

**THE DRAFT SUMMARY OF THE MEETING OF THE
REGIONAL ENVIRONMENTAL COMMITTEE
October 3, 2013**

1. Summary of the September 5, 2013 Meeting of the Hampton Roads Chesapeake Bay and Regional Stormwater Management Committees and Chesapeake Bay Implementation Subcommittee

The Summary of the September 5, 2013 Meeting of the Hampton Roads Chesapeake Bay and Regional Stormwater Management Committees and Chesapeake Bay Implementation Subcommittee was approved as distributed.

2. Public Comments

There were no public comments.

3. James River Water Quality Study Presentation

Mr. Clifton Bell, Brown and Caudwell, gave a presentation to the Committee on DEQ's Chlorophyll-*a* study. The study is being conducted under the review of a study stakeholder advisory group. The study was prompted when EPA's TMDL model predicted non-compliance, which resulted in large nutrient reduction requirements that could cost \$1-2 billion. DEQ and other stakeholders had several issues with the findings, so the General Assembly provided funding for a study to reexamine the existing Chlorophyll-*a* standard. The study has four goals: revise the modeling framework, re-assess the Chlorophyll-*a* criteria, assess attainability of the criteria, and revisit the James River TMDL allocations. The study was initiated in 2011 and is currently in the monitoring and model development phase. The findings and criteria developed in this phase are expected to be assessed in 2014-2016, which will also be when the group develops regulatory proposals. The aim is for those proposals to be adopted in 2017 in time for the Phase III WIP.

A major focus of the study is linking water quality criteria to harmful algal blooms. For the upper estuary, the group has learned that microcystin rarely exceeds VDH thresholds for recreational impacts; it can exceed guidelines for consumption of blue crab, but no blue crabs are harvested in the upper estuary. It is not known if microcystin is transported downstream. The focus for the upper estuary in 2013 has been measuring the impacts of microcystin on aquatic life. Some impairments, such as unbalanced algae population, may exist, but impairments in terms of nuisance conditions and algal toxins exceeding recreational thresholds do not exist. Research is still ongoing to determine aquatic life impacts.

Research on the lower estuary has looked at spring and summer algal blooms. The typical spring bloom is generally confined to the Oligohaline and Mesohaline segments of the James. The typical summer bloom appears to begin in the Lafayette and Elizabeth Rivers and move into the main stem of the James. Chlorophyll-*a* spikes have been

associated with rain events in the Lafayette. The findings appear to have implications for both stormwater management and point source pollution management, but modeling and predicting the high blooms has not been successful. However, the research that has been done so far suggests that the future criteria and assessment will be an improvement over the existing criteria.

Ms. Jennifer Reitz, HRSD, asked if the study is using data from 2005 to 2011. The group is using the data to calibrate the model.

Ms. Whitney Katchmark, HRPDC, asked if the conditions in the James were affecting the Chesapeake Bay main stem, and if so, how. The current research by the group is only looking at the James River, since the Chesapeake Bay model addresses the bay. EPA needs to resolve the differences at the boundary between the James River and the main stem.

4. Norfolk Naval Station Flooding Study Presentation

Ms. Kelly Burks-Copes, U.S. Army Corps of Engineers, gave a presentation to the Committee on a study conducted by the USACE's Engineer Research and Development Center (ERDC) with funding from the Strategic Environmental Research and Development Program (SERDP), a joint effort between the Department of Defense, the Department of Energy, and the Environmental Protection Agency. Ms. Burks-Copes noted that the 5th assessment report from the Intergovernmental Panel on Climate Change has just been released, and that the Navy is discussing the impacts of sea level rise on its bases around the world.

The Norfolk Naval Station study did not model climate change; it assumed various scenarios of seal level rise and calculated projected impacts based on those assumed conditions. The study used a systems approach to measure the impacts on the various infrastructure and service systems that directly affect ships in port. However, transportation was not included. One finding from the study is that storm flooding will last longer due to a rising water table, which will increase both ponding and strain on the base's stormwater management system. The study also included a fragility analysis to identify which systems and components are most susceptible to damage or halts in operation. The study's risk assessment allows for prioritization of potential adaptation measures through the use of tipping points and understanding the lifetime of various infrastructures versus the risk of those facilities being damaged.

Ms. Burks-Copes closed by saying that her research team will be working with the Navy on a global assessment of their bases using a high level analysis to identify vulnerable facilities, which will then be studied in greater detail. She also stated that much of the work done for the Norfolk study, such as the regional storm scenarios that were modeled, could be utilized by the rest of the region; an example was the application of the storm scenario to show the vulnerability of NASA Langley to storm surge and sea level rise.

Ms. Ellen Roberts, Poquoson, asked about the NASA Langley work, and if a separate model was run for that facility. The storms were modeled for the whole region; the visualization was moved to show the impacts to Langley. Ms. Burks-Copes also noted that Norfolk is significantly worse off than most federal facilities in the region, but not the worst off. Ms. Roberts also asked if the model could be used for groundwater drinking supplies. The Corps and EPA have started looking at it. There are some impacts on the East Coast, but the bigger issues are subsidence and the loss of coastal areas. The model could be used in this case.

Ms. Katchmark asked if the groundwater table was modeled for the whole region. The model was very good for the base, but did not really look at the rest of the region. The model utilized well data. The model also needs grassy areas to probe, so data on the base is difficult to get due to the large amount of impervious cover. Ms. Katchmark then asked if the study mapped the groundwater table outside the base for the entire region. The study modeled the groundwater table for the base. Ms. Katchmark asked if the data is available for local governments to use. Ms. Burks-Copes stated that some of it is classified and some proprietary, so it would depend on the data being asked for. Modeling the groundwater table for the region would depend on the money available and the risk/uncertainty allowed for in the analysis.

5. Coastal Zone 309 Grant Project Update

HRPDC staff updated the Committee on the Coastal Zone Section 309 grant project. The final report has three sections: coastal zone BMPs and development practices, ordinance assessments and recommendations, and GIS modeling of development alternatives. The first section will include regional reference maps of soil slopes, soil types, and depth to water table. It will also include a section on environmental site design practices and a section on the suitability of various stormwater BMPs for use in the coastal plain. The second report section includes an assessment of local ordinances using the CWP Code and Ordinance worksheet, described in the Year 1 report, and recommendations for various modifications to Norfolk and Suffolk ordinances and policies.

The report will be presented to the Committee at the November meeting for its consideration and recommendation.

6. Coastal Zone Program Update

Mr. Benjamin McFarlane, HRPDC, updated the Committee on several in-progress coastal zone grant applications. The Technical Assistance and 309 grants for FY13-14 will start October 1. The competitive grants for sea level rise and native plants will need some minor modifications to the budgets and deliverables, and will begin later in the year. There has also been an announcement/notice of funds availability for the Coastal and Estuarine Lands Conservation Program for FY14.

7. Stormwater Monitoring for James/Elizabeth River PCB TMDL

Ms. Katchmark briefed the Committee on an opportunity to collect stormwater monitoring data for PCBs in Hampton Roads to help inform the PCB TMDL for the James and Elizabeth Rivers. HRPDC staff worked with local stormwater staff to gauge interest and identify six sites for monitoring. These sites represent a variety of land uses around the region. The proposal that HRPDC staff have put together will fund the monitoring using unspent money from the current HRPDC stormwater budget; HRSD estimates the cost for collecting the data to be about \$20,000. DEQ is funding the analysis of the data. The Committee voted unanimously to amend the current budget to use unspent funds to cover the monitoring and data collection. HRPDC staff will meet with DEQ, HRSD, and interested localities to finalize the details.

8. FY 15 Stormwater Budget

Ms. Katchmark briefed the Committee on the proposed FY15 Stormwater Budget. The total budget increased by \$11,000. PARS and legal support will be funded by reserve stormwater funds. Funding for a part-time position was included in the FY15 budget. Hampton staff stated that they would prefer not to fund an additional position; they would prefer to hire consultants to handle the surge in stormwater work.

Twelve localities voted to approve the budget, two abstained from the vote to seek input from their localities; the rest of the localities were not present at the meeting. HRPDC staff will contact the non-voting localities to get their votes.

9. Status Reports

Ms. Jai McBride, HRPDC stated that the first stakeholder meeting for the Regional Strategic Plan was held on Monday, September

Mr. McFarlane reminded the Committee that there is training session on Comprehensive Coastal Resources Management Plans following the meeting.

Mr. Clay Bernick, Virginia Beach, reported that Virginia Beach held a public meeting to inform citizens about changes to the Virginia Stormwater Management Regulations and Programs. Kimley-Horn staff gave a presentation at the meeting. There were no questions asked at the meeting; the changes do not appear to have registered with the public yet.

Isle of Wight staff reported that Don Jennings is the new County Engineer.

Hampton staff reported that they held a stakeholder meeting on the 24th, and agreed with Mr. Bernick's assessment that the public does not get the changes yet.

Gloucester staff reported that they are holding an information sessions on the stormwater changes on October 24.

Mr. David Imburgia, Hampton, asked Ms. Burks-Copes if the products she described could be used at the city/county level; they can. Mr. Imburgia asked if they can be used across the fence. No, there is no access to military assets. Mr. Imburgia asked if the “dial-a-storm” feature can increase uncertainty of climate change. The model includes simulated storms, but could be run with a historical storm, and can also upscale/change the uncertainty.

Mr. Noah Hill, DEQ, reported that local program packets are due to DEQ December 15 and that everyone should have received checklists from DEQ. New stormwater training dates for basic and inspectors have been established for sessions in Chesapeake, Norfolk, and Williamsburg. Hampton staff stated they have not received their certificates and that the knowledge center does not appear to be working. Mr. Hill stated he would look into it. The application for Phase II grants will be out soon.

The Committee asked if the boundaries used by DCR are being changed by the transition to DEQ. The old DCR boundaries are still being used for ESC and Stormwater, but will change in the future.

There is an open position for a climate specialist at DEQ; the announcement closes November 11. Information is available on the DEQ website.

Mr. Scott Rae, Gloucester, asked, concerning the stormwater packet submittals, when DEQ will get back to localities. DEQ has 120 days to review the submittals, but the final packets are due April 15. Mr. Hill stated that they will probably get back to localities within 30 days.

Mr. Bernick reported that the Virginia Beach Planning Commission will be looking at floodplain ordinances changes and stormwater changes at their meeting next week. The City is considering requiring a base flood elevation +3 feet requirement. The City is also working with Chesapeake and Currituck County on a greenway effort for the North Landing River.

10. Other Matters

The next meeting of the Regional Environmental Committee is scheduled for November 7, 2013 at the HRPDC office in Chesapeake, Virginia. Materials will be sent in advance for review.