

**THE DRAFT SUMMARY OF THE MEETING OF THE  
HRPDC COASTAL RESILIENCY COMMITTEE  
September 27, 2019**

**1. Summary of the June 28, 2019 Meeting of the Hampton Roads Coastal Resiliency Committee**

The summary and attendance record for the June 28, 2019 meeting of the Hampton Roads Coastal Resiliency Committee were approved as distributed.

**2. Public Comments**

There were no public comments.

**3. FY21 Coastal Resiliency Program Budget**

Mr. Ben McFarlane, HRPDC, reviewed the proposed FY21 Coastal Resiliency Program Budget. The technical staff budget, based on 1.4 FTE staff positions and training and hospitality, is the largest component of the budget. The budget includes an additional year of funding for USGS subsidence monitoring, continued media campaign and content development for regional flood insurance outreach, and additional project funding to support various initiatives, such as the regional roadway flood sensors network. Rollover funds from previous years include \$10k allocated for a Virginia Sea Grant intern that were not used in FY20. This funding would provide matching funds if selected to host a Sea Grant intern in FY21.

Ten locality representatives in attendance unanimously approved the budget as distributed. Votes from committee members of the seven remaining localities who were not present will be collected via email in accordance with the committee's guidelines.

**4. First Floor Elevations**

Ms. Ashley Gordon, HRPDC, provided an update on the regional first floor elevation (FFE) initiative. The first phase of the initiative, completed in February 2019, included the creation of a regional GIS database of information from elevation certificates that informed the development of predictive models for estimating FFE in Hampton and Chesapeake. Phase two is now underway and includes three primary goals: 1) update and expand the geodatabase of elevation certificate information, 2) continue to evaluate FFE estimation approaches, and 3) apply FFE estimates to coastal hazard vulnerability assessments in pilot communities. Both phases of the initiative were funded, in part, by the Virginia Coastal Zone Management Program.

Ms. Gordon presented methods and preliminary results of the phase two analysis. York County was selected as a pilot community given the availability of additional elevation certificates. A model that predicts first floor height (FFH) above lowest adjacent grade was developed for York County using the methodology from phase one with a different foundation code scheme, which differentiates structures with a living space elevated above a garage. In addition to the

predictive modeling, the accuracy of FFH estimates derived from Google imagery measurements and stair counting are also being evaluated through comparison to elevation certificates. The FFH estimates are being applied in a flooding vulnerability analysis through FEMA's Hazus software and an open-source tool currently under development, referred to as the Flood Assessment Structure Tool (FAST). The preliminary results for York County indicate the building losses from flooding are over \$10M greater when using default Hazus FFH values than when applying custom FFH estimated from local data. An approach that investigates a range of possible FFH values for a given structure with losses weighted by probability is also being explored to help capture the uncertainty in FFH estimates. The vulnerability analysis for York County and additional pilot communities of Chesapeake and Hampton will be completed this fall, and the phase two report will likely be available this winter.

Ms. Whitney Katchmark, HRPDC, asked if there was interest from the Committee in supporting a more standardized foundation type code scheme regionally for the assessor databases. Mr. Kyle Spencer, City of Norfolk, noted that the City uses a system with specific coding schemes based on the percent of the building that is crawlspace. Comparing the different systems used by locality assessors would help determine what type of foundation codes could be feasible within the existing local frameworks.

Mr. Brian Swets, City of Portsmouth, asked if other depth grids apart from the FEMA 100-year flood could be applied to the analysis. Ms. Gordon responded that the FAST tool allows for custom depth grids to be applied in .tif formats. All that is required to run the FAST tool is a CSV of structure information and a depth grid.

## **5. Regional Legislative Agenda**

Ms. Whitney Katchmark, HRPDC, provided an overview of proposed items related to coastal resiliency for inclusion in the 2020 regional legislative agenda. The first request is for state funding to be made available for local governments to use as matching funds for federal funding programs. Programs requiring local match include JLUS/OEA implementation grants, U.S. Army Corps of Engineer (USACE) projects, and the Defense Community Infrastructure Program.

The second proposed legislative request is that the Commonwealth establishes a State Resiliency Assistance Fund. This fund could be modeled on the existing Stormwater Local Assistance Fund (SLAF), where projects are funded based on established criteria. HRPDC staff has established draft project criteria that will be distributed to the Committee for review. Rear Admiral Ann C. Phillips (Ret.), Special Assistant to the Governor for Coastal Adaptation and Protection, noted that the previously state appropriated matching funds for USACE 3x3x3 studies were used to support a study in Northern Virginia given the timing of the fiscal year. Ms. Phillips supports discussing criteria for a State resiliency fund and who would have access to the fund so that action can be taken more quickly if funding becomes available.

The third proposed legislative request is for state or federal funding to create regional planning capacity around resiliency issues, including actions such as data collection, analysis, and project

prioritization. Mr. McFarlane noted that currently all eight Planning District Commissions in the Virginia coastal zone receive technical assistance funding through the NOAA Coastal Zone Management Program, and potentially a broader scope could be developed. Ms. Phillips noted that Virginia is the only state participating in the federally funded Coastal Zone Management Program that does not allocate state funds to support the program.

Ms. Katchmark noted that these legislative requests were developed through discussions with the elected officials Coastal Resiliency Subcommittee and Chief Administrative Officers. All Committee members present endorsed recommending these items for inclusion in the regional legislative agenda.

#### **6. Surry Comprehensive Plan**

This agenda item was removed, and will be presented by Matt Smith, HRPDC Senior Regional Planner, at the December Coastal Resiliency Committee meeting.

#### **7. Regional Flood Sensors**

Ms. Katchmark updated the Committee on the proposal for developing a regional sensors network to monitor roadway flooding. In the latter part of July, a Request for Information (RFI) was published by the HRPDC to gather information from providers regarding options to collect and manage roadway flooding data. The RFI closed August 27, 2019, with 10 responses received. Ms. Katchmark noted that there were a variety of equipment options presented, and a primary challenge is determining how to integrate the flooding data collected with the Waze mobile navigation application. Ideally the flooding data would be automatically reported through Waze since this is a commonly used application; however there were no reported examples of this service in the RFIs. The RFI responses include an estimated timeline to install a system that has 20 functioning sensors. Ms. Katchmark will convene the technical working group to review the RFIs and discuss next steps to develop a Request for Proposal.

#### **8. Resiliency Project Dashboard**

Ms. Gordon updated the Committee on the initiative to track resilience projects across Hampton Roads. The project inventory included in the Resilience Projects Dashboard is now available on the regional GIS portal, HRGEO ([www.hrgeo.org](http://www.hrgeo.org)), under the Coastal Resiliency topic. The inventory of over 300 projects submitted by 12 localities is available for download as a shapefile or spreadsheet, and also as a map service. The previous Planned project status category has been replaced with Programmed. The Programmed category includes projects that are documented in approved Capital Improvement Programs/Plans (CIP), but have not yet entered the design or construction phase. Proposed projects have been documented in a plan, but not yet approved through a CIP. The summary statistics in the Dashboard have been updated since the June 28, 2019 meeting. Cost information was added for several projects and project status was updated where necessary. The next data call will likely be in November 2019.

The existing project inventory for each locality will be distributed for review to update existing projects or include additional projects.

Mr. Brian Lewis, City of Hampton, asked that a list of project types included in the Dashboard be provided in the data request email. Ms. Gordon also noted that projects completed within the past five years can be included in the inventory.

## **9. Coastal Resiliency Program Update**

Ms. Katchmark noted that the CAO's have expressed interest in hiring a consultant to work on regional issues concerning federal resiliency policies, especially related to USACE and FEMA programs. Committee members with suggestions for potential issues or policies to track should submit them to HRPDC

Mr. McFarlane stated that at the June Coastal Resiliency Committee meeting, the Committee discussed the idea of drafting a regional stormwater management policy that could be formally adopted by the Commission. HRPDC staff is working to draft this policy and will distribute it to the Committee for review when available.

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

Mr. McFarlane referenced the "Soggy Socks" bill (HB 2506), introduced by Delegate Hodges last legislative session, as a topic that may be re-visited in the upcoming 2020 legislative session. The bill as proposed previously would allow fill to be placed in certain low-lying areas within 50 landward feet of Resource Protection Areas on residential property. Ms. Katchmark noted this may be in conflict with local Chesapeake Bay ordinances. Ms. Emily Steinhilber, Old Dominion University, noted that the Virginia Institute of Marine Science and William & Mary are working with Delegate Hodges to conduct a pilot study related to this topic.

Mr. McFarlane noted a previous report was released by the Center for Progressive Reform earlier this year analyzing the risk of toxic floodwaters resulting from hazardous materials within the James River Watershed. This analysis did not account for the type of material or how it is stored, which highlights an area for further research.

Mr. McFarlane noted that the Virginia Coastal Master Plan will not be available for the Virginia Coastal Policy Center Conference (VCPC), but may still be complete in time for the 2020 General Assembly Session.

Mr. McFarlane stated following the VCPC Resilience Funding Forum in May 2019, the coastal Planning District Commissions expressed interest in hosting individual financing workshops. Topics of interest from the Forum included the concept of a state insurance pool and financing options that do not conflict with locality debt capacity. Ms. Angela King, VCPC, noted they are aiming for the Hampton Roads workshop to be held in the spring of 2020 after the state Coastal Master Plan is available. Recorded presentations and PowerPoints from the VCPC Resilience Funding forum are available on the William & Mary Law School website.

Mr. John Sadler, HRPDC, and Ms. Danielle Spach, HRPDC, noted the first meeting to develop the grant application and scope of work for the regional Hazard Mitigation Plan 2022 update will be held October 10, 2019. The local Emergency Managers are leading the effort and support a collaborative process that considers a wider scope. Committee members interested in joining the Hazard Mitigation Plan steering committee should notify Mr. McFarlane.

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

Ms. Toni Alger, City of Virginia Beach, introduced Mr. David Bradley, Acting Deputy City Manager for Infrastructure for the City of Virginia Beach, to the Committee.

Ms. Judy Hinch, City of Chesapeake resident, emphasized the importance of mitigating carbon dioxide emissions. Ms. Hinch highlighted the need for funding tree planting efforts to support carbon reductions.

Mr. McFarlane noted the next Hampton Roads Adaptation Forum will be held at the Old Dominion University TED Constant Center on Friday, October 11<sup>th</sup> from 8:30am-3:00pm.

Mr. McFarlane also stated that registration is open for the 2019 VCPC Conference. The Conference will be held Friday, November 15, at the William & Mary School of Education.

#### **12. Other Matters**

The next meeting of the Coastal Resiliency Committee will be held December 13, 2019.