

Materials Provided:

- *Coast Smart* Project Screening Form
- Project Site Plans and Designs
- Maps of project location, surrounding land use and road network

Project Funding:

Cost of Project: _____

Funding Source: _____

SGCC Decision:

_____ APPROVED

_____ APPROVED WITH CONDITIONS

_____ FORWARD TO SMART GROWTH SUBCABINET FOR CONSIDERATION

Comments:

APPENDIX C: Legislative Overview

2014

Chapter 415 of the 2014 Laws of Maryland established the Maryland Coast Smart Council in the Maryland Department of Natural Resources. Among other things, the legislation required the Coast Smart Council, in consultation with the Maryland Department of Natural Resources, to develop Coast Smart Siting and Design Criteria to address sea level rise and coastal flood impacts on capital projects planned and built by units of State government that were partially or fully funded with State funds. Beginning July 1, 2015, if a State capital project included the construction of a structure or the reconstruction of a structure with substantial damage, the structure must be constructed or reconstructed in compliance with those siting and design criteria. The Coast Smart Council was required to adopt the initial criteria by June 30, 2015. Until then, the legislation established the Maryland General Assembly's intent that units of State government that proposed capital projects for a new State structure or the reconstruction or rehabilitation of a substantially damaged State structure comply with the guidelines and requirements of Executive Order 01.01.2012.29.

The legislation also required that the siting and design criteria include: (1) guidelines applicable to the preliminary planning and construction of a proposed capital project; (2) a requirement that the first floor elevation of each structure located with a Special Flood Hazard Area is built at an elevation of at least two (2) feet above the base flood elevation; and (3) provisions establishing a process to allow a unit of State government to obtain a waiver from the Coast Smart Siting and Design requirements. Finally, the legislation required that the Maryland Department of Natural Resources, the Maryland Department of Budget and Management and the Maryland Department of General Services must review and incorporate the criteria developed by the Coast Smart Council into their appropriate instructions and policies.

2018

Chapters 628 and 629 of the 2018 Laws of Maryland expanded the applicability of the Coast Smart Siting and Design Criteria established by the Coast Smart Council. Under this legislation, the criteria apply to State and local projects for which at least 50% of the project costs are funded with State funds and which include the construction of a structure or highway facility or the reconstruction of a structure with substantial damage. The legislation also specified that the criteria do not apply to projects less than \$500,000. The 2018 legislation updated the first floor elevation requirement and expanded the participation of the Coast Smart Council. Finally, the legislation also required the establishment of specified plans and criteria relating to saltwater intrusion, the use of State funds for specified hazard mitigation, and nuisance flooding.

2019

Chapter 442 of the 2019 Laws of Maryland further clarified the applicability of the Coast Smart Siting and Design criteria to State and local capital projects (not all State and local projects). The legislation also delayed the implementation date of the Siting and Design criteria that were modified and made more broadly applicable under the 2018 legislation. Finally, the 2019 legislation delayed the deadline to develop nuisance flooding plans.

APPENDIX D: Glossary and Useful Web-Based Resources

The following glossary of terms and links to web-based resources are provided to help State agency personnel and others become familiar with concepts and terminology used throughout the Program document as well as the questions in Appendix A: Coast Smart Project Screening Form.

Base Flood: A flood having a 1% chance of being equaled or exceeded in any given year; the base flood also is referred to as the 1% annual chance (100-year) flood.

Base Flood Elevation: The water surface elevation of the 100-year base flood in relation to the datum specified on Flood Insurance Rate Maps. In areas of shallow flooding, the base flood elevation is the highest adjacent natural grade plus the depth number specified in feet on the Flood Insurance Rate Map, or at least four (4) feet if the depth number is not specified.

Capital Project: A capital project typically includes the construction of State or local buildings and infrastructure, such as prisons, hospitals, public university buildings, and government office buildings. The key elements of defining a capital expenditure are that it is a tangible asset, that it has a useful life of at least 15 years, and that the cost is typically over \$100,000.

Climate Change: Any change in climate over time, whether due to natural variability or as a result of human activity. Climate refers to long-term trends in weather that extend multi-decadal periods.

Coast Smart: A construction practice in which preliminary planning, siting, design, construction, operation, maintenance, and repair of a structure or highway facility avoids or minimizes future impacts associated with coastal flooding and sea level rise inundation. Coast Smart includes design criteria and siting guidelines that are applicable throughout the entire life cycle of a project.

Coast Smart Climate Ready Action Boundary (CS-CRAB): The CS-CRAB is the corresponding horizontal landward boundary created by the CS-CRAB Elevation.

Coast Smart Climate Ready Action Boundary Elevation (CS-CRAB Elevation): A selected flood elevation fixed at the 100-year FEMA floodplain elevation, also known as the Base Flood Elevation, plus a three-foot vertical extent.

Critical and Essential Facilities: Buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes [Note: See Maryland Building Performance Standards, Sec. 1602 and Table 1604.5]. Critical and essential facilities typically include hospitals, fire stations, police stations, storage of critical records, facilities that handle or store hazardous materials, drinking water and sewage treatment facilities, airports, transit and highway access and other essential transportation, and similar facilities.

Design Criteria: Standard Structural specifications related to the shape, size, or form of a construction practice.

Design Life: The period of time during which, the structure is expected by its designers to work within its specified parameters; in other words, the life expectancy of the structure. It is the length of time between placement into service of a single structure and that structure's onset of wear-out, that is, where additional maintenance is no longer sufficient to prolong its life expectancy.

Dry Floodproofing: Measures that eliminate or reduce the potential for flood damage by keeping floodwaters out of the structure. Examples include installation of watertight shields for the doors and windows, reinforcement of walls to withstand the hydrostatic and hydrodynamic pressures and debris impact, and use of sealants to reduce seepage of floodwaters through walls.

Enclosure Below the First Floor: An unfinished or flood-resistant enclosure that is located below an elevated building, is surrounded by walls on all sides, and is usable solely for parking of vehicles, building access or storage, in an area other than a basement area, provided that such enclosure is built in accordance with the applicable design requirements specified in the Coast Smart Construction Program guidelines. Also see "First Floor."

First Floor: The lowest floor of the lowest enclosed area, including basement, of a building or structure; the floor of an enclosure below the lowest floor is not the lowest floor provided the enclosure is constructed with proper flood openings. The lowest floor of a manufactured home is the bottom of the lowest horizontal supporting member (longitudinal chassis frame beam).

Flood or Flooding: A general and temporary condition of partial or complete inundation of normally dry land areas from: (1) the overflow of inland or tidal waters, and/or (2) the unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM): An official map on which the Federal Emergency Management Agency has delineated special flood hazard areas to indicate the magnitude and nature of flood hazards, to designate applicable flood zones, and to delineate floodways, if applicable. FIRMs that have been prepared in digital format or converted to digital format are referred to as Digital FIRMs.

Flood Opening: A flood opening (non-engineered) is an opening that is used to meet the prescriptive requirement of 1 square inch of net open area for every square foot of enclosed area. An engineered flood opening is an opening that is designed and certified by a licensed professional engineer or licensed architect as meeting certain performance characteristics, including providing automatic entry and exit of floodwaters; this certification requirement may be satisfied by an individual certification for a specific structure or issuance of an Evaluation Report by the ICC Evaluation Service, Inc. [Note: See NFIP Technical Bulletin #1, "[Openings in Foundation Walls and Walls of Enclosures](#)."]]

Freeboard: For FEMA floodplain management purposes, a factor of safety above the Base Flood Elevation that compensates for uncertainty in factors that could contribute to flood heights greater than the height calculated for a selected size flood conditions, such as wave action,

obstructed bridge openings, debris and ice jams, climate change, and the hydrologic effect of urbanization in a watershed.

Habitat Adaptation Areas: Areas that may serve as wildlife habitat, wildlife corridors or support high priority aquatic and terrestrial living resources in the future. These include, but are not limited to areas with hydric soils suitable for future tidal wetland establishment and marsh-dependent breeding bird habitat, as well as species and habitat representation areas, ecosystem and habitat type replication areas, and refugia or relocation areas for climate-sensitive species.

Highway Facility: “Highway facility” is defined in §3-101(f)(2) of the Transportation Article as any one or more or combination of projects involving rehabilitation and reconstruction of highways in the State highway system to meet present and future needs and the development and construction in new locations of new highways necessitated by traffic demands to become parts of the State highway system, including federally-aided highway projects partially funded by this State and all incidental property rights, materials, facilities, and structures.

Historic Structure: Any structure that is:

- 1) Individually listed in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listings on the National Register;
- 2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- 3) Individually listed on a State inventory of historic places; or
- 4) Individually listed on a local inventory of historic places.

Infrastructure: Built infrastructure, including roads, bridges, sewer and water systems, drainage systems, and essential public utilities.

Inundation: The condition of formerly dry areas becoming permanently submerged, such as when the annual average elevation of Mean Lower Low Water (MLLW) rises relative to land.⁵

Limit of Moderate Wave Action (LiMWA): The LiMWA identifies areas that will be affected by waves with a 1.5-foot wave height or greater within the coastal A zone. While FEMA currently does not require special floodplain management standards or flood insurance purchase requirements based on LiMWA delineations, it is likely that properties and structures within the LiMWA will receive substantial damage from wave action during a 1% annual chance flood event. The LiMWA is a boundary that identifies the landward location of the 1.5 ft wave height delineating a zone called the "Coastal A Zone" where wave damage is substantial.

Natural and Nature-Based Features: Natural features are created and evolve over time through the actions of physical, biological, geologic, and chemical processes operating in nature. Natural coastal features take a variety of forms, including reefs (e.g., coral and oyster), barrier islands, dunes, beaches, wetlands, and maritime forests. The relationships and interactions among the

⁵ Strategic Environmental Research and Development Program. 2013. Assessing Impacts of Climate Change on Coastal Military Installations: Policy Implications. U.S. Department of Defense.

natural and built features comprising the coastal system are important variables determining coastal vulnerability, reliability, risk, and resilience. Nature-Based Features are those that may mimic characteristics of natural features but are created by human design, engineering, and construction to provide specific services such as coastal risk reduction. The combination of both natural and nature-based features is referred to collectively as natural and nature-based features.⁶

Nuisance Flooding: High-tide flooding that causes public inconvenience.

Permanent Structure: A structure, as defined herein, installed, used, or erected for a period of greater than 180 days.

Replacement Cost: At the time of reconstruction, the cost of reconstructing a structure and its surrounding property to full use with materials of the same kind and quality as the original materials. Replacement cost does not include the value of the land on which a structure is located or for tax purposes, a deduction for depreciation.

Resilience: Capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment.⁷

Risk: Combination of the magnitude of the potential consequence(s) and the likelihood that the consequences(s) will occur.

Saltwater Intrusion and Salinization: Saltwater intrusion describes the movement of saltwater into aquifers. Salinization describes the process by which water-soluble salts accumulate in fresh surface waters or in soils within agricultural land, wetlands, and coastal forests.

Sea Level Rise Inundation: The inundation of land from a sea level rise of 2 feet, as determined by the Council.

Sea Level Rise Vulnerability: The susceptibility of a coastal area to seasonally high-tides or prolonged or permanent inundation or submergence due to a combination of land subsidence and future rise in water level.

Siting Criteria: Specifications related to the location of a structure or highway facility.

Special Flood Hazard Areas: Land in the floodplain subject to a one-percent or greater chance of flooding in any given year and are designated by the Federal Emergency Management Agency in Flood Insurance Studies and on Flood Insurance Rate Maps as Zones A, AE, AH, AO, A1-30, and A99, and Zones VE and V1-30.

⁶ U.S. Army Corps of Engineers. 2015. North Atlantic Coast Comprehensive Study: Resilient Adaptation to Increasing Risk. USACE, Baltimore District, Baltimore, Maryland. Accessed at: [//nad.usace.army.mil/Portals/40/docs/NACCS/NACCS_main_report.pdf](http://nad.usace.army.mil/Portals/40/docs/NACCS/NACCS_main_report.pdf).

⁷ National Research Council. 2011. Committee on America's Climate Choices. National Academies Press. Washington, District of Columbia.

Storm Surge: An abnormal and significant rise of water generated by a storm, over and above the predicted astronomical tides. Storm surge is produced by water being pushed toward the shore by the force of the winds moving around the storm.

State-Funded: Partially or fully funded with State of Maryland monies.

Structure: That which is built or constructed; specifically, a walled or roofed building, a manufactured home, or a gas or liquid storage tank that is principally above ground. A structure, whether permanent or temporary, is not intended to include roads, bridges, rail tracks, dredge material containments facilities or other transportation infrastructure that are not roofed buildings.

Substantial Damage: Damage caused by any source that is sustained by a structure whereby the cost of reconstruction to its before-damaged condition is at least half of the structure's replacement cost before the damage occurred.

Substantial Improvement: Any reconstruction, rehabilitation, addition, or other improvement of a building or structure, the cost of which equals or exceeds 50% of the market value of the building or structure before the start of construction of the improvement. The term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- 1) Any project for improvement of a building or structure to correct existing violations of State or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official prior to submission of an application for a permit and which are the minimum necessary to assure safe living conditions; or
- 2) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Tax Map/Grid/Parcel or SDAT Account Number: Tax maps, also known as assessments, property or parcel maps, are a graphic representation of real property showing and defining individual property boundaries in relationship to contiguous real property. The primary purpose of these maps is to help State tax assessors locate properties for assessments and taxation purposes. Tax maps are also used by federal, State and local government agencies as well as private sector firms for a variety of analyses and decision making processes. The Maryland Department of Planning (MDP) is responsible for maintaining electronic tax maps for the 23 counties in Maryland. The State's 2800+ tax maps are maintained in a combined GIS and Computer Aided Design (CAD) environment and updated on an annual cycle using new property plats and deed changes obtained from SDAT. These maps form the foundation for many of MDP's products and services, including [FINDER Online](#).

Temporary Structures: Structures or uses intended to be in place for 180 consecutive days or less in any given calendar year.

Vulnerability Assessment: Practice of identifying and evaluating the effects of climate change and climate variability on natural and human systems, so as to understand system sensitivity, exposure, and adaptive capacity.⁸

Water Dependent Use: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes aquaculture machinery, docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Wet Floodproofing: Permanent or contingent measures applied to a structure or its contents that prevent or provide resistance to damage from flooding by allowing floodwaters to enter the structure. Such measures include the design of openings for intentional flooding of enclosed areas below the design flood elevation, use of flood-resistant building materials below the design flood elevation, and protection of the structure and its contents, including utilities.

Wetland Migration: Long-term inland and upward movement of tidal wetlands, limited by human and geological barriers, in response to changes in sea level.

⁸ Strategic Environmental Research and Development Program. 2013. Assessing Impacts of Climate Change on Coastal Military Installations: Policy Implications. U.S. Department of Defense.