A bill to be entitled

An act relating to statewide flooding and sea level rise resilience; creating s. 380.093, F.S.; providing legislative intent; providing definitions; establishing the Resilient Florida Grant Program within the Department of Environmental Protection; authorizing the department to provide grants to local governments to fund the costs of community resilience planning, subject to appropriation; providing requirements for certain local government vulnerability assessments; requiring the department to complete a comprehensive statewide flood vulnerability and sea level rise data set and assessment by specified dates; specifying requirements for such data set and assessment; requiring the department to develop an annual Statewide Flooding and Sea Level Rise Resilience Plan and submit the plan to the Governor and Legislature by a specified date; specifying requirements for the plan; authorizing local governments, water management districts, and flood control districts to annually submit proposed projects to the department for inclusion in the plan; specifying requirements for such projects; specifying expenses that are ineligible for inclusion in the plan; requiring the department to implement a scoring

system for assessing projects eligible for inclusion in the plan; limiting the total amount of funding that may be proposed for each year of the plan; requiring the Legislature, upon review and subject to appropriation, to approve funding for projects as specified in the plan; directing the department to initiate rulemaking by a specified date; authorizing the department to provide funding to regional resilience entities for specified purposes, subject to specified appropriation; creating s. 380.0933, F.S.; establishing the Florida Flood Hub for Applied Research and Innovation within the University of South Florida College of Marine Science for a specified purpose; providing duties of the hub; providing for an executive director; requiring the hub to submit an annual report to the Governor and Legislature by a specified date; amending s. 403.928, F.S.; requiring the Office of Economic and Demographic Research to include specified information relating to inland and coastal flood control in certain assessments; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 380.093, Florida Statutes, is created

to read:

380.093 Statewide Flooding and Sea Level Rise Resilience Plan.—

(1) LEGISLATIVE INTENT.—

(a) The Legislature recognizes that the state is particularly vulnerable to adverse impacts from flooding resulting from increases in frequency and duration of rainfall events, storm surge from more frequent and severe weather systems, and sea level rise. Such adverse impacts pose economic, social, environmental, and public health and safety challenges to the state. To most effectively address these challenges, funding should be allocated in a manner that prioritizes addressing the most significant risks.

(b) The Legislature further recognizes that the adverse impacts of flooding and sea level rise affect coastal and inland communities all across the state. Consequently, a coordinated approach is necessary to maximize the benefit of efforts to address such impacts and to improve the state's resilience to flooding and sea level rise.

(c) The Legislature further recognizes that to effectively and efficiently address and prepare for the adverse impacts of flooding and sea level rise in the state, it is necessary to conduct a comprehensive statewide assessment of the specific risks posed to the state by flooding and sea level rise and develop a statewide coordinated approach to addressing such

risks.

(2) DEFINITIONS.—As used in this section, the term:

(a) "Critical asset" includes:

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

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

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

4. Natural, cultural, and historical resources, including conservation lands, parks, shorelines, surface waters, wetlands, and historical and cultural assets.

(b) "Department" means the Department of Environmental Protection.

(3) RESILIENT FLORIDA GRANT PROGRAM.—

(a) The Resilient Florida Grant Program is established within the department.

(b) Subject to appropriation, the department may provide grants to a county or municipality to fund the costs of community resilience planning and necessary data collection for such planning, including comprehensive plan amendments and necessary corresponding analyses that address the requirements of s. 163.3178(2)(f); vulnerability assessments that identify or address risks of flooding and sea level rise; the development of projects, plans, and policies that allow communities to prepare for threats from flooding and sea level rise; and projects to adapt critical assets to the effects of flooding and sea level rise.

(c) A vulnerability assessment conducted pursuant to paragraph (b) must encompass the entire county or municipality, or a smaller area if approved by the department; include all assets owned or maintained by the grant applicant; and use the most recent publicly available Digital Elevation Model and dynamic modeling techniques, if available. Locally collected elevation data may also be included as part of the assessment as long as it is submitted to the department pursuant to this paragraph.

1. The assessment must include an analysis of the vulnerability of and risks to critical assets, including

regionally significant assets, owned or managed by the county or municipality.

2. Upon completion of a vulnerability assessment, the county or municipality shall submit to the department the following:

a. A report detailing the findings of the assessment.

b. All electronic mapping data used to illustrate flooding and sea level rise impacts identified in the assessment. When submitting such data, the county or municipality shall include:

(I) Geospatial data in an electronic file format suitable for input to the department's mapping tool.

(II) Geographic Information System data that has been projected into the appropriate Florida State Plane Coordinate System and that is suitable for the department's mapping tool. The county or municipality must also submit metadata using standards prescribed by the department.

c. A list of critical assets, including regionally significant assets, that are impacted by flooding and sea level rise.

(d) A vulnerability assessment conducted pursuant to paragraph (b) must include all of the following, if applicable:

1. Peril of flood comprehensive plan amendments that address the requirements of s. 163.3178(2)(f), if the county or municipality is subject to such requirements and has not complied with such requirements as determined by the Department

of Economic Opportunity.

2. The depth of:

a. Tidal flooding, including future high tide flooding, which must use thresholds published and provided by the department. To the extent practicable, the analysis should also geographically display the number of tidal flood days expected for each scenario and planning horizon.

b. Current and future storm surge flooding using publicly available National Oceanic and Atmospheric Administration or Federal Emergency Management Agency storm surge data. The initial storm surge event used must equal or exceed the current 100-year flood event. Higher frequency storm events may be analyzed to understand the exposure of a critical asset.

c. To the extent practicable, rainfall-induced flooding using spatiotemporal analysis or existing hydrologic and hydraulic modeling results. Future boundary conditions should be modified to consider sea level rise and high tide conditions.

d. To the extent practicable, compound flooding or the combination of tidal, storm surge, and rainfall-induced flooding.

3. The following scenarios and standards:

a. All analyses in the North American Vertical Datum of 1988.

b. At least two local sea level rise scenarios, which must include the 2017 National Oceanic and Atmospheric Administration

intermediate-low and intermediate-high sea level rise projections.

c. At least two planning horizons that include planning horizons for the years 2040 and 2070.

d. Local sea level data that has been interpolated between the two closest National Oceanic and Atmospheric Administration tide gauges. Local sea level data may be taken from one such gauge if the gauge has a higher mean sea level. Data taken from an alternate tide gauge may be used with appropriate rationale and department approval, as long as it is publicly available or submitted to the department pursuant to paragraph (b).

(4) COMPREHENSIVE STATEWIDE FLOOD VULNERABILITY AND SEA LEVEL RISE DATA SET AND ASSESSMENT.—

(a) By July 1, 2022, the department shall complete the development of a comprehensive statewide flood vulnerability and sea level rise data set sufficient to conduct a comprehensive statewide flood vulnerability and sea level rise assessment. In developing the data set, the department shall compile, analyze, and incorporate, as appropriate, information related to vulnerability assessments submitted to the department pursuant to subsection (3) or any previously completed assessments that meet the requirements of subsection (3).

1. The Chief Science Officer shall, in coordination with necessary experts and resources, develop statewide sea level rise projections that incorporate temporal and spatial

variability, to the extent practicable, for inclusion in the data set. This subparagraph does not supersede regionally adopted projections.

2. The data set must include information necessary to determine the risks to inland and coastal communities, including, but not limited to, elevation, tidal levels, and precipitation.

(b) By July 1, 2023, the department shall complete a comprehensive statewide flood vulnerability and sea level rise assessment that identifies inland and coastal infrastructure, geographic areas, and communities in the state that are vulnerable to flooding and sea level rise and the associated risks.

1. The department shall use the comprehensive statewide flood vulnerability and sea level rise data set to conduct the assessment.

2. The assessment must incorporate local and regional analyses of vulnerabilities and risks, including, as appropriate, local mitigation strategies and postdisaster redevelopment plans.

3. The assessment must include an inventory of critical assets, including regionally significant assets, that are essential for critical government and business functions, national security, public health and safety, the economy, flood and storm protection, water quality management, and wildlife

habitat management, and must identify and analyze the vulnerability of and risks to such critical assets. When identifying critical assets for inclusion in the assessment, the department shall also take into consideration the critical assets identified by local governments and submitted to the department pursuant to subsection (3).

(c) The department shall update the comprehensive statewide flood vulnerability and sea level rise data set and assessment every 5 years. The department may update the data set and assessment more frequently if it determines that updates are necessary to maintain the validity of the data set and assessment.

(5) STATEWIDE FLOODING AND SEA LEVEL RISE RESILIENCE PLAN.—

(a) By December 1, 2021, and each December 1 thereafter, the department shall develop a Statewide Flooding and Sea Level Rise Resilience Plan on a 3-year planning horizon and submit it to the Governor, the President of the Senate, and the Speaker of the House of Representatives. The plan must consist of ranked projects that address risks of flooding and sea level rise to coastal and inland communities in the state.

(b) The plan submitted by December 1, 2021, before the comprehensive statewide flood vulnerability and sea level rise assessment is completed, will be a preliminary plan that addresses risks of flooding and sea level rise identified in

available local government vulnerability assessments. The plan submitted by December 1, 2022, will be an update to the preliminary plan. The plan submitted by December 1, 2023, and each plan submitted by December 1 thereafter, shall address risks of flooding and sea level rise identified in the comprehensive statewide flood vulnerability and sea level rise assessment.

(c) Each plan submitted by the department pursuant to this subsection must include the following information for each recommended project:

1. A description of the project.

2. The location of the project.

3. An estimate of how long the project will take to complete.

4. An estimate of the cost of the project.

5. The cost-share percentage available for the project.

6. A summary of the priority score assigned to the project.

7. The project sponsor.

(d)1. By September 1, 2021, and each September 1 thereafter, counties and municipalities may submit to the department a list of proposed projects that address risks of flooding or sea level rise identified in vulnerability assessments that meet the requirements of subsection (3).

2. By September 1, 2021, and each September 1 thereafter,

each water management district and flood control district may submit to the department 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 and a corresponding evaluation of each project.

3. Each project submitted to the department by a county, municipality, water management district, or flood control district for consideration by the department for inclusion in the plan must include:

a. A description of the project.

b. The location of the project.

c. An estimate of how long the project will take to complete.

d. An estimate of the cost of the project.

e. The cost-share percentage available for the project.

(e) Each project included in the plan must have a minimum 50 percent cost-share unless the project assists or is within a financially disadvantaged small community. For purposes of this section, the term "financially disadvantaged small community" means:

1. A municipality that has a population of 10,000 or fewer, according to the most recent April 1 population estimates posted on the Office of Economic and Demographic Research's website and a per capita annual income that is less than the state's per capita annual income as shown in the most recent

release from the Bureau of the Census of the United States Department of Commerce that includes both measurements; or

2. A county that has a population of 50,000 or fewer, according to the most recent April 1 population estimates posted on the Office of Economic and Demographic Research's website and a per capita annual income that is less than the state's per capita annual income as shown in the most recent release from the Bureau of the Census of the United States Department of Commerce that includes both measurements.

(f) To be eligible for inclusion in the plan, a project must have been submitted by a county, municipality, water management district, or flood control district pursuant to paragraph (d) or must have been identified in the comprehensive statewide flood vulnerability and sea level rise assessment, as applicable.

(g) Expenses ineligible for inclusion in the plan include, but are not limited to, expenses associated with:

1. Aesthetic vegetation.

2. Recreational structures such as piers, docks, and boardwalks.

3. Water quality components of stormwater and wastewater management systems, except expenses to prevent saltwater intrusion unless such expenses are used to mitigate water quality impacts caused by the project.

4. Maintenance and repair of over-walks.

5. Park activities and facilities, except expenses to control flooding or erosion.

6. Navigation construction, operation, and maintenance activities.

7. Projects that provide only recreational benefits.

(h) The department shall implement a scoring system for assessing each project eligible for inclusion in the plan pursuant to this subsection. The scoring system must include the following tiers and associated criteria:

1. Tier 1 must account for 40 percent of the total score and consist of all of the following criteria:

a. The degree to which the project addresses the risks posed by flooding and sea level rise identified in the local government vulnerability assessments or the comprehensive statewide flood vulnerability and sea level rise assessment, as applicable.

b. The degree to which the project addresses risks to regionally significant assets.

c. The degree to which the project reduces risks to areas with an overall higher percentage of vulnerable critical assets.

d. The degree to which the project contributes to existing flooding mitigation projects that reduce upland damage costs by incorporating new or enhanced structures or restoration and revegetation projects.

2. Tier 2 must account for 30 percent of the total score

and consist of all of the following criteria:

a. The degree to which flooding and erosion currently affect the condition of the project area.

b. The overall readiness of the project to proceed in a timely manner, considering the project's readiness for the construction phase of development, the status of required permits, the status of any needed easement acquisition, and the availability of local funding sources.

c. The environmental habitat enhancement or inclusion of nature-based options for resilience, with priority given to state or federal critical habitat areas for threatened or endangered species.

d. The cost-effectiveness of the project.

3. Tier 3 must account for 20 percent of the total score and consist of all of the following criteria:

a. The availability of local, state, and federal matching funds, considering the status of the funding award, and federal authorization, if applicable.

b. Previous state commitment and involvement in the project, considering previously funded phases, the total amount of previous state funding, and previous partial appropriations for the proposed project.

c. The exceedance of the flood-resistant construction requirements of the Florida Building Code and applicable flood plain management regulations.

4. Tier 4 must account for 10 percent of the total score and consist of all of the following criteria:

a. The proposed innovative technologies designed to reduce project costs and provide regional collaboration.

b. The extent to which the project assists financially disadvantaged communities.

(i) The total amount of funding proposed for each year of the plan may not exceed $100 million. Upon review and subject to appropriation, the Legislature shall approve funding for the projects as specified in the plan. Multi-year projects that receive funding for the first year of the project must be included in subsequent plans and funded until the project is complete, provided that the project sponsor has complied with all contractual obligations and funds are available.

(j) The department shall initiate rulemaking by August 1, 2021, to implement this section.

(6) REGIONAL RESILIENCE ENTITIES.—Subject to specific legislative appropriation, the department may provide funding for the following purposes to regional entities that are established by general purpose local governments and whose responsibilities include planning for the resilience needs of communities and coordinating intergovernmental solutions to mitigate adverse impacts of flooding and sea level rise:

(a) Providing technical assistance to counties and municipalities.

(b) Coordinating multijurisdictional vulnerability assessments.

(c) Developing project proposals to be submitted for inclusion in the Statewide Flooding and Sea Level Rise Resilience Plan.

Section 2. Section 380.0933, Florida Statutes, is created to read:

380.0933 Florida Flood Hub for Applied Research and Innovation.—

(1) The Florida Flood Hub for Applied Research and Innovation is established within the University of South Florida College of Marine Science to coordinate efforts between the academic and research institutions of the state. The University of South Florida College of Marine Science or its successor entity will serve as the lead institution and engage other academic and research institutions, private partners, and financial sponsors to coordinate efforts to support applied research and innovation to address the flooding and sea level rise challenges of the state.

(2) The hub shall, at a minimum:

(a) Organize existing data needs for a comprehensive statewide flood vulnerability and sea level rise analysis and perform a gap analysis to determine data needs.

(b) Develop statewide open source hydrologic models for physically based flood frequency estimation and real-time

forecasting of floods, including hydraulic models of floodplain inundation mapping, real-time compound and tidal flooding forecasts, future groundwater elevation conditions, and economic damage and loss estimates.

(c) Coordinate research funds from the state, the federal government, or other funding sources for related hub activities across all participating entities.

(d) Establish community-based programs to improve flood monitoring and prediction along major waterways, including intracoastal waterways and coastlines, of the state and to support ongoing flood research.

(e) Coordinate with agencies, including, but not limited to, the Department of Environmental Protection and water management districts.

(f) Share its resources and expertise.

(g) Assist in the development of training and a workforce in the state that is knowledgeable about flood and sea level rise research, prediction, and adaptation and mitigation strategies.

(h) Develop opportunities to partner with other flood and sea level rise research and innovation leaders for sharing technology or research.

(i) Conduct the activities under this subsection in cooperation with various local, state, and federal government entities as well as other flood and sea level rise research

centers.

(3) The hub shall employ an executive director.

(4) By July 1, 2022, and each July 1 thereafter, the hub shall provide an annual comprehensive report to the Governor, the President of the Senate, and the Speaker of the House of Representatives that outlines its clearly defined goals and its efforts and progress on reaching such goals.

Section 3. Subsections (3) through (7) of section 403.928, Florida Statutes, are amended to read:

403.928 Assessment of water resources and conservation lands.—The Office of Economic and Demographic Research shall conduct an annual assessment of Florida's water resources and conservation lands.

(3) ASSESSMENT REQUIREMENTS.-The assessment must:

(a) ~~shall~~ Include analyses on a statewide, regional, or geographic basis, as appropriate, and ~~shall~~ identify analytical challenges in assessing information across the different regions of the state.

(b) ~~(4) The assessment must~~ Identify any overlap in the expenditures for water resources and conservation lands.

(4) INLAND AND COASTAL FLOOD CONTROL.-Beginning with the assessment due by January 1, 2022, the Office of Economic and Demographic Research shall include in the assessment an analysis of future expenditures by federal, state, regional, and local governments required to achieve the Legislature's intent of

minimizing the adverse economic effects of inland and coastal flooding, thereby decreasing the likelihood of severe dislocations or disruptions in the economy and preserving the value of real and natural assets to the extent economically feasible. To the extent possible, the analysis must evaluate the cost of the resilience efforts necessary to address inland and coastal flooding associated with sea level rise, high tide events, storm surge, flash flooding, stormwater runoff, and increased annual precipitation over a 50-year planning horizon. At such time that dedicated revenues are provided in law for these purposes or that recurring expenditures are made, the analysis must also identify the gap, if any, between the estimated revenues and the projected expenditures.

(5) ASSESSMENT ASSISTANCE.-

(a) The water management districts, the Department of Environmental Protection, the Department of Agriculture and Consumer Services, the Fish and Wildlife Conservation Commission, counties, municipalities, and special districts shall provide assistance to the Office of Economic and Demographic Research related to their respective areas of expertise.

(b) ~~(6)~~ The Office of Economic and Demographic Research must be given access to any data held by an agency as defined in s. 112.312 if the Office of Economic and Demographic Research considers the data necessary to complete the assessment,

including any confidential data.

(6) ~~(7)~~ ASSESSMENT SUBMISSION.-The assessment shall be submitted to the President of the Senate and the Speaker of the House of Representatives by January 1, 2017, and by January 1 of each year thereafter.

Section 4. This act shall take effect upon becoming a law.