By the Committee on Environment and Natural Resources; and Senators Rodrigues and Garcia

592-02888-21 20211954c1

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; defining terms; 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 notify the Legislature when specifically referenced sources or standards are updated or replaced; 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 a Statewide Flooding and Sea-Level Rise Resilience Plan and annually submit the plan to the Governor and Legislature by a specified date; specifying requirements for the plan; requiring water management districts to annually submit proposed projects to the department for inclusion in the plan; specifying requirements for such projects; specifying projects that are ineligible for inclusion in the plan; requiring the department to implement a scoring system for assessing projects submitted by water management districts; limiting the total amount of funding that may be proposed in the plan; requiring

the Legislature, upon review and subject to appropriation, to approve funding for projects as specified in the plan; authorizing local governments to create regional resilience coalitions for a specified purpose; authorizing the department to provide funding to the coalitions, subject to 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 this state is particularly vulnerable to adverse impacts of flooding resulting from the increasing 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 this state. To most effectively address these challenges, funding should be allocated in a manner that prioritizes and addresses 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 this state. Consequently, a coordinated approach is necessary to maximize the benefit of efforts to address such impacts and to improve this 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 this state, it is necessary to conduct a comprehensive statewide assessment of the specific risks posed to this 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, stormwater treatment facilities, drinking water facilities, 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 operations 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, including projects that address the requirements of s. 163.3178(2)(f), vulnerability assessments that identify or address risks of flooding and sea-level rise, and the development of plans and policies that allow communities to prepare for threats from flooding and sea-level rise.

(c) A vulnerability assessment conducted pursuant to paragraph (b) must encompass an entire county or municipality and must use the most recent publicly available digital elevation model and dynamic modeling techniques, if available.

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) Geotechnical 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 for a county or municipality subject to the requirements of s. 163.3178(2)(f) must include:

1. A peril of flood analysis that addresses the requirements of s. 163.3178(2)(f).

2. The depth of sea-level rise, calculated using the North American Vertical Datum of 1988, expected for the county or municipality using, at a minimum, all of the following:

a. Two local sea-level rise scenarios, which must equal or exceed the 2017 National Oceanic and Atmospheric Administration

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

b. At least two planning horizons that must be, at a minimum, 20 years and 50 years from the date of the assessment.

c. Local sea-level rise data that has been interpolated between the two closest coastal tide gauges with National Oceanic and Atmospheric Administration sea-level rise data.

3. The depth of expected storm surge flooding using Federal Emergency Management Agency storm surge data. The storm surge flood depth used must equal or exceed the 100-year flood event and must be calculated using the North American Vertical Datum of 1988.

4. The depth of potential future flooding from combinations of sea-level rise, storm surge, and high tides using, at a minimum, all of the following:

a. Two local sea-level rise scenarios, which must equal or exceed the 2017 National Oceanic and Atmospheric Administration intermediate-low and intermediate-high sea-level rise projections.

b. At least two planning horizons that must be, at a minimum, 20 years and 50 years from the date of the assessment.

c. Local sea-level rise data that has been interpolated between the two closest coastal tide gauges with National Oceanic and Atmospheric Administration sea-level rise data.

d. The depth of expected storm surge flooding using Federal Emergency Management Agency storm surge data. The storm surge flood depth used must equal or exceed the 100-year flood event and must be calculated using the North American Vertical Datum of 1988.

e. Future high tide flooding, which must be derived using National Oceanic and Atmospheric Administration Technical Report NOS CO-OPS 086.

(e) The department shall submit written notification to the President of the Senate and the Speaker of the House of Representatives when any scientific source or standard specifically referenced in this subsection is updated or replaced with a subsequent source or standard. Such written notification shall be submitted within 30 days of the department learning of an update or replacement.

(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.

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.

2. The data set must include information necessary to determine the risks to inland and coastal communities, such as 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 this state which 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.

3. The assessment must include an inventory of critical assets, including regionally significant assets, which 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.

(c) The department shall update the comprehensive statewide flood vulnerability and sea-level rise data set and assessment every 3 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 this 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 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 each 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.

(d) By September 1, 2021, and each September 1 thereafter, each water management district shall submit to the department a list of proposed projects that mitigate or eliminate risks of flooding or sea-level rise and a corresponding evaluation of each project.

1. Local governments and regional entities whose responsibilities include addressing flooding or sea-level rise may submit to the water management district proposed projects that mitigate or eliminate risks of flooding or sea-level rise.

2. Water management districts shall evaluate the proposed projects to assess the degree to which the project addresses:

a. Threats to critical assets, including regionally significant assets, and reductions of future damage costs.

b. Risks identified in local government vulnerability assessments or the comprehensive statewide flood vulnerability and sea-level rise assessment, as applicable.

3. Each project submitted by a water management 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.

(f) To be eligible for inclusion in the plan, a project must address risks to a critical asset identified in a local government vulnerability assessment or the comprehensive statewide flood vulnerability and sea-level rise assessment, as applicable.

(g) Projects ineligible for inclusion in the plan include, but are not limited to:

1. Aesthetic vegetation.

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

3. Water quality components of stormwater and wastewater management systems, except projects to prevent saltwater intrusion.

4. Maintenance and repair of over-walks.

5. Park activities and facilities, except projects 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 submitted by water management districts for inclusion in the plan. The scoring system must include the following tiers and associated criteria:

1. Tier 1 must account for 50 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.

2. Tier 2 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 cost-share percentage, 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 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.

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 current condition of the project area, including any recent impacts from storm damage.

b. The use of practices that reduce losses due to flooding and claims made under flood insurance policies issued in this state.

c. 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.

d. 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 environmental habitat enhancement or the inclusion of nature-based options for resilience, prioritizing state or federal critical habitat areas for threatened or endangered species.

c. The assistance to financially disadvantaged communities.

(i) The total amount of funding proposed in 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. Multiyear 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.

(6) REGIONAL RESILIENCE COALITIONS.—

(a) Counties and municipalities may enter into agreements to form regional resilience coalitions for the purpose of planning for the resilience needs of communities and coordinating intergovernmental solutions to mitigate adverse impacts of flooding and sea-level rise.

(b) Regional resilience coalitions may provide technical assistance to counties and municipalities in:

1. Preparing and conducting vulnerability assessments and developing plans and policies funded by the Resilient Florida Grant Program.

2. Developing project proposals to be submitted for inclusion in the Statewide Flooding and Sea-Level Rise Resilience Plan and implementing projects that are approved for funding.

(c) Subject to specific legislative appropriation, the department may provide funding to regional resilience coalitions for the purpose of carrying out the duties under this section.

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 this state. The University of South Florida College of Marine Science 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 this 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 this 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 this 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 this ~~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 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.