

**THE DRAFT SUMMARY OF THE MEETING OF THE
HRPDC COASTAL RESILIENCY COMMITTEE
June 22, 2018**

1. Summary of the March 23, 2018 Meeting of the Hampton Roads Coastal Resiliency Committee

The summary and attendance record for the March 23, 2018 meeting of the Hampton Roads Coastal Resiliency Committee were approved as distributed.

2. Public Comments

There were no public comments.

3. Regional Water Level Sensors and Flooding Alert System

Following the Chief Administrative Officers' subcommittee's recommendation, HRPDC staff outlined steps to expand the regional water level sensor network. Ms. Whitney Katchmark, HRPDC, proposed positioning sensors along intersections and road segments that frequently flood to provide real-time water-depth data via an application or website. Ms. Katchmark suggested HRPDC staff further develop a sensor network proposal to prepare for potential funding opportunities. Ms. Katchmark referenced the Smart Infrastructure Challenge, a national competition that awards funding for regional innovation. Hampton Roads has been accepted as a candidate for this grant, and opportunities may exist to integrate water level sensors in the grant proposal.

Regarding the existing sensor network, Mr. Ben McFarlane, HRPDC, stated that the StormSense initiative currently covers Norfolk, Virginia Beach, and Newport News. Ms. Meg Pittenger, City of Portsmouth, shared that the City will be installing 13 water level sensors along commonly flooded roads. The water level sensors are designed by Green Stream and will likely be installed within the next two months. The City also has a long-term goal of connecting these sensors with an alert system and rain gauges.

Ms. Fran Geissler, James City County, acknowledged that localities have to consider the cost-effectiveness of a sensor in an area that may only experience flooding once every several years. Ms. Geissler also suggested discussing this initiative with VDOT, and considering the intended audience of a flooding alert system, such as residents, commuters, or emergency managers.

Mr. Scott Smith, City of Norfolk, asked about the timeline for the HRPDC budgeting cycle and if requests for additional locality funding would go through this process. Ms. Katchmark stated that the HRPDC budget will be drafted by October.

Mr. McFarlane asked the Committee if they think an alert system would be valuable to their communities. Mr. Thomas Leahy, City of Virginia Beach, stated that the City would be supportive. Mr. Leahy suggested considering an application that highlights flooding-related road closures on a map. The Committee supported HRPDC staff further developing a proposal to expand the regional water level sensor network along roadways and to integrate the data in a public interface.

4. Regional Resiliency Action Plan Update

The Regional Resiliency Action Plan Update, listed as item 5 on the meeting agenda, was changed to item 4 during the meeting because a quorum was present.

As the first component of a regional resiliency action plan, Mr. McFarlane presented a recommended approach to factoring sea level rise into planning and project design. The proposed framework consists of two key recommendations:

- (1) Localities should plan for sea level rise using 1.5 feet of relative sea level rise above mean higher high water (MHHW) for near-term planning and 3 feet of relative sea level rise above MHHW for medium-to-long-term planning.
- (2) For engineering and design, localities should calculate project-appropriate sea level rise scenarios by using a tool, such as the U.S. Army Corps of Engineers Sea Level Change Calculator, and conduct a benefit-cost analysis of adaptation strategies to determine an appropriate amount of sea level rise for a project.

Mr. McFarlane reviewed VIMS sea level rise trend analysis and NOAA sea level rise projections with exceedance probabilities under various scenarios. Mr. McFarlane stated that this approach does not recommend picking a single curve or number, but rather suggests assessing the tolerable level of risk based on the lifespan, sensitivity, and significance of the project.

Mr. McFarlane stated that having a regional consensus on values and approaches for sea level rise planning may incentivize the state to adopt similar standards. The Committee unanimously endorsed the proposed sea level rise planning policy and approach. HRPDC staff will share the proposal with the CAOs and Commissioners for endorsement prior to integration with the regional resiliency action plan.

5. Design Storm Standards and Coordination with VDOT

The City of Virginia Beach is currently considering adopting design storm standards that account for increased precipitation. Ms. Katchmark led a discussion regarding interest in adopting new design storm standards and coordinating with state agencies to support this initiative. Ms. Katchmark stated that both the HRPDC and Virginia Beach have individually met with VDOT to discuss policy changes that incorporate sea level rise and changes in precipitation. Mr. Brian Lewis, City of Hampton, recommended that

TTAC or HRTPO also be involved. Mr. McFarlane encouraged Committee members to discuss the importance of considering sea level rise in road design with their TTAC representatives.

Mr. Smith encouraged state leadership because stricter City standards could pose a financial liability to the locality. Mr. Leahy emphasized that the current minimum design standards are not sufficient and the state should be more involved. Mr. Leahy stated that localities need to confront the reality of changing weather patterns and consider that a 10-year storm may now be a 5-year storm.

Mr. Mohammad Shar, City of Newport News, stated that a 20% increase in precipitation design standards would have a substantial impact on design that may not be financially achievable. Mr. Scott Thomas, Virginia Department of Conservation and Recreation, also suggested considering financial impacts of changing design storm standards, especially when using public funds. Mr. Thomas recommended initiating policy change at the local or regional level and progressing to the state level. Mr. Skip Stiles, Wetlands Watch, also suggested that revising regional design standards could prompt action at the state level. Mr. Stiles stated that likely within the next two months, Governor Northam will issue an Executive Order requiring state agencies to assess sea level rise in their programs.

Mr. Stiles highlighted that design storm standards are currently based on NOAA Atlas 14, which was last updated in 2006. Based on conversations with NOAA, Mr. Stiles shared that NOAA does not currently have funding available to update the Atlas. Ms. Geissler suggested inquiring about the cost of updating the Atlas, and Mr. Leahy asked if NOAA would consider revising the Atlas if we provide analysis support.

Ms. Katchmark stated that the HRPDC will continue discussions with VDOT and contact NOAA regarding the process of updating Atlas 14. After further refining the next steps, HRPDC staff can begin discussions with the CAOs regarding recommended actions.

6. Tracking Resiliency Projects in Hampton Roads

Mr. McFarlane briefed the Committee on the HRPDC initiative to develop an inventory of resilience projects within the Hampton Roads region. HRPDC staff have developed a spreadsheet to collect information regarding resilience projects, programs, and policies. Responses have been collected from the cities of Hampton, Newport News, Norfolk, and Virginia Beach. Mr. McFarlane provided a demonstration of an interactive, online web application that provides a map of resilience projects with attached fact sheets.

Mr. McFarlane will distribute the data collection spreadsheet to all localities in Hampton Roads, and requested this be completed prior to the September 28th Committee meeting. In addition to present initiatives, projects previously completed or

scheduled for the next 5 years, projects authorized or documented in a Federal study, and stormwater projects focused primarily on water quantity may be included. Mr. Lewis requested that HRPDC staff attach a list of resiliency project types when distributing the spreadsheet.

Ms. Geissler suggested including stream restoration projects that restore floodway function in the inventory. Ms. Geissler asked if Community Rating System credits could be earned through this initiative. HRPDC staff will research this topic.

Ms. Rachel Hamm, Virginia Department of Environmental Quality, recommended developing or sharing existing guidance documents for designing projects that address both flooding and TMDL requirements. Ms. Katchmark shared that guidance was previously developed by the HRPDC regarding BMPs in the coastal plain.

7. Flood Insurance Outreach

Ms. Katchmark provided an overview of the proposed timeline for the regional flood insurance outreach initiative in collaboration with Red Chalk Studios, Inc. The goal of this campaign is to encourage residents of Hampton Roads to purchase flood insurance.

In July, Red Chalk will share campaign ideas and directions with HRPDC staff. These options will then be presented to a multi-disciplinary sub-committee, including emergency and floodplain managers from various localities within Hampton Roads. The sub-committee and HRPDC will select a campaign direction by the end of July. HRPDC staff will also brief the Commissioners at the July 19th meeting regarding the general goals of the campaign. By early fall, Red Chalk will complete the website buildout, video and advertising production, and finalize the media plan.

Mr. McFarlane also shared that HRPDC staff submitted two proposals for Virginia Department of Conservation and Recreation grant funding. One proposal requests financial support for the flood insurance campaign and the other is regarding a longer-term goal to develop a flood insurance calculator. Ms. Gina DiCiccio, DCR, stated that the HRPDC will be notified when grant awards are finalized.

8. First Floor Elevation Data – CZM Grant

Ms. Ashley Gordon, HRPDC, briefed the Committee on the initiative to create a regional database of building first floor elevations. Ms. Gordon has received approximately 1,800 elevation certificates from 6 localities. Dewberry has shared their building footprint database containing observed and predicted first floor elevations for the City of Virginia

Beach. The U.S. Army Corps of Engineers will also provide their building footprints database of observed and predicted first floor elevations for the City of Norfolk.

Ms. Gordon provided an overview of the data being collected from the elevation certificates and the process of joining this information with building attributes, tax assessment information, and building footprints. Ms. Gordon previewed the database for the City of Portsmouth in ArcGIS Online. Ms. Beth Vandell, HRPDC, and Ms. Gordon will continue collecting information from elevation certificates. Once a robust dataset is created, predictive methods for estimating first floor elevation will be tested.

9. Coastal Resiliency Work Program Update

Mr. McFarlane updated the Committee on two upcoming projects that resulted from discussions at the June CAOs coastal resilience subcommittee meeting. HRPDC staff will be developing a cost-share proposal for joint state-local funding of resilience projects. HRDPC staff will also be researching previous allocation of VDEM and DCR grant funding regarding hazard mitigation and floodplain management.

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

Mr. McFarlane briefed the Committee on Federal resilience-related policy initiatives.

- (1) Defense Access Roads Program: A proposed amendment would add “closures due to sea level rise and flooding,” to the list of eligible impacts and authorize funding of projects that repair or mitigate the risk of flooding and sea level rise to highways.
- (2) NDAA Defense Community Infrastructure Pilot Program (Sec. 2834): The FY 2019 Bill allows funds to be used to address deficiencies in community infrastructure. The program requires a 30% state/local match which can be waived for rural areas.
- (3) Water Resources Development Act: Section 201 of the bill requests authorization of proposed feasibility studies from the 2017 and 2018 “Report to Congress on Future Water Resources Development,” including multi-jurisdictional studies across Tidewater that address flood risk management, ecosystem restoration, and navigation. The bill passed the House on June 6th and is currently in the Senate.
- (4) The National Flood Insurance Program’s authorization was extended to July 31, 2018, by which Congress must reauthorize the program.

Regarding the Commonwealth of Virginia, there will be a ceremony held on June 22, 2018, at William and Mary for Governor Ralph Northam to sign legislation establishing a Special Assistant to the Governor for Coastal Adaptation and Protection. Delegate Hodges and Senator Lewis will be the new co-chairs for the Joint Subcommittee for Coastal Flooding. Mr. McFarlane also encouraged the Committee to consider actions they would like to see taken by the State in preparation for the next legislative session.

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

Mr. Tom Leahy, City of Virginia Beach, stated that the City is currently researching policy and structural options as part of their Comprehensive Sea Level Rise and Recurrent Flooding Analysis and Planning Study. Public outreach will begin in the summer or fall of 2019. The City's Stormwater Master Plan is also anticipated to be presented to City Council in the next year.

Ms. Pittenger shared that the City of Portsmouth will be installing a network of sensors to monitor flooding along roads within the next year. The City has also selected Arcadis as their consultant for resiliency projects.

Mr. Smith stated that approximately 60% of the flooding control project design for Ohio Creek is complete. A draft environmental impact review is being prepared for the state, and construction will likely begin in September.

Ms. Geissler shared that James City County will be piloting a grant program to fund homeowner mitigation actions, including floodproofing, for Repetitive Loss Properties.

Mr. Shar stated that 8 of 9 StormSense sensors have been installed for the City of Newport News.

Mr. Terence Milstead, Resilience Action Partners, updated the Committee on several upcoming FEMA events and activities regarding flood risk communication, including:

- Hampton Roads flood insurance roundtable (Fall 2018)
- FEMA open house (August-Oct. 2018)
- Production of a YouTube video highlighted mitigation actions in Poquoson
- Development of a story map regarding mitigation actions across Hampton Roads

Mr. Milstead stated that FEMA is interested in partnering with state and local governments for these events.

12. Other Matters

The next meeting of the Coastal Resiliency Committee will be held September 28, 2018.