HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 1073 Statewide Office of Resiliency
SPONSOR(S): Stevenson and Rodriguez, A.M.
TIED BILLS: **IDEN./SIM. BILLS:** SB 7016

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Agriculture & Natural Resources Subcommittee	15 Y, 0 N	Melkun	Moore
2) Appropriations Committee	29 Y, 0 N	White	Pridgeon
3) State Affairs Committee			

SUMMARY ANALYSIS

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 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.

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 for use by state agencies in developing, planning, and implementing their respective duties and responsibilities.

The bill establishes the Statewide Office of Resiliency within the Executive Office of the Governor and requires the office to be headed by a Chief Resilience Officer, who is appointed by and serves at the pleasure of the Governor.

The bill creates the Statewide Sea-Level Rise Task Force (task force) whose purpose is to recommend consensus projections of the anticipated sea-level rise and flooding impacts along Florida's coastline. The bill provides for task force membership and requires all appointments to be made no later than August 1, 2020. The bill requires the task force to develop official scientific information necessary to recommend consensus baseline projections, or a range of projections, of the expected rise in sea level along the state's coastline for planning horizons designated by the task force. The bill further authorizes the task force to designate technical advisory groups, as it deems necessary, to assist in the gathering of scientific data to inform the task force's decision-making.

The bill requires the task force to submit its recommended consensus baseline projections to the Environmental Regulation Commission (ERC) by January 1, 2021, and requires the report to include supporting data and assumptions used in developing the projections. If the ERC adopts the recommended projections, such projections must serve as the state's official estimate of sea-level rise and flooding impacts along the state's coastline and must be used for developing future state projects, plans, and programs. The bill further requires the task force to review the adopted consensus baseline projections, as it deems appropriate, and submit any recommended revisions to the ERC. The bill repeals the task force on July 1, 2023.

For Fiscal Year 2020-21, the bill appropriates $500,000 in nonrecurring funds from the General Revenue Fund to the Department of Environmental Protection to fund any authorized contracting and for task force administrative expenses.

The bill may have an insignificant negative fiscal impact on state government.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED 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 (U.S.) 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 farther upstream in tidal rivers and streams, raises coastal groundwater tables, and pushes saltwater farther 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. 14, 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. 14, 2020).
[4] National Aeronautics and Space Administration (NASA), *Facts: Sea Level*, available at https://climate.nasa.gov/vital-signs/sea-level/ (last visited Jan. 13, 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. 14, 2020).
[6] NOAA, *What is a Tide Gauge?*, available at https://oceanservice.noaa.gov/facts/tide-gauge.html (last visited Jan. 14, 2020); NOAA, Tides and Currents, *Sea Level Trends*, available at https://tidesandcurrents.noaa.gov/sltrends/ (last visited Jan. 14, 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. 14, 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]

Sea-Level Rise Projections
Below is a table of 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	2030	0.5	0.83
		2060	1.17	2.83
		2100	2.58	6.75
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 for use by state agencies in developing, planning, and implementing their respective duties and responsibilities.

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 Department of Environmental Protection's (DEP) 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.[21] 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.[22]

[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://report.ipcc.ch/srocc/pdf/SROCC_FinalDraft_FullReport.pdf (last visited Jan. 14, 2020). 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* (2015), 4-5, available at https://southeastfloridaclimatecompact.org/wp-content/uploads/2015/10/2015-Compact-Unified-Sea-Level-Rise-Projection.pdf (last visited Jan. 13, 2020). These projections are compared to the mean sea level in 1992; *see* SFRCCC, *Unified Sea Level Rise Projections*, available at https://southeastfloridaclimatecompact.org/resources/unified-sea-level-rise-projections/ (last visited Jan. 13, 2020). The SFRCCC will soon release updated projections.
[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. 14, 2020).
[21] DEP, *Beaches: About Us*, available at https://floridadep.gov/rcp/beaches (last visited Jan. 14, 2020).
[22] DEP, *Florida Resilient Coastlines Program*, available at https://floridadep.gov/rcp/florida-resilient-coastlines-program (last visited Jan. 14, 2020).

On the regional level, through a collaboration to address climate change, the four counties of Broward, Miami-Dade, Monroe, and Palm Beach formed the Southeast Florida Regional Climate Change Compact (Compact).[23] The Compact's work includes developing a Regional Climate Action Plan and developing a Unified Sea-Level Rise Projection.[24] Many local governments in southeast Florida have since incorporated the Compact's projections into their planning documents and policies.[25]

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.[26] In certain coastal areas, local governments are further 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.[27]

Office of Resilience and Coastal Protection
In January of 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.[28] In August of 2019, the Governor appointed Florida's first Chief Resilience Officer, who reports to the Executive Officer of the Governor and collaborates with state agencies, local communities, and stakeholders to prepare for the impacts of sea-level rise and climate change.[29]

Environmental Regulation Commission
The Environmental Regulation Commission (ERC), established within DEP, is a non-salaried, seven-member board selected by the governor and subject to confirmation by the Senate. The appointees represent agriculture, the development industry, local government, the environmental community, residents, and the scientific and technical community.[30]

Under specified statutory provisions and with certain exceptions, the ERC must exercise the standard-setting authority of DEP by approving, modifying, or disapproving proposed rules that contain standards.[31] In exercising its authority, the ERC must consider scientific and technical validity, economic impacts, and relative risks and benefits to the public and the environment.[32]

Most issues that go before the ERC relate to air pollution, water quality, or waste management.[33] Generally, the ERC meets on the last Thursday of each month, and the public is encouraged to attend and participate.[34]

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[23] 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. 14, 2020); SFRCCC, *What is the Compact?*, available at http://southeastfloridaclimatecompact.org/about-us/what-is-the-compact/ (last visited Jan. 14, 2020).
[24] SFRCCC, *Regional Climate Action Plan*, available at http://southeastfloridaclimatecompact.org/regional-climate-action-plan/ (last visited Jan. 14, 2020).
[25] SFRCCC, *ST-1: Incorporate Projections into Plans*, available at http://southeastfloridaclimatecompact.org/recommendations/incorporate-projections-into-plans/ (last visited Jan. 14, 2020).
[26] Sections 380.24, 163.3177(6)(g), and 163.3178(2)(f), F.S.; *see* Ch. 2015-69, Laws of Fla.
[27] Sections 163.3177(6)(g)10. and 163.3164(1), F.S.; *see* Ch. 2011-139, Laws of Fla.
[28] 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. 14, 2020).
[29] 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. 14, 2020).
[30] Section 20.255(6), F.S.; DEP, *Environmental Regulation Commission*, available at https://floridadep.gov/ogc/ogc/content/environmental-regulation-commission (last visited Jan. 14, 2020).
[31] Sections 403.803(13), 403.804, and 403.805(1), F.S. "Standard" is defined as any DEP rule relating to air and water quality, noise, solid-waste management, and electric and magnetic fields associated with electrical transmission and distribution lines and substations. The term does not include rules relating to internal management or procedural matters.
[32] Section 403.804, F.S.
[33] DEP, *Environmental Regulation Commission*, available at https://floridadep.gov/ogc/ogc/content/environmental-regulation-commission (last visited Jan. 14, 2020).
[34] *Id.*

Effect of the Bill

The bill establishes the Statewide Office of Resiliency within the Executive Office of the Governor and requires the office to be headed by a Chief Resilience Officer. The Chief Resilience Officer is appointed by and serves at the pleasure of the Governor and must perform duties and responsibilities assigned by the Governor.

The bill creates the Statewide Sea-Level Rise Task Force (task force) whose purpose is to recommend consensus projections of the anticipated sea-level rise and flooding impacts along Florida's coastline. The task force must be composed of the following nine members:

- The Chief Resilience Officer, serving as the chair of the task force;
- DEP's Chief Science Officer, serving as vice-chair of the task force;
- One member appointed by the President of the Senate;
- One member appointed by the Speaker of the House of Representatives; and
- One representative each, appointed by their respective agency head, division director, executive director, or commission chair, from:
    - The Department of Transportation;
    - The Division of Emergency Management;
    - The Department of Agriculture and Consumer Services;
    - The Fish and Wildlife Conservation Commission; and
    - The Department of Economic Opportunity.

The bill requires all appointments to the task force to be made no later than August 1, 2020. The bill further requires any vacancy on the task force to be filled in the same manner as the original appointment.

The bill requires the Chief Resilience Officer to convene the task force by no later than October 1, 2020, and requires the task force to meet thereafter upon the call of the chair. The bill requires the task force to develop official scientific information, from appropriate sources as determined by the task force, necessary to recommend consensus baseline projections, or a range of projections, of the expected rise in sea level along the state's coastline for planning horizons designated by the task force. The projections may address various geographic areas of the state, as determined by the task force.

The bill requires DEP to provide administrative support to the task force and authorizes the task force to request DEP to contract for services to assist in developing the recommended official baseline projections. DEP must serve as the contract administrator for any such contracts. The bill further authorizes the task force to designate technical advisory groups, as it deems necessary, to assist in the gathering of scientific data to inform the task force's decision-making.

The bill requires the task force to submit its recommended consensus baseline projections to the ERC by January 1, 2021. The bill requires the report to include supporting data and assumptions used in developing the recommended projections. The bill requires the ERC to adopt or reject the task force's recommended projections. Following adoption by the ERC, projections must serve as the state's official estimate of sea-level rise and flooding impacts along the state's coastline and must be used for developing future state projects, plans, and programs. The bill further requires the task force to review the adopted consensus baseline projections, as it deems appropriate, and submit any recommended revisions to the projections to the ERC.

The bill repeals the task force on July 1, 2023.

For Fiscal Year 2020-21, the bill appropriates $500,000 in nonrecurring funds from the General Revenue Fund to DEP to fund any contracts for services that DEP enters into to assist the task force in developing its recommended official baseline projections and for the administrative expenses of the task force.

B. SECTION DIRECTORY:

Section 1. Creates s. 14.2031, F.S., establishing the Statewide Office of Resiliency and creating the Statewide Sea-Level Rise Task Force.

Section 2. Appropriates $500,000 from the General Revenue Fund to DEP.

Section 3. Provides an effective date of July 1, 2020.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

The bill will have an insignificant negative fiscal impact on the Executive Office of the Governor by creating a new Statewide Office of Resiliency and a Chief Resilience Officer. The Chief Resiliency Officer has already been established and appointed by the Governor, so this impact can be absorbed within existing resources.

The bill may have an insignificant negative fiscal impact on state government expenditures because the bill requires certain state agencies to appoint members to the task force. The costs associated with these appointments can be absorbed within existing resources.

The bill may have an insignificant negative fiscal impact on DEP because the bill requires DEP to provide administrative support to the task force. The bill may also have an insignificant negative fiscal impact on the ERC because the bill requires the ERC to review and adopt or reject the task force's recommendations. These impacts can be absorbed within existing resources.
For Fiscal Year 2020-21, the bill appropriates $500,000 in nonrecurring funds from the General Revenue Fund to DEP for the expenses associated with contracting for services to develop the projections and for task force administrative expenses.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. The bill does not appear to affect county or municipal governments.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

None.