MARYLAND COAST SMART COUNCIL

Secretary Josh Kurtz, Chair
Maryland Department of Natural Resources

Agenda
Coast Smart Council Quarter 1 Meeting

Feb 25, 2026 | 12:30pm -1 :30pm
Maryland Department of Natural Resources
580 Taylor Avenue, Annapolis, MD 21401
Room C-1
OR
Video call link: https://meet.google.com/wzb-yxwr-mpe
Or dial: (US) +1 614-983-0494 PIN: 555 256 787#

I. Welcome, Introductions & Review of Agenda — 12:30 - 12:35

Secretary Kurtz (DNR), will open the meeting, call roll, and review the agenda.

a. Action: Member approval of Dec 3, 2026 Meeting Minutes via vote
b. Materials: DRAFT_Dec_3_CSC Meeting_Notes

House of Representatives	Delegate Stein ❌
DBM	Jason Wardrup, **Fiona Shirk (post attendance)**✅
MDE	Matt Rowe, **Racel Lamb** ✅
DGS	Spyros Papadimas ❌
MDP	Chuck Boyd ✅
MDOT	Allison Gost ✅
Commerce	John Papavasiliou ❌
CAC	Erik Fisher ✅
MDEM	Jesse Delph ❌
University System of Maryland	Dr. Fernando Miralles Wilhelm, **Dave Nemazie (post attendance)** ✅
Comptroller's Office	Brooke E. Lierman ❌
Charles County Government	Beth Groth ✅
Blackbeard Biologic	Andrew Thaler ❌
Stantec Inc.	Rebecca Aiken ✅
UMD Civil and Environmental Engineering	Greg Baecher **(post attendance)** ✅
Crisfield Government	Mayor Darlene Taylor **(not present)** ❌

Attendance tracked above. Only 6/16 Council Members were present at the time of roll call so there was no quorum and meeting notes were not approved. Notes will be voted on at the May meeting.

II. Riverine Mapping in Maryland - State of the Science and Options for Higher Standards 12:40 - 1:10

Eileen Gladd (P.E. - Senior Engineer and FEMA CTP (mapping) coordinator, MDE)
MDE has almost completed re-mapping the FEMA floodplain in 23 of 24 Counties in Maryland using 1D HEC-RAS (PG County is responsible for their own mapping). Learn about FEMA's switch to 2D hazard based models and how they will be used to create the probabilistic Future of Flood Risk Data (FFRD). Additionally, Eileen will compare these model results to alternative mapping initiatives, including simplified conceptual models and the existing R-CRAB, to show various options for a Maryland Riverine Resiliency Floodplain.

Action: Informative talk
Materials: Slides to be presented

Current Status of FEMA Maps

- 1D Mapping is almost complete for all MD counties. They provide uni-directional flow projected downstream. The models run quickly.
- 2D models are now available. These maps provide 2D flow and better information in complex areas. You can map pluvial flooding with this type of model. These maps are an improvement (from 1D maps) overall, however, they require updates to data and guidelines. MD will do this once funding is available. FEMA is now only recommending 2D (not 1D)
- FEMA did not fund mapping efforts this year, but will continue to fund Future of Flood Risk Data (FFRD) initiative to create a probabilistic model. A probabilistic model will show likelihood of flooding through many simulations of storm and weather events. It is not yet available, we are ~5 years away.
- Simplified conceptual models:
    - They are available now
    - We are familiar with examples, like first street, stantec, and fathom data
    - Their use has limited or no legal rights to inspect the details of the analysis or to modify those details.
    - No way for recourse or feedback loops (i.e. if community member wants to disagree with data)
- MDE conducted a simplified Conceptual Model Investigation. In this investigation, MDE used vendor supplied datasets and compared results to MD's baseline models.
    - Results of the study: MD cannot tie regulations to these models. MDE is using Fathom's data for Watershed prioritization, but needs to be careful with end uses for the data. There was limited overlap at the parcel scale, but the quality is high enough for the intended purpose with watershed prioritization. Applicable to 500, 750, and 1000 year floodplains. The data will be available for all state partners.
- R-CRAB usage and limitations
    - Current mapping: Errors are evident. MDE would like to fix these with FFRMS.
    - Freeboard mapping compared to mapped 500-, 750-, 1000- flows.
    - Sligo Creek example:
        - Slide 1: R-Crab is approximately 1.5x the 100-year flow (cfs).
        - Slide 2: R-crab is now showing 5x the 100 year flow
        - R-crab is inconsistent due to valley shape
    - MDE recommends not using 3 ft freeboard in riverine areas, like MD does in coastal areas

Higher Standards for Flooding - Review of Options

- Option 1: Physical Features (Vermont's approach):
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    - Pros: This approach accounts for river migration. This would be a conservative approach.
    - Con: This approach still requires statewide mapping or technical analysis of every project.
- Option 2: 500-year floodplain:
    - Pro: 500-year is shown on the FEMA maps (AE Zones). It is already mapped by FEMA in many MD areas.
    - Cons: 500-year floodplains are not mapped everywhere (A zones and upstream), which may not meet CoastSmart goals.
- Option 3: New Statewide Floodplain
    - Pro: MD could tailor to desired recurrence interval and/or account for climate change, and assess/map upstream too.
    - Con: Expensive and not supported by FEMA.
- Option 4: Flood standard with screening tool
    - Coastsmart could adopt an approximate floodplain or threshold. In this scenario, any project within the parameter would require the technical review.
    - Pro: There is no upfront cost to mapping as long as it's a screening tool.
    - Con: This would require engineering staff to review every project (funding agencies and clearing houses are not capable of this review).
- Option 5: Higher standards in SHFA
    - FEMA minimum regulations are weak in some areas (for example, some areas allow for development in the floodplain). Maryland could increase siting requirements and focus on siting requirements in the existing floodplain.
    - Pro: Low to no cost to map. This approach could be managed with existing staff. MDE suggests adding and integrated into Option 4 "screening tool")
    - Con: This may not meet all program goals.
- Option 6: Watershed Studies
    - Developing 2D models that will assess flood risk in a watershed and create a flood management plan to provide targeted higher standards for the watershed. These maps would identify current flooding locations and identify areas contributing to that flooding,
    - Pro: This option would align with MDE priorities and is considered a reliable mapping exercise. It can stand up to criticism due to back end modeling.
    - Cons: This requires funding (about $300-500k per watershed study). It is not statewide for now.
- Discussion:
    - Natalie Snider - What is the timeline of the watershed studies by MDE?
        - MDE has RFP out for work orders by watershed. The contract will be 2 years, with 6 years of renewals.
    - Rebecca Aiken - Why select Fathom data for watershed prioritization?
        - It's accuracy was similar to the other vendors but Fathom's price was lower, and they have coastal models.

III. Riverine Coast Smart Discussion 1:10 - 1:25

Ryland Taylor (DNR) will lead a discussion about what steps would need to be taken if the Coast Smart law were to incorporate riverine flooding.

Action: Members come prepared to discuss what riverine mapping would look like with the current Coast Smart program
Materials: None

- Chuck Boyd: MDP is working with DBM on growth and conservation mapping. They are using R-Crab as part of the capital budget project preparedness and review process. They welcome an alternative to the R-CRAB tool or guidance on what to use.
- Ryland Taylor: R-CRAB is very user friendly.
- HB775 recommended using a 500 year floodplain. Amendment removed MDE mapping creation.
- Ryland Taylor: Construction allowance based on mapping option will be needed to be reviewed.
- Ryland Taylor: Is there interest in riverine focused mapping?
    - Natalie Snider: Communities are challenged by capacity and will require efforts to educate each jurisdiction on the mapping efforts and why it's used.
    - Rebecca Aiken: It is better to have more information. Rebecca stated that CSC can support MDE as the point for riverine communities (as opposed to coastal).
    - Eileen Gladd: Noted that the state needs watershed modeling. It is a detailed model necessary for this task.
    - Rachel Lamb: MDE would like to update MDE EJ Screen in accordance with watershed mapping.

IV. Public Comment, Updates, & Next Steps 1:25 - 1:30

None

Next Meeting: May 27, 2026 12:30-1:30

Ryland Taylor |
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