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To: Ben Grumbles, Chair
Maryland Climate Change Commission

Joanne M. Throwe, Deputy Secretary
Department of Natural Resources

From: Mark J. Belton, Chair
Adaptation and Response Working Group
Maryland Climate Change Commission

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Issue: June Climate Change Commission Meeting - High Level Issues

Maryland Climate Change Commission Members;

On behalf of the members of the Adaptation and Response Workgroup, I am pleased to submit to you the initial thoughts on “high level” issues identified by the Adaptation and Response Workgroup for the fall Commission report. Please do not consider these as an exhaustive list, as I would expect additional items will be identified as the workgroup develops the Annual Performance Targets to support our Comprehensive Strategy for Adaptation and Response.

- *Innovative Reuse Strategy for Dredge Material:* To identify opportunities where dredged material could potentially be used to enhance climate change resiliency – such as shoreline stabilization projects. The use of locally sourced dredge material for the implementation of coastal resiliency projects can be mutually beneficial and provide for a cost effective source of sand fill for marsh establishment.
- *Climate-Health Impact Strategy:* Seek opportunities to link community development projects that consider climate impacts and the health benefits that might be realized by certain development approaches. Pursue next steps on climate-health profile implementation activities.
- *Building and Site Design Criteria:* Support the Maryland Coast Smart Council in clarifying applications of the Council design guidelines in coastal areas and address riverine and non-coastal flooding issues via other avenues. Additionally, there is interest in working with local governments to examine where standards might vary between the State guidelines and those at the local level that might be more in line with the federal flood risk management guidelines (e.g. 3 foot freeboard).

- *Sea Level Rise Scenarios:* Work with the MCCC’s Scientific and Technical Workgroup to evaluate and incorporate sea level rise scenarios in the application of the Coast Smart planning principles, policy framework, and siting and design guidelines.
- *Siting and Design Education Campaign:* Work with the MCCC’s Education, Communication and Outreach Workgroup to develop and launch a Coast Smart Construction Education Campaign to engage local county and municipal officials; assess the needs of local jurisdictions; and, convey the need for climate change and sea level rise resilience measures.
- *Healthy Soils Initiative:* Soils are already huge stores of carbon, and improved management can make them even bigger. A recent study, published by a group of international scientists, suggests that using “soil-smart” techniques for soil management could sequester as much as four-fifths of the annual emissions released by the burning of fossil fuels. These techniques include planting crops with deep roots, which help keep soil intact and encourage the growth of microbial communities that help trap soil carbon, and using charcoal-based composts.
- *Adaptation Data and Applications:* Analyze and understand the latest scientific data collected at MD CBNERRs sites and gain a better understanding of what is happening at the reserve level and how it could be applied to the Bay as a whole. Work with the STWG to review data and understand applications.
- *Climate Change & the TMDL Mid-Point Assessment and Beyond:* Work in partnership with the MCCC Scientific and Technical Workgroup as well as through the Chesapeake Bay Program Partnership to: 1) Assess how climate change may affect current water quality standards (i.e., nutrient and sediment source loads over time); 2) Evaluate climate impacts on the effectiveness of existing water quality BMPs over time; 3) Explore the policy response options to address projected climate-related changes in water quality standards and; 4) Seek opportunities to prioritize BMP’s with ancillary “climate resilience” benefits.