HOUSE OF REPRESENTATIVES STAFF FINAL BILL ANALYSIS

BILL #: CS/HB 7053 PCB EAF 22-01 Statewide Flooding and Sea Level Rise Resilience
SPONSOR(S): State Affairs Committee; Environment, Agriculture & Flooding Subcommittee; Busatta Cabrera and others
TIED BILLS: **IDEN./SIM. BILLS:** CS/SB 1940

FINAL HOUSE FLOOR ACTION: 114 **Y's** 1 **N's** **GOVERNOR'S ACTION:** Approved

SUMMARY ANALYSIS

CS/HB 7053 passed the House on March 2, 2022, and subsequently passed the Senate on March 9, 2022.

In 2021, the Legislature passed Senate Bill 1954, which established several new programs and initiatives aimed at addressing the impacts of flooding and sea level rise on the state. To assist local governments in resilience planning, the bill created the Resilient Florida Grant Program (grant program), which authorized the Department of Environmental Protection (DEP) to provide grants to a city or county to fund the costs of community resilience planning. SB 1954 also directed DEP to develop a comprehensive flood vulnerability and sea level rise data set and conduct a vulnerability assessment based on the data set. In addition, the bill directed DEP to develop an annual Statewide Flooding and Sea Level Rise Resilience Plan (plan), which consists of a list of ranked projects submitted by cities and counties that address risks posed by flooding and sea level rise. The plan must propose $100 million in funding and be submitted to the Legislature for approval each year. Lastly, SB 1954 established the Florida Flood Hub for Applied Research and Innovation (hub).

This bill establishes the Statewide Office of Resilience within the Executive Office of the Governor. The office must be headed by the Chief Resilience Officer, who is appointed by the governor.

The bill authorizes DEP to provide grants from the grant program to a small city or county to fund preconstruction activities for projects submitted for inclusion in the plan. The bill also extends the dates by which DEP must complete the development of the comprehensive statewide flood vulnerability and sea level rise data set and assessment by one year.

With respect to the plan, the bill requires DEP to rank and include in the plan all eligible projects that were submitted for the plan and to include a detailed narrative overview describing how the plan was developed. In addition, the bill specifies that the plan submitted in 2023 must be an update to the preliminary plan submitted in 2021 and clarifies that the preliminary plan and updates to the preliminary plan submitted in 2021, 2022, and 2023 may include projects submitted by water management districts that mitigate the risks of flooding or sea level rise on water supplies or water resources of the state. The bill also authorizes drainage districts, erosion control districts, regional water supply authorities, and certain special districts to submit proposed projects for the plan under certain circumstances.

The bill requires the hub to provide tidal and storm surge flooding data to cities and counties for vulnerability assessments that are conducted pursuant to the grant program.

Lastly, the bill requires DOT to develop a resilience action plan for the State Highway System based on current conditions and forecasted future events.

The bill may have an insignificant negative fiscal impact on the state that can be absorbed within existing resources and a positive fiscal impact on local governments.

The bill was approved by the Governor on May 3, 2022, ch. 2022-89, L.O.F., and will become effective on July 1, 2022.

I. SUBSTANTIVE INFORMATION

A. EFFECT OF CHANGES:

Background

Sea Level Rise and Flooding

With 1,350 miles of coastline and relatively low elevations, Florida is particularly vulnerable to coastal flooding.[1] There are three primary causes of coastal flooding: sea level rise, storm surge intensity, and rainfall intensity and frequency.[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 the year 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]

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[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. 16, 2022).

[2] *Id*. at 107.

[3] 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 Jan. 16, 2021).

[4] National Aeronautics and Space Administration (NASA), *Facts: Sea Level*, available at https://climate.nasa.gov/vital-signs/sea-level/ (last visited Jan. 16, 2022).

[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. 16, 2022).

[6] NOAA, *What is a Tide Gauge?*, available at https://oceanservice.noaa.gov/facts/tide-gauge.html (last visited Jan. 16, 2022); NOAA, Tides and Currents, *Sea Level Trends*, available at https://tidesandcurrents.noaa.gov/sltrends/ (last visited Jan. 16, 2022).

[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. 16, 2022).

[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.

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 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]

Sea Level Rise Projections

The following table displays projections for future sea level rise, both globally and in regions of Florida:

Sea Level Rise Projections				
Source	**Scale**	**Years**	**Low (feet)**	**High (feet)**
Intergovernmental Panel on Climate Change[17]	Global	2046-2065	0.79	1.05
		2081-2100	1.28	2.32
		2100	1.41	2.76
U.S. Global Change Research Program[18]	Global	2030	0.3	0.6
		2050	0.5	1.2
		2100	1	4.3
Southeast Florida Regional Climate Change Compact Sea Level Rise Work Group[19]	Southeast Florida	2040	0.83	1.42
		2070	1.75	4.5
		2120	3.33	11.33
Tampa Bay Climate Science Advisory Panel[20]	Tampa Bay Region	2050	1	2.5
		2100	2	8.5

As seen in these projections, there are considerable variations in estimates of future sea level rise. Although some local governments and state agencies have adopted sea level rise estimates for planning purposes, Florida has no official estimates of projected sea level rise.

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.

State Programs

In January 2019, Governor DeSantis issued Executive Order 19-12, creating the Office of Resilience and Coastal Protection within the Department of Environmental Protection (DEP) to help prepare Florida's coastal communities and habitats for impacts from sea level rise by providing funding,

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

[16] SHMP at 106; NCA4 at 763.

[17] Intergovernmental Panel on Climate Change (IPCC), *The Ocean and Cryosphere in a Changing Climate*, SPM-7, 4-4, CCB9-21, AI-23, available at https://www.ipcc.ch/site/assets/uploads/sites/3/2019/12/SROCC_FullReport_FINAL.pdf (last visited Jan. 16, 2022). These projected ranges are based on climate models using "representative concentration pathways (RCPs)," which are scenarios of future emissions and concentrations of the full suite of greenhouse gases and aerosols, and chemically active gases, as well as land use/land cover.

[18] NCA4 at 406, 758.

[19] Southeast Florida Regional Climate Change Compact Sea Level Rise Work Group (SFRCCC), *Unified Sea Level Rise Projection: Southeast Florida* (2019), 9, available at https://southeastfloridaclimatecompact.org/wp-content/uploads/2020/04/Sea-Level-Rise-Projection-Guidance-Report_FINAL_02212020.pdf (last visited Jan. 16, 2022). These projections have been accepted or adopted by all four of the Compact counties. *See* SFRCCC, *Unified Sea Level Rise Projections*, available at https://southeastfloridaclimatecompact.org/unified-sea-level-rise-projections/ (last visited Jan. 16, 2022).

[20] Tampa Bay Climate Science Advisory Panel, *Recommended Projections of Sea Level Rise in the Tampa Bay Region* (Apr. 2019), 1, 7, available at http://www.tbrpc.org/wp-content/uploads/2019/05/CSAP_SLR_Recommendation_2019.pdf (last visited Jan. 16, 2022).

technical assistance, and coordination among state, regional, and local entities.[21] 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.[22]

DEP's Office of Resilience and Coastal Protection 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.[23] 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.[24]

Furthermore, DEP has published the Florida Adaptation Planning Guidebook for use by local governments to develop and update adaptation plans for sea level rise.[25] The guidebook breaks down the adaptation planning process into four steps: (1) context; (2) vulnerability assessment; (3) adaptation strategies; and (4) implementation. Using these four steps, the guidebook helps local governments do the following:

- Organize and engage stakeholders, and delineate the geographic boundaries of the planning area, including the assets and structures contained therein.
- Conduct an exposure analysis to determine how much sea level rise will occur and where, conduct a sensitivity analysis to provide an inventory of community assets and features located in areas at risk, and assign focus areas that will receive attention in adaptation strategies.
- Assess adaptive capacities such as planning capabilities and fiscal capacity, prioritize adaptation needs, and identify adaptation strategies, which may include protection, accommodation, retreat, and avoidance strategies.
- Survey funding options; create a schedule of activities, actions, and actors; and monitor and evaluate adaptation strategies.[26]

DEP also operates the Florida Coastal Management Program, which implements the Coastal Partnership Initiative. This initiative makes funding from NOAA available to Florida's 35 coastal counties, and cities therein, that are required to include a coastal zone protection element in their comprehensive plans.[27] Grant applications must benefit the management of coastal resources and meet the purpose of at least one of the initiative's priority areas, which are resilient communities, coastal resource stewardship, access to coastal resources, and working waterfronts.[28]

Additionally, DEP incentivizes the use of living shorelines as an alternative to traditional permits for coastal armoring, which is defined as manmade structures, such as seawalls or bulkheads, that protect upland properties and structures from erosion, wave action, or currents.[29] Living shorelines are a

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[21] 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. 16, 2022).

[22] 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. 16, 2022); Governor DeSantis appointed Wesley Brooks as the third Chief Resilience Officer in November 2021. Associated Press, *DeSantis Appoints New Florida Chief Resilience Officer*, https://apnews.com/article/climate-donald-trump-florida-environment-ron-desantis-e40102bdcb145f0b739897a91bf5da63 (last visited Jan. 16, 2022).

[23] DEP, *Beaches: About Us*, available at https://floridadep.gov/rcp/beaches (last visited Jan. 16, 2022).

[24] DEP, *Florida Resilient Coastlines Program*, available at https://floridadep.gov/rcp/florida-resilient-coastlines-program (last visited Jan. 16, 2022).

[25] DEP Guidebook at 1.

[26] *Id.* at 1-61.

[27] DEP, *Florida Coastal Management Program*, available at https://floridadep.gov/rcp/fcmp (last visited Jan. 16, 2022); DEP, *Coastal Partnership Initiative*, available at https://floridadep.gov/rcp/fcmp/content/coastal-partnership-initiative (last visited Jan. 16, 2022).

[28] Chapter 62S-4, F.A.C.

[29] Sections 161.053 and 161.085, F.S.; rr. 62B-33.0051, 62B-34.010(4), and 62B-41.002(4), F.A.C.

nature-based approach to coastal protection, using natural elements such as ecosystems, vegetation, stone, or organic materials to increase coastal resilience and adapt to sea level rise.[30] DEP provides exemptions from environmental resource permitting for small-scale shoreline stabilization projects, including living shorelines projects.[31]

In addition to DEP, the following other state agencies are working on coastal resilience in Florida using a number of strategies:

- The Department of Transportation prepares Florida's transportation system for potential hazards by creating and updating a long-range resilience plan that provides policy guidance for all transportation partners and establishes a framework for expenditure of state and federal funding.[32]
- The Department of Economic Opportunity works with DEP on the Community Resiliency Initiative, assisting communities with adaptation planning.[33]
- The Fish and Wildlife Conservation Commission works as Florida's lead agency on addressing the impacts of climate change on fish and wildlife, including adaptation strategies for Florida's coastal ecosystems.[34]
- The Division of Emergency Management maintains a statewide emergency management program, which administers federal mitigation grant programs, and serves as Florida's state coordinating agency for the National Flood Insurance Program.[35]

Regional Programs

The water management districts (WMDs) address flood protection as a core part of their respective missions, and many of their activities are related to resilience efforts. For example, the St. Johns River WMD provides resources and cost-sharing to increase community resilience.[36] Additionally, the South Florida WMD is implementing comprehensive plans for addressing sea level rise, including a flood protection level of service program, incorporating sea level rise projections into planning, conducting vulnerability assessments, and assisting local governments.[37]

In 2010, through a proactive regional collaboration to address climate change, the four counties of Broward, Miami-Dade, Monroe, and Palm Beach signed on to the Southeast Florida Regional Climate Change Compact (Compact).[38] The Compact has developed a Regional Climate Action Plan as well as

[30] Bilkovic et. al., *Living Shorelines: The Science and Management of Nature-Based Coastal Protection*, Taylor & Francis Group, 11-25 (2017); Florida Living Shorelines, *Home*, available at http://floridalivingshorelines.com/ (last visited Jan. 16, 2022).
[31] Rule 62-330.051(12)(e), F.A.C.
[32] Department of Transportation (DOT), *Florida Transportation Plan (FTP): Resilience*, available at http://www.floridatransportationplan.com/resilience.htm (last visited Jan. 16, 2022); DOT, *What is the Florida Transportation Plan?*, available at http://www.floridatransportationplan.com/pdf/Standard%20FTP%20Presentation_ResilienceFocus_October2019rev2_for%20web.pdf (last visited Jan. 16, 2022).
[33] Department of Economic Opportunity, *Adaptation Planning – Planning for Coastal Flooding and Sea Level Rise*, available at http://www.floridajobs.org/community-planning-and-development/programs/community-planning-table-of-contents/adaptation-planning (last visited Jan. 16, 2022).
[34] Fish and Wildlife Conservation Commission (FWC), *What FWC is Doing*, available at https://myfwc.com/conservation/special-initiatives/climate-change/fwc/ (last visited Jan. 16, 2022); FWC, *A Guide to Climate Change Adaptation for Conservation*, 6-81–6-108, 9-35–9-51 (2016), available at https://myfwc.com/media/5864/adaptation-guide.pdf (last visited Jan. 16, 2022).
[35] Division of Emergency Management (DEM), *Mitigation*, available at https://www.floridadisaster.org/dem/mitigation/ (last visited Jan. 16, 2022); DEM, *State Flood Plain Management Program*, available at https://www.floridadisaster.org/dem/mitigation/floodplain/ (last visited Jan. 16, 2022).
[36] St. John's River WMD, *Sea-Level Rise*, available at https://www.sjrwmd.com/localgovernments/sea-level-rise/#projects (last visited Jan. 16, 2022).
[37] South Florida WMD, *Impact of Sea Level Rise on the SFWMD Mission, Focus on Flood Protection*, 2, 6, 7-10 (June 13, 2019), available at https://apps.sfwmd.gov/webapps/publicMeetings/viewFile/21920 (last visited Jan. 16, 2022).
[38] Regional Climate Leadership Summit, *SFRCCC* (2010), available at http://southeastfloridaclimatecompact.org/wp-content/uploads/2014/09/compact.pdf (last visited Jan. 16, 2022); SFRCCC, *What is the Compact?*, available at http://southeastfloridaclimatecompact.org/about-us/what-is-the-compact/ (last visited Jan. 15, 2022).

a Unified Sea Level Rise Projection.[39] One of the many recommendations in the regional plan is for local governments in the region to incorporate the unified sea level rise projections into their comprehensive plans, of which 45 have complied.[40]

Some of Florida's regional planning councils also have programs addressing resiliency. For example, the Tampa Bay Regional Planning Council formed the ONE BAY Resilient Communities program, which advances collaborative resilience in the Tampa Bay region.[41] In addition, the East Central Florida Regional Planning Council has produced a Regional Resiliency Action Plan and formed the East Central Florida Regional Resilience Collaborative.[42] Lastly, the Northeast Florida Regional Planning Council created and periodically updates a Regional Action Plan for sea level rise.[43]

Local Governments

Florida law requires local governments located in coastal areas to include a coastal management element in their comprehensive plans.[44] In 2015, the Legislature passed Senate Bill 1094, known as the "peril of flood law," which required local governments to include a redevelopment component in the coastal management element of their comprehensive plans.[45] The redevelopment component must:

- Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas resulting from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea level rise.
- Encourage the use of best practices development and redevelopment principles, strategies, and engineering solutions that will result in the removal of coastal real property from flood zone designations established by the Federal Emergency Management Agency (FEMA).
- Identify site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies issued in the state.
- Be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable federal flood plain management regulations.
- Require that any construction activities seaward of the coastal construction control lines be consistent with ch. 161, F.S., which regulates coastal construction.
- Encourage local governments to participate in the National Flood Insurance Program Community Rating System administered by FEMA to achieve flood insurance premium discounts for their residents.[46]

Additionally, Florida's Community Planning Act authorizes local governments to establish an "adaptation action area" designation in their comprehensive plans for low-lying coastal zones that are experiencing coastal flooding and are vulnerable to the impacts of sea level rise.[47] This enables local

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[39] SFRCCC, *Regional Climate Action Plan*, available at http://southeastfloridaclimatecompact.org/regional-climate-action-plan/ (last visited Jan. 16, 2022); SFRCCC, *Unified Sea Level Rise Projection*, *Southeast Florida* (2015), 5, 11, 13, 33, available at http://www.southeastfloridaclimatecompact.org/wp-content/uploads/2015/10/2015-Compact-Unified-Sea-Level-Rise-Projection.pdf (last visited Jan. 16, 2022).

[40] SFRCCC, *ST-1: Incorporate Projections Into Plans*, available at http://southeastfloridaclimatecompact.org/recommendations/incorporate-projections-into-plans/ (last visited Jan. 16, 2022); *see also* SFRCCC, *Integrating the Unified Sea Level Rise Projection into Local Plans*, 17-21 (2017), available at https://southeastfloridaclimatecompact.org/wp-content/uploads/2017/01/SLRGuidance-Doc.pdf (last visited Jan. 16, 2022).

[41] Tampa Bay Regional Planning Council, *One Bay Resilient Communities*, available at http://www.tbrpc.org/onebay/ (last visited Jan. 16, 2022).

[42] East Central Florida Regional Planning Council, *East Central Florida Regional Resiliency Action Plan* (2018), available at http://ftp.ecfrpc.org/Projects/East%20Central%20Florida%20Regional%20Resiliency%20Action%20Plan.pdf (last visited Jan. 16, 2022); East Central Florida Regional Planning Council, *East Central Florida Regional Resilience Collaborative*, available at https://metroplanorlando.org/wp-content/uploads/CFMPOA-MOU-presentation.pdf (last visited Jan. 16, 2022).

[43] Northeast Florida Regional Council, *Strategic Regional Policy Plan 2020 Update*, available at https://www.nefrc.org/srppupdate2020 (last visited Jan. 16, 2022).

[44] Sections 380.24 and 163.3177(6)(g), F.S.

[45] Chapter 2015-69, Laws of Fla.

[46] Section 163.3178(2)(f), F.S.

[47] Sections 163.3177(6)(g), 163.3177(10) and 163.3164(1), F.S.; ch. 2011-139, Laws of Fla.

governments to develop policies and funding priorities that improve coastal resilience and to plan for sea level rise.

Senate Bill 1954 (2021)

In 2021, the Legislature passed SB 1954,[48] which established several new programs and initiatives aimed at addressing the impacts of flooding and sea level rise on the state. To assist local governments in resilience planning, the bill created the Resilient Florida Grant Program, which authorized DEP to provide grants to a city or a county to fund the costs of community resilience planning and necessary data collection for such planning. Upon completion of a vulnerability assessment, the bill required the city or county to submit to DEP a report detailing the findings of the assessment, all electronic mapping data used to illustrate the sea level rise impacts identified in the vulnerability assessment, and a list of critical assets,[49] including regionally significant assets, that are impacted by sea level rise.[50]

In an effort to begin developing a coordinated statewide approach to addressing risks to the state,[51] SB 1954 required DEP, by July 1, 2022, to complete the development of a comprehensive flood vulnerability and sea level rise data set.[52] By July 1, 2023, DEP must use the data set to complete a comprehensive statewide flood vulnerability and sea level rise assessment that identifies inland and coastal infrastructure, geographic areas, and communities that are vulnerable to flooding and sea level rise and the associated risks.[53]

SB 1954 also directed DEP to annually develop a three-year Statewide Flooding and Sea Level Rise Resilience Plan and submit it to the Legislature, which must review and approve funding for the plan, subject to appropriation.[54] The plan must consist of ranked projects that address risks of flooding and sea level rise to coastal and inland communities.[55] DEP is required to implement a scoring system for assessing each project submitted for inclusion in the plan, and each project must have a minimum 50 percent cost-share, with certain exceptions.[56] The bill specified that the first two annual plans, which must be submitted before DEP is required to complete development of the comprehensive statewide vulnerability assessment, must be preliminary plans that address risks identified in local government vulnerability assessments.[57] The first plan was submitted to the Legislature in December 2021, and proposed funding for projects beginning in Fiscal Year 2022-23.[58] DEP provided a ranked list of projects[59] as well as a list categorizing those projects by county.[60]

Lastly, SB 1954 created the Florida Flood Hub for Applied Research and Innovation (hub) within the University of South Florida College of Marine Science[61] to organize existing data needs, establish

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[48] Chapter 2021-28, Laws of Fla.
[49] Section 380.93(2)(a), F.S.
[50] Section 380.93(3)(c), F.S.
[51] Section 380.93(1)(c), F.S.
[52] Section 380.93(4)(a), F.S.
[53] Section 380.93(4)(b), F.S.
[54] Section 380.93(5)(a), F.S.
[55] *Id*.
[56] Section 380.93(5)(e), F.S.
[57] Section 380.93(5)(b), F.S.
[58] Governor Ron DeSantis, *News Releases: Governor Ron DeSantis Announces First Ever Statewide Flooding Resilience Plan* (Dec. 8, 2021), https://www.flgov.com/2021/12/08/governor-ron-desantis-announces-first-ever-statewide-flooding-resilience-plan/ (last visited Jan. 20, 2022).
[59] DEP, *2022-23 Statewide Flooding and Sea Level Rise Resilience Plan*, available at http://publicfiles.dep.state.fl.us/CAMA/FRCP/Resilient%20Florida%207.14.21%20Resources/2022-23%20Statewide%20Flooding%20and%20Sea%20Level%20Rise%20Resilience%20Plan.pdf (last visited Jan. 20, 2022).
[60] DEP, *Protecting Florida Together: 2022-23 Statewide Flooding and Sea Level Rise Resilience Plan*, available at https://protectingfloridatogether.gov/sites/default/files/documents/RF%20statewide%20plan%20PFT%5B2%5D.pdf (last visited Jan. 20, 2022).
[61] Section 380.0933, F.S.

community-based programs to improve flood monitoring, and develop opportunities to partner with other flood and sea level rise research and innovation leaders.[62]

Flood Insurance

FEMA administers the National Flood Insurance Program (NFIP), which was created to offer federally subsidized flood insurance to property owners and to encourage land-use controls in floodplains.[63] The NFIP makes flood insurance available to communities that adopt and enforce a floodplain management ordinance to reduce future flood risk to new construction in floodplains.[64] Communities eligible to participate in the NFIP Community Rating System receive discounts on flood insurance premiums.[65]

An important aspect of the NFIP is the flood maps that FEMA creates to support the program.[66] A Flood Insurance Rate Map is an official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.[67] These maps have many applications relevant to resilience planning, including communicating base flood elevations and flood risk, establishing special flood hazard areas where flood insurance is required, and setting local floodplain and building standards.[68]

To demonstrate the elevation of property which has been developed pursuant to FEMA floodplain management regulations, a surveyor and mapper completes an elevation certificate.[69] A surveyor and mapper must, within 30 days after completion, submit to the Division of Emergency Management (DEM) a copy of each elevation certificate that they complete.[70] The copy must be unaltered, except that the surveyor and mapper may redact the name of the property owner.[71]

Office of Economic & Demographic Research

The Office of Economic & Demographic Research (EDR) is a research arm of the Legislature that is principally concerned with forecasting economic and social trends that affect policymaking, revenues, and appropriations.[72] EDR publishes the official economic, demographic, revenue, and agency workload forecasts that are developed by consensus estimating conferences and makes them available to the Legislature, state agencies, universities, research organizations, and the general public.[73]

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[62] Section 380.0933(2), F.S.

[63] 42 U.S.C. § 4001 *et seq.*; 44 C.F.R. Ch. I, Subchap. B.; FEMA, *Flood Insurance*, available at https://www.fema.gov/national-flood-insurance-program (last visited Jan. 16, 2022).

[64] FEMA, *Flood Insurance*, available at https://www.fema.gov/national-flood-insurance-program (last visited Jan. 16, 2022).

[65] FEMA, *National Flood Insurance Program Community Rating System*, available at https://www.fema.gov/floodplain-management/community-rating-system (last visited Jan. 16, 2022).

[66] FEMA, *FEMA Flood Map Service Center: Welcome!*, available at https://msc.fema.gov/portal/home (last visited Jan. 16, 2022).

[67] 44 C.F.R. § 59.1.

[68] FEMA, *Flood Maps*, available at https://www.fema.gov/media-library-data/1516468489259-8eb4bfef27ab35159b2f140a2926e809/What_Goes_Into_a_Flood_Map.pdf (last visited Jan. 16, 2022); SHMP at 102-103; DEP Guidebook at 40-41.

[69] Section 472.0366(1)(a), F.S.

[70] Section 472.0366(2), F.S.

[71] *Id.*

[72] EDR, *Welcome*, available at http://edr.state.fl.us/Content/ (last visited Jan. 16, 2022).

[73] EDR, *About Us*, available at http://edr.state.fl.us/Content/about/index.cfm (last visited Jan. 16, 2022).

Effect of the Bill

Statewide Office of Resilience

The bill establishes the Statewide Office of Resilience within the Executive Office of the Governor for the purpose of reviewing all flood resilience and mitigation activities in the state and coordinating flood resilience and mitigation efforts with federal, state, and local governmental entities and other stakeholders. The office must be headed by the Chief Resilience Officer, who is appointed by and serves at the pleasure of the governor. The bill requires the Chief Resilience Officer to do the following:

- Serve as a subject-matter expert for the state on issues related to flood resilience and mitigation.
- Be responsible for promoting and coordinating flood resilience and mitigation efforts in the state and identifying gaps across state-supported activities.
- Provide strategic direction for interagency and cross-disciplinary initiatives to minimize the flood vulnerability of critical assets.
- Work with federal, state, regional, and local governmental entities and nongovernmental entities to align flood resilience and mitigation priorities.
- Collaborate with the hub and other appropriate entities to provide technical guidance to state agencies, as well as local and regional governmental entities, to incorporate future standards and projections regarding flooding, including sea level rise projections, into future state projects, plans, and programs.
- Engage with state agencies and WMDs to innovate processes, programs, decision frameworks, and reporting mechanisms intended to bolster flood resilience and mitigation activities.
- Consult with the hub to improve the usability of data products intended to inform state agencies and local governments.

The bill authorizes and directs all state and local governmental entities to assist the Chief Resilience Officer to the extent that such assistance is consistent with law and with budgetary constraints.

Resilient Florida Grant Program

The bill authorizes DEP to provide grants to a city or county to fund preconstruction activities for projects to be submitted for inclusion in the Statewide Flooding and Sea Level Rise Resilience Plan that are located in a city that has a population of 10,000 or fewer or a county that has a population of 50,000 or fewer, according to the most recent April 1 population estimates posted on EDR's website. The bill defines the term "preconstruction activities" to mean activities associated with a project that occur before construction begins, including, but not limited to, design of the project, permitting for the project, surveys and data collection, site development, solicitation, public hearings, local code or comprehensive plan amendments, establishing local funding sources, and easement acquisition.

The bill requires vulnerability assessments for rainfall-induced flooding to include the depth of rainfall-induced flooding for a 100-year storm and a 500-year storm, as defined by the applicable WMD or, if necessary, the appropriate federal agency. Future rainfall conditions should be used, if available. The bill requires all noncoastal communities to perform a rainfall-induced flooding assessment.

Comprehensive Statewide Flood Vulnerability and Sea Level Rise Data Set and Assessment

The bill extends the dates by which DEP must complete the development of the comprehensive statewide flood vulnerability and sea level rise data set and assessment. Under the bill, the data set and the assessment must be completed by July 1, 2023, and July 1, 2024, respectively. The bill requires DEP to consult with the hub when developing the data set for the vulnerability assessment.

Statewide Flooding and Sea Level Rise Resilience Plan

The bill requires DEP to rank and include in the Statewide Flooding and Sea Level Rise Resilience Plan (plan) all eligible projects that were submitted for the plan. DEP must also include in the plan a detailed narrative overview describing how the plan was developed, including a description of the methodology used by DEP to determine project eligibility, a description of the methodology used to rank projects, the specific scoring system used, the project proposal application form, a copy of each

submitted project proposal application form separated by eligible projects and ineligible projects, the total number of project proposals received and deemed eligible, the total funding requested, and the total funding requested for eligible projects.

The bill specifies that the plan submitted in 2023 must be an update to the preliminary plan and clarifies that the preliminary plan, and updates to the preliminary plan submitted in 2021, 2022, and 2023, may include projects submitted by WMDs that mitigate the risks of flooding or sea level rise on water supplies or water resources of the state.

The bill authorizes special districts that are responsible for the management and maintenance of inlets and intracoastal waterways or for the operation and maintenance of a potable water facility, a wastewater facility, an airport, or a seaport facility to submit projects for inclusion in the plan. The bill also specifies that for the preliminary plans, such special districts as well as cities and counties may submit projects identified in existing vulnerability assessments that do not comply with the requirements for vulnerability assessments eligible for funding from the Resilient Florida Grant Program.

The bill authorizes each drainage district, erosion control district, and regional water supply authority to submit to DEP for inclusion in the plan a list of any proposed projects that mitigate the risks of flooding or sea level rise on water supplies or water resources of the state by September 1 of each year.

The bill specifies that the total amount of funding proposed for each year of the plan may not be less than $100 million.

<u>The Florida Flood Hub for Applied Research and Innovation</u>
The bill requires the hub to provide tidal and storm surge flooding data to cities and counties for vulnerability assessments that are conducted pursuant to the Resilient Florida Grant Program. Additionally, the bill requires the hub to provide rainfall-induced and compound flooding datasets, but authorizes the use of more localized data or modeling.

<u>State Highway System Resilience Action Plan</u>
The bill requires the Department of Transportation (DOT) to develop a resilience action plan for the State Highway System based on current conditions and forecasted future events. The bill requires the goals of the action plan to include recommending strategies to enhance infrastructure and the operational resilience of the State Highway System, which may be incorporated into the state's transportation asset management plan; recommending design changes for retrofitting existing and constructing new state highway facilities; and enhancing partnerships to address multijurisdictional resilience needs.

The resilience action plan must include an assessment of the State Highway System to identify roadway facilities and drainage outfalls that may be subject to vulnerabilities associated with tidal, rainfall, the combination of tidal and rainfall, and storm surge flooding, including the future projections of sea level rise, using existing data for current and forecasted future events. As part of this assessment, the bill requires DOT, using the most up-to-date NOAA precipitation frequency and sea level rise data, to do all of the following:

- Synthesize historical and current infrastructure resilience issues statewide;
- Evaluate alternatives for retrofitting existing systems and infrastructure;
- Develop prioritization criteria for resilience project identification;
- Develop a prioritized resilience needs project list, in addition to existing projects within the work program, with the associated costs and timeline; and
- Develop a statewide database identifying and documenting those assets vulnerable to current and future flooding. DOT must develop a cost estimate and schedule to enhance existing data to include site-specific details and existing criteria to improve the needs prioritization.

The resilience action plan must also include a systemic review of DOT's policies, procedures, manuals, tools, and guidance documents to identify revisions that will facilitate cost-effective improvements to

address existing and future State Highway System infrastructure vulnerabilities associated with flooding and sea level rise.

Additionally, the bill requires the resilience action plan to include technical assistance to local agencies and modal partners on resilience issues related to the State Highway System and the deployment of local and regional solutions.

By June 30, 2023, the bill requires DOT to submit the resilience action plan to the Governor, the President of the Senate, and the Speaker of the House of Representatives. Every third year on June 30 thereafter, the bill requires DOT to submit a status report reviewing updates to the action plan and associated implementation activities.

Flood Resilience Report

By December 15, 2022, the bill requires DEP, in consultation with the Chief Resilience Officer, to prepare a report regarding flood resilience and mitigation efforts in the state. The report must be submitted to the Governor, the President of the Senate, and the Speaker of the House of Representatives. The report must include a list of local governments that are required to comply with the peril of flood law, but are not in compliance; a list of local governments that have completed vulnerability assessments that comply with the requirements of the Resilient Florida Grant Program; an overview of the geographic distribution of entities with funded projects in the Statewide Flooding and Sea Level Rise Resilience Plan; and a statewide inventory of basin-level flooding assessments and other related basin-level planning efforts self-reported by WMDs or special districts authorized to submit projects.

Elevation Certificates

Beginning January 1, 2023, the bill requires a surveyor and mapper who submits an elevation certificate to DEM to provide the certificate in digital form as outlined on DEM's website.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   None.

2. Expenditures:

   The bill may have an insignificant negative fiscal impact on DOT that can be absorbed within existing resources associated with developing and implementing the State Highway System resilience action plan. The bill may also have an insignificant negative fiscal impact on DEP that can be absorbed within existing resources associated with developing a flood resilience report.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

   None.

2. Expenditures:

   The bill may have an indeterminate positive fiscal impact on entities that are newly eligible to receive funds through the Statewide Flooding and Sea Level Rise Resilience Plan.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

None.