MARYLAND DEPARTMENT OF TRANSPORTATION

Perspectives on the Coast Smart Construction Program

Coast Smart Council Meeting

November 29, 2023

Maryland Department of Transportation

Mission Statement

The Maryland Department of Transportation is a customer-driven leader that delivers safe, sustainable, intelligent, exceptional, and inclusive transportation solutions in order to connect our customers to life's opportunities.



Office of Climate Change Resilience and Adaptation



Transportation Projects in the 2020 Guidelines

- MDOT participated in the 2020 update of the Siting and Design Guidelines in compliance with requirements of 2018 Senate Bill 1006/House Bill 1350
- Section ii. 2. non-critical facilities elevating v. designing for withstanding the impacts

Examples:

- Not elevating roadways, knowing they will flood, but constructing to ensure controlled, well-directed areas of overflow
- Incorporating nature-based solutions to attenuate wave energy in coastal areas
- Employ a hybrid approach that combines gray and green infrastructure

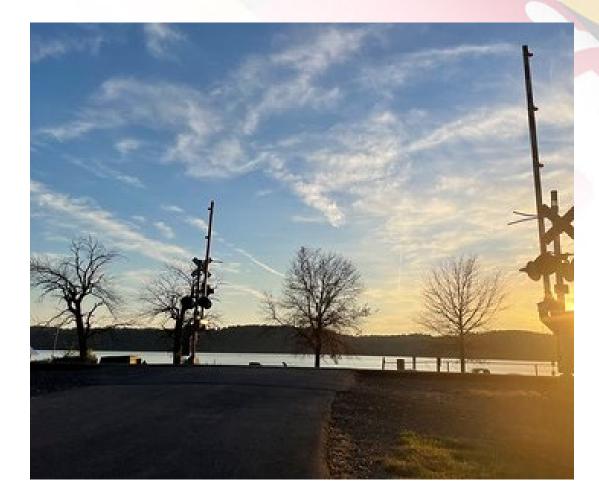
Coast Smart Across the Modes

State Highway Administration

- Climate Change Vulnerability Viewer
- Climate Change Resilience
 Strategy
 - Planning & Programming; Design; Maintenance & Ops

Maryland Transit Administration

• Incorporation of SLR mapping in planning and preliminary design considerations for capital projects to ensure compliance with relevant siting criteria.



Coast Smart Across the Modes



Maryland Transportation Authority

 Adaptation framework – includes the consideration and inclusion of Coast Smart recommendations (specifics of the siting and design guidelines) into drainage repair projects and incorporation of the SLR data into the NEPA/MEPA review of projects

Maryland Port Administration

 Incorporated best management practices into design engineering for new terminals and dredged materials management

Maryland Aviation Administration

• Review of projects and development plans with the previous Coast Smart guidelines and adjusted locations to minimize impact.

SOCIE

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Leonards Grant Pkwy

MedStar St

Mary's Hospita

LEONARDTOW Park Ave

Climate Ready Action Boundary

- Incorporation into the Climate Change Vulnerability Viewer
- Included as a reference data source in design guidelines and project planning
- Riverine layer informs flooding assessments

Climate Change Vulnerability Viewer

TINTOP HILL St Johns Rd 3 of 4) < ► □ × Climate Ready Action Boundary (CRAB) Riverine CRAB Inundated Value: 6.85 * *The above Coast Smart CRAB Inundated Value comes from the flood depth grid imagery service. This value should be added to Digital Elevation Model (DEM) ground elevation for the same geographic location to accurately depict the CRAB Elevation value. Use the following workflow to generate the CRAB Elevation: (a) CRAB Inundated value (b) DEM Ground Elevation value

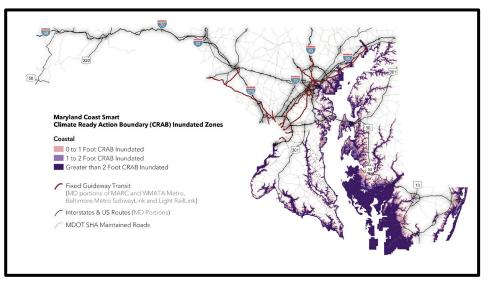
E, VGIN, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NP

Maryland Transportation Plan & Measuring Resilience



The Maryland Transportation Plan is the state's long-range transportation plan. It "guides the state's vision, corresponding policy and investment priorities for the next 20 years."

- 2050 MTP Update underway
 - Proposed performance metric tied to coast smart riverine and coastal layers
 - Inclusion of SLR and other coastal hazards incorporation in the proposed policy framework





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