

Department of Legislative Services  
Maryland General Assembly  
2018 Session

FISCAL AND POLICY NOTE  
First Reader

Senate Bill 1006 (Senator Pinsky)  
Education, Health, and Environmental Affairs

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Sea Level Rise Inundation and Coastal Flooding - Construction, Adaptation,  
Mitigation, and Disclosure

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This bill expands the applicability of Coast Smart siting and design criteria and modifies a requirement that must be included in the criteria. The bill also requires the establishment of specified plans and criteria relating to saltwater intrusion, the use of State funds for specified hazard mitigation, and nuisance flooding. Finally, the bill requires specified notice to be provided to purchasers of land that may be inundated from a sea level rise of two feet. **The bill takes effect July 1, 2018.**

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Fiscal Summary

**State Effect:** State expenditures (multiple fund types) increase, potentially significantly, in future years, to comply with the siting and design criteria on State projects. General fund expenditures increase in FY 2019 by \$551,100, and by similar amounts in future years, primarily for personnel, to implement the bill's administrative requirements. State revenues are not directly affected.

**Local Effect:** Local government expenditures increase, potentially significantly, to develop required plans and comply with the siting and design criteria on local projects. Local revenues are not directly affected. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Potential meaningful.

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## Analysis

### Bill Summary:

#### *Coast Smart Siting and Design Criteria*

The bill expands the applicability of the Coast Smart siting and design criteria established by the Coast Smart Council and modifies a requirement that must be included in the criteria.

Under current law, the criteria apply to *State capital projects* – planned and built by units of State government that are partially or fully funded with State funds – which include construction of a structure or the reconstruction of a structure with substantial damage. Under the bill, the criteria apply to *State and local projects* (not specifically limited to capital projects) – for which at least 30% of the project costs are funded with State funds – which include the construction of a structure or highway facility or the reconstruction of a structure or highway facility with substantial damage.

Instead of including a requirement that the lowest floor elevation of each structure located within a special flood hazard area be built at an elevation of at least two feet above the base flood elevation, the criteria must include a requirement that a structure or highway facility be designed and constructed or reconstructed in a manner to withstand the storm surge from a storm that registers as a category 2 on the Saffir-Simpson hurricane wind scale, including a requirement for structures to be constructed or reconstructed at a minimum elevation above the projected storm surge.

The bill also clarifies the purpose of the Coast Smart siting and design criteria to be “to address sea level rise *inundation* and coastal flood impacts on State and local projects” in place of “to address sea level rise and coastal flood impacts on capital projects.” “Sea level rise inundation” is defined as the inundation of land from a sea level rise of two feet, as shown on the sea level rise vulnerability layer of the Department of Natural Resources’ (DNR) Maryland Coastal Atlas.

#### *Plan to Adapt to Saltwater Intrusion*

By December 15, 2019, the Maryland Department of Planning (MDP), in consultation with DNR, the Maryland Department of the Environment (MDE), and the Maryland Department of Agriculture (MDA), must establish a plan to adapt to saltwater intrusion. The plan must be updated at least once every five years. “Saltwater intrusion” is defined as the movement of water with a total dissolved-solid concentration greater than or equal to 1,000 mg/L to freshwater.

### *Criteria for Use of State Funds for Hazard Mitigation*

The Board of Public Works (BPW), in conjunction with DNR and MDE, must establish criteria to evaluate whether State funds may be used to mitigate hazards associated with sea level rise inundation and coastal flooding. The criteria must incorporate specified tools to assess the vulnerability of an area or a structure to those hazards.

### *Local Plans to Address Nuisance Flooding*

By July 1, 2019, a local jurisdiction that experiences nuisance flooding must submit to MDP for approval a plan to address nuisance flooding. A plan must be updated at least once every five years and must be published on a local jurisdiction's website. MDP must consult with the Coast Smart Council before approving or disapproving a plan.

### *Notice Provided to Real Property Purchasers*

A vendor of real property located on land that may be inundated from a sea level rise of two feet, as shown on the sea level rise vulnerability layer of DNR's Maryland Coastal Atlas, must, before entering into a contract for the sale of property, deliver to each purchaser (1) notice that all or a portion of the property is located on land that may be inundated and (2) a copy of DNR's Maryland Coastal Atlas that shows the property with the applicable sea level rise vulnerability layer.

**Current Law:** Chapter 415 of 2014 created a Coast Smart Council in DNR to:

- study and provide analysis regarding standards and factors relevant to the establishment of Coast Smart siting criteria and design criteria;
- develop siting and design criteria to establish and implement Coast Smart practices and requirements;
- develop eligibility criteria, standards, and procedures for applying for and obtaining a waiver from compliance with the Coast Smart requirements; and
- establish procedures for evaluating Coast Smart waiver applications that include the consideration of proposed capital projects with regard to (1) the anticipated need to prepare for, respond to, and recover from extreme weather events, sea level rise inundation, coastal flooding, storm surges, and shoreline erosion and (2) the need to prevent danger to life and property and to avoid environmental, socio-economic, and economic harm.

“Coast Smart” is defined as a construction practice in which preliminary planning, siting, design, construction, operation, maintenance, and repair of a structure avoids or minimizes

future impacts associated with coastal flooding and sea level rise, and includes design criteria and siting criteria that are applicable throughout the entire life cycle of a project.

Chapter 415 also requires that – if a State capital project includes the construction of a structure or the reconstruction of a structure with substantial damage – the structure must be constructed or reconstructed in compliance with the Coast Smart siting and design criteria established by the Coast Smart Council, in consultation with DNR, to address sea level rise and coastal flood impacts on capital projects. The requirement applies to State capital projects planned and built by units of State government that are partially or fully funded with State funds. “Substantial damage” is defined as damage caused by any source that is sustained by a structure such that the cost of reconstruction to its before-damaged condition is at least half of the structure’s replacement cost before the damage occurred.

The Coast Smart siting and design criteria must include (1) guidelines, and any other directives applicable to the preliminary planning and construction of a proposed capital project; (2) a requirement that the lowest floor elevation of each structure located within a special flood hazard area is built at an elevation of at least two feet above the base flood elevation; and (3) provisions establishing a process to allow a unit of State government to obtain a waiver from complying with the requirement that specified State capital projects comply with the Coast Smart siting and design criteria.

**Background:** The Coast Smart Council adopted a Coast Smart Construction Program in June 2015, that includes the siting and design criteria, for the use of all State agencies that design and build facilities or prepare programs and budgets for the design and construction of facilities. In addition to the criteria, the program creates certain categorical exceptions (for certain types of projects that may be exempt from strict application of the construction criteria provided the project has been designed to increase resiliency to future impacts) and considerations relating to, and the process for, waivers for a project from one or more of the specific siting and/or design criteria. The program also requires that the criteria be incorporated into (1) the Procedural Manual for Professional Services (by the Department of General Services (DGS)); (2) the Facility Program Manual (by the Department of Budget and Management and DGS); and (3) the Maryland State Hazard Mitigation Plan and State Disaster Recovery Plan (by the Maryland Emergency Management Agency).

## **State Expenditures:**

### *Implementation Costs*

General fund administrative expenditures increase by \$551,078 in fiscal 2019, which accounts for a 90-day start-up delay. This estimate reflects the following costs, by implementing agency:

- DNR – (1) four positions total, including an administrator, two natural resource planners, and a geographic information systems (GIS) coastal analyst, to manage the expanded scope of responsibilities of the Coast Smart Council and the department, including, among other things, assisting local governments in complying with the Coast Smart siting and design criteria and managing GIS and other data and (2) contractual services to generate and update parcel-level data on sea level rise inundation vulnerability (for the notice requirement applicable to vendors of real property) and to develop a platform for documenting and tracking nuisance flooding trends to assist MDP and local governments in developing and reviewing plans to address nuisance flooding;
- MDE – one geologist, to participate in the establishment of a plan to adapt to saltwater intrusion and subsequently ensure MDE’s compliance with the plan and implementation with respect to MDE’s oversight of water supply issues (while not required by the bill, this estimate assumes implementation of the plan);
- MDP – one planner, to manage the establishment of a plan to adapt to saltwater intrusion and to review and approve local jurisdiction plans to address nuisance flooding; and
- DGS – one administrator, to provide assistance to capital bond bill recipients in complying with the Coast Smart siting and design criteria.

The estimate includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses.

Positions	7
Salaries and Fringe Benefits	\$408,566
Contractual Services	105,000
Other Operating Expenses	<u>37,512</u>
<b>Total FY 2019 Admin. Expenditures</b>	<b>\$551,078</b>

Future year administrative expenditures reflect full salaries with annual increases and employee turnover and ongoing operating expenses.

MDA and BPW both advise that they can implement the bill with existing budgeted resources.

*State Costs to Comply with Siting and Design Criteria*

State expenditures (multiple fund types) are expected to increase, potentially significantly, in future years to comply with the expanded scope of the Coast Smart siting and design criteria and the modified requirement the criteria must include.

DNR indicates that applying the criteria to “State projects” and not specifically “State capital projects” (which will apply the criteria to certain maintenance and system preservation projects) and applying the criteria to the construction of a highway facility or reconstruction of a highway facility with substantial damage, increases the number of projects to which the criteria apply.

In addition, the new requirement the criteria must include – “that a structure or highway facility be designed and constructed or reconstructed in a manner to withstand the storm surge from a storm that registers as a category 2 on the Saffir-Simpson hurricane wind scale, including a requirement for structures to be constructed or reconstructed at a minimum elevation above the projected storm surge” – likely increases costs for at least some projects in comparison to the current requirement that “the lowest floor elevation of each structure located within a special flood hazard area is built at an elevation of at least two feet above the base flood elevation.”

The Maryland Department of Transportation, the Maryland Transportation Authority, DGS, DNR, and MDE have all indicated the potential for cost increases for affected projects in coastal areas. The magnitude of the impact, however, cannot be reliably estimated. Re-siting of projects that would otherwise be built in vulnerable areas presumably may lessen expenditure increases resulting from the bill, to the extent re-siting is possible. Increased expenditures under the bill may also be offset, to at least some extent, by reduced insurance costs and/or reduced costs to remediate sea level rise inundation and coastal flooding damage after the fact.

**Local Expenditures:** Local government expenditures are expected to increase, potentially significantly, in future years (similar to the impact on State finances) to comply with Coast Smart siting and design criteria for projects that are funded with at least 30% State funds. However, re-siting of projects and reduced insurance costs and/or reduced remediation costs may mitigate or offset, at least to some extent, the increase in expenditures. Local governments also incur costs to develop plans to address nuisance flooding, as required by the bill.

**Small Business Effect:** Small businesses that work on State or local projects affected by the bill may benefit from additional work to meet the design criteria. Small businesses in coastal areas may also benefit indirectly from State and local government efforts and planning to withstand sea level rise inundation and coastal flooding. Real property vendors/realtors should be able to implement the bill’s requirements with minimal additional costs.

## Additional Information

**Prior Introductions:** None.

**Cross File:** HB 1350 (Delegate Stein, *et al.*) - Environment and Transportation.

**Information Source(s):** Department of Natural Resources; Maryland Department of the Environment; Maryland Department of Planning; Department of General Services; Maryland Department of Transportation; Maryland Department of Agriculture; Montgomery County; Maryland Association of Counties; NAIOP (Maryland Chapter); Department of Legislative Services

**Fiscal Note History:** First Reader - March 4, 2018  
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Analysis by: Scott D. Kennedy

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510