

**THE DRAFT SUMMARY OF THE MEETING OF THE
HRPDC COASTAL RESILIENCY COMMITTEE
December 11, 2020**

Pursuant to the declared state of emergency in the Commonwealth of Virginia in response to the COVID-19 pandemic and to protect the public health and safety of the committee members, staff, and the general public, the Coastal Resiliency Committee meeting was held electronically via Webex. These electronic meetings are required to complete essential business on behalf of the region. A recording of the meeting is available on the website.

1. Attendance

A complete attendance list is available. In addition to several non-voting committee members and other interested parties, the following voting members participated electronically:

Coastal Resiliency Committee Voting Members:

Doug Beaver, NO
Mark Bellamy, YK
Darryl Cook, JC
Toni Utterback, VB

2. Summary of the September 25, 2020 Meeting of the Hampton Roads Coastal Resiliency Committee

The summary and attendance record for the September 25, 2020 meeting of the Hampton Roads Coastal Resiliency Committee were approved as distributed.

3. Public Comments

There were no public comments.

4. HRSD Climate Change Planning Study

Dr. Matthias Wittenberg, CDM Smith Project Manager, and Mr. Mike Morgan, CDM Smith Associate Water Resources Engineer, briefed the Committee on the Hampton Roads Sanitation District (HRSD) Climate Change Planning project. The HRSD Climate Change Plan will address the next 80 years with near-term (2 ft sea-level rise), medium term (4.5 ft sea level rise), and long-term (7 ft sea level rise) planning intervals that follow the NOAA Intermediate-High scenario for sea level rise. 139 HRSD Facilities were identified for flood risk evaluation, including treatment plants, pressure-reducing stations, pump stations, and administration/operations sites. Storm surge flooding, riverine flooding, and rainfall flooding were all considered as flooding sources in the project. The North Atlantic Coast Comprehensive Study (NACCS) model developed by the U.S. Army Corps of Engineers and a simplified riverine hydraulics methodology based on the FEMA Flood Insurance Study were used as the primary sources of coastal and riverine flooding data respectively. For rainfall flooding, approximate

flood maps consistent with the FEMA approach are being developed using LiDAR data and HEC-RAS Software.

Detailed site-specific measurements are being collected to determine the flood elevation where specific facility functions may be damaged and to identify site-specific flood mitigation measures. Predicted flood damage is being reported as annualized loss to support evaluating the cost-effectiveness of mitigation measures, such as dry floodproofing. The final project deliverables will include a technical report and decision support dashboard to visualize the data by geography, system, asset-type, or utility-wide.

Ms. Whitney Katchmark asked if any major HRSD facilities would be impacted when considering the long-term planning horizon of 80-years. Mr. Morgan responded that there are treatment plants that would likely be impacted. Mr. Rob Martz, HRSD, noted that the potential benefits to HRSD facilities from locality flood mitigation efforts will also need to be considered. Mr. Kevin DuBois, NAVFAC Mid-Atlantic, asked if the plan addresses potential SWIFT infrastructure on military bases, and Dr. Wittenberg responded that those are currently not being considered. Mr. Henry Pollard, Williams Mullen, noted that regulatory risks and liabilities associated with mitigation options are also important considerations in addition to the technical, operations, and economic impacts. Mr. McFarlane added that the legal requirements for localities, utilities, and agencies to provide services in areas vulnerable to sea level rise currently lack clarity and are part of ongoing discussions.

5. Regional Legislative Proposals – Update

Ms. Whitney Katchmark, HRPDC, provided an update on the HRPDC legislative proposals related to resiliency. These include the following: (1) creation of a Commonwealth Flooding Board; (2) updating precipitation data products; (3) requiring flood disclosure on real estate transactions; and (4) adding resilience to SMART SCALE project scoring criteria. Supporting white papers for each of these proposals were provided as an attachment to the Committee agenda.

Senator Lewis and Delegate Convirs-Fowler are both sponsoring proposed legislation for the creation of a Commonwealth Flooding Board. The Board and supporting staff would represent a statewide program focused on flooding that would have more stability through administrative changes. The proposal regarding updating precipitation data products will likely not move forward as legislation given recent progress on data development. The Chesapeake Bay Program's contract to develop new IDF curves for the Chesapeake Bay watershed is now being expanded to cover all of Virginia following state coordination efforts with the Chesapeake Bay Program. Results are expected in the spring and will likely not include specific stormwater design standard recommendations. Ms. Katchmark suggested an advisory group involving state agencies and localities could support developing the policy recommendations.

Delegate Convirs-Fowler will be supporting legislation regarding disclosure of a property being in the Special Flood Hazard Area during real estate transactions. The HRPDC has also recommended that insurance claims and past damage disclosure be included in legislation; however, there are concerns from the real estate community. Delegate Convirs-Fowler is also supporting proposed legislation to add resilience to SMART SCALE project scoring criteria, which

has also been a legislative priority of the City of Virginia Beach. Ms. Katchmark encouraged localities to discuss these proposals with legislative liaisons to help support a regional message.

6. Virginia Coastal Resilience Master Planning Framework and Related Efforts

Mr. McFarlane provided an overview of recent state-level developments related to coastal resiliency. In response to SB776, VMRC hosted a series of workshops to develop updated tidal wetlands guidance addressing sea level rise impacts. Governor Northam announced the Virginia Coastal Resilience Master Planning Framework on October 29, 2020, and more recently a Request for Proposals (RFP) to develop the Coastal Resilience Master Plan was published. Proposed amendments to the Chesapeake Bay Preservation Area Designation and Management Regulation and draft guidelines for the Community Flood Preparedness Fund have recently been released.

The Virginia Coastal Resilience Master Planning Framework includes the following goals: (1) identify priority projects for increasing community coastal resiliency, (2) establish a financing strategy informed by regional differences and equity considerations, (3) incorporate climate change projections into all state programs, and (4) coordinate all state, federal, regional, and local coastal adaptation and protection efforts. The framework divides coastal Virginia into 4 sub-regions, with Hampton Roads designated as an individual planning region. The framework includes several initial actions and recommendations, including establishing a Technical Advisory Committee (TAC). The first TAC meeting will be held virtually on December 14th at 12:30pm and is a public meeting. Those interested in attending can access the meeting link on the Virginia Regulatory Town Hall website. The framework also includes that a Coastal Relocation Handbook will be developed. Concerns related to how this handbook would align with local priorities have been expressed by various entities.

Mr. McFarlane noted several concerns related to the framework, including the establishment of strategic relocation and preservation of natural resources as the preferred adaptation options, limited capacity and resources to support near and long-term actions, limited stakeholder engagement in the planning process, and the relatively quick timeline for developing the Coastal Resilience Master Plan. The RFP proposals are due December 30, 2020 and the final draft of the plan will be due October 27, 2021. Mr. Pollard noted that the lack of private sector, individual localities, and regional authority representation on the TAC could also be problematic.

The proposed Chesapeake Bay Preservation Area (CBPA) Designation and Management Regulation amendments address legislation (HB504) that added preservation of mature trees and coastal resiliency/adaptation to factors the State Water Control Board (SWCB) must consider. The enabling legislation also included a provision that exempted the development of these regulations from the standard requirements of the Administrative Process Act. The proposed regulations were released as part of the SWCB agenda for December 9, 2020. The CBPA regulatory amendments specify that localities have 3 years to adopt once final, direct localities to consider impacts of climate change or sea level rise on any proposed development in the RPA, prohibit sole use of fill, and discuss best management practices that have been approved by state or federal agencies. The Hampton Roads Chief Administrative Officers sent a letter to SWCB requesting delay and better process for approving the regulatory amendments. At the December 9th meeting, the SWCB approved release of the regulations for 90-day public comment period, which will begin when posted in the Virginia register. The SWCB also directed DEQ to hold at least one stakeholder meeting following the 2021 General Assembly session. HRPDC staff plan to have follow-up discussions about the CBPA regulatory amendments with local CBPA staff and the

HRPDC Regional Environmental Committee. HRPDC staff plan to submit a public comment following discussion with HRPDC Committees and the Board of Commissioners.

The Community Flood Preparedness Fund, established by HB22 and HB981, will receive 45% of the Regional Greenhouse Gas Initiative (RGGI) funds. The Virginia Department of Conservation and Recreation (DCR) guidelines for allocating money from the fund were posted to Virginia Town Hall last week. Public comments are due January 31, 2021, and the guidelines will be finalized by March 1, 2021, prior to the first allocation of RGGI funds. Mr. McFarlane noted HRPDC staff have several questions and concerns about eligibility, minimum requirements, criteria, and project selection process. Committee members are encouraged to discuss these regulations within their localities and submit public comments. Mr. McFarlane noted that Wetlands Watch is hosting a webinar with Deputy Secretary of Natural Resources, Joshua Saks, to discuss the Community Flood Preparedness Fund draft guidelines at noon today. Mr. David Imburgia, City of Hampton, asked which of these resilience items discussed would be top priority, and Ms. Katchmark and Mr. McFarlane noted that they would first review the CBPA regulatory amendments given the available details and timeline for public comment.

7. First Floor Elevations Project Update

Ms. Ashley Gordon, HRPDC, briefed the Committee on the third phase of the regional first floor elevations (FFE) initiative. The third phase of the three-year FFE effort was completed in November 2020 and funded in part by the Virginia Coastal Zone Management Program. The primary goals of the initiative were to develop an inventory of existing FFE data from elevation certificates, evaluate multiple FFE estimation approaches to develop a regional FFE inventory, and apply the resulting FFE inventory in flooding vulnerability assessments. The regional FFE effort also aimed to coordinate with other FFE initiatives in the Hampton Roads region to support the development of recommended practices for data management and data development.

The regional elevation certificate inventory now contains over 4,000 structures and includes 12 localities. Information from the elevation certificates was recorded in GIS and is now available on HRGEO.org, the regional GIS portal. The elevation certificates were used to develop several predictive Random Forest models for estimating first floor heights (FFE – lowest adjacent grade). A regional FFH database was developed that focused on single-family residential structures in the Special Flood Hazard Area and contained approximately 33,700 structures. Approximately half (49%) of these FFH values were estimated using the Random Forest modeling, 40% of values were from existing data sources, and 11% were from stair counting and Hazus default reference table estimation approaches.

The FFH database was applied in a regional flooding vulnerability assessment for the 1% annual chance flood. Additional flooding scenarios included the 1% annual chance flood plus 1.5ft and 3ft of sea level rise. For the 1% annual chance flood scenario, both the custom regional FFH database and Hazus default FFH values were applied. At the regional scale, the total damage estimates resulting from the custom and default FFHs varied by \$122.5 million when using the absolute value of the difference in each locality. This emphasizes that damage estimates at the locality level are sensitive to changes in the FFH input. When accounting for sea level rise, the overall damages increased from a baseline of \$305 million to \$1.7 billion with 3ft of sea level rise. There was also an increase observed in both the number of structures damaged and the level of damage to individual structures with sea level rise.

The recent FFE report includes recommended practices for data management and data development. Localities are encouraged to maintain digital copies of elevation certificates to support long-term database management and opportunities for earning credit in the NFIP Community Rating System (CRS). HRPDC staff previously discussed opportunities for earning CRS credit based on the elevation certificate database with the Coastal Virginia CRS Workgroup. For developing FFE data, the report recommends considering the data requirements, processing time, and technical qualifications when selecting estimation methods. The report compares methods that have been applied in the Hampton Roads region based on these factors. The most recent report is available on the [HRPDC website](#). Moving forward, HRPDC staff would like to integrate new elevation certificates and FFE data as it becomes available and use the results of this analysis to help inform the next update of the regional Hazard Mitigation Plan, anticipated to be completed in April 2022.

8. Update on Federal and State Efforts Related to Sea Level Rise and Recurrent Flooding

There were no additional updates. Recent state efforts related to resilience were covered under the Virginia Coastal Resilience Master Planning Framework and Related Efforts presentation.

9. Updates on PDC and Local Efforts Related to Sea Level Rise and Recurrent Flooding

Ms. Katchmark noted the HRPDC Board of Commissioners and Chief Administrative Officers discussed C-PACE programs. The HRPDC Board passed a resolution in November encouraging localities to consider adopting ordinances to establish local C-PACE programs that support financing for energy and stormwater improvements to non-residential properties.

Ms. Katchmark also noted regarding the HRPDC roadway flooding sensors project, the HRPDC received a letter of endorsement from the Navy to apply for an Office of Economic Adjustment (OEA) federal grant.

10. Other Matters

The next meeting of the Coastal Resiliency Committee will be held March 26, 2021.