

## **Maryland Coast Smart Council**

580 Taylor Avenue, Conference Room C-1  
Annapolis, MD 21401

### **Meeting Minutes**

September 1, 2016 9:30 a.m. – 12:00 p.m.

#### **Immediate Action Items**

- **Council staff will identify key issues, obstacles and actions discussed in previous meetings to inform Council recommendations and priorities for the next year.**
- **Council staff will contact appropriate members for agency updates over the next 2 weeks.**
- **Council members will begin thinking about where to forward the final report since audience will influence report format.**

#### **Council Members in Attendance:**

Acting Chair Matt Fleming, Department of Natural Resources  
Dr. Gerry Galloway, Jr., P.E. University of Maryland, College Park  
Sepehr Baharlow, P.E., Bayland Consultants and Designers, Inc.  
Mostafa Izadi, P.E., Department of General Services  
Gary Setzer, Department of the Environment  
Chris Elcock, GWWO, Inc. Architects  
Fiona Burns, Department of Budget and Management  
Sandy Hertz, Department of Transportation  
Mark James, Maryland Emergency Management Agency  
Richard Higgins, Department of Commerce  
Dr. Donald Boesch, University of Maryland, Center for Environmental Science  
Kate Charbonneau, Critical Area Commission

#### **Council Members Not in Attendance:**

Chair Mark Belton, Secretary of Natural Resources  
The Honorable Dennis Dare, Ocean City  
Pat Goucher, Department of Planning  
Thomas Lawton, Somerset County

#### **Council Staff in Attendance:**

Joe Abe, Department of Natural Resources  
Nicole Carlozo, Department of Natural Resources  
Catherine McCall, Department of Natural Resources

### **Guests in Attendance:**

Dave Guignet, Maryland Department of the Environment  
Perry Otwell, Department of Natural Resources  
Kristen Fleming, Department of Natural Resources  
Emily Vaineri, Department of Natural Resources/Office of Attorney General  
Richard Ortt, Department of Natural Resources/Maryland Geological Survey  
Sandi Olek, Department of Natural Resources

### **Welcome/Meeting Objectives**

Matthew Fleming called the meeting to order, reviewed the agenda, and highlighted the fact that Maryland state agencies are in the implementation phase of adaptation and mitigation. Joe Abe announced that he will be making a presentation to the Smart Growth Coordinating Committee on September 14<sup>th</sup> to review the Committee's role and discuss the Criteria Waiver request and review process. Fleming called for approval of the May meeting minutes.

### **Emerging Issues: Climate Science**

- Dr. Don Boesch from University of Maryland provided an update on state sea level rise projections and climate science since the 2013 state sea level rise report. Since 2013, the MCCC was re-codified and exists under statute with modified membership. UMD will update sea level rise (SLR) projections every 5 years and has already begun an initial analysis.
- Boesch noted that future warming (and related sea level rise) will depend on our actions today and called for mitigation to prevent Antarctic ice shelf melt. If we meet the Paris Agreement, then we can stabilize our warming, but we need to follow a specific emission pathway.
- The 2013 projections were developed by adjusting the National Academy projections to account for Maryland's land subsidence and ice melt impacts to the mid-Atlantic region. The reports recommends prudent planning for 2 feet by 2050. Boesch referenced the work of Dr. Bob Kopp of Rutgers University. Dr. Kopp's projections take probability distributions and emission scenarios into account. According to the Kopp's study, probabilistic SLR projections are estimated to be 2.2 – 4.1 feet by 2100 under a high emission scenario and 1.4 – 2.8 feet by 2100 under restrained emissions. The key point here is that emission reductions can affect future climate impacts and subsequently the extent of adaptation required.
- Boesch commented on the risk of high rainfall events, punctuated by drought events, and called on the Council to think about the interactions between rainfall, SLR, storm surge, etc.
- Gerry Galloway commented that different projections should be considered depending on the investment (i.e. nuclear base will have a different risk tolerance than other infrastructure)
- Jordan Loran commented that flooding will be impacted by development (example: Ellicott City flooding)

### **Emerging Issues: Ellicott City**

- Mark James from Maryland Emergency Management Agency provided an update on Ellicott City response and recovery following the July flood. A Small Business Association declaration was made, which provides low interest loans to small businesses. No individual or business assistance (i.e. in kind repairs) will be provided beyond this.

- Howard County is in the first Phase of the disaster declaration process. They are calculating preliminary damages that occurred during the initial storm. Damages to residents and businesses are excluded in the calculation. Only public infrastructure, facilities, etc. are considered.
- Howard County is also working on the second Phase of the disaster declaration process. They are calculating time spent on and equipment used for emergency response and have 120 days to report back. A threshold needs to be met based on population within Howard County (about \$8 million). Cost of Pennsylvania assistance is included. Maryland police and state agency assistance is now on standby until calculations are complete. Assistance from FEMA can be provided up to 75% of the costs.
- Mitigation assistance will depend on a declaration. Two types of FEMA assistance include:
  - 406 Hazard Mitigation provides public assistance to build back stronger and withstand greater impacts in the future. This funding will strengthen the community and mitigate impacts from future floods. Money can be used to mitigate upstream (bioretention, green roofs, rain barrel program, diversion of tributaries that run into Patapsco, underground storage, channel maintenance, etc.). Ellicott City has been working on identifying maintenance and mitigation needs, but projects have not been funded. The City will need to convince FEMA that damage was caused by the disaster and not by lack of maintenance.
  - 404 Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration on a 75% federal, 25% non-federal cost share basis. The HMGP assists states and local communities in implementing long-term hazard mitigation measures following a major disaster declaration. The 404 program does not necessarily apply to damaged facilities resulting from the current declared disaster. It focuses, rather, on repetitive damages from past disasters and funds new or improved facilities.
- A Risk Reduction meeting will be held with FEMA on September 21<sup>st</sup> in conjunction with the State Resiliency Partnership and the Silver Jackets. The group will discuss Ellicott City and how we can respond more efficiently and effectively in the future to similar events. The goal is to prevent the holding pattern that is occurring now while waiting for disaster declaration.
- Jordan Loran asked about how cost share works when there is assistance from other counties. James responded that a Maryland Emergency Agreement is needed between counties to share money that is provided by FEMA in the case of a declaration. An agreement exists between Maryland and Pennsylvania, which is why PA was able to offer assistance.
- Jordan Loran asked if the cost threshold is the same for any storm or hazard event. James clarifies that yes, the threshold is the same for any event, but varies by county based on population density.
- Multiple members asked if MEMA needs to be contact if DNR assists post event, and if state resources can contribute to meeting the threshold. James responded that yes, state resources are counted but need to be documented.

**Update on Implementation of Coast Smart Program: Procedural Manual for Professional Services**

- Mostafa Izadi from Maryland Department of General Services reported on the modified procedural manual for hiring architectural engineers (hard copies of the manual were provided).

- Izadi highlighted Appendix C, which relates to new construction or any project exceeding 50% market value. The structure must meet: First floor elevation 2 feet above the 100 year flood; water resistant below the 2-foot freeboard; critical infrastructure such as hospitals, emergency centers and national security buildings and roads should be 2 feet above the 500 year flood; and exterior walls need to withstand hydrostatic and hydrodynamic pressure from water and be water resistant if below the 100 year flood (focus on basements). Water also needs to flow in and out of basements without damage (minimum of 2 openings with size requirement).
- Dave Guignet reported that FEMA has released proposed regulations/legislation changes that are very similar to state climate change regulations. They would require 2 feet of freeboard in the floodplain and adjacent areas (buffer), and 3 feet of freeboard for critical facilities. Maryland may need to amend state regulations to be consistent, or keep new regulations in mind for projects leveraging federal funding. There are opportunities to comment on the proposed regulations now.
- Gerry Galloway clarified that the new regulations are the result of an executive order that is being pushed out now. Galloway reiterated the importance of considering probability in climate projections and the resulting regulations to prepare for impacts. The federal regulations focus on coastal flooding, but were written in a way that opens the door for dealing with riverine flooding when more information is available.
- Abe will send out a link to new federal regulations.
- Fleming asked the Council if the state has an inventory of infrastructure in flood risk areas. James reported that the update to the state Hazard Mitigation Plan was recently completed and included information on critical facilities in flood hazard areas.
- Boesch mentioned that Treasurer Kopp is interested in a check off requirement in Board of Public Works reviews, in addition to DBM review.

#### **Update on Implementation of Coast Smart Program: Critical Areas State Provisions**

- Kate Charbonneau, Critical Area Commission (CAC), provided an update on incorporation of sea level rise criteria into critical area regulations for state development projects. CAC was directed through an executive order to provide recommendations for state projects in critical areas. Charbonneau highlighted that the focus of this work is on state development actions.
- Regulations currently require early consultations with CAC. CAC revisited development standards and recognized that climate impacts will depend on types of activities.
- New recommendations focus on ecological features (buffer, wetland, natural features). Agencies must assess climate resilient practices that address coastal hazards, extreme weather events, sea level rise and other impacts. Four provisions are included in the new regulations for state development projects:

#### Climate Resilient Practices

“Shall demonstrate to the Commission that:

- (1) In determining the proposed location, the agency has considered the likelihood of inundation by sea level rise over the course of the design life of the development; and

(2) The development identifies and incorporates climate resilient practices in order to avoid or, in the alternative, minimize environmental and structural damage associated with a coastal hazard, an extreme weather event, sea level rise, and other impacts.”

#### Wetlands Migration Areas

“Preserve, protect, and maintain a potential wetland migration area:

- (1) Within the area of the development project; and
- (2) Adjacent to the area of the development project, if the agency owns the adjacent land or the adjacent land is within the agency’s legally enforceable right-of-way.”

#### Ecological Features & Coastal Protection

“If a detrimental impact to a potential wetland migration area is unavoidable, a State agency shall:

- (1) Demonstrate to the Commission why that impact is unavoidable;
- (2) Provide an assessment of the ecological features on-site that could be enhanced, restored, or created in order to maintain existing wetland functions and to provide additional protection against future sea level rise and coastal storm impacts; and

Make recommendations regarding the most feasible methods to address the detrimental impacts and the enhancement, restoration, and creation of natural features on-site.”

#### Public Access

“When an area of public access is established, a State agency shall demonstrate to the Commission that:

- (1) The location and design of the project will minimize impacts from coastal hazards and sea level rise; and
- (2) Long-term access has been considered.

- If these factors are not addressed, then the agency must demonstrate why and recommend restoration opportunities to mitigate development in sensitive areas. Projects should also maintain public access through location and design considerations.
- CAC is starting this process with a MOU with DNR and plans to learn from and document the process.
- Dave Guignet commented that this process may need to adapt if federal regulations and/or dollars change.
- Charbonneau clarified that CAC does not restrict the tools and data used for assessment and review. CAC can add to the review process for agencies over time as more information becomes available.

## **Update on Implementation of Coast Smart Program: Incorporating Criteria into Waterway Construction Regulations**

- Gary Setzer, Maryland Department of the Environment, provided information on the waterway construction statute that regulates non-tidal waterways. This effort ensures that projects do not increase flooding up or downstream while maintaining fish habitat and migration. MDE is considering integrating coast smart requirements into this preexisting regulatory program.
- MDE is considering adding coast smart definitions to existing regulations and incorporating 2-foot freeboard requirements for new and re-construction. Setzer noted that an alternatives analysis is already required and property purchase or easement is required if modeling shows an increase in flooding on a different parcel due to a project. Assessments must demonstrate that the project will not impact hydrology. Maintenance of water temperature is also already considered, which fits nicely with tree canopy maintenance. MDE is working with CAC for consistency in regulations. These regulations impact the non-tidal floodplain and result in freeboard requirements in nontidal areas.
- The Council discussed baselines and freeboard requirements based on the height of high tide.
- Boesch noted that storms that produce the most rain don't usually have high storm surge, and storms that produce the highest storm surge don't always have the highest rainfall.
- James noted that County Hazard Mitigation Plans usually address vulnerabilities and that the state can draw on local knowledge to focus mitigation resources.
- Gerry Galloway noted that change in infrastructure in one place will impact communities downstream, citing Ellicott City as an example.
- Terry asked if studies will be required for wetland impacts in nontidal areas. Dave Guignet replied that 90% of the relevant studies are already available. If changes are made to a non-tidal stream, then analysis is required. The stream doesn't have to be mapped in the floodplain for this requirement. Flood studies are also required if the project will impact other properties.

## **Update on Implementation of Coast Smart Program: Applying Coast Smart Criteria at DNR's Facilities and Parks**

- Jordan Loran, Maryland Department of Natural Resources Engineering & Construction, provided information of coast smart integration into development of state land. DNR is incorporating coast smart considerations into design programs. Loran discussed three examples: Harriet Tubman Underground Railroad State Park, Assateague State Park nature center, and Point Lookout State Park lighthouse restoration
- Gary asked about a previous presentation by Mary Owens on abandoning camp sites. Loran mentioned that DNR is assessing the long term viability of state park campgrounds. The state is considering moving campground roads away from dunes and widening the beach and dunes. The state is planning in the 30-40 year range. For bond-funded projects, the planning lifespan is required to be 15 years, but the state wants to go beyond the 15 year horizon and look 50-100 years into the future.
- Boesch asked if the National Park Service has a policy on substantial breaching. Loran replied that NPS is developing a long term management plan with 5 alternatives and discussing when to discontinue facility use.

## Coast Smart Council Draft Annual Report Update

- Fleming reiterated that these meetings have focused on state agency report-outs to help prepare the annual report and document progress. The annual report represents a tool for capturing the work of agencies in a digestible format.
- Abe provided an overview of annual report requirements from state agencies to the Council. The report is a feedback mechanism to gauge implementation progress. The draft's structure is based on the Maryland Green Building Council Annual Report. The Council needs to discuss the level of detail or specificity needed. Not many specific examples right now – projects are few because agencies are already avoiding these areas and the budget is tight so fewer projects were funded. Projects largely pass through DBM and MDOT, but there are a few projects that fall outside budget review process of these two agencies.
- Abe presented the timeline for report completion. The Council discussed that the report is meant for the Council, but will also be shared with the public.
- Fleming asked the Council to think about report recommendations and with who to share the report.
- Dr. Boesch commented the Council Activities section was far too long and detailed, especially the details regarding comments made by specific individuals. Abe responded that he anticipated that section might be too long and asked the Council for advice on how to pare it down: What were the salient points and what parts could be cut?
- There was a brief discussion of the report's intended audience. Abe responded that the initial report was from State agencies to the Council, so the Council is the audience.
- Kristen Fleming recommended that we anticipate the final audience (e.g. Board of Public Works or General Assembly)
- Joe Abe called on the Council to identify specific parts of previous discussions that are imperative to include. Dr. Boesch recommended that the report should identify progress and remaining issues, obstacles, etc. to be tackled based on previous meeting minutes.
- Fleming called for agency report additions to Joe over next 2 weeks. The Council will need to decide on group priorities for the next year and how to incorporate new science and tools.
- Abe reiterated the mission of the Council and asked the Council to think about how their mission might be re-visited or influenced due to report findings (ex. does the definition of critical infrastructure need to be updated?).

## Wrap Up

- Matthew Fleming closed the meeting by discussing the next working meeting, which will occur after Thanksgiving. The Council will review the draft report and recommendations and discuss priorities for the next year.