

**HOUSE OF REPRESENTATIVES STAFF ANALYSIS**

**BILL #:** PCS for HB 111 Flooding and Sea Level Rise Vulnerability Studies

**SPONSOR(S):** Agriculture, Conservation & Resiliency Subcommittee

**TIED BILLS:** **IDEN./SIM. BILLS:** SB 1170

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
Orig. Comm.: Agriculture, Conservation & Resiliency Subcommittee		Mamontoff	Moore

**SUMMARY ANALYSIS**

Sea level rise is an observed increase in the average local sea level or global sea level trend. With 1,350 miles of coastline and relatively low elevations, Florida is particularly vulnerable to coastal flooding, and analysts estimate that Florida could lose more than \$300 billion in property value by 2100 due to sea level rise and flooding.

The Department of Environmental Protection (DEP) regulates coastal construction to protect Florida’s beaches and dunes from imprudent construction that can jeopardize the stability of the beach-dune system, accelerate erosion, provide inadequate protection to upland structures, endanger adjacent properties, or interfere with public beach access. DEP also implements the Resilient Florida Grant Program, which provides grants to local governments to fund community resilience planning and vulnerability assessments.

In 2020, the Legislature passed Senate Bill 178, which prohibited a public entity from commencing construction of certain state-funded coastal structures unless the entity has conducted a sea level impact projection (SLIP) study to assess risks to the structure. SB 178 directed DEP to adopt rules to develop a standard by which public entities must conduct the SLIP study and specified requirements for the standard.

The bill expands the requirement for public entities to conduct a SLIP study before commencing construction of certain state-financed coastal structures to apply the requirement to certain structures that are within any area that is at risk due to sea level rise, not just areas within the coastal building zone. The structures subject to this requirement are any “potentially at-risk structures or infrastructure,” which include certain critical assets or historical or cultural assets that are within an area at risk due to sea level rise.

The bill expands the Resilient Florida Grant Program to provide funding to:

- Municipalities and counties for feasibility studies and permitting costs for nature-based solutions that reduce the impact of flooding and sea level rise; and
- Water management districts to support local government adaptation planning.

The bill may have an indeterminate negative fiscal impact on state government, DEP, and local governments.

# FULL ANALYSIS

## I. SUBSTANTIVE ANALYSIS

### A. EFFECT OF PROPOSED CHANGES:

#### Background

##### Sea Level Rise and Coastal Flooding

Sea level rise (SLR), is an observed increase in the average local sea level or global sea level trend.<sup>1</sup> The two major causes of SLR are thermal expansion caused by the warming of the oceans and the loss of land-based ice due to melting.<sup>2</sup> Since 1880, the average global SLR has risen approximately eight to nine inches, and the rate of global SLR has been accelerating.<sup>3</sup> The National Oceanic and Atmospheric Administration (NOAA) utilizes tide gauges to measure changes in sea level and provides data on local SLR trends.<sup>4</sup> An analysis of this data shows that some low-lying areas in the southeastern United States experience higher local rates of SLR than the global average.<sup>5</sup>

With 1,350 miles of coastline and relatively low elevations, Florida is particularly vulnerable to coastal flooding.<sup>6</sup> Florida's coastal communities are regularly experiencing high-tide flooding events because SLR increases the height of high tides.<sup>7</sup> Analysts estimate that Florida could lose more than \$300 billion in property value by 2100 due to SLR and flooding.<sup>8</sup> As sea levels and groundwater levels rise and extreme rainfall events occur, low areas drain more slowly, resulting in overwhelmed stormwater infrastructure and an increased frequency and magnitude of coastal and lowland flood events.<sup>9</sup> Sunny-day flooding, nuisance flooding, and king tide flooding are examples of these events.<sup>10</sup>

##### *State, Regional, and Local Programs*

There are many state, regional, and local programs and policies in place that address issues relating to SLR and coastal flooding. The Office of Resilience and Coastal Protection within the Department of Environmental Protection (DEP) implements numerous programs related to SLR and coastal issues, including the Resilient Florida Program, the Florida Resilient Coastlines Program, the Coastal Construction Control Line Program, and the Beach Management Funding Assistance Program.<sup>11</sup> Through the Resilient Florida Program and the Florida Resilient Coastlines Program, DEP provides technical assistance and funding to communities at risk due to flooding and SLR for vulnerability assessments and adaptation projects aimed at reducing such risks.<sup>12</sup>

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<sup>1</sup> Florida Department of Environmental Protection (DEP), *Florida Adaptation Planning Guidebook: Glossary* [hereinafter "DEP Guidebook"] (2018), available at <https://floridadep.gov/sites/default/files/AdaptationPlanningGuidebook.pdf> (last visited Feb. 2, 2023).

<sup>2</sup> National Aeronautics and Space Administration (NASA), *Facts: Sea Level*, available at <https://climate.nasa.gov/vital-signs/sea-level/> (last visited Feb. 2, 2023).

<sup>3</sup> U.S. Global Change Research Program, *Fourth National Climate Assessment* [hereinafter "NCA4"] (2018), 757, available at [https://nca2018.globalchange.gov/downloads/NCA4\\_2018\\_FullReport.pdf](https://nca2018.globalchange.gov/downloads/NCA4_2018_FullReport.pdf) (last visited Feb. 2, 2023).

<sup>4</sup> NOAA, *What is a Tide Gauge?*, available at <https://oceanservice.noaa.gov/facts/tide-gauge.html> (last visited Feb. 2, 2023); NOAA, Tides and Currents, *Sea Level Trends*, available at <https://tidesandcurrents.noaa.gov/sltrends/> (last visited Feb. 2, 2023).

<sup>5</sup> NCA4 at 757.

<sup>6</sup> Florida Division of Emergency Management, *Enhanced State Hazard Mitigation Plan, State of Florida* [hereinafter "SHMP"] (2018), 107-108, 162, available at [https://www.floridadisaster.org/globalassets/dem/mitigation/mitigate-fl-shmp/shmp-2018-full\\_final\\_approved.6.11.2018.pdf](https://www.floridadisaster.org/globalassets/dem/mitigation/mitigate-fl-shmp/shmp-2018-full_final_approved.6.11.2018.pdf) (last visited Feb. 2, 2023). This measurement of Florida's coastline increases to over 8,000 miles when considering the intricacies of Florida's coastline, including bays, inlets, and waterways.

<sup>7</sup> SHMP at 108, 101; NOAA, *High-Tide Flooding*, available at <https://toolkit.climate.gov/topics/coastal-flood-risk/shallow-coastal-flooding-nuisance-flooding> (last visited Feb. 2, 2023).

<sup>8</sup> NCA4 at 758.

<sup>9</sup> SHMP at 106; NCA4 at 763.

<sup>10</sup> NOAA, *High Tide Flooding*, <https://coast.noaa.gov/states/fast-facts/recurrent-tidal-flooding.html> (last visited March 3, 2023).

<sup>11</sup> DEP, *Beaches: About Us*, available at <https://floridadep.gov/rcp/beaches> (last visited Feb. 2, 2023).

<sup>12</sup> See s. 380.093, F.S.; DEP, *Florida Resilient Coastlines Program*, available at <https://floridadep.gov/rcp/florida-resilient-coastlines-program> (last visited Feb. 2, 2023).

Regionally, many local communities have collaborated together to address impacts from flooding, SLR, and climate change.<sup>13</sup> For example, Broward, Miami-Dade, Monroe, and Palm Beach Counties formed the Southeast Florida Regional Climate Change Compact (Compact). The Compact's work has included developing a Regional Climate Action Plan and developing a Unified Sea Level Rise Projection.<sup>14</sup> Many local governments in southeast Florida have since incorporated the Compact's projections into their planning documents.<sup>15</sup>

Florida's local governments in coastal areas are required to have a coastal management element in their comprehensive plans, known as a Peril of Flood Ordinance, that uses principles to reduce flood risk and eliminate unsafe development in coastal areas.<sup>16</sup> In certain coastal areas, local governments are authorized to establish an "adaptation action area" designation in their comprehensive plan to develop policies and funding priorities that improve coastal resilience and plan for SLR.<sup>17</sup>

#### *Office of Resilience and Coastal Protection*

In January 2019, the Governor issued Executive Order 19-12, creating the Office of Resilience and Coastal Protection to help prepare Florida's coastal communities and habitats for impacts from SLR by providing funding, technical assistance, and coordination among state, regional, and local entities.<sup>18</sup> In August 2019, the Governor appointed Florida's first Chief Resilience Officer, who reports to the Executive Office of the Governor and collaborates with state agencies, local communities, and stakeholders to prepare for the impacts of SLR and climate change.<sup>19</sup>

#### Coastal Construction

DEP regulates coastal construction to protect Florida's beaches and dunes from imprudent construction that can jeopardize the stability of the beach-dune system, accelerate erosion, provide inadequate protection to upland structures, endanger adjacent properties, or interfere with public beach access.<sup>20</sup> Coastal construction is defined as any work or activity likely to have a material physical effect on existing coastal conditions or natural shore and inlet processes.<sup>21</sup> Florida's coastal local governments may also establish coastal construction zoning and building codes in lieu of the statutory requirements as long as they are approved by DEP.<sup>22</sup>

The coastal construction control line (CCCL) defines the portion of the beach-dune system that is subject to severe fluctuations caused by 100-year storm surge, storm waves, or other forces such as wind, wave, or water level changes. A 100-year storm is a shore-incident hurricane or any other storm with accompanying wind, wave, and storm surge intensity that has a one percent chance of being equaled or exceeded in any given year.<sup>23</sup> Seaward of the CCCL, new construction and improvements

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<sup>13</sup> Regional Climate Leadership Summit, Southeast Florida Regional Climate Change Compact (2010), available at <http://southeastfloridaclimatecompact.org/wp-content/uploads/2014/09/compact.pdf> (last visited Jan. 21, 2022); SFRCCC, What is the Compact?, available at <http://southeastfloridaclimatecompact.org/about-us/what-is-the-compact/> (last visited Jan. 21, 2022).

<sup>14</sup> SFRCCC, Regional Climate Action Plan, available at <http://southeastfloridaclimatecompact.org/regional-climate-action-plan/> (last visited Feb. 2, 2023).

<sup>15</sup> SFRCCC, ST-1: Incorporate Projections into Plans, available at <http://southeastfloridaclimatecompact.org/recommendations/incorporate-projections-into-plans/> (last visited Feb. 2, 2023).

<sup>16</sup> Sections 380.24, 163.3177(6)(g), and 163.3178(2)(f), F.S.; see ch. 2015-69, Laws of Fla.

<sup>17</sup> Sections 163.3177(6)(g)10. and 163.3164(1), F.S.; see ch. 2011-139, Laws of Fla.

<sup>18</sup> Office of the Governor, Executive Order Number 19-12, 5 (2019), available at <https://www.flgov.com/wpcontent/uploads/2019/01/EO-19-12-.pdf> (last visited Feb. 2, 2023).

<sup>19</sup> Governor Ron DeSantis, News Releases: *Governor Ron DeSantis Announces Dr. Julia Nesheiwat as Florida's First Chief Resilience Officer* (Aug. 1, 2019), available at <https://flgov.com/2019/08/01/governor-ron-desantis-announces-dr-julia-nesheiwat-asfloridas-first-chief-resilience-officer/> (last visited Feb. 2, 2023).

<sup>20</sup> Section 161.053(1)(a), F.S.

<sup>21</sup> Section 161.021(6), F.S.

<sup>22</sup> Section 161.053(3), F.S.

<sup>23</sup> Section 161.053, F.S.; r. 62B-33.005(1), F.A.C.; DEP, *The Homeowner's Guide to the Coastal Construction Control Line Program* (2017), 3, available at

[https://floridadep.gov/sites/default/files/Homeowner%27s%20Guide%20to%20the%20CCCL%20Program%206\\_2012%20%28002%29\\_0.pdf](https://floridadep.gov/sites/default/files/Homeowner%27s%20Guide%20to%20the%20CCCL%20Program%206_2012%20%28002%29_0.pdf) (last visited Feb. 15, 2023); Rule 62B-33.002(41), F.A.C.

to existing structures generally require a CCCL permit from DEP.<sup>24</sup> Due to the potential environmental impacts and greater risk of hazards from wind and flood, the standards for construction seaward of the CCCL are often more stringent than those that apply to the rest of the coastal building zone.<sup>25</sup> Permit applicants must show that the proposed project will not result in a significant adverse impact.<sup>26</sup> CCCLs are set by DEP on a countywide basis and are currently established for the majority of Florida's coast.<sup>27</sup>

The "mean high-water line" is the point on the shore that marks the average height of the high waters over a 19-year period.<sup>28</sup> The mean high-water line is generally the boundary between the publicly owned shore (the land alternately covered and uncovered by the tide) and the dry sand above the line, which may be privately owned.<sup>29</sup> Generally, construction is prohibited within 50 feet of the mean high-water line, known as the 50-foot setback.<sup>30</sup> Any structures below the mean high-water line that are determined by DEP to serve no public purpose; to endanger human life, health, or welfare; or to be undesirable or unnecessary must be adjusted, altered, or removed.<sup>31</sup>

Above the mean high-water line is the "seasonal high-water line," which accounts for variations in the local mean high water, such as spring tides that occur twice per month.<sup>32</sup> The seasonal high-water line is used to create 30-year erosion projections of long-term shoreline recession based on historical measurements.<sup>33</sup> DEP makes 30-year erosion projections of the location of the seasonal high-water line on a site-specific basis upon receipt of a CCCL permit application.<sup>34</sup> With certain exceptions, DEP and local governments may not issue CCCL permits for the construction of major structures that are seaward of the 30-year erosion projection.<sup>35</sup>

### *The Coastal Zone and Protection Act*

The Legislature enacted the Coastal Zone Protection Act of 1985 (act) to minimize the impacts that activities or construction near the coast have on Florida's coastal areas.<sup>36</sup> The act imposes strict construction standards in Florida's coastal areas to protect the natural environment, private property, and life.<sup>37</sup> The act applies to activities and construction within the coastal building zone, an area stretching landward from the seasonal high-water line to a line 1,500 feet landward from the CCCL.<sup>38</sup>

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<sup>24</sup> Section 161.053, F.S.; chs. 62B-33 and 62B-34, F.A.C.; DEP, *The Homeowner's Guide to the Coastal Construction Control Line Program* (2017), 3, available at [https://floridadep.gov/sites/default/files/Homeowner%27s%20Guide%20to%20the%20CCCL%20Program%206\\_2012%20%28002%29\\_0.pdf](https://floridadep.gov/sites/default/files/Homeowner%27s%20Guide%20to%20the%20CCCL%20Program%206_2012%20%28002%29_0.pdf) (last visited March 1, 2023); DEP, ASK - Have Questions about the Coastal Construction Control Line (CCCL)?, available at <https://floridadep.gov/water/coastal-construction-control-line/content/ask-have-questions-about-coastal-construction> (last visited March 1, 2023).

<sup>25</sup> Chapter 62B-33, F.A.C.

<sup>26</sup> Rule 62B-33.005, F.A.C.

<sup>27</sup> Section 161.053(2), F.S.; DEP Geospatial Open Data, Coastal Construction Control Lines (CCCL), [http://geodata.dep.state.fl.us/datasets/4674ee6d93894168933e99aa2f14b923\\_2?geometry=-102.41%2C25.011%2C-60.596%2C31.77](http://geodata.dep.state.fl.us/datasets/4674ee6d93894168933e99aa2f14b923_2?geometry=-102.41%2C25.011%2C-60.596%2C31.77) (last visited March 1, 2023).

<sup>28</sup> Sections 177.27(14) and (15), F.S.

<sup>29</sup> Section 177.28, F.S.; ss. 161.052(1), 161.151(3), 161.161(3)-(5), and 161.191, F.S. Where an "erosion control line" is established, it serves as the mean high-water line when it is landward of the existing mean high-water line, and all lands seaward of a recorded erosion control line are deemed to be vested in the state.

<sup>30</sup> Rule 62B-33.002(17), F.A.C.

<sup>31</sup> Section 161.061, F.S.

<sup>32</sup> Section 161.053(5)(a)2., F.S., defines "seasonal high-water line" to mean the line formed by the intersection of the rising shore and the elevation of 150 percent of the local mean tidal range above local mean high water; NOAA, *What Are Spring and Neap Tides?*, available at <https://oceanservice.noaa.gov/facts/springtide.html> (last visited March 1, 2023).

<sup>33</sup> Rules 62B-33.024, F.A.C.

<sup>34</sup> *Id.*

<sup>35</sup> Section 161.053(5), F.S.; DEP, *The Homeowner's Guide to the Coastal Construction Control Line Program* (2017), 6, available at [https://floridadep.gov/sites/default/files/Homeowner%27s%20Guide%20to%20the%20CCCL%20Program%206\\_2012%20%28002%29\\_0.pdf](https://floridadep.gov/sites/default/files/Homeowner%27s%20Guide%20to%20the%20CCCL%20Program%206_2012%20%28002%29_0.pdf) (last visited March 12, 2023).

<sup>36</sup> Sections 161.52-161.58, F.S.

<sup>37</sup> Sections 161.53(1), (4), and (5), F.S.

<sup>38</sup> Section 161.54(1), F.S.; s. 161.55(4), F.S. On coastal barrier islands, the coastal building zone stretches 5,000 feet landward from the CCCL.

The act generally requires construction to be located a sufficient distance landward of the beach to allow natural shoreline fluctuations and preserve dune stability.<sup>39</sup> Nonhabitable major structures<sup>40</sup> and minor structures<sup>41</sup> must be designed to produce the minimum adverse impact on the beach and dune system.<sup>42</sup> Minor structures must be designed to produce the minimum adverse impact to adjacent properties and reduce the potential for water- or wind-blown material.<sup>43</sup>

At or prior to the time that a contract is executed for the sale of real property located partially or totally seaward of the CCCL, the seller must give a prospective purchaser a written disclosure statement that states the property may be subject to coastal erosion and to federal, state, and local regulations that govern coastal property.<sup>44</sup> The disclosure statement must indicate that additional information can be obtained from DEP on whether significant erosion conditions are associated with the shoreline of the property being purchased.

### Senate Bill 178 (2020)

In 2020, the Legislature passed Senate Bill 178, which prohibited a public entity<sup>45</sup> from commencing construction of a state-funded coastal structure<sup>46</sup> unless the entity had conducted a sea level impact projection (SLIP) study, submitted the study to DEP, and received notification from DEP that the study was received and has been published on DEP's website for at least 30 days.<sup>47</sup>

The bill directed DEP to adopt rules to develop a standard by which public entities must conduct the SLIP study and specified that the SLIP study requirement would take effect one year after the rule became effective.<sup>48</sup> DEP adopted rules in accordance with the bill that became effective July 1, 2021. The SLIP study requirement took effect July 1, 2022.<sup>49</sup>

The bill specified that the standard adopted by DEP rule must require the public entity to:

- Use a systematic, interdisciplinary, and scientifically accepted approach in the natural sciences and construction design in conducting the SLIP study;
- Assess the flooding, inundation, and wave action damage risks relating to the coastal structure over its expected life or 50 years, whichever is less; and

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<sup>39</sup> Section 161.55(3), F.S. The act makes exceptions for certain structures such as piers, beach access ramps, or shore protection structures.

<sup>40</sup> Section 161.54(6)(a), F.S., defines "major structure" to mean houses, mobile homes, apartment buildings, condominiums, motels, hotels, restaurants, towers, other types of residential, commercial, or public buildings, and other construction having the potential for substantial impact on coastal zones. Section 161.54(6)(c), F.S., defines "nonhabitable major structure" to mean swimming pools; parking garages; pipelines; piers; canals, lakes, ditches, drainage structures, and other water retention structures; water and sewage treatment plants; electrical power plants, and all related structures or facilities, transmission lines, distribution lines, transformer pads, vaults, and substations; roads, bridges, streets, and highways; and underground storage tanks.

<sup>41</sup> Section 161.54(6)(b), F.S., defines "minor structure" to mean pile-supported, elevated dune and beach walkover structures; beach access ramps and walkways; stairways; pile-supported, elevated viewing platforms, gazebos, and boardwalks; lifeguard support stands; public and private bathhouses; sidewalks, driveways, parking areas, shuffleboard courts, tennis courts, handball courts, racquetball courts, and other uncovered paved areas; earth retaining walls; and sand fences, privacy fences, ornamental walls, ornamental garden structures, aviaries, and other ornamental construction.

<sup>42</sup> Sections 161.55(1) and 161.55(2), F.S.

<sup>43</sup> Section 161.55(1), F.S.

<sup>44</sup> Section 161.57(2), F.S.

<sup>45</sup> Section 161.551(1)(b), F.S., defines the term "public entity" to mean the state or any of its political subdivisions, or any municipality, county, agency, special district, authority, or other public body corporate of the state that is demonstrated to perform a public function or to serve a governmental purpose that could properly be performed or served by an appropriate governmental unit.

<sup>46</sup> Section 161.551(1)(a), F.S., defines the term "coastal structure" to mean a major structure or nonhabitable major structure within the coastal building zone

<sup>47</sup> Chapter 2020-119, Laws of Fla.

<sup>48</sup> Section 161.551(3), F.S.

<sup>49</sup> Rule 62S-7.011(1), Fla. Admin. Code

- Provide alternatives for the coastal structure's design and siting, and how such alternatives would impact certain public safety and environmental risks as well as the risk and cost associated with maintaining, repairing, and constructing the coastal structure.

The bill specifically required the risk assessment conducted by the public entity to:

- Take into account potential relative local SLR and increased storm risk during the expected life of the coastal structure or 50 years, which is less, and, to the extent possible, account for the contribution of SLR versus land subsidence to the relative local SLR;
- Provide scientific and engineering evidence of the risk to the coastal structure and methods used to mitigate, adapt to, or reduce the risk;
- Use and consider available scientific research and generally accepted industry practices;
- Provide the mean average annual chance of substantial flood damage over the expected life of the coastal structure or 50 years, whichever is less; and
- Analyze potential public safety and environmental impacts resulting from damage to the coastal structure, including leakage of pollutants, electrocution and explosion hazards, and hazards resulting from floating or flying structural debris.

The bill specified that the public entity is solely responsible for ensuring that the SLIP study submitted to DEP for publication meets these requirements and required DEP to publish and maintain a copy of all SLIP studies for at least 10 years after receipt. The bill required DEP to redact any information exempt from public records requirements before publishing the study.

In addition, the bill specified that if multiple coastal structures are to be built concurrently within one project, a public entity may conduct and submit one SLIP study for the entire project.

If a public entity commences construction of a coastal structure but has not conducted a SLIP study, the bill authorized DEP to institute a civil action to seek injunctive relief to cease further construction of the coastal structure or enforce compliance or, if the coastal structure has been completed or substantially completed, to seek recovery of all or a portion of the state funds expended on the coastal structure.

Lastly, the bill specified that the failure to implement what is contained in the SLIP study does not create a cause of action for damages or otherwise authorize the imposition of penalties by a public entity.

#### Resilient Florida Program

Established within DEP in 2021, The Resilient Florida Program (Program) enhances efforts to protect Florida's inland waterways, coastlines, and shores, which serve as invaluable natural defenses against SLR.<sup>50</sup> The Program includes a selection of grants that are available to counties, municipalities, water management districts, flood control districts and regional resilience entities.<sup>51</sup> To effectively address the impacts of flooding and SLR that the state faces, eligible applicants may receive funding assistance to analyze and plan for vulnerabilities, as well as implement projects for adaptation and mitigation. The Resilient Florida Program creates grant funding opportunities under the Resilient Florida Grant Program and the Statewide Flooding and Sea Level Rise Resilience Plan.<sup>52</sup>

#### *Resilient Florida Grant Program*

Under the Resilient Florida Grant Program, subject to appropriation, DEP may provide grants to a county or municipality to fund<sup>53</sup>:

- Costs of community resilience planning and necessary data collection for such planning, including comprehensive plan amendments and necessary corresponding analyses that address Peril of Flood requirements;
- Vulnerability assessments that identify or address risks of inland or coastal flooding and SLR;<sup>54</sup>

<sup>50</sup> DEP, *Resilient Florida Program*, <https://floridadep.gov/ResilientFlorida> (last visited March 2, 2023).

<sup>51</sup> DEP, *Resilient Florida Grants*, <https://floridadep.gov/Resilient-Florida-Program/Grants> (last visited March 2, 2023).

<sup>52</sup> Sections 380.093(3) and 380.093(5).

<sup>53</sup> Section 380.093(3), F.S.

- The development of projects, plans, and policies that allow communities to prepare for threats from flooding and SRL; and
- Preconstruction activities for projects to be submitted for inclusion in the Statewide Flooding and Sea Level Rise Resilience Plan that are located in a municipality that has a population of 10,000 or fewer or a county that has a population of 50,000 or fewer.

### The Florida Flood Hub

In 2021, the Legislature established The Florida Flood Hub for Applied Research and Innovation (Flood Hub) within the University of South Florida (USF) College of Marine Science to bridge the gap between scientists, policymakers, practitioners, and the public to help communities mitigate and adapt to flooding risks.<sup>55</sup> The Flood Hub is required to organize existing data needs, establish community-based programs to improve flood monitoring, and develop opportunities to partner with other flood and SLR research and innovation leaders.<sup>56</sup> The Flood Hub must also submit an annual comprehensive report to the Governor, the President of the Senate, and the Speaker of the House of Representatives that outlines its clearly defined goals, efforts, and progress.<sup>57</sup>

### **Effect of the Bill**

The bill expands the Resilient Florida Grant Program to provide funding to:

- Municipalities and counties for feasibility studies and permitting costs for nature-based solutions that reduce the impact of flooding and SLR.
- Water management districts to support local government adaptation planning, which may be conducted by the water management district or by a third party on behalf of the water management district. These grants must be used for the express purpose of supporting the Flood Hub and DEP through data creation and collection, modeling, and the implementation of statewide standards. Priority must be given to filling critical data gaps identified by the Flood Hub.

The bill expands the requirement for public entities to conduct a SLIP study before commencing construction of certain state-financed coastal structures to apply the requirement to certain structures that are within any area that is at risk due to SLR, not just areas within the coastal building zone. The structures that are subject to this requirement are any “potentially at-risk structures or infrastructure,” which are defined as any of the following when within an area at risk due to SLR:

- A critical asset as defined in s. 380.093(2)(a)1.-3.<sup>58</sup>
- A historical or cultural asset.

The bill defines an “area at risk due to sea level rise” as any location that is projected to be below the threshold for tidal flooding within the next 50 years by adding SLR using the highest of two local SLR scenarios, which must include the 2017 NOAA intermediate-low and intermediate-high SLR projections.

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<sup>54</sup> Sections 380.093(3)(b)(2) and 380.093(3)(c), F.S.

<sup>55</sup> Section 380.0933, F.S.; USF College of Marine Science, *Florida Flood Hub for Applied Research and Innovation*, <https://www.usf.edu/marine-science/research/florida-flood-hub-for-applied-research-and-innovation/> (last visited March 2, 2023).

<sup>56</sup> Section 380.0933(2), F.S.

<sup>57</sup> Section 380.0933(5), F.S.

<sup>58</sup> Section 380.093(2)(a)1.-3. defines the term “critical asset” to include:

1. Transportation assets and evacuation routes, including airports, bridges, bus terminals, ports, major roadways, marinas, rail facilities, and railroad bridges.

2. Critical infrastructure, including wastewater treatment facilities and lift stations, stormwater treatment facilities and pump stations, drinking water facilities, water utility conveyance systems, electric production and supply facilities, solid and hazardous waste facilities, military installations, communications facilities, and disaster debris management sites.

3. Critical community and emergency facilities, including schools, colleges, universities, community centers, correctional facilities, disaster recovery centers, emergency medical service facilities, emergency operation centers, fire stations, health care facilities, hospitals, law enforcement facilities, local government facilities, logistical staging areas, affordable public housing, risk shelter inventory, and state government facilities.

The bill requires the SLIP study standard risk assessment to provide an estimated probability of significant flood damage to the structure or infrastructure, to provide a list of flood mitigation strategies evaluated as part of the design of the structure or infrastructure, and to identify appropriate flood mitigation strategies for consideration as part of the structure or infrastructure design.

The bill defines “significant flood damage” to mean flood, erosion, inundation, or wave action damage resulting from a discrete or compound natural hazard event, such as a flood or tropical weather system, where such damage exceeds:

- 25 percent of the replacement cost of the structure or infrastructure at the time of the event; or
- A defined threshold established by DEP by rule, in coordination with the Department of Transportation and water management districts, for a potentially at-risk structure or infrastructure where replacement cost is not an appropriate metric, such as roadways. The threshold must be established by July 1, 2024.

The bill specifies that the SLIP study requirements must apply beginning July 1, 2024.

The bill sunsets s. 161.551, F.S., which requires SLIP studies for state financed structures within the coastal building zone, as these structures will be subject to the new SLIP study requirements created in the bill.

#### B. SECTION DIRECTORY:

Section 1. Amends s. 380.093, F.S., relating to the Resilient Florida Grant Program.

Section 2. Creates s. 380.0937, F.S., relating to public financing of construction projects within areas at risk due to SLR.

Section 3. Amends s. 161.551, F.S., relating to public financing of construction projects within the coastal building zone.

Section 4. Provides an effective date of July 1, 2023.

## II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

#### A. FISCAL IMPACT ON STATE GOVERNMENT:

##### 1. Revenues:

None.

##### 2. Expenditures:

The bill may have an indeterminate negative fiscal impact on state government in the short-term because the bill requires governmental entities to conduct a SLIP study prior to construction of at-risk structures. However, the SLIP study will identify risks that could potentially avoid damage and loss of structures that were constructed using state funds, so the bill may result in an indeterminate positive fiscal impact to state government in the long-term.

The bill may have an indeterminate negative fiscal impact on DEP because it requires DEP to conduct rulemaking, update the SLIP Study Tool, and maintain copies of each SLIP study on its website for at least 10 years; however, these costs can be absorbed within DEP’s existing resources.

#### B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

##### 1. Revenues:

None.



2. Expenditures:

The bill may have an indeterminate negative fiscal impact on local governments because the bill requires governmental entities to conduct a SLIP study prior to construction of certain structures. However, the SLIP study will identify risks that could potentially avoid fiscal damage and loss of those structures, so the bill may result in an indeterminate positive fiscal impact to local governments in the long-term.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

None.

### III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

The county/municipality mandates provision of Art. VII, section 18, of the Florida Constitution may apply because this bill requires counties and municipalities that use state funds to build a structure in an area at risk of sea level rise to conduct a SLIP study before commencing construction. However, an exemption may apply if the bill results in an insignificant fiscal impact to county or municipal governments.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The bill would require DEP to revise its rules regarding SLIP studies for state funded structures.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

### IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

Not applicable.