2 NGO Coordination Meetings	Ongoing (monthly)	In progress	Non-profits and other partners	Drive awareness (4)
3 Critical Infrastructure Working Group (led by VDEM)	Ongoing	In progress	Critical infrastructure owners and managers	Understand end users (1); Contextualize interventions (3); Drive awareness (4)
4 End-User Survey	Jan '24	Complete	Primary plan end users	Understand end users (1)
5 Participatory Mapping (Flood Story)	Mar '24 / Ongoing	In progress	Public	Contextualize flood impacts (2)
6 Locality Meetings	Jun '24	Complete	Local governments	All goals
7 Resilience User Portal & Data Call	Apr '24 / Jul '24	Complete	Primary plan end users	Contextualize interventions (3)
8 Tribal Engagement Meeting(s)	Oct '24	In progress	Tribal governments	All goals
9 Community Meetings	Sep '24	In progress	Underserved communities	Contextualize flood impacts (2); Drive awareness (4)
10 Virtual Public Meetings (mid-point / end-point)	Sep '24 / Dec '24	In progress	Public	Drive awareness (4)
11 Business, Industry and Economic Development Meeting	Oct '24	In progress	Private sector	Drive awareness (4)
12 Federal Facility Owners Meeting	Oct '24	Not started	Federal facility owners	Drive awareness (4)
13 PDC Feedback / Interviews	Oct '24	In progress	Planning District Commissions	Understand end users (1); Contextualize flood impacts (2); contextualize interventions (3);
14 Public Comment	Feb '25	Not started	Public	Contextualize flood impacts (2); Contextualize interventions (3)

Upcoming Outreach and Engagement Meetings

COMMUNITY MEETINGS

In-person, evening (6-8pm) meetings with interested community members and organizations.

Locations selected based on analysis of high flood risk and social vulnerability rankings and/or community interest.

Meetings are scheduled for mid- to late-September.

- **Middle Peninsula in Tappahannock** (Complete)
- **South Richmond / Chesterfield** – September 18
- **Northern Neck in Warsaw** – September 23
- **Chesapeake** – September 25

Regional and local government staff informed of meetings and invited to attend and share information.

PUBLIC WEBINARS

Provides an update on the planning process and opportunity to ask questions of DCR and consultants.

- **Thursday, September 19** at 6-7pm
- **Tuesday, September 24** at 12-1pm

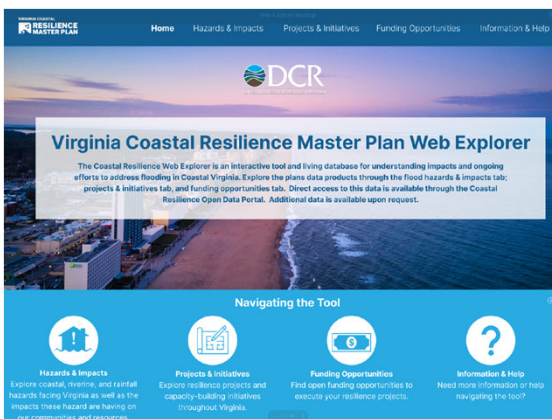
One webinar will be recorded and the video will be posted on DCR's website.

Additional information and links to register are available on DCR's public calendar.

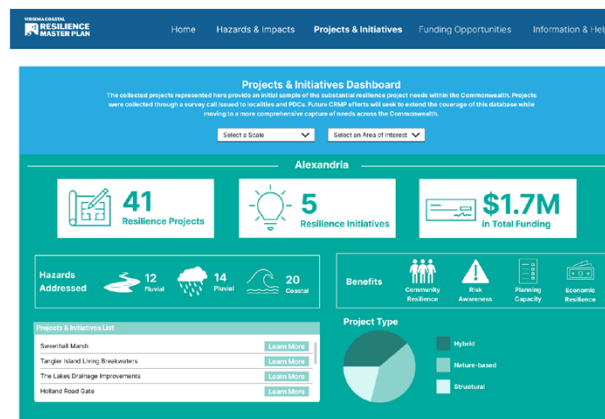
DCR & consultants developing promotional campaign (social media, web pages, email blasts, etc.) to encourage attendance.



Coastal Resilience Web Explorer Update



Conceptual Draft Landing Page



Conceptual Draft Projects & Initiatives Page



Funding Database Update

FUNDING AND FINANCING OPPORTUNITIES Coastal Resilience Web Explorer

The screenshot shows a web interface for funding opportunities. On the left, there are several filter sections: 'Eligible Entity' with checkboxes for Federal, State, and Private; 'Administrative Office' with a dropdown menu; 'Eligible Project Types' with a dropdown menu; 'Funding Maximum Range' with checkboxes for various dollar amounts; and 'Project Timeline' with a dropdown menu. The main area contains a table with columns for 'Funding Source', 'Name', and 'Description'. The table lists several funding sources including FEMA, USACE, HUD, and FEMA, each with a brief description and a 'Learn More' link.

Conceptual Draft Funding Opportunities Page



GEOGRAPHIC FOCAL AREA MAPPING New Map Viewer

The screenshot shows a map viewer interface. At the top, there's a title 'Region 3 Economically Disadvantaged Rural Communities'. Below the title, there's a map of Virginia with several colored overlays. A legend on the right side of the map lists different categories like 'Region 3 Economically Disadvantaged Rural Communities' and 'Region 3 Economically Disadvantaged Rural Communities'. Below the map, there's a section titled 'REPI Interactive Map' with a sub-header 'Resilience and Environmental Protection Integration Program'. The interface also includes a search bar and a 'Get the data' button.

Data Sharing for Coastal Resilience

DCR Virginia Coastal Resilience Master Plan, Open Data Portal

The screenshot shows a grid of six data sharing cards. Each card has a thumbnail image, a title, a brief description, and an 'Explore' button. The cards are: 'CRMP Pluvial Model Catalog App' (Catalog of pluvial flood models developed for the Virginia Coastal...), 'Virginia Flood Stories App' (DCR invites you to share your flood story to help raise awareness of th...), 'Coastal Flood Exposure and Social Vulnerability (2020-...)' (Analysis of areas with coastal flood hazard exposure and social...), 'SVI Census Block Group Map' (Thumbnail showing a map with color-coded areas), 'AWS Open Data Portal S3 Bucket' (Thumbnail showing a table of data), and 'FEMA Floodplain Depth Grid' (Thumbnail showing a map with depth contours).

<https://crmp-vdcr.hub.arcgis.com/>



The screenshot shows the AWS S3 Explorer interface. At the top, there's a search bar and a 'Show' dropdown menu set to '50' entries. Below that, there's a table with columns for 'Object', 'Last Modified', 'Timestamp', and 'Size'. The table lists several objects, including 'Coastal', 'Pluvial_CRMPV', 'Pluvial_CRMPV', 'Pluvial_Pluv', and '0 readme.txt'. The '0 readme.txt' object has a 'Last Modified' date of '2 years ago' and a 'Timestamp' of '2022-07-21 08:52:11'. At the bottom, there's a 'Showing 1 to 5 of 5 entries' indicator and 'Previous' and 'Next' buttons.

Please email flood.resilience@dcr.virginia.gov with data requests or questions.

TAC Discussion



Reports from TAC Subcommittees

Recommendations Updates



Recommendations Development

OBJECTIVE

- Develop high priority recommendations to improve mitigation of severe and repetitive flooding in Virginia’s coastal region.
- The recommendations should be:
 - An action to implement prior to the next planning phase (in the next 1-4 years) by appropriate responsible actors (ex., state agencies, PDCs, localities, legislators, federal government, etc.).
 - A process improvement for DCR when developing the next Coastal Resilience Master Plan (to be released in 2029).

OUTCOME

- The high priority recommendations that receive a passing vote from the full TAC per Section 2-3 of the TAC charter will be included as recommendations in the plan.
- Each recommendation will comprise an action-oriented statement, identified responsible actor(s), and a brief justification of the recommendation.
- The list of approximately 120 draft recommendations developed by the subcommittees at their Q2 2024 meetings will be included as an appendix to the plan.

PROCESS

July 15-19: Prioritization Survey	Subcommittee members vote on their top 10 recommendations per subcommittee.
August 7-15: Q3 Subcommittee Meetings	Subcommittees review survey results, identify and refine the top 5 recommendations, and assign responsible parties.
September 18: Q3 TAC Meeting	The Full TAC reviews and refines each subcommittee’s top 5 recommendations.
October 3-10: Q4 Subcommittee Meetings	Subcommittee members finalize and vote on up to 5 recommendations.
November 13: Q4 TAC Meeting	The Full TAC votes on all subcommittee recommendations.



Overview of the 20 draft Subcommittee Recommendations “in Brief” – see Handout

Outreach & Coordination

- O-a. Maintain list of funding to support CRMP implementation
- O-b. Make the case for continued flood resilience funding
- O-c. Increase support for end users of the CRMP
- O-d. Create a coordinated strategy to increase CRMP use
- O-e. Identify populations/communities with greatest flood risk and coordinate with localities for outreach

Project Prioritization

- P-a. Incorporate sound forward-looking data for flooding and other factors in future CRMP updates
- P-b. Establish funding source for CRMP
- P-c. Coordinate the development and maintenance of flood impact datasets
- P-d. Support flood resilience action by localities in areas without projects or initiatives
- P-e. Operationalize the CRMP at multiple scales.

Funding

- F-a. Communicate risks of inaction
- F-b. Promote financial benefits of resilience investments
- F-c. Share financial resources for initiatives statewide
- F-d. Identify financial needs for public and private sectors.
- F-e. Use an adaptive financial management approach

Research, Data, & Innovation

- R-a. Coordinate on data and data efforts
- R-b. Adopt responsibility for data needs to support planning and decision-making
- R-c. Define resilience success indicators and success assessment methods
- R-d. Understand state-level program gaps and develop strategy to meet local needs
- R-e. Collaborate on nature-based solutions



Similarities Across Subcommittee Recommendations

Outreach & Coordination

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Subcommittee Draft Priority Recommendations Discussion

FACILITATED DISCUSSION

- Overview
 - Brief review of each recommendation and purpose
- Background
 - Subcommittee input on background/thoughts for each recommendation
- Check for understanding
 - TAC member questions on each recommendation
- Comments, suggestions, concerns
 - Input from other subcommittees regarding what to consider when finalizing the recommendation

Recommendation Handout Reference

- Outreach and Coordination
- Project Prioritization
- Funding
- Research Data, & Innovation

[O-a] Outreach and Coordination Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning should develop and maintain a comprehensive list of available funding resources which can be leveraged to sustainably support uptake and implementation of the Coastal Resilience Master Plan, Phase II.

RECOMMENDATION PURPOSE

- Assist in addressing budgetary constraints which limit plan uptake.



[O-b] Outreach and Coordination Subcommittee

RECOMMENDATION

- The administration should advocate for and provide resources to state legislators on the necessity of continued and increased flood resilience funding using project prioritization and evidence of project readiness.

RECOMMENDATION PURPOSE

- Assist in addressing budgetary constraints which limit plan uptake.



[O-c] Outreach and Coordination Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning should increase coordination with and support to potential end-users of the Coastal Resilience Master Plan, such as local governments. This may include providing accessible and straightforward webinars and tutorials of available tools and providing customized technical support to develop locally specific project prioritization using the plan.

RECOMMENDATION PURPOSE

- Increase flood resilience action and encourage informed decision-making through use of existing plan data and resources.



[O-d] Outreach and Coordination Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning or the Flood Resilience Advisory Committee should develop a strategy to increase use of the Coastal Resilience Master Plan by intended plan end-users, including local governments. The strategy should seek to bridge recognized capacity constraints that prevent plan uptake and should clearly define roles for state agencies to support resilience champions.

RECOMMENDATION PURPOSE

- Establish a coordinated, actionable strategy to ensure the Coastal Resilience Master Plan is used.



[O-e] Outreach and Coordination Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning should identify the populations and communities at greatest flood risk, and coordinate with local governments to reach them with tailored outreach and clear and consistent messaging.

RECOMMENDATION PURPOSE

- Improve outreach to populations at greatest flood risk.



[P-a] Project Prioritization Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning should incorporate scientifically sound, professionally accepted, forward-looking data into future iterations of the Coastal Resilience Master Plan for all components of flood risk (e.g., hazard, exposure, vulnerability), including not only sea-level rise and precipitation frequency, but also projected growth, demographic changes, planned infrastructure improvements, and other relevant factors.

RECOMMENDATION PURPOSE

- Enhance informed decision-making for flood resilience.



[P-b] Project Prioritization Subcommittee

RECOMMENDATION

- State agencies should establish a sustainable and sufficient funding source to implement the Coastal Resilience Master Plan and should consider more directly connecting the Community Flood Preparedness Fund to the Coastal Resilience Master Plan.

RECOMMENDATION PURPOSE

- Improve buy-in for the Coastal Resilience Master Plan.



[P-c] Project Prioritization Subcommittee

RECOMMENDATION

- State agencies should coordinate efforts to develop, maintain, and enhance accessible, region-wide, non-sensitive datasets needed to assess flood impacts. A single agency should be identified as the convening entity and should invite participation from political subdivisions, academia and non-governmental organizations in coordination efforts.

RECOMMENDATION PURPOSE

- Minimize duplication of efforts, streamline communications, and effectively mobilize our collective capacity.



[P-d] Project Prioritization Subcommittee

RECOMMENDATION

- State agencies should establish programs to engage with and support local governments and planning district commissions, with an emphasis on areas identified by the Virginia Coastal Resilience Master Plan, Phase II as being at high flood risk and without flood resilience projects or initiatives. Involved agencies may include DCR, VDEM, and DHCD and where appropriate, state agencies should involve regional institutions of higher education in engagement efforts.

RECOMMENDATION PURPOSE

- Understand and address the factors preventing flood resilience action by local governments



[P-e] Project Prioritization Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning should work with the Flood Resilience Advisory Committee to establish a coordinated framework to operationalize the Coastal Resilience Master Plan at local, regional, and state scales. The framework should be informed by data and needs assessments and should define success and set clear long-term goals, to be measured on regular, near-term timespans.

RECOMMENDATION PURPOSE

- Establish a structure to connect the state's coastal flood resilience findings to informed and coordinated action in a way that avoids sunk costs and maximizes investments in the long-term.



[F-a] Funding Subcommittee

RECOMMENDATION

- State agencies should provide financial tools and reports to local governments, state legislators, and other official entities that clearly demonstrate the immediate and mid-term costs of inaction to address flood resilience.

RECOMMENDATION PURPOSE

- Explain the flood consequences of doing nothing at the local, regional, and state levels.



[F-b] Funding Subcommittee

RECOMMENDATION

- The economic development community should ensure that businesses, government officials, citizens, and other stakeholders are aware of the economic benefits of local development with water, as well as support for developing and exporting Virginia-based flood resilience solutions to an emerging global market.

RECOMMENDATION PURPOSE

- Ensure stakeholders understand the positive financial potential of investing in resilience solutions.



[F-c] Funding Subcommittee

RECOMMENDATION

- The Interagency Resilience Management Team should monitor and share existing and available flood resilience financial (funding and financing) resources to support local, regional, and state-wide initiatives.

RECOMMENDATION PURPOSE

- Establish an understanding of the financial resources to develop a financial strategy for implementation.



[F-d] Funding Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning should identify the different financial needs specific to the private sector and to the public sector.

RECOMMENDATION PURPOSE

- Understand the financial needs and limitations to implementing resilience on public and private property.



[F-e] Funding Subcommittee

RECOMMENDATION

- State agencies should monitor and evaluate the success of the state's funding, including appropriations and grant and loan programs, to address short-term and long-term challenges and consider additional financial mechanisms that may be needed to address longer-term challenges, such as strategic relocation, saltwater intrusion into public drinking water systems, and infrastructure abandonment.

RECOMMENDATION PURPOSE

- Utilize adaptive management for state-directed financial products to address the immediate and long-term challenges of flooding.



[R-a] Research, Data, and Innovation Subcommittee

RECOMMENDATION

- State agencies and the Commonwealth's research universities should coordinate the collection and sharing of quantitative and qualitative flood resilience data, data production efforts, and inventories of data usage in decision-making applications across state agencies, planning district commissions, and the Commonwealth's research universities.

RECOMMENDATION PURPOSE

- Minimize duplication of efforts and effectively mobilize our collective capacity to support evidence-based flood resilience decision making.



[R-b] Research, Data, and Innovation Subcommittee

RECOMMENDATION

- The DCR Office of Resilience Planning and other state agencies should determine and adopt programmatic responsibility for acquiring, developing, processing, analyzing, updating, and managing critical (*temporal*) flood resilience data needs to support ongoing planning and decision-making.

RECOMMENDATION PURPOSE

- Maintain the best available data to inform decisions in a changing environment.



[R-c] Research, Data, and Innovation Subcommittee

RECOMMENDATION

- The Flood Resilience Advisory Committee should define resilience success, while the Commonwealth's research universities should identify and develop indicators and monitoring methods to assess the performance of resilience projects, with key and relevant stakeholders (entities, NGOs, etc.). The indicators should be based on Virginia-centric data and address ecological, infrastructure, social, economic, cultural, and environmental justice performance.

RECOMMENDATION PURPOSE

- Define, measure, and monitor the efficacy of resilience projects to support adaptive management.



[R-d] Research, Data, and Innovation Subcommittee

RECOMMENDATION

- DCR's Office of Resilience Planning should engage with local government stakeholders to understand local obstacles and gaps in state-level programs and develop a statewide strategy that leverages co-production of innovative state level solutions to meet local needs.

RECOMMENDATION PURPOSE

- Understand the flood risk reduction and other benefits of existing and innovative nature-based solutions through collaborative research efforts.



[R-e] Research, Data, and Innovation Subcommittee

RECOMMENDATION

- The Commonwealth's research universities should convene to evaluate the performance of existing and innovative nature-based solutions for water quantity and water quality protections through use-inspired collaborations with public (including other universities) and private partners, and establish working groups to track progress, adapt approaches, and identify funding sources for continued collaborative efforts.

RECOMMENDATION PURPOSE

- Identify appropriate state-scale collective actions to support local resilience challenges through community engagement and innovation.



Next Steps

1. DCR will distribute copies of the subcommittee recommendations prior to the Q4 subcommittee meetings to include subcommittee and TAC member comments.
2. Subcommittee members will meet to finalize recommendation language for voting and discuss the purpose statement.
 - Each member organization will cast a vote (yes/no/abstain) on advancing recommendations to the Full TAC for consideration.
 - All recommendations receiving a majority “yes” vote will be carried forward.
3. DCR will distribute final recommendations from all subcommittees following the Q4 subcommittee meetings.
4. All TAC members meet to vote on final recommendations.
 - Each member organization casts a vote (yes/no/abstain) for each recommendation brought to the committee for consideration.
 - All recommendations receiving a majority “yes” vote will be included in the main body of the CRMP Phase II.



Remaining 2024 Meeting Schedule



- Final Subcommittee Meetings
- Scheduled Plan Release
- TAC Meeting



TAC Member Discussion and Updates



Public Comment

If you would like to provide public comment, please let us know using the Chat window.



Adjourn



DRAFT Recommendations of the Coastal Resilience Technical Advisory Committee (TAC)

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Q3 Subcommittee Recommendations Process

During the Q3 TAC subcommittee meetings, members reviewed the top 10 recommendations for their group, based on the survey conducted after the Q2 meeting. Through collaboration, members refined these down to 5 high priority recommendations by either combining similar items or keeping them as they were. Following the Q3 meetings, members received worksheets containing draft revised versions of the 5 priority recommendations, including the responsible party and purpose for each recommendation. Members were asked to review the worksheets and send DCR any requested revisions.

This handout summarizes the priority recommendations from each subcommittee including feedback received. The number in parentheses after each recommendation indicates the number of comments DCR received from subcommittee members after the Q3 subcommittee meeting and prior to the Q3 TAC meeting.

During the Q4 subcommittee meetings, all subcommittee and TAC member comments will be presented for discussion and development of the final recommendation text for voting.

Draft Subcommittee Recommendations

Outreach and Coordination Subcommittee Draft Recommendations

O-a: The DCR Office of Resilience Planning should develop and maintain a comprehensive list of available funding resources which can be leveraged to sustainably support uptake and implementation of the Coastal Resilience Master Plan, Phase II. (0)

O-b: The administration should advocate for and provide resources to state legislators on the necessity of continued and increased flood resilience funding using project prioritization and evidence of project readiness. (2)

O-c: The DCR Office of Resilience Planning should increase coordination with and support to potential end-users of the Coastal Resilience Master Plan, such as local governments. This may include providing accessible and straightforward webinars and tutorials of available tools and providing customized technical support to develop locally specific project prioritization using the plan. (1)

O-d: The DCR Office of Resilience Planning or the Flood Resilience Advisory Committee should develop a strategy to increase use of the Coastal Resilience Master Plan by intended plan end-users, including local governments. The strategy should seek to bridge recognized capacity constraints that prevent plan uptake and should clearly define roles for state agencies to support resilience champions. (0)

O-e: The DCR Office of Resilience Planning should identify the populations and communities at greatest flood risk, and coordinate with local governments to reach them with tailored outreach and clear and consistent messaging. (0)

Project Prioritization Subcommittee Draft Recommendations

P-a: The DCR Office of Resilience Planning should incorporate scientifically sound, professionally accepted, forward-looking data into future iterations of the Coastal Resilience Master Plan for all components of flood risk (e.g. hazard, exposure, vulnerability), including not only sea-level rise and precipitation frequency, but also projected growth, demographic changes, planned infrastructure improvements, and other relevant factors. (2)

P-b: State agencies should establish a sustainable and sufficient funding source to implement the Coastal Resilience Master Plan and should consider more directly connecting the Community Flood Preparedness Fund to the Coastal Resilience Master Plan. (2)

P-c: State agencies should coordinate efforts to develop, maintain, and enhance accessible, region-wide, non-sensitive datasets needed to assess flood impacts. A single agency should be identified as the convening entity and should invite participation from political subdivisions, academia and non-governmental organizations in coordination efforts. (1)

P-d: State agencies should establish programs to engage with and support local governments and planning district commissions, with an emphasis on areas identified by the Virginia Coastal Resilience Master Plan, Phase II as being at high flood risk and without flood resilience projects or initiatives. Involved agencies may include DCR, VDEM, and DHCD and where appropriate, state agencies should involve regional institutions of higher education in engagement efforts. (2)

P-e: The DCR Office of Resilience Planning should work with the Flood Resilience Advisory Committee to establish a coordinated framework to operationalize the Coastal Resilience Master Plan at local, regional, and state scales. The framework should be informed by data and needs assessments and should define success and set clear long-term goals, to be measured on regular, near-term timespans. (3)

Funding Subcommittee Draft Recommendations

F-a: State agencies should provide financial tools and reports to local governments, state legislators, and other official entities that clearly demonstrate the immediate and mid-term costs of inaction to address flood resilience. (1)

F-b: The economic development community should ensure that businesses, government officials, citizens, and other stakeholders are aware of the economic benefits of local development with water, as well as support for developing and exporting Virginia-based flood resilience solutions to an emerging global market. (2)

F-c: The Interagency Resilience Management Team should monitor and share existing and available flood resilience financial (funding and financing) resources to support local, regional, and state-wide initiatives. (2)

F-d: The DCR Office of Resilience Planning should identify the different financial needs specific to the private sector and to the public sector. (0)

F-e: State agencies should monitor and evaluate the success of the state's funding, including appropriations and grant and loan programs, to address short-term and long-term challenges and consider additional financial mechanisms that may be needed to address longer-term challenges, such as strategic relocation, saltwater intrusion into public drinking water systems, and infrastructure abandonment. (1)

Research, Data, and Innovation Subcommittee Draft Recommendations

R-a: State agencies and the Commonwealth’s research universities should coordinate the collection and sharing of quantitative and qualitative flood resilience data, data production efforts, and inventories of data usage in decision-making applications across state agencies, planning district commissions, and the Commonwealth’s research universities. (2)

R-b: The DCR Office of Resilience Planning and other state agencies should determine and adopt programmatic responsibility for acquiring, developing, processing, analyzing, updating, and managing critical (*temporal*) flood resilience data needs to support ongoing planning and decision-making. (2)

R-c: The Flood Resilience Advisory Committee should define resilience success, while the Commonwealth’s research universities should identify and develop indicators and monitoring methods to assess the performance of resilience projects, with key and relevant stakeholders (entities, NGOs, etc.). The indicators should be based on Virginia-centric data and address ecological, infrastructure, social, economic, cultural, and environmental justice performance. (2)

R-d: DCR’s Office of Resilience Planning should engage with local government stakeholders to understand local obstacles and gaps in state-level programs and develop a statewide strategy that leverages co-production of innovative state level solutions to meet local needs. (1)

R-e: The Commonwealth’s research universities should convene to evaluate the performance of existing and innovative nature-based solutions for water quantity and water quality protections through use-inspired collaborations with public (including other universities) and private partners, and establish working groups to track progress, adapt approaches, and identify funding sources for continued collaborative efforts. (3)