

HOUSE OF REPRESENTATIVES STAFF FINAL BILL ANALYSIS

BILL #: CS/HB 579 Public Financing of Construction Projects
SPONSOR(S): Agriculture & Natural Resources Subcommittee, Aloupis and others
TIED BILLS: **IDEN./SIM. BILLS:** CS/CS/SB 178

FINAL HOUSE FLOOR ACTION: 115 Y's 0 N's **GOVERNOR'S ACTION:** Approved

SUMMARY ANALYSIS

CS/HB 579 passed the House on March 11, 2020, as CS/CS/SB 178.

With 1,350 miles of coastline and relatively low elevations, Florida is particularly vulnerable to coastal flooding. One of the primary ways that climate change influences coastal flooding is through sea-level rise. Sea-level rise is an observed increase in the average local sea level or global sea level trend. Florida's coastal communities are experiencing high-tide flooding events with increasing frequency because sea-level rise increases the height of high tides. In the United States, sea-level rise and flooding threaten an estimated \$1 trillion in coastal real estate value, and analysts estimate that Florida could lose more than \$300 billion in property value by 2100.

Under current law, coastal construction is regulated by the Department of Environmental Protection (DEP) in order to protect beaches and dunes from 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.

Effective July 1, 2021, the bill requires DEP to adopt rules to develop a standard by which a governmental entity must conduct a sea level impact projection (SLIP) study under certain circumstances. Beginning one year after the date the rules are finalized and are otherwise in effect, the bill prohibits a governmental entity from commencing construction of a state-funded coastal structure unless the entity has conducted a SLIP study, submitted the SLIP study to DEP, and received notification from DEP that the SLIP study was received and has been published on DEP's website for at least 30 days.

The bill specifies that the SLIP study standard adopted by DEP rule must require the governmental entity to:

- Use a systematic, interdisciplinary, and scientifically accepted approach 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
- Provide alternatives for the coastal structure's design and siting, and how such alternatives would impact certain public health and environmental risks as well as the risk and cost associated with maintaining, repairing, and constructing the coastal structure.

If a governmental entity commences construction of a state-funded coastal structure but has not conducted the SLIP study, the bill authorizes 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, seek recovery of all or a portion of the state funds expended on the coastal structure.

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

The bill may have an indeterminate negative fiscal impact on DEP, however, the proposed House of Representatives' Fiscal Year 2020-2021 General Appropriations Act appropriates \$6,000,353 within DEP for the Florida Resilient Coastline Initiative. The bill may also have an indeterminate positive fiscal impact on state and local governments in the long-term.

The bill was approved by the Governor on June 29, 2020, ch. 2020-119, L.O.F., and will become effective on July 1, 2020, except as otherwise provided.

This document does not reflect the intent or official position of the bill sponsor or House of Representatives.

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I. SUBSTANTIVE INFORMATION

A. EFFECT OF CHANGES:

Background

Sea-Level Rise and Coastal Flooding

With 1,350 miles of coastline and relatively low elevations, Florida is particularly vulnerable to coastal flooding.¹ One of the primary ways that climate change influences coastal flooding is through sea-level rise.² Sea-level rise is an observed increase in the average local sea level or global sea level trend.³

The two major causes of global sea-level rise are thermal expansion caused by the warming of the oceans and the loss of land-based ice due to melting.⁴ Since 1880, the average global sea level has risen approximately eight to nine inches, and the rate of global sea-level rise has been accelerating.⁵ The National Oceanic and Atmospheric Administration (NOAA) utilizes tide gauges to measure changes in sea level and provides data on local sea-level rise trends.⁶ Analysis of this data shows that some low-lying areas in the southeastern United States experience higher local rates of sea-level rise than the global average.⁷

Florida's coastal communities are experiencing high-tide flooding events with increasing frequency because sea-level rise increases the height of high tides.⁸ In the U.S., sea-level rise and flooding threaten an estimated \$1 trillion in coastal real estate value, and analysts estimate that Florida could lose more than \$300 billion in property value by 2100.⁹ Sea-level rise further affects the salinity of both surface water and groundwater through saltwater intrusion, posing a risk particularly for shallow coastal aquifers.¹⁰ Sea-level rise also pushes saltwater further upstream in tidal rivers and streams, raises coastal groundwater tables, and pushes saltwater further inland at the margins of coastal wetlands.¹¹

Storm surge intensity and the intensity and precipitation rates of hurricanes are generally projected to increase,¹² and higher sea levels will cause storm surges to travel farther inland and impact more properties than in the past.¹³ Stronger storms and sea-level rise are likely to lead to increased coastal erosion.¹⁴

Increases in evaporation rates and water vapor in the atmosphere increase rainfall intensity and extreme precipitation events, and the sudden onset of water can overwhelm stormwater

¹ 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 (last visited Jan. 27, 2020). 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.

² *Id.* at 107.

³ DEP, *Florida Adaptation Planning Guidebook: Glossary* [hereinafter "DEP Guidebook"] (2018), available at <https://floridadep.gov/sites/default/files/AdaptationPlanningGuidebook.pdf> (last visited Jan. 27, 2020).

⁴ National Aeronautics and Space Administration (NASA), *Facts: Sea Level*, available at <https://climate.nasa.gov/vital-signs/sea-level/> (last visited Jan. 27, 2020).

⁵ 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 (last visited Jan. 27, 2020).

⁶ NOAA, *What is a Tide Gauge?*, available at <https://oceanservice.noaa.gov/facts/tide-gauge.html> (last visited Jan. 27, 2020); NOAA, Tides and Currents, *Sea Level Trends*, available at <https://tidesandcurrents.noaa.gov/sltrends/> (last visited Jan. 27, 2020).

⁷ NCA4 at 757.

⁸ 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 Jan. 27, 2020).

⁹ NCA4 at 324, 758.

¹⁰ SHMP at 106.

¹¹ *Id.* at 108.

¹² SHMP at 106, 141; NCA4 at 95, 97, 116-117, 1482.

¹³ NCA4 at 758; SHMP at 107.

¹⁴ NCA4 at 331, 340-341, 833, 1054, 1495; SHMP at 108, 221.

infrastructure.¹⁵ As sea levels and groundwater levels rise, low areas drain more slowly, and the combined effects of rising sea levels and extreme rainfall events are increasing the frequency and magnitude of coastal and lowland flood events.¹⁶

State, Regional, and Local Programs

Many state, regional, and local programs and policies are in place that address issues relating to sea-level rise and coastal flooding. For example, the Office of Resilience and Coastal Protection within the Department of Environmental Protection (DEP) implements numerous programs related to sea-level rise and coastal issues, including the Coastal Construction Control Line Program and the Beach Management Funding Assistance Program.¹⁷ DEP also implements the Florida Resilient Coastlines Program, which helps prepare coastal communities and habitats for the effects of climate change, especially sea-level rise, by offering technical assistance and funding to communities dealing with coastal flooding, erosion, and ecosystem changes.¹⁸

On the regional level, through a collaboration to address climate change, Broward, Miami-Dade, Monroe, and Palm Beach Counties formed the Southeast Florida Regional Climate Change Compact (Compact).¹⁹ The Compact's work includes developing a Regional Climate Action Plan and developing a Unified Sea-Level Rise Projection.²⁰ Many local governments in southeast Florida have since incorporated the Compact's projections into their planning documents and policies.²¹

Florida's local governments in coastal areas are required to have a coastal management element in their comprehensive plans that uses principles to reduce flood risk and eliminate unsafe development in coastal areas.²² 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 sea-level rise.²³

Office of Resilience and Coastal Protection

In January 2019, Governor DeSantis 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 sea-level rise by providing funding, technical assistance, and coordination among state, regional, and local entities.²⁴ 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 sea-level rise and climate change.²⁵

Coastal Construction

Under current law, coastal construction is regulated by DEP in order to protect Florida's beaches and dunes from imprudent construction that can jeopardize the stability of the beach-dune system,

¹⁵ SHMP at 99, 106, 116, 141, 181; NCA4 at 88, 762-763.

¹⁶ SHMP at 106; NCA4 at 763.

¹⁷ DEP, *Beaches: About Us*, available at <https://floridadep.gov/rcp/beaches> (last visited Jan. 27, 2020).

¹⁸ DEP, *Florida Resilient Coastlines Program*, available at <https://floridadep.gov/rcp/florida-resilient-coastlines-program> (last visited Jan. 27, 2020).

¹⁹ 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. 27, 2020); SFRCCC, *What is the Compact?*, available at <http://southeastfloridaclimatecompact.org/about-us/what-is-the-compact/> (last visited Jan. 27, 2020).

²⁰ SFRCCC, *Regional Climate Action Plan*, available at <http://southeastfloridaclimatecompact.org/regional-climate-action-plan/> (last visited Jan. 27, 2020).

²¹ SFRCCC, *ST-1: Incorporate Projections into Plans*, available at <http://southeastfloridaclimatecompact.org/recommendations/incorporate-projections-into-plans/> (last visited Jan. 27, 2020).

²² Sections 380.24, 163.3177(6)(g), and 163.3178(2)(f), F.S.; see Ch. 2015-69, Laws of Fla.

²³ Sections 163.3177(6)(g)10. and 163.3164(1), F.S.; see Ch. 2011-139, Laws of Fla.

²⁴ Office of the Governor, *Executive Order Number 19-12*, 5 (2019), available at <https://www.flgov.com/wp-content/uploads/2019/01/EO-19-12-.pdf> (last visited Jan. 27, 2020).

²⁵ 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-as-floridas-first-chief-resilience-officer/> (last visited Jan. 27, 2020).

accelerate erosion, provide inadequate protection to upland structures, endanger adjacent properties, or interfere with public beach access.²⁶ 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.²⁷ 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.²⁸

The coastal construction control line (CCCL) defines the portion of the beach-dune system that is subject to severe fluctuations caused by a 100-year storm surge, storm waves, or other forces such as wind, wave, or water level changes.²⁹ A 100-year storm is a shore-incident hurricane or any other storm with accompanying wind, wave, and storm surge intensity that has a 1 percent chance of being equaled or exceeded in any given year.³⁰ Seaward of the CCCL, new construction and improvements to existing structures generally require a CCCL permit from DEP.³¹ 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.³² Permit applicants must show that the proposed project will not result in a significant adverse impact.³³ CCCLs are set by DEP on a countywide basis and are currently established for the majority of Florida's coast.³⁴

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.³⁵ The mean high-water line is generally the boundary between the publicly owned foreshore (the land alternately covered and uncovered by the tide) and the dry sand above the line, which may be privately owned.³⁶ Generally, construction is prohibited within 50 feet of the mean high-water line, known as the 50-foot setback.³⁷ Any structures below the mean high-water line that are determined by DEP to serve no public purpose; endanger human life, health, or welfare; or be considered undesirable or unnecessary must be adjusted, altered, or removed.³⁸

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.³⁹ The seasonal high-water line is used to create 30-year erosion projections of long-term shoreline recession based on historical

²⁶ Section 161.053(1)(a), F.S.

²⁷ Section 161.021(6), F.S.

²⁸ Section 161.053(3), F.S.

²⁹ 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 (last visited Jan. 27, 2020).

³⁰ Rule 62B-33.002(41), F.A.C.

³¹ 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 (last visited Jan. 27, 2020); 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 Jan. 27, 2020).

³² Chapter 62B-33, F.A.C.

³³ Rule 62B-33.005, F.A.C.

³⁴ 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 (last visited Jan. 27, 2020).

³⁵ Sections 177.27(14) and (15), F.S.

³⁶ 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.

³⁷ Rule 62B-33.002(17), F.A.C.

³⁸ Section 161.061, F.S.

³⁹ 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 Jan. 27, 2020).

measurements.⁴⁰ 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.⁴¹ 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.⁴²

The Coastal Zone 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.⁴³ The act imposes strict construction standards in Florida's coastal areas to protect the natural environment, private property, and life.⁴⁴ 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.⁴⁵

The act generally requires construction to be located a sufficient distance landward of the beach to allow natural shoreline fluctuations and preserve dune stability.⁴⁶ Nonhabitable major structures⁴⁷ and minor structures⁴⁸ must be designed to produce the minimum adverse impact on the beach and dune system.⁴⁹ Minor structures must be designed to produce the minimum adverse impact to adjacent properties and reduce the potential for water- or wind-blown material.⁵⁰

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.⁵¹ 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.

Effect of the Bill

The bill defines the terms:

- “Coastal structure” to mean a major structure or nonhabitable major structure within the coastal building zone;

⁴⁰ Rules 62B-33.024, F.A.C.

⁴¹ *Id.*

⁴² 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 (last visited Jan. 27, 2020).

⁴³ Sections 161.52-161.58, F.S.

⁴⁴ Sections 161.53(1), (4), and (5), F.S.

⁴⁵ 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.

⁴⁶ Section 161.55(3), F.S. The act makes exceptions for certain structures such as piers, beach access ramps, or shore protection structures.

⁴⁷ 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.

⁴⁸ 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.

⁴⁹ Sections 161.55(1) and 161.55(2), F.S.

⁵⁰ Section 161.55(1), F.S.

⁵¹ Section 161.57(2), F.S.

- “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;
- “SLIP study” to mean a sea level impact projection study as established by DEP;
- “State-financed constructor” to mean a public entity that commissions or manages a construction project using funds appropriated from the state; and
- “Substantial flood damage” to mean flood, inundation, or wave action damage resulting from a single event, such as a flood or tropical weather system, where such damage exceeds 25 percent of the market value of the coastal structure at the time of the event.

Effective July 1, 2021, the bill requires DEP to adopt rules to develop a standard by which a governmental entity must conduct a sea level impact projection (SLIP) study under certain circumstances. Beginning one year after the date the rules are finalized and are otherwise in effect, the bill prohibits a state-financed constructor from commencing construction of a coastal structure unless the constructor has conducted a SLIP study, submitted the SLIP study to DEP, and received notification from DEP that the SLIP study was received and has been published on DEP’s website for at least 30 days.

The bill authorizes DEP to require a professional engineer to sign off on the SLIP study and specifies that the SLIP study standard adopted by rule must require a state-financed constructor 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
- 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 requires the assessment of risks conducted by the state-financed constructor to:

- Take into account potential relative local sea level rise and increased storm risk during the expected life of the coastal structure or 50 years, whichever is less, and, to the extent possible, account for the contribution of sea level rise versus land subsidence to the relative local sea level rise;
- Provide scientific and engineering evidence of the risk to the coastal structure and methods used to mitigate, adapt to, or reduce this 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 specifies that the state-financed constructor is solely responsible for ensuring that the SLIP study submitted to DEP for publication meets these requirements. The bill requires DEP to publish and maintain a copy of all SLIP studies for at least 10 years after receipt. The bill requires DEP to redact any information exempt from public record requirements before publishing the study.

The bill specifies that if multiple coastal structures are to be built concurrently within one project, a state-financed constructor may conduct and submit one SLIP study for the entire project.

If a state-financed constructor commences construction of a coastal structure but has not conducted the SLIP study, the bill authorizes 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.

The bill specifies 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.

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 certain coastal structures. However, the SLIP study will identify risks that could potentially avoid damage and loss of coastal 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 and implement new regulations. The proposed House of Representatives' Fiscal Year 2020-2021 General Appropriations Act appropriates \$6,000,353 (\$5,500,353 in recurring funding) within DEP for the Florida Resilient Coastline Initiative, so DEP can implement the rulemaking and new regulations within 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 coastal structures. The SLIP study will identify risks that could potentially avoid damage and loss of coastal 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.