

**THE DRAFT SUMMARY OF THE MEETING OF THE
HRPDC COASTAL RESILIENCY COMMITTEE
September 25, 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

The following members attended electronically:

Coastal Resiliency Committee Voting Members:

Bob Baldwin, PO

Kyle Spender (Substituting for Doug Beaver), NO

Amy Green (Substituting for Mark Bellamy), YK

Lamont Curtis, NN

David Kuzma, IW

Toni Utterback, VB

2. Summary of the June 26, 2020 Meeting of the Hampton Roads Coastal Resiliency Committee

The summary and attendance record for the June 26, 2020 meeting of the Hampton Roads Coastal Resiliency Committee were approved as distributed.

3. Public Comments

There were no public comments.

4. Roadway Flooding Sensors

Ms. Whitney Katchmark, HRPDC, briefed the Committee on the initiative to develop a regional network of roadway flooding sensors. The sensor network would provide real-time data to drivers through Waze, and the sensor data would also be made available to localities, state agencies, the Department of Defense, and universities to support research and the development of other alerts or tools. Local staff initially identified 97 high priority and 122 low priority potential sensor sites. From these sites, 20 have been selected for a sensor pilot project. Following an RFP issued in June 2020, HRPDC staff and a selection panel, including representatives from Norfolk, VIMS, USGS, and ODU, recommended awarding the contract to Xylem Inc. The estimated cost for the 20-sensor pilot project is \$207k, which includes equipment, installation, data management, and operations and maintenance for 5 years.

To help fund the pilot project, HRPDC staff have contacted the DoD Office of Economic Adjustment (OEA) about applying for an OEA Implementation Grant, which could provide \$75k

for data management and operations and maintenance. The OEA grant could provide up to \$187k if equipment costs were included; however, the associated property management standards and NEPA regulations may be a barrier to implementation. The Hampton Roads Sanitation District has offered to contribute \$25k to the pilot project. There are also funds available through the HRPDC Coastal Resiliency Project Fund to provide \$108k plus contingency.

Mr. Sam Belfield, HRTPO, suggested asking the military installations if there are particular intersections of interest for sensor installation, and Mr. Kevin DuBois, DoD Chesapeake Bay Program, suggested adding a sensor along Hampton Blvd north of Terminal Blvd. Mr. McFarlane, HRPDC, noted that some of the sensor locations identified by local staff are also near important roadway corridors identified through the Norfolk and Virginia Beach JLUS. Mr. David Imburgia, City of Hampton, noted that the Hampton-Langley JLUS Addendum also recommended developing a system of roadway flooding sensors.

Mr. Kevin Frost and Mr. Tom Wazniak with Xylem Inc. noted that the flood sensor data will be communicated through Waze and a back-end private website will also be available for data analysis. The proposed framework also includes flexibility for adding features, such as forecasting and text alerts, although these are not included in the current scope of work. Ms. Emily Steinhilber, ODU, noted that ODU faculty recently received an NSF grant to look at transportation flooding and are interested in learning more about the roadway sensor project.

Mr. McFarlane will email the Committee members to collect votes on authorizing the HRPDC staff to utilize reserve funds to proceed with the roadway flooding sensor project and direct HRPDC staff to seek grant funds to supplement local funds.

5. Regional Coastal Resiliency Design Standards

Mr. McFarlane briefed the Committee on draft regional design standards that address precipitation changes, stormwater management, and floodplain management. These recommendations build on the regional sea-level rise policy adopted by the Commission in October 2018, and complement the recent “Consideration of Climate Change and Coastal Storms” addendum to VDOT’s Structure and Bridge Division Standards and the City of Virginia Beach’s new Public Works Design Standards. Mr. McFarlane presented the following draft recommendations:

- Localities should adopt local standards reflecting a 20% increase in the 24-hour duration rainfall above local conditions in NOAA Atlas 14.
- Localities should adopt higher standards for larger projects that reflect larger contributions to runoff and additional capacity for mitigation.
- Localities should adopt design tailwater elevations for individual watersheds.
- Localities should incorporate sea level rise and non-linearity into design tailwater elevations.
- Localities should adopt multiple joint probability design storms that include both precipitation and tailwater conditions.

- Localities should regulate development in the 0.2% annual chance floodplain.
- Localities should incorporate future probabilistic floodplains with sea level rise into their comprehensive plans and floodplain ordinances.
- Localities should adopt a minimum freeboard of 2ft above the base flood elevation (3ft for critical structures).
- Localities should adopt design flood elevations based on location, expected lifespan, and criticality.

Mr. Brian Swets, City of Portsmouth, noted that the draft recommendation to adopt higher standards for larger projects only applies to localities that have larger developments, and recommendations for smaller urban developments could also be considered. Mr. Kyle Spencer, City of Norfolk, suggested considering metrics other than acreage, such as percent pervious surface, for smaller urban developments. Mr. McFarlane also noted that none of the draft recommendations presented today would be mandated, but rather would serve as supporting guidance documents that could be revised in the future.

Upon finalizing the supporting tables and GIS layers, including recommended tailwater elevations and future floodplains, the materials will be distributed to localities for review and comment. HRPDC staff will plan to present the revised deliverables at the December HRPDC Coastal Resiliency Committee meeting and present final recommendations to the Board for adoption (tentatively Q1 2021).

6. Regional Legislative Proposals

Ms. Katchmark and Mr. McFarlane briefed the Committee on draft legislative priorities related to resiliency. Four legislative proposals were recommended by the HRPDC Coastal Resilience Subcommittee of elected officials for the Commission to consider as part of the regional legislative package: (1) Creation of a Commonwealth Flooding Board, (2) Updating precipitation data products, (3) Requiring flood disclosure on real estate transactions, and (4) Adding resiliency to the SMART SCALE project scoring criteria. Supporting white papers for each of these proposals were provided as attachments to the Committee agenda.

The Commonwealth Flooding Board proposal recommends establishing a Board with dedicated staff to provide oversight and long-term planning related to flood hazards. Responsibilities of the Board could include approving a prioritized list of projects to be funded by the Community Flood Preparedness Fund and approving a prioritized list of proposed investigations to be conducted by the U.S. Army Corps of Engineers. Mr. DuBois asked how the Board would interact with the JLUS process and if the proposal suggests including a Navy or DoD representative on the Board. Ms. Katchmark noted that JLUS recommendations could be reported to the Board for support with implementation and the selection process for appointments to the Board would likely be developed by the General Assembly. Ms. Ginny Snead, AMT, asked if there are structures in other states that could serve as a model. Mr. McFarlane noted that other states, such as Louisiana, have an existing authority that is then tasked with addressing flooding, and a goal of this proposal is to help coordinate efforts between multiple agencies.

The proposal to update precipitation products outlines local, state, and federal approaches. The federal approach includes updating NOAA Atlas 14 to account for more recent data and climate

projections, and the local approach includes using the existing NOAA Atlas 14 guidance plus 20%. The flood disclosure proposal recommends amending the Virginia Residential Property Disclosure Act to require disclosure of flood history and risk, including actual knowledge of flood damage and prior flood insurance claims. The final legislative proposal recommends explicitly adding resilience to the list of SMART SCALE factors. Mr. Swets asked how resilience would be measured in the SMART SCALE process. Mr. McFarlane noted this would be decided by the Commonwealth Transportation Board, and Mr. Swets suggested localities have the opportunity to provide input in the process. Mr. Belfield, HRTPO, noted that suggestions for how to approach the resilience metrics are welcome.

7. Proposed Changes to Virginia Uniform Statewide Building Code

Ms. Katchmark briefed the Committee on recommendations from the subworkgroup tasked with addressing resiliency in the 2018 Virginia Uniform Statewide Building Code cycle. Proposals recommended without consensus from the subworkgroup include the following:

- Increasing the freeboard requirement from the base flood elevation (BFE) plus 1 ft to BFE plus 2 ft.
- Adding a requirement that the top surface of floors of all building be elevated to 1 ft above the highest adjacent grade to protect from road flooding caused by stormwater back-ups.
- Requiring power inlets to be installed for an optional (portable) generator for new one and two-family homes to help reduce the cost of installing a generator to shelter in place.
- Adding additional documentation for construction in flood hazard and coastal high hazard areas, including a flood emergency plan.
- Improving the wind performance of soffits by clarifying installation requirements for the most common types of soffits.

Ms. Katchmark noted the subworkgroup included locality representatives and developers. The Board of Housing and Community Development will be considering these items at their meeting next month. Mr. Spencer noted that the City of Norfolk is in support of these recommendations and the new Norfolk zoning ordinance already includes some of these items. Mr. Swets noted that the developer community initially pushed back on freeboard requirements, but the concept gained support once multiple localities began to implement the standard. Ms. Katchmark stated that for the next steps, HRPDC staff will tentatively plan on sharing the subworkgroup recommendations with the Commission in October.

8. FY21 Coastal Resiliency Work Program

Mr. McFarlane provided an overview of the FY21 Coastal Resiliency Work Program. Proposed activities include continuing to expand the regional first floor elevations database following conclusion of the current Virginia Coastal Zone Management grant, tracking locality resiliency projects through the Hampton Roads Resilience Projects Dashboard, providing technical analysis and policy development (including the regional design standard recommendations), continuing the regional flood insurance outreach efforts, and working towards implementing the sensor pilot project. Mr. McFarlane noted feedback and additional work program ideas are welcome. Additional efforts that HRPDC staff support related to resiliency include the Portsmouth-Chesapeake JLUS and the U.S. DOT Volpe Center's transportation resiliency analysis. The results of these related efforts will be shared with the Committee in the future.

9. FY22 Coastal Resiliency Program Budget

Mr. McFarlane reviewed the FY22 Coastal Resiliency Program budget with the Committee. The total budget represents an overall decrease from the previous year and includes \$20k of reserves that are anticipated to roll-over. The budget will be distributed through email to the voting members. Votes need to be submitted no later than October 1st. Unanimous agreement is required for the budget to be recommended to the Commission.

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

Mr. McFarlane stated that an announcement is anticipated next month regarding the Commonwealth's Coastal Resilience Master Plan.

Ms. Katchmark noted that there was a meeting of the Joint Subcommittee on Coastal Flooding on Monday, September 21st, and a recording of the video will be posted online. New Hampton Roads representatives to the Joint Subcommittee include Chris Stone, Joe Bouchard, and Norfolk Councilwoman Andria McClellan.

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

Ms. Mary-Carson Stiff, Wetlands Watch, shared that Wetlands Watch has launched a new newsletter, the Commonwealth Resilience Brief. To sign-up for the newsletter, visit the Wetlands Watch website or email Ms. Stiff.

Mr. Jefferson Flood, Virginia Coastal Zone Management (CZM) Program, noted that CZM staff is working on a meeting summary from the recent Coastal Policy Team meeting on Wednesday, September 23rd, which included a presentation from Ann Phillips, Special Assistant to the Governor for Coastal Adaptation and Protection, on the Coastal Resilience Master Plan. Coastal hazards will also be a focus area of the NOAA CZM Section 309 funding for the next 6 years.

Mr. David Imburgia, City of Hampton, reported that the Hampton City Council voted unanimously to approve an Environmental Impact Bond for \$12M to support implementation of three pilot projects documented in the Newmarket Creek Water Plan.

12. Other Matters

The next meeting of the Coastal Resiliency Committee will be held December 11, 2020. The meeting will be held virtually via WebEx.