

## Meeting Summary

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### **Coastal Resilience Master Plan Phase II- Local Government Engagement Meeting**

**Meeting Date:** Monday, June 17, 2024

**Meeting Time and Location:** 2 to 4 PM at PlanRVA (424 Hull St. Suite 300, Richmond, VA 23224)

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#### **Background:**

The Virginia Coastal Resilience Master Plan (CRMP) Phase II focuses on resilience efforts in Virginia's eight (8) coastal Planning District Commissions (PDCs) and the localities and tribal governments located within the geographic areas of the PDCs. As part of the CRMP Phase II Stakeholder Engagement, four (4) local government engagement meetings will be convened regionally by PDC to engage priority localities identified by the Virginia Department of Conservation and Recreation (DCR) Office of Resilience Planning (ORP). The meetings have been designed to encourage two-way knowledge sharing about flood resilience planning and implementation, share information about the CRMP Phase II plan and products, and ensure that the plan reflects local challenges, priorities, and activities related to flood resilience.

The PlanRVA meeting was convened to engage stakeholders across the nine (9) localities with particular focus on two localities that have relatively high flood risk but had low participation in CRMP Phase I engagement activities: Chesterfield County and the City of Richmond. The CRMP Phase II discussion lasted two (2) hours and was hosted by PlanRVA at their office in Richmond, VA.

#### **Agenda for CRMP Activities (2 hours):**

1. Today's Objectives
2. Today's Agenda
3. Why Your Participation Matters
4. Introductions of Locality Members
  - a. Name, role, and locality.
  - b. What are the primary flooding challenges your locality experiences?
5. Overview of Phase II of the CRMP
6. Group Discussion: Input on the Phase II Plan and Products
  - a. Discuss initial thoughts and feedback.
  - b. How can DCR best support localities in leveraging these new products and tools?
7. Group Discussion: Flood Resilience Challenges and Barriers
  - a. What are the primary challenges your community experiences with flooding?
  - b. Please describe any barriers to addressing flooding concerns in your locality.
  - c. What are successful strategies and solutions to overcoming barriers?
8. Review of the Coastal Resilience Web Explorer (CRWE) Projects and Initiatives
  - a. What other projects, programs, plans, or policies are you working on to address flooding in your community?
  - b. Review handout with current CRWE projects and initiatives in the PlanRVA region.

- i. Add the following for any missing project/initiative for your locality:
  1. Owner (locality)
  2. Project name/description
  3. Contact (name, title, phone, and email)
9. Quarterly newsletter and CRMP Phase II website
10. Q&A

**Attendees:**

PDC and locality representatives (9):

- Sarah Stewart, PlanRVA, REME Program Manager
- Eli Podyma, PlanRVA, Environmental Planner
- Molly Frey, PlanRVA, Planner
- Brett Meadows, Chesterfield, Senior Planner
- Tara Worden, Richmond, Sustainability Manager
- Kathy Robins, Richmond, Emergency Planner
- Brad Hellmann, Ashland, Public Works PM
- Tom Dickerson, Ashland, Public Works CE
- Kristin Owen, Henrico, Floodplain and Dam Safety Manager

DCR Staff and Consultants (8):

- Matt Dalon (DCR)
- Carolyn Heaps-Pecaro (DCR)
- Arthur Kay (DCR)
- Ashley Hall (Stantec)
- Christina Hurley (Stantec)
- Linda Warren (Launch! Consulting)
- Rebekah Cazares (Launch! Consulting)
- Sarah Girard (Launch! Consulting)

**Notes:**

- Carolyn Heaps-Pecaro (DCR) provided a briefing on the scope and objectives of the CRMP Phase II update currently underway, including the following:
  - The CRMP Phase II report is expanding to cover all eight (8) coastal PDCs (including Crater) and address both rainfall-driven and tidal/storm surge flooding through new state-of-the-art models and mapping products.
  - To inform adaptation planning, the CRMP Phase II report will include models to project flood depths across five (5) scenarios (current, two near-term, and two far-future).
  - The web-based project inventory and flood risk explorer will be updated to include additional functionality, risk metrics, and ability to capture a broader range of local/regional resilience efforts.

- A public-facing Flood Risk Awareness Map will be developed to communicate current and future flood exposure in an accessible format.
- DCR has targeted December 2024 for final publication, with rollout of draft products and tools for locality testing in advance.
- **Group Discussion on Locality Specific Flooding Challenges**
  - **The City of Richmond**
    - Widespread issues with stormwater infrastructure, especially on the south side, affecting vulnerable frontline communities.
    - Lack of coordination among the Department of Public Works, the Office of Sustainability, and the Office of Emergency Management.
    - Flash flooding on Magnolia Street is a significant problem.
    - Recent acquisition of flood gauges from VDEM.
  - **PlanRVA Region**
    - Varied challenges across localities, all facing pluvial flooding and data scarcity.
    - Numerous rivers create unique flooding risks.
  - **Town of Ashland**
    - Flat terrain causes extensive stormwater flooding.
    - Located at the headwaters of several rivers, suffers from poor infiltration and frequent clogs leading to flooding.
  - **Chesterfield County**
    - Older developments in wetlands and RPA areas exacerbating stormwater issues.
    - Road widening and impervious surfaces contribute to flooding.
  - **Henrico County**
    - Western areas face channelized and flash flood issues; eastern areas are swampy and tidal influenced.
    - Significant pluvial flooding, with numerous drainage complaints, many not from floodplains.
    - Existing dams pose overflow risks.
    - Difficulty in collecting and sharing flood information with citizens, despite extensive outreach efforts.
- **Group Discussion on Phase II Products and Tools**
  - **Flood Story App**
    - **Henrico County**
      - Expressed interest in promoting the app through their newsletter.
      - Suggested expanding flood type descriptions in the app for public clarity.
      - Highlighted the need for DCR to provide clear examples of flood types.
      - Intends to leverage the Flood Story App for precise complaint and issue tracking.
      - Will utilize the flood stories to help clearly state why flooding issues are important to address.

- **Town of Ashland**
      - Previously used a StoryMap for community flood input.
      - Expressed a willingness to share the Flood Story App on their website.
    - **City of Richmond**
      - Utilizes a 311 system but does not have a tool like the Flood Story App.
- **Flood Exposure Models and Impact Assessment**
  - **City of Richmond**
    - Working on Climate Equity Index v2.0, focusing on accurate pluvial flood data.
    - Interested in DCR's floodplain data and interactive mapping for public use.
    - Office of Emergency Management is interested in capturing real-time event data.
  - **Ashland**
    - Plans to utilize the most updated GIS data; they would like to download the flood exposure layers.
    - Would like to direct others to the data located on the web explorer.
  - **Henrico**
    - Preparing to start their resilience plan and looking to utilize pluvial data.
    - Interested in identifying flooding challenges holistically, to help with project development.
    - Created a drainage prioritization tool and these tools would be helpful.
  - **Chesterfield County**
    - Expressed an interest in utilizing products and tools that are applicable to the lay person.
    - Looking forward to the use cases for the flood exposure models.
    - Residents are interested in understanding how flooding impacts their commute or economic standing.
    - Looking at these tools through the lens of how they are going to discuss it to community members.
- **Impact Assessment Data Catalog**
  - The City of Richmond indicated the following datasets are considered important to include:
    - Bus Routes
    - Bus Stations
    - Cellular Towers
    - Child Care Facilities
    - Emergency Operations Centers
    - Fire Stations
    - Hospitals

- Local Law Enforcement Facilities
- Private Schools
- Public Schools
- Social Vulnerability Index
- Substations
- Wastewater Treatment Facilities
- The Town of Ashland indicated the following datasets are considered important to include:
  - Amtrak Stations
  - Bridges and Culverts
  - Dams
  - Development Vulnerability Model
  - EPA Toxic Substance Control Act Facilities
  - Hazardous Waste Generators
  - Natural and Nature-Based Features
  - Natural Gas Receipt Delivery Points
  - Petroleum Ports
  - Petroleum Registered Tank Facilities
  - Population Demographics
  - Public Refrigerated Warehouses
  - Public Schools
  - Public Water Supply
  - Railroad Crossings
  - Road Intersections
  - Septic Systems
  - Structures (Lightbox/HIFLD)
  - Watershed Impact Model
- **Group Discussion on Effective Communication with Locality Staff**
  - Personal and concise communication is preferred over lengthy newsletters.
  - Highlight key asks and use of engaging hooks (e.g., flooding) in emails.
- **Small Group Discussions on Barriers to Addressing Flooding Challenges**
  - **Staff Capacity**
    - There are staff positions that remain unfilled and expertise in flooding and resilience is needed.
  - **Coordination**
    - Coordination and collaboration is needed across the various departments.
  - **Politics and Leadership**
    - There is a need for political buy-in which impacts decision-making on the implementation of projects.
    - There is a need for leadership buy-in.

- **Funding**
  - The ability to issue bonds is limited.
  - Additional capacity and funding is needed to prepare/manage grants.
  - Many localities cannot fund match for grants.
- **Education and Information**
  - There are difficulties with sharing information across departments and with the public.
  - Better training is needed for residents on the importance of flood risk.
  - Securing political and leadership support is critical.
- **Communications**
  - Data sharing issues exist between and within localities.
  - Privacy concerns are an issue and there is a need to maintain a positive locality image.
- **Group Discussion on Projects and Initiatives**
  - Localities were asked to follow up with additional details on potential projects to include in the inventory and to identify a staff contact if they have not already done so.
    - Richmond:
      - Provided the following additional projects/initiatives to include:
        - Projects listed on <https://rvah2o.org/city-projects/>
        - Shockoe Retention Basin CSO Improvement
          - Jenn Clarke
    - Ashland:
      - Provided the following additional projects/initiatives to include:
        - Brad Hellmann primary contact for these projects:
          - DeJamette Park- Stony Run Floodplain and Stream Restoration Project
          - Retrofit Existing BMP along Maple Street
          - Slash Cottage Drainage Improvements
          - Website of Resiliency Plan and Projects
    - Henrico:
      - Provided the following edits (in red) to the current list of projects/initiatives:
        - Henrico Floodplain Acquisitions
        - Henrico Deitrick Road Outfall Restoration  
+ Drainage Prioritization Tool
        - Henrico Graham Meadows Buffer Restoration  
+ Stream Gauge Network
        - Henrico Wilder Middle Stream Restoration  
+ Road Flooding Signage (?)
        - Henrico Three Lakes Park Stream Restoration  
+ Dam Safety EAP/EOP efforts (?)

- Henrico County Floodplain Acquisition Program Development
- *Question marks added for all "NFIP Data Review" initiatives.*
- Provided the following additional projects/initiatives to include:
  - Stream Gauge Network (project/initiative)
    - Working with USGS to implement several gauges around the county to collect data and address a data gap in the region. Still identifying locations and gauge types (~ \$90k for this).
    - Contact: Kristin Owen
  - Dam Safety EAP/EOP Updates (initiative)
    - Revising county EAPs to expand on dam safety planning efforts such as plan maintenance, as well as adding sections to the county EOP to create a section about dam safety emergency evacuations, sheltering, notifications and more. The intention is for this to lead to evacuation route planning and community outreach.
    - Contact: Kristin Owen
  - Drainage Prioritization Planning Tool (initiative)
    - Tool to help prioritize drainage (pluvial flooding) issues and CIP projects to address them.
    - Contact: Teddy Kozak, Residential Drainage Coordinator County Resilience Plan (initiative)
    - CFPF funding to create a Resilience Plan. The plan will be multi-hazard to meet transportation funding requirements (~\$300k)
    - Contact: Kristin Owen
  - County Restoration Efforts (project)
    - The H.E.A.R.T. Committee is making multiple efforts to plant trees across the county in partnership with Capital Trees.
    - Contact: Cari Tretina, Chief of Staff/Deputy County Manager

## Meeting Summary

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### **Coastal Resilience Master Plan Phase II: Local Government Engagement Meeting**

**Organizations Represented:** HRPDC, City of Franklin, Town of Smithfield, Southampton County

**Meeting Date:** Wednesday, June 26, 2024

**Meeting Time and Location:** 11 to 1 PM on Zoom

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The Virginia Coastal Resilience Master Plan (CRMP) Phase II focuses on resilience efforts in Virginia's eight coastal Planning District Commissions (PDCs) and the localities and tribal governments located within the geographic areas of the PDCs. As part of the CRMP Phase II Stakeholder Engagement, the PDCs convened four local government meetings to engage priority localities identified by the Virginia Department of Conservation and Recreation (DCR) Office of Resilience Planning (ORP). The purpose of the meetings was to encourage two-way knowledge sharing about flood resilience planning and implementation, share information about the CRMP Phase II plan and products, and ensure that the plan reflects local challenges, priorities, and activities related to flood resilience.

The Hampton Roads PDC (HRPDC) Southern Region meeting focused on four localities that have relatively high flood risk but had low participation in Phase I engagement activities: The City of Franklin, the Town of Smithfield, Southampton County, Isle of Wight County, and other towns within these counties. The CRMP Phase II discussion lasted two hours virtually on Zoom.

#### **Agenda for CRMP Activities (2 hours):**

- 1) Today's Objectives**
- 2) Today's Agenda**
- 3) Why Your Participation Matters**
- 4) Introductions of Locality Members (20 min)**
  - a. Name, role, and locality
  - b. What primary flooding challenges does your locality face?
- 5) CRMP Phase II Flood Hazards and Impacts Products (45 min)**
  - a. Presentation, Q&A
  - b. Facilitated discussion to gather input and feedback
    - i. Input on Phase II Plan Products and Tools
    - ii. Barriers to Addressing Flooding Concerns
- 6) CRMP Phase II Projects, Initiatives and Funding Products (45 min)**
  - a. Presentation, Q&A
  - b. Facilitated discussion to gather input and feedback
    - i. Review of the Coastal Resilience Web Explorer Projects and Initiatives
- 7) More Opportunities to be Involved**
- 8) Q&A**



**Attendance:**

PDC and locality representatives (9):

- Ben McFarlane, HRPDC, Chief Resilience Officer
- Whitney Katchmark, HPRDC, Principal Water Resources Engineer
- Emma Corbitt, HRPDC, Resilience Planner
- Aaron Barnes, City of Franklin, Director of Community Development
- Chad Edwards, City of Franklin, Director of Public Works
- Vernie Francis, City of Franklin, Chief of Emergency Coordination
- Mark Kluck, Town of Smithfield, Planner
- Tammie Clary, Town of Smithfield, Community Development and Planning Director
- Regan Prince, Southampton County, Environmental Engineer

DCR Staff and Consultants (8):

- Matt Dalon (DCR)
- Carolyn Heaps-Pecaro (DCR)
- Arthur Kay (DCR)
- Daniel Proctor (Stantec)
- Linda Warren (Launch! Consulting)
- Rebekah Cazares (Launch! Consulting)
- Sidney Huffman (Launch! Consulting)

**Notes:**

- Carolyn Heaps-Pecaro (DCR) provided a briefing on the scope and objectives of the CRMP Phase II update currently underway:
  - Expanding to cover all eight coastal PDCs (including Crater) and address both rainfall-driven and tidal/storm surge flooding through new state-of-the-art models and mapping products.
  - Models will project flood depths across five scenarios (current, two near-term, and two far-future) to inform adaptation planning.
  - Updating the web-based project inventory and flood risk explorer with additional functionality, risk metrics, and ability to capture a broader range of local/regional resilience efforts.
  - Developing a public-facing Flood Risk Awareness Map to communicate current and future flood exposure in an accessible format.
  - Targeting December 2024 for final publication, with rollout of draft products and tools for locality testing in advance.

- **Group Discussion on Locality-Specific Flooding Challenges**
  - **City of Franklin**
    - The City’s main concerns include the Blackwater River and overflow into the adjacent downtown area after heavy rainfall, which leads to street closures.
    - The City gets tidal surges from the Albemarle Sound.
    - There have been historical flooding events, but recent events have been less significant.
  - **Town of Smithfield**
    - The lack of staff capacity makes applying for grants challenging.
    - The town recently purchased four homes that are within flood zones. These properties are being put under a conservation easement to prevent development.
  - **Southampton County**
    - The County experiences mostly flooding of roadways and coordinates mostly with VDOT for flooding strategies.
    - The lack of staff capacity makes applying for grants challenging.
- **Group Discussion on Phase II Products and Tools**
  - **Flood Story App**
    - **City of Franklin**
      - The tool would be useful for community engagement and real-time flooding reporting.
      - The City currently doesn’t have a similar tool.
    - **Town of Smithfield**
      - The tool would be beneficial for local flooding reports and community communication.
      - The Town is interested in sharing this tool with citizens to start using and sharing information/pictures with specific dates.
    - **Southampton County**
      - The tool would be valuable for public input on local flooding because the County lacks current tools for citizen reporting.
      - The County relies on VDOT to manage their reporting. The County would like to coordinate with VDPT where there are known flooding issues and incorporate these issues into the comprehensive plan.
  - **Flood Exposure Models and Impact Assessment**
    - **City of Franklin**
      - **Flood Hazard Exposure Models:**
        - The City does not currently use any HEC-RAS models or have access to modeling software; relies on GIS layers for stormwater data (location, size, etc.).

- Models would be helpful for site plan reviews and communication with the public.
- The City uses NOAA inundation data for real-time flood projections and stormwater management.
- **Impact Assessments:**
  - These assessments would be helpful to determine specific issues within areas with the highest flood risk to help minimize risk.
- **Town of Smithfield**
  - **Flood Hazard Exposure Models:**
    - Models are useful but underutilized due to the small department size.
    - There is interest in town-level data for independent comprehensive planning.
  - **Impact Assessments:**
    - These assessments would be useful, especially if broken down to the Town level, as well as to the watershed level.
    - Historical flood data would support future planning and community safety measures.
- **Southampton County**
  - **Flood Hazard Exposure Models:**
    - Models would be useful for plan reviews to understand downstream effects of potential development.
    - The County is interested in this type of data to look at the downstream effects from post development runoff and the impact it would have on the riverine system. Models allow looking at a watershed standpoint instead of an individual site.
    - The County is interested in using models for large site reviews but currently relies on GIS layers.
    - The County has access to HEC-RAS models; the community hasn't developed them with a consultant. However, the use-cases would help make the case to supervisors to use the models.
  - **Impact Assessments:**
    - These assessments would be important for identifying community risks and steps to minimize them.
    - The County would like feedback on data accessibility at the town level for planning processes.
- **General Feedback on Impact Assessment Data**
  - There is general interest in data layers beyond just road centerlines, such as entire road footprint and elevation profile.

### Group Discussion on Barriers to Addressing Flooding Challenges

- **City of Franklin:**
  - Funding and regulatory complexity. Funding challenges and bureaucratic red tape complicate project execution, even for a simple project.
  - Projects not included in Hazard Mitigation Plan. It is important to incorporate projects into local Hazard Mitigation Plans for funding.
  - Lack of staff capacity with only one environmental person.
  - Uptick of development in recent years due to development of large subdivisions and condominiums.
  - Lack of citizen knowledge. Need to make information relevant to citizens – specifically, when they are buying homes and making sure they are aware of any flood risks.
- **Town of Smithfield:**
  - Funding and staff capacity issues. These issues are compounded by high staff turnover.
  - General lack of data.
  - Need for a stormwater GIS database to support planning amidst growth and sprawl. The Town has more residential units, rezoning, and other projects in the works.
  - Knowledge. Citizen education on flood risks is lacking.
  - Topography and local conditions. The Town has an average of 30 ft of elevation and many wetland areas.
- **Southampton County:**
  - Development issues. Limited development due to infrastructure constraints, with some growth in residential and limited growth in commercial areas.
  - Funding challenges similar to the other regions.
- **Group Discussion on Projects and Initiatives**

Localities were asked to follow up with additional details on potential projects to include in the inventory and to identify a staff contact if they haven't already done so.

- **City of Franklin:**
  - None at this time. Over a year ago, VDEM Hazard Mitigation hired a consultant to review a 2011 stormwater survey. The consultant identified significant flooding in a sub-basin affecting the City's wastewater treatment plant, which has major economic impacts. The findings from Phase I have been submitted from VDEM to FEMA in preparation for Phase II.
  - For the stormwater project details, they would need to look these up and get back to DCR.

- Vernie Francis is the primary contact, and the Olsen Group submitted the information. However, their contract with VDEM has ended. All of this was managed through emergency management grants.
- **Town of Smithfield:**
  - Town of Smithfield Great Spring Road Property Acquisition – FEMA funded project to acquire and demolish four single-family dwellings in a FEMA-identified flood zone. Address points at Great Spring Road, Smithfield, VA 23430. Deeds for the lots have restrictive covenants to not allow any type of building and conserve the area as open space.
  - A priority is to get a stormwater database, which will help locate infrastructure and help come up with projects to address flooding issues.
- **Southampton County:**
  - Newsom’s Housing and Drainage Improvement Project Phase 1 to start later this year. This project includes ditch improvements to make a better channel and modest tree removal.
  - The Comprehensive Plan was completed and adopted by the Board of Supervisors; the County would need to review the section to see if there was a separate section for resilience.
- **HRPDC General Question to Localities**

HRPDC is talking to VDOT about putting sensors on flood-prone roads, with a focus on evacuation routes to include a roadway in western Tidewater. Are there any major, VDOT-maintained evacuation routes that flood?

  - Town of Smithfield – one area sees flooding by Smithfield Station due to northern driven winds. The Town hasn’t experienced a rainstorm that causes flooding on the road. Right now, there is only a one-way bridge so evacuation would need to be down Route 10, Jericho Road, which is a town-maintained road.

## Meeting Summary

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### **Coastal Resilience Master Plan Phase II- Local Government Engagement Meeting**

**Organizations Represented:** HRPDC, Williamsburg, James City County, York County

**Meeting Date:** Wednesday, June 27, 2024

**Meeting Time and Location:** 11 to 1 PM in person at the James City County Law Enforcement Center (4600 Opportunity Way Williamsburg, VA 23188)

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The Virginia Coastal Resilience Master Plan (CRMP) Phase II focuses on resilience efforts in Virginia’s eight coastal Planning District Commissions (PDCs) and the localities and tribal governments located within the geographic areas of the PDCs. As part of the CRMP Phase II Stakeholder Engagement, the PDCs convened four local government meetings to engage priority localities identified by the Virginia Department of Conservation and Recreation (DCR) Office of Resilience Planning (ORP). The purpose of the meetings was to encourage two-way knowledge sharing about flood resilience planning and implementation, share information about the CRMP Phase II plan and products, and ensure that the plan reflects local challenges, priorities, and activities related to flood resilience.

The Hampton Roads PDC (HRPDC) Peninsula meeting was convened to engage stakeholders within the region with particular focus on 4 localities that have relatively high flood risk but had low participation in Phase I engagement activities: James City County, the City of Poquoson, the City of Williamsburg, and York County. The CRMP Phase II discussion lasted two hours in person at the James City County Law Enforcement Center.

#### **Agenda for CRMP Activities (2 hours):**

- 1) Today’s Objectives**
- 2) Today’s Agenda**
- 3) Why Your Participation Matters**
- 4) Introductions of Locality Members (20 min)**
  - a. Name, role, and locality
  - b. What primary flooding challenges does your locality face?
- 5) CRMP Phase II Flood Hazards and Impacts Products (45 min)**
  - a. Presentation, Q&A
  - b. Facilitated discussion to gather input and feedback
    - i. Input on Phase II Plan Products and Tools
    - ii. Barriers to Addressing Flooding Concerns
- 6) CRMP Phase II Projects, Initiatives and Funding Products (45 min)**
  - a. Presentation, Q&A
  - b. Facilitated discussion to gather input and feedback
    - i. Review of the Coastal Resilience Web Explorer Projects and Initiatives
- 7) More Opportunities to be Involved**
- 8) Q&A**

**Attendance:**

PDC and locality representatives (9):

- Ben McFarlane, HRPDC, Chief Resilience Officer
- Whitney Katchmark, HRPDC, Principal Water Resources Engineer
- Emma Corbitt, HRPDC, Resilience Planner
- Larry Snyder, City of Williamsburg, Fire Chief and Emergency Management Coordinator
- Michael Woolson, James City County, Stormwater & Resource Protection Division (CRS Contact)
- Christy Parrish, James City County, Zoning Administrator (Floodplain Ordinance)
- Joe Brogan, York County, Chief of Stormwater Programs
- Sara Rusch, James City County, Emergency Manager

DCR Staff and Consultants (8):

- Matt Dalon (DCR)
- Carolyn Heaps-Pecaro (DCR)
- Daniel Proctor (Stantec)
- Linda Warren (Launch! Consulting)
- Rebekah Cazares (Launch! Consulting)
- Sidney Huffman (Launch! Consulting)
- Delceno Miles (The Miles Agency)

**Notes:**

- Carolyn Heaps-Pecaro (DCR) and Matt Dalon (DCR) provided a briefing on the scope and objectives of the CRMP Phase II update currently underway:
  - Expanding to cover all eight coastal PDCs (including HRPDC) and address both rainfall-driven and tidal/storm surge flooding through new state-of-the-art models and mapping products.
  - Models will project flood depths across five scenarios (current, two near-term, and two far-future) to inform adaptation planning.
  - Updating the web-based project inventory and flood risk explorer with additional functionality, risk metrics, and ability to capture a broader range of local/regional resilience efforts.
  - Developing a public-facing Flood Risk Awareness Map to communicate current and future flood exposure in an accessible format.
  - Targeting December 2024 for final publication, with rollout of draft products and tools for locality testing in advance.

- **Group Discussion on Locality Specific Flooding Challenges**
  - **James City County**
    - The County has neighborhoods that are often cut off during a major flood and they are unsure how to address it. It would be helpful to have additional flood studies to help target the problem areas.
    - The County is running into the issue of people wanting to develop in flood prone areas, and it is a challenge to ensure sure they are safe from flooding and following floodplain ordinances.
    - There are encroachments into areas like King Creek, which make it harder to ensure they are safe from flooding. Need to ensure they are compliant with zoning ordinances and floodplain regulations.
    - The County needs access to the most accurate data.
    - There is significant sea-level rise next to Jamestown, and there are concerns about losing artifacts to flooding. This problem is a concern for tourism, which is a large part of the economic base in the area.
  - **City of Williamsburg**
    - Currently the City has no flood zone.
    - The City has localized flooding but nothing that is causing routine problems or access issues.
    - There are different pockets of areas that may be a little bit lower lying.
  - **York County**
    - The County has developed areas (large residential) that are right next to the Bay, which are under 8 ft sea-level rise and prone to flooding.
    - Mostly, older homes below 8 ft are causing flooding challenges.
- **Group Discussion on Phase II Products and Tools**
  - **Flood Story App**
    - **James City County**
      - This app could be pushed out pre-hurricane season to help them go back to see pictures and date/time stamps. This could then be used to say that the issue was mitigated, and it isn't a problem or that the county could expect evacuations/road closures.
      - DCR could refer to VDOT for examples of language to include in the app.
      - If a community is applying for a Hazard Mitigation or Building Resilient Infrastructure and Communities (BRIC) grant, they must include a Benefit-Cost Analysis (BCA). Demonstrating the BCA for a roadway can be challenging. Providing detailed information about the exact location and the frequency of flooding over the past 'X' years would be beneficial. This type of data is crucial for justifying the elevation of roads.
      - Be sure that people are clear on what flooding is or looks like as it will vary from person to person.





- Data Visibility
    - Final decisions are pending on the level of detail for publicly released data.
    - Sensitive data will not be made public.
    - Emergency Operations Center (EOC) data will not be published for security reasons.
    - FEMA has mapped social vulnerability, and DCR uses the CDC's Social Vulnerability Index (SVI).
  - Hurricane Evacuation Routes
    - Evacuation routes are publicly available data and shouldn't be marked as sensitive.
  - **City of Williamsburg**
    - **Flood Hazard Exposure Models**
      - The City is interested in understanding how this mapping would be helpful in identifying areas where they lack infrastructure and capacity.
      - The data could help with internal planning of infrastructure improvement.
  - **York County**
    - **Flood Hazard Exposure Models**
      - The County did not know this data existed and was compiled by DCR but agreed that it would be very useful to them.
- **Group Discussion on Barriers to Addressing Flooding Challenges**
  - **James City County**
    - Political, staff capacity, and financial.
    - Conflict of state regulations and their impact on local governments.
    - Need for improved coordination and cooperation between local governments and state agencies.
  - **York County**
    - High turnover which causes there to be different interpretations of the same rules.
  - **HRPDC**
    - State regulations and policies – it is challenging to receive grant funding and be reimbursed.
    - Other DEQ stormwater regulations.
    - Siloed approach to addressing flooding concerns.
- **Group Discussion on Projects and Initiatives**

Localities were asked to follow up with additional details on potential projects to include in the inventory and to identify a staff contact if they haven't already done so.

  - HRPDC recently worked with the localities to compile any updates to existing projects or additional projects to add to the inventory.

- Poquoson and Williamsburg both have projects that they are working on updating.
  
- **James City County**
  - Jamestown project where they are developing a 20-to-30-year resilience plan to protect the island through the Jamestown and Yorktown foundation.
  - The County is interested in completing a watershed study to update FEMA flood plain maps; the last update was in 2015 and much has changed in that time in the urban areas.
  - Western tidewater communities have had some modeling done there but the models are likely old. James City County is not sure when their upland areas are being restudied. The whole peninsula has inland creeks that are impactful. They are currently looking at New Market Creek because a lot has changed since last mapped.
  - VDEM indicated that the National Hurricane Center is redoing their storm surge data and FEMA floodplains.
  
- **HRPDC General Question to Localities**
  - HRPDC brought up the Army Corps Peninsula feasibility study to inquire if any of the participants had been in communication with them. There was general conversation about this study and how to coordinate and its importance for the localities



## Meeting Summary

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### Crater PDC Local Government Engagement Meeting

**Meeting Date:** Wednesday, May 22, 2024

**Meeting Time and Location:** 1:00 PM to 3:00 PM EST, Virtual Meeting facilitated on Zoom

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The Virginia Coastal Resilience Master Plan (CRMP) Phase II is focused on resilience efforts in Virginia's eight coastal Planning District Commissions (PDCs) and the localities and tribal governments located within the geographic areas of the PDCs. As part of the CRMP Phase II Stakeholder Engagement, four (4) local government engagement meetings will be convened regionally by PDC to engage priority localities identified by the Virginia Department of Conservation and Resources (DCR) Office of Resilience Planning (ORP). The meetings are designed to encourage two-way knowledge sharing about flood resilience planning and implementation, share information about the CRMP Phase II plan and products, and ensure that the plan reflects local challenges, priorities, and activities related to flood resilience.

The Crater PDC meeting was convened to engage stakeholders across Crater's 11 localities with particular focus on three localities that have relatively high flood risk but had low participation in Phase I engagement activities: Dinwiddie County, Colonial Heights, and Emporia. The CRMP Phase II discussion lasted forty-five minutes and was part of a monthly Crater PDC Environmental Resource Management Task Force meeting hosted by The Berkley Group.

#### Agenda for CRMP Activities:

1. Today's Agenda
2. Why Your Participation Matters
3. Introductions: Tell us your flooding stories
4. Overview of Phase II of the CRMP
5. Facilitated Discussion
  - a. What are the primary challenges your community experiences with flooding and flood resilience?
  - b. Review of Crater PDC Region Coastal Resilience Web Explorer (CRWE) Projects & Initiatives
  - c. What projects, programs, plans, or policies are you working on to address flooding in your community? What are the best ways for localities to provide flood project information?
  - d. What barriers do you face when addressing flooding in your community?
6. Quarterly newsletter and CRMP Phase II website
7. Q&A

#### Attendance:

Crater PDC and locality representatives (15):

- Heather Barrar (Friends of the Lower Appomattox River - FOLAR)

- Aaron Bond (City of Colonial Heights)
- Kelly Davis (City of Hopewell)
- Jay Ellington (Crater PDC)
- Kit Friedman (Crater PDC)
- Tyler Jackson (City of Petersburg)
- Mary Jacobs (Department of Environmental Quality)
- Brett Meadows (Chesterfield County)
- Savannah Newbern (Wetlands Watch)
- Alanna Ostrowski (Department of Forestry)
- Prarthana Rao (City of Colonial Heights)
- Naomi Siodmok (City of Petersburg)
- Darryl Walker (City of Petersburg)
- Hannah Woehrle (Crater PDC)

DCR Staff and Consultants (12):

- Matt Dalon (DCR)
- Carolyn Heaps-Pecaro (DCR)
- Arthur Kay (DCR)
- Karyn Reid (DCR)
- Luke Peters (The Berkley Group)
- John Luangkhhot (The Berkley Group)
- Ashley Hall (Stantec)
- Christina Hurley (Stantec)
- Linda Warren (Launch! Consulting)
- Cece Atkinson (Launch! Consulting)
- Rebekah Cazares (Launch! Consulting)
- Morgan Abbett (Launch! Consulting)

**Notes:**

- Carolyn Heaps-Pecaro (DCR) provided a briefing on the scope and objectives of the CRMP Phase II update currently underway:
  - Expanding to cover all 8 coastal PDCs (including Crater) and address both rainfall-driven and tidal/storm surge flooding through new state-of-the-art models and mapping products.
  - Models will project flood depths across 5 scenarios (current, 2 near-term, and 2 far-future) to inform adaptation planning.
  - Updating the web-based project inventory and flood risk explorer with additional functionality, risk metrics, and ability to capture a broader range of local/regional resilience efforts.
  - Developing a public-facing Flood Risk Awareness Map to communicate current and future flood exposure in an accessible format.

- Targeting December 2024 for final publication, with rollout of draft products and tools for locality testing in advance.
- Linda Warren (Launch! Consulting) facilitated a discussion to solicit feedback on local flood vulnerabilities and resilience initiatives for incorporation into the Phase II plan:
  - Petersburg: Grappling with aged/undersized stormwater infrastructure that has reached the end of its design life, leading to capacity and water quality issues. Many components were inherited from annexed areas and were not built to modern standards.
    - Seeing increased stress on the system from extreme rainfall events (e.g., two 3"+ storms within 3 days) coupled with a high groundwater table.
    - Used CFPF grant from DCR to launch a citywide drainage study to inventory the stormwater network, identify problem areas, and model 2 priority watersheds (Lieutenant Run and Brick House Run).
    - Public outreach is a major element of the project, with a dedicated liaison to attend community meetings, document resident complaints, and keep the city apprised of issues.
    - Expecting the study to position Petersburg to apply for CFPF construction funds to implement capital upgrades to the most critical parts of the system in FY25.
    - Working to migrate all flood-related data into a centralized GIS database to guide future planning and investment.
  - DEQ: Assists localities with incorporating resilience assessments in the local Bay Act programs. Not even after a full day of rain, there are issues with the tidewater localities. Working on having the localities incorporating language about resilience assessments. Looking at development and redevelopment along the coastal areas, not so much the inland areas.
  - Wetlands Watch: Having to send out highwater watches on a weekly basis as tidal flooding is increasing in the Hampton Roads area.
  - Crater PDC: Utility scale solar farms and a lot of the opposition to incoming solar farms (Sussex County) is the removal of grass and plants is that will inundate those areas for flooding and erosion when it rains. What's there now is not what is going to be there. Land use issues now that could greatly impact flooding issues.
  - Hopewell: Expressed similar issues with localized drainage problems from insufficient or aging infrastructure, particularly in older residential areas served by open ditches and culverts.
    - Recently awarded a VA Community Food Forest grant from DOF to complete a tree canopy study and planting plan.
    - Also partnering with Crater PDC on a DEQ-funded BMP implementation project to treat runoff.
  - FOLAR: Noted that the Appomattox River Trail experiences occasional flooding. Wondered if the new Invasive Species Inventory and Management Plan they're developing for riverside public lands could be considered a resilience initiative.
    - The Friends of the Lower Appomattox River's service area includes the counties of Chesterfield, Dinwiddie, Prince George and the Cities of Petersburg, Colonial Heights and Hopewell.

- Petersburg: referenced several other relevant efforts including a "Walkable Watershed" conceptual plan, drainage plan, and water quality improvement project in the Lakemont community. Confirmed Darryl Walker as the point of contact to follow up on the drainage study modeling results.
  - Walkable Watershed Concept: [https://www.walkablewatershed.com/wp-content/uploads/2014/09/Petersburg\\_ConceptPlan\\_draft\\_08-01-16\\_bs.pdf](https://www.walkablewatershed.com/wp-content/uploads/2014/09/Petersburg_ConceptPlan_draft_08-01-16_bs.pdf)
- Colonial Heights stated that while the City hasn't undertaken major resilience planning to date, their Engineering Department would be interested to learn more, specifying Matthew Ryan as the contact.
- Chesterfield County noted their stormwater engineering group would have the most direct knowledge of flooding issues.
- Carolyn wrapped up by highlighting other tools and initiatives that could support local efforts:
  - Resilience Project Inventory for tracking proposed activities, costs, and funding needs to guide state investment
  - Flood Story crowdsourcing app to gather on-the-ground data and photos of flooding impacts
  - Future rainfall modeling to understand how precipitation extremes may evolve due to climate change
  - Community outreach materials to build flood risk awareness
- Localities were asked to follow up with additional details on potential projects to include in the inventory and to identify a staff contact if they haven't already done so.
- Karyn Reid (DCR Dam Safety & Floodplain Management) provided a brief update on several funding opportunities and trainings coming up:
  - Virtual training on VFRIS and for local floodplain administrators on June 5th and 7<sup>th</sup>
  - Resilient Virginia Revolving Loan Fund has \$12.5M available for flood mitigation and local match with applications open through June
  - Community Flood Preparedness Fund round 5 will launch in August with updated scoring criteria out for public comment now
- Participants shared contacts for follow-up on flood projects.
  - Colonial Heights: Matthew Ryan, Engineering Project Coordinator
  - FOLAR: Heather Barrar
  - Hopewell: Marshall Hartless, contact for stormwater/flood engineering projects,
  - Petersburg: Darryl Walker
- Other resources and ideas were shared in the meeting chat:
  - Petersburg Lakemont Community Work: <https://thejamesriver.org/petersburgs-lakemont-neighborhood/>
  - Kit Friedman:
    - Crater PDC will be undertaking a Regional Resilience Plan that encompasses all 11 of our localities that will address flooding and other environmental issues. The project will be funded by CFPF once the contract comes in.

- Crater PDC has an initiative coming up with the Albemarle-Chowan Watershed Roundtable. They'll be convening stakeholders and agencies to address a whole host of environmental issues in the area's southern watershed.