

**THE DRAFT SUMMARY OF THE MEETING OF THE
HAMPTON ROADS CHESAPEAKE BAY COMMITTEE, THE
REGIONAL STORMWATER MANAGEMENT COMMITTEE AND THE
CHESAPEAKE BAY IMPLEMENTATION SUBCOMMITTEE
June 6, 2013**

1. Summary of the May 2, 2013 Meeting of the Hampton Roads Chesapeake Bay and Regional Stormwater Management Committees and Chesapeake Bay Implementation Subcommittee

The Summary of the May 2, 2013 Meeting of the Hampton Roads Chesapeake Bay and Regional Stormwater Management Committees and Chesapeake Bay Implementation Subcommittee was approved as distributed.

2. Oyster Restoration as a Potential Nutrient Removal Strategy

Dr. Mark Luckenbach, Virginia Institute of Marine Science (VIMS), gave a presentation to the Committee on the state of the science concerning the ability of oysters to provide nutrient reductions in the Chesapeake Bay, specifically in terms of helping localities and others meet water quality improvement goals. In general, oysters can provide significant water quality benefits; however, these benefits are probably not as high as has been previously discussed or hoped. Oysters actually do not filter nitrogen (N) out of the water; they filter phytoplankton containing N, with some of this N eventually exiting the water via denitrification. Denitrification using oysters appears to have some promise, as shown by several recent research studies, but there appear to be significant gaps in information. This promise prompted the Chesapeake Bay Program to request a review by the Science and Technical Advisory Committee on the use of shellfish as a method of nutrient reduction. This has included a review of recent research on denitrification at both oyster reef restoration and aquaculture sites. In general, the STAC found that denitrification rates for oyster reefs outperformed adjacent sites lacking oysters reefs, but that many factors, such as oyster biomass and tidal exposure, have not been quantified. Shellfish aquaculture should be able to provide nutrient reductions, but may not provide significant reductions. Further research is needed.

Mr. Bill Johnston, Virginia Beach, asked if the solution was just to put in more oysters. Dr. Luckenbach stated that you can't go wrong with planting oysters, given all the benefits they provide.

Mr. Keith Boyd, USDA, asked how sanctuary reefs differ from spat-on-shell. Dr. Luckenbach stated that there are many ways to do oyster aquaculture, including floating trays, rack and bag systems, bottom cages, and spat-on-shell. Mr. Boyd followed up, asking if the results from spat-on-shell restoration projects could be applied to aquaculture. Dr. Luckenbach stated that you could not, because spat-on-shell aquaculture involves too frequent harvesting, but that there might be enhanced rates with the spat-on-shell aquaculture beyond other forms of aquaculture. More research is needed.

Mr. Roger Everton, DEQ, asked if data was readily available for specific harvesting locations. Dr. Luckenbach stated that the data should not be hard to get from VMRC.

Mr. Chris Moore, Chesapeake Bay Foundation, asked how many reference sites would be needed in the Lynnhaven River to make a good comparison. Dr. Luckenbach stated that you would need enough representative types to test all the types of restoration; none of the studies done so far have included many reference sites.

Mr. Andrew Scott, VDOT, asked if there were data on the many different water quality benefits from oysters. Dr. Luckenbach stated that oysters do provide a range of ecosystem services and that there is plenty of data, but that it is not necessarily from the Lynnhaven.

Mr. John Paine, URS, asked what the removal rate was for the 1% nutrient reduction slide. Dr. Luckenbach stated that the rate was between 50 and 60 lbs./acre. Oysters are not a cheap way to get nutrient reductions.

Mr. Moore asked about the Kellogg study that had a density of 100 oysters/square meter. Dr. Luckenbach stated that there were no sites like that in the Chesapeake Bay and that more oysters do not necessarily increase the denitrification rate (it appears to cap between 50 and 100 oysters/square meter).

HRPDC staff will make Dr. Luckenbach's presentation available on the HRPDC website.

3. Coastal Zone Management Update

HRPDC staff provided an update on programs and projects funded by the Virginia Coastal Zone Management Program. Competitive grant applications from Coastal Zone PDCs are due July 12. HRPDC staff has developed two proposal concepts for consideration by the Committee. The first would coordinate and develop a native plants campaign between local governments, state agencies, the private sector, and non-governmental organizations. The Committee suggested working with nurseries, retailers, wholesalers, and landscape architects, identifying current efforts and gaps, and studying availability. Ms. Barbara Brumbaugh, Chesapeake, suggested connecting native plants to water quality BMPs.

The second concept is to continue HRPDC's coastal resiliency work by providing analysis and technical assistance to localities as needed. This would include updating maps and vulnerability results as new data becomes available.

Mr. Johnston mentioned that Virginia Beach may have a public access project to consider and that HRPDC staff should contact Mr. Clay Bernick.

The Committee recommended moving forward on all three proposals and selecting the best two.

HRPDC staff also updated the Committee on the status of the HRPDC's Section 309 project. Staff continues to work on the three parts of the project: coastal plain stormwater BMPs, plan and ordinance policy development, and modeling of development impacts. The goal is to provide a more in-depth update to the Committee at the July meeting. HRPDC staff will continue to meet with locality staff and progress on the project.

4. Sea Level Rise Update

Mr. Benjamin McFarlane, HRPDC, updated the Committee on the Coastal Resiliency Final Report. The report summarizes the work completed under a 1-year competitive grant from the Virginia Coastal Zone Management Program. There are six main sections: sea level rise science, adaptive management, incorporating sea level rise into local plans, public education and outreach, and sea level rise mapping, as well as several appendices. The focus of the report is on providing recommendations to local governments on how sea level rise and adaptation can be addressed in existing local planning and policy documents and codes. The report also includes an updated mapbook of areas vulnerable to sea level rise in Hampton Roads. Two options, one using aerial photography and one using a road layer, were presented to the Committee for its consideration. The Committee recommended using the mapbook with roads. Due to a lack of time to review the report and the requirements of the grant, HRPDC staff asked the Committee to recommend that the Commission authorize HRPDC staff to submit the report to the Coastal Program to complete the grant and to give local staff additional time to review the report. The Committee voted to recommend the proposed action.

5. Status Reports

Mr. Skip Stiles, Wetlands Watch, announced that Wetlands Watch is will soon be releasing a study on household insurance and climate change in coastal Virginia.

Mr. Chris Moore, CBF, thanked everyone for participating in Save the Bay Day.

Mr. Noah Hill, DCR, announced that effective June 25 DCR staff in erosion and sediment control, Chesapeake Bay, and stormwater will be transferring to DEQ. The official start to DEQ being the regulatory agency for those programs will be July 1.

Ms. Jenny Tribo, HRPDC, announced that stormwater training will be held at HRPDC on July 30 and 31.

Mr. Scott Rae, Gloucester County, announced that Gloucester County is reorganizing its departments. Planning, zoning, codes compliance, and engineering (formerly part of public works), will be part of Community Development, which will be headed by the former county director of public works, Garrey Curry.

6. **Other Matters**

The next meeting of the Joint Environmental Committee is scheduled for July 11, 2013 at the HRPDC office in Chesapeake, Virginia. Materials will be sent in advance for review.