

**THE DRAFT SUMMARY OF THE MEETING OF THE
HRPDC COASTAL RESILIENCY COMMITTEE
JANUARY 29, 2016**

1. Public Comments

There were no public comments.

2. HRSD's Aquifer Replenishment Study

Mr. Ted Henifin, General Manager for the Hampton Roads Sanitation District, gave a presentation to the Committee on HRSD's proposal for sustainable water recycling. Wastewater would be treated to better than drinking water standards using state-of-the-art methods and then injected into deep aquifers. If implemented, the proposal could help Hampton Roads and coastal Virginia with several issues, including groundwater depletion, Chesapeake Bay cleanup, and land subsidence. The total cost for implementing the project is estimate at \$1 billion, with another \$21 to \$43 million for annual operating costs. Next steps for the process include engaging with stakeholders, modeling and quantifying impacts, evaluating geochemistry and water treatment technologies, and developing a demonstration-scale project. The project could be fully operational by 2030, with approximately 120 millions of gallons per day put into the aquifer.

Mr. John Horne, James City County, asked what the biggest impediment to the project was and where injections would occur. Mr. Henifin stated that the biggest issue is public acceptance – getting over the “yuck” factor – for the general public and for unpermitted well users. Injections would occur at each treatment plant involved in the project.

Mr. Garrey Curry, Gloucester County, asked if there were any concerns about artesian wells. Mr. Henifin stated that this is an issue that needs to be studied more.

Mr. Eric Martin, Chesapeake, asked if the nutrient load reductions are feasible. Mr. Henifin replied that early discussions are promising; HRSD's reductions are quantifiable and would be consistent moving forward compared to stormwater BMPs, which may or may not perform as expected.

Mr. Curry asked if it is possible to growth the injection capacity. Mr. Henifin replied that HRSD is not seeing growth; under large storm events HRSD would bypass the injection system and discharge treated wastewater as it does now. There is a lot of capacity in the system as is.

Mr. Brian Swets, Portsmouth, asked what the catch was in getting this implemented. Mr. Henifin stated that the biggest hurdle is convincing the regulators and the public. Implementation will require EPA to HRSD prioritize this project over its current list of overflow projects.

Mr. Horne asked if the Commission had been briefed yet. Mr. Henifin replied that he will be briefing the CAOs next week and the PDC board in February.

3. Committee Structure and Scheduling

Ms. Whitney Katchmark, HRPDC, briefed the Committee on the proposed HRPDC Coastal Resiliency Program. The staff recommended that the Commission establish an advisory committee that can direct the program, create a regional program with defined objectives, and consider funding options for the program. The HRPDC staff previously identified a list of potential projects through discussions with other committees. Of these projects, the CAOs identified mapping existing recurrent flooding and developing regional criteria for adaptation projects. Members of the committee should have technical knowledge, local policy knowledge, and authority to engage with other communities and help make decisions on behalf of their localities and the region. Examples of decisions this group will be expected to make include whether or not to do a project, how the results should be presented and/or distributed, and how to fund projects or pursue grants and partnerships. Ms. Katchmark recommended that the new program be established through a Memorandum of Agreement modeled on the Regional Stormwater Program. As part of this program, the HRPDC staff would initiate research, analysis, and policy development and locality representatives would set objectives and vet projects. Projects would be completed by the HRPDC staff, consultants, and state and federal agencies. The HRPDC staff will be presenting funding options at the CAO meeting in February.

The Committee concurred with having quarterly meetings and requested to adjust the month in which meetings would be held. Meetings will be held on the fourth Friday in March, June, September, and December. Informal work group meetings will be held off months.

4. HRPDC Work Program

Mr. Ben McFarlane, HRPDC, briefed the Committee on current, upcoming, and proposed projects the HRPDC staff is working on related to resiliency. Current efforts include:

- 1) The ODU pilot project,
- 2) A land subsidence study with the U.S. Geological Survey
- 3) Developing a proposal for a Regional GIS with HRSD, ODU, and locality staff,
- 4) Supporting the HRTPO staff working on an analysis of the regional transportation network's vulnerability to sea level rise storm surge

- 5) Coordinating the Hampton Roads Adaptation Forum with Old Dominion University and Virginia Sea Grant
- 6) Developing recommendations to change FEMA policies for raising homes

Upcoming projects include

- 1) Mapping areas already vulnerable to recurrent flooding
- 2) Developing criteria for regional projects
- 3) A Joint Land Use Study focused on sea level rise with the U.S. Navy, Norfolk, and Virginia Beach
- 4) A Coastal Hazards policy report with the Coastal Zone Management Program

Potential projects include:

- 1) Multi-jurisdictional feasibility studies with the U.S. Army Corps of Engineers
- 2) Additional Dutch Dialogues workshops or similar efforts

Mr. Martin stated that one thing the HRPDC could help with is to “deconflict” some of the various overlapping efforts going on in the region.

Ms. Michelle Hamor, USACE, expressed support for the regional GIS effort.

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

Mr. Ben McFarlane, HRPDC, updated the Committee on relevant state efforts. The Joint Subcommittee to Formulate Recommendations to Address Recurrent Flooding made several recommendations for the General Assembly to consider, including:

- Extending the subcommittee for two more years
- Providing funding or tax relief for living shorelines
- Appointing a stand-alone resiliency officer
- Requiring a state resiliency plan
- Establishing VIMS and ODU as a “Center for Coastal Resiliency”
- Funding a 3x3x3 study for Norfolk with the U.S. Army Corps of Engineers

The Governor’s Climate Change and Resiliency Update Commission made its recommendations to the Governor in August. Governor McAuliffe approved two of those recommendations:

- Creating a state clearinghouse for climate change information
- Establishing a renewable energy target for state agencies

Ms. Hamor mentioned that VDEM will be scheduling meetings with localities to update the Hurricane Evacuation Study.

6. Regional Efforts with Federal Entities

Mr. McFarlane briefed the Committee on potential partnerships with federal agencies. The HRPDC staff has had discussions with the Norfolk District, U.S. Army Corps of Engineers, about regional or multi-jurisdictional feasibility studies. The HRPDC staff is also working with Norfolk, Virginia Beach, and the U.S. Navy to develop a proposal for a Joint Land Use Study that would focus on sea level rise planning and adaptation.

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

Mr. Martin reported that the USGS has installed additional tide gauges in Western Branch and the canal, which allow the city to forecast both the level and timing of high water. The city also applied for funding from the HUD National Disaster Resilience Competition, but was not successful. The city now has projects, including buyouts, roadway elevations, living shorelines, and flood-proofing, that are ready to go if funding becomes available.

Mr. Curry reported that USGS has recently installed a new tide gauge in Mobjack Bay.

Mr. Pete Peterson, Hampton, reported that the city has developed a work plan to implement the recommendations the city received from the Dutch Dialogues workshop in June 2015; the city will be partnering with Waggoner and Ball Architects on the effort. Mr. Peterson commented that the recent JLUS with Langley AFB was helpful in identifying projects and rule changes to pursue.

Mr. Alan Archer, Newport News, reported that the city is installing water sensors as part of its automatic meter reading program to help with addressing flooding.

Ms. Hamor reported that the Norfolk District will sign a cost-sharing agreement with the City of Norfolk next week. Ms. Hamor is also organizing a multi-hazard tournament to help identify potential solutions for flooding on the Peninsula.

8. Other Matters

The next meeting of the Coastal Resiliency Committee will be held in March 2016.