

Maryland Coast Smart Council
Maryland Dept. of Natural Resources
580 Taylor Ave., C-1
Annapolis, MD 21401

Meeting Minutes - Approved
September 16, 2014

The Coast Smart Council met at the Maryland Department of Natural Resources, 580 Taylor Ave., C-1, Annapolis, Maryland on September 16, 2014. Chair Joseph P. Gill was not in attendance. In his absence, Zoë Johnson acted as Chair.

Council Members in Attendance:

Jenn Aiosa, Maryland Dept. of Planning
Sepehr Baharlou, P.E., BayLand Consultants & Designers, Inc.
Fiona Burns, Office of Capital Budgeting, Maryland Department of Budget and Management
David Costello, Maryland Dept. of Environment
The Honorable Dennis Dare, Town of Ocean City
Chris Elcock, GWWO Inc., Architects
Dr. Gerry E. Galloway, Jr., University of Maryland, College Park
Keith A. Holmes, Department of Business and Economic Development
Mark James, Preparedness Directorate, Maryland Emergency Management Agency
Thomas J. Lawton, Somerset County
Margaret McHale, Chesapeake and Atlantic Coastal Bays Critical Area Commission
Don Halligan, Maryland Dept. of Transportation
Mostafa Izadi, P.E., Department of General Services

Council Members Not in Attendance:

Joseph P. Gill, Maryland Department of Natural Resources
Dr. Donald Boesch, University of Maryland, Center for Environmental Science

Council Staff in Attendance:

Zoë Johnson, Maryland Dept. of Natural Resources
Nicole Carlozo, Maryland Dept. of Natural Resources

Guests in Attendance:

Linda Mott, Maryland DNR
Richard Higgins, DBED
Caroline Varney-Alvarado, DHCD
Ren Serey, Critical Area Commission
Kate Charbonneau, Critical Area Commission
Meg Andrews, MDOT

Welcome/Meeting Objectives

Zoë Johnson called the meeting to order and welcomed Council members and guests. Zoe provided a brief overview of the planned meeting agenda and meeting objectives. The meeting would focus on the review of the Coast Smart Construction Infrastructure Design Guidelines issued in January 2014; and, to further identify and discuss best practices to reduce short, medium, long term vulnerability of state structures.

The first order of business was the approval of the Coast Smart Council July 22, 2014 meeting minutes.

Presentation: Coast Smart Construction Design Guidelines

Zoë provided an overview of the Coast Smart Construction Infrastructure Design Guidelines issued in January 2014 and a brief update on construction design standards already in place, including the two foot freeboard requirement for new and rebuilt state structures. In addition to state standards, Zoe mentioned that at last count that she had, 32 local jurisdictions have adopted similar standards. Zoe mentioned she would follow up with a specific list of these local jurisdictions. A copy of Zoë's presentation is incorporated as an addendum to these meeting minutes.

Presentation: Codes and Standards - Building Resilience and Safety into Structures

Professor Gerry Galloway PE, Dept. of Engineering at the University of Maryland, provided a presentation on building codes and other resilience standards. A copy of the presentation is incorporated as an addendum to these meeting minutes, with a summary of main points provided below:

- A building code is “the minimum acceptable standard used to regulate design, construction, and maintenance of buildings.”
- Cost Benefit Analysis: can save billions of dollars. Save \$3-\$6 for every dollar added.
- International Code Council has developed the most widely adopted set of codes to unify the US building regulatory system.
- ASCE Design Manuals are available (updated every 3-6 years) – standards for general levels of protection/safety. Codes updated after disasters. An ASCE highlight document is available (flood resistant design/construction)
- FM Global Property Loss Prevention Data Sheet (Manual available online) – allows FM Global to identify the threats/problems to a structure. Reduce risk by following guidelines/best practices.
- Resilience is “the ability to prepare and plan for, absorb, recover from or more successfully adapt to actual or potential adverse events.” Create a building code and then examine resilience before being tested by adverse events. Prepare for adverse situations to bounce back better.
 - New York City example: identified rebuilding guidelines post-Sandy.
 - FEMA hazard mitigation guidelines
 - Executive Order 11988: do not locate critical facilities in a 500-year floodplain. (1977)
- Recommendations:
 - Need to think about guidelines vs. codes vs. recommendations.
 - Need to think about older buildings (grandfathering, fiscal implications)
 - Need to think about ways to allow for innovation despite codes.
 - Need to think about siting/location.

Council Discussion

Following both presentations, the Council participated in a general discussion regarding design standards. General comments and notes are listed below:

- Historic structures are a challenge. How can we protect them against floods/structures without altering the structure/historic nature of the building? May need to reinforce structures and prepare/plan for flooding while keeping the interior/exterior the same.
- How do codes incorporate a performance standard? Performance standards relate to the end result/objective. Decide which performance is needed based on needs and cost.
- The MD Building Performance Standard incorporates the International Building Code and others. There is a 3 year code cycle. Currently in process of adopting 2015 codes. Will be incorporated by July 2015. MD has authorized adoption of International Green Construction code (voluntary). Local jurisdictions can adopt International Building Codes (Flooding – Appendix G). State recommends local adoption of Appendix G, but cannot amend accessibility or energy codes. State required to adopt latest codes. Local code adoption tracked, but not enforced at State level. It is the responsibility of locals.
- MEMA/MDE monitoring staff to coastal counties every year for participation in National Flood Insurance program.
- Need to address assessing performance, structure viability, or need of higher standards for critical structures. Criteria for structure assessment for existing vs. temporary vs. new structures? Many categories could exist – this topic relates to waivers and exceptions.
- Building “design life” may impact best practices.
- Recommend that the Council craft a statement to acknowledge vulnerable structures that are already built. What should be done about these structures?
- We should use the Project Screening Checklist as a baseline to recommend guidelines/standards.
- Green Code incorporation is possible for best practices, but LEED umbrella does not cover flooding. There may be some overlap. International Green Construction Code may be an alternative pathway to LEED? Climate adaptation could be incorporated into green codes or LEED. Zoe commented that she would follow up on this topic.
- Practices/materials change daily.
- For the most part, resilient design techniques have not yet been defined (ex: NYC checklist)
- When developing standards, consider plans for future service (or lack of) in vulnerable areas.
- Start thinking about how to protect or retrofit critical facilities that have not yet been impacted by storm damage.

Next Steps

The Council identified the following follow-up action items as a result of the discussion outlined above:

1. Check if the International Building Code, Appendix G is adopted by the State. If not, Council could recommend formal adoption.
2. Call for Design sub-group participants to develop basic recommendations based on Council discussion (notes above).

3. Green Building Council is examining the International Green Construction Code for adoption as an alternative to LEED Silver standards. Need to determine if IGCC incorporates flooding or other resilience standards.
4. Should analyze types of building materials used. Develop a checklist (not recommended products) to ensure the builder considers more resilient materials.

Member Updates

Council members provided a few updates on recent events/efforts, including:

- Zoë mentioned that the Surging Seas Viewer was recently released by Climate Central. It is an online mapping tool, which allows for spatial and qualitative assessment of varying levels of sea level rise and impacts to transportation, structures, population, socioeconomic data. See: <http://sealevel.climatecentral.org/ssrf/maryland>
- Zoë mentioned that the results of a Statewide Survey of residents on their views of climate adaptation were recently released. For more information, see: <http://climatechange.maryland.gov/publications/adapting-to-climate-change-sea-level-rise-a-maryland-statewide-survey-fall-2014/>
- Margaret McHale provided an update on the status of the Critical Area regulations regarding state development projects. Regulations drafted (September 3, 2014) to incorporate climate change provisions. To be published in MD Register October 14th.

Wrap Up

Zoë closed the meeting by mentioning that she would be following up to schedule a meeting with the Design Subgroup and separate call for the Siting Work Group to request assistance with developing agenda for the Nov. 20, 2014 meeting. She also mentioned that all meeting materials would be posted to the Council website:

<http://www.dnr.state.md.us/climatechange/CSCouncil/index.asp>

The meeting was adjourned at 12:10 p.m.

The next meeting of the Council will be held on Thursday, Nov. 20, 2014.

Minutes respectfully submitted by Zoë Johnson, Council Staff