By the Committee on Environment and Natural Resources; and Senator Brodeur

592-02540-22 20221940c1

A bill to be entitled

An act relating to statewide flooding and sea-level rise resilience; creating s. 14.2031, F.S.; establishing the Statewide Office of Resilience within the Executive Office of the Governor; providing for the appointment of a Chief Resilience Officer; creating s. 339.157, F.S.; requiring the Department of Transportation to develop a resilience action plan for the State Highway System; providing the goals and required components of the plan; requiring the department to submit the plan to the Governor and the Legislature by a specified date; requiring the plan to be updated every 3 years; providing requirements for the updated plan; amending s. 380.093, F.S.; defining terms; revising the projects the Department of Environmental Protection may fund within the Resilient Florida Grant Program; revising vulnerability assessment requirements for noncoastal communities; extending the dates by which the department must complete a comprehensive statewide flood vulnerability and sea-level rise data set and assessment; requiring the data set to be developed in coordination with the Florida Flood Hub for Applied Research and Innovation; requiring eligible projects submitted to the department to be ranked and included in the Statewide Flood and Sea-Level Rise Resilience Plan; revising the entities authorized to submit proposed projects by specified dates for the plan; amending s. 380.0933, F.S.; requiring the Florida Flood Hub for Applied

Research and Innovation to provide tidal and storm surge flooding data to counties and municipalities for vulnerability assessments; amending s. 472.0366, F.S.; revising the effective date of a requirement that a surveyor and mapper submit a copy of completed elevation certificates to the Division of Emergency Management; requiring the surveyor and mapper to submit a digital copy of a completed elevation certificate to the division; providing an effective date.

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

Section 1. Section 14.2031, Florida Statutes, is created to read:

14.2031 Statewide Office of Resilience.—The Statewide Office of Resilience is established within the Executive Office of the Governor. The office shall be headed by a Chief Resilience Officer, who is appointed by and serves at the pleasure of the Governor.

Section 2. Section 339.157, Florida Statutes, is created to read:

339.157 Resilience action plan.—

(1) The department shall develop a resilience action plan for the State Highway System based on current conditions and forecasted future events. The goals of the action plan are to do all of the following:

(a) Recommend strategies to enhance infrastructure and the operational resilience of the State Highway System which may be

incorporated into the transportation asset management plan.

(b) Recommend design changes for retrofitting existing and constructing new state highway facilities.

(c) Enhance partnerships for collaboration to address multijurisdictional resilience needs.

(2) The resilience action plan must include all of the following components:

(a) 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 future projections of sea-level rise, using existing data for current and forecasted future events. As part of the assessment, the department shall do all of the following using the most up-to-date National Oceanic and Atmospheric Administration precipitation frequency and sea-level rise data:

1. Synthesize historical and current infrastructure resilience issues statewide.

2. Evaluate alternatives for retrofitting existing systems and infrastructure.

3. Develop prioritization criteria for resilience project identification.

4. Develop a prioritized resilience needs project list, in addition to existing projects within the work program, with the associated costs and timeline.

5. Develop a statewide database identifying and documenting those assets vulnerable to current and future flooding. The department shall develop a cost estimate and schedule to enhance existing data to include site-specific details and existing

criteria to improve the needs prioritization.

(b) A systemic review of the department'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.

(c) Provision of 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.

(3) By June 20, 2023, the department shall 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 department shall submit a status report reviewing updates to the action plan and the associated implementation activities.

Section 3. Section 380.093, Florida Statutes, is amended to read:

380.093 Resilient Florida Grant Program; comprehensive statewide flood vulnerability and sea-level ~~sea level~~ rise data set and assessment; Statewide Flooding and Sea-Level ~~Sea Level~~ Rise Resilience Plan; regional resilience entities.—

(1) LEGISLATIVE INTENT.—

(a) The Legislature recognizes that this ~~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 ~~sea level~~ rise. Such adverse impacts pose economic, social, environmental, and public health and safety challenges to this ~~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 ~~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 ~~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 ~~sea level~~ rise in this ~~the~~ state, it is necessary to conduct a comprehensive statewide assessment of the specific risks posed to this ~~the~~ state by flooding and sea-level ~~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.

(c) "Preconstruction activities" means activities associated with a project which occur before construction begins, including, but not limited to, design of the project, permitting for the project, surveys, site development, solicitation, public hearings, local code amendments, establishing local funding sources, and easement acquisition.

(d) "Regionally significant assets" means critical assets that support the needs of communities spanning multiple geopolitical jurisdictions, including, but not limited to, regional medical centers, emergency operations centers, regional utilities, major transportation hubs and corridors, airports, and seaports.

(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:

1. 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).~~;~~

2. Vulnerability assessments that identify or address risks of inland or coastal flooding and sea-level ~~sea level~~ rise.~~;~~

3. The development of projects, plans, and policies that allow communities to prepare for threats from flooding and sea-level ~~sea level~~ rise.~~; and~~

4. Preconstruction activities for projects to be submitted for inclusion in the Statewide Flooding and Sea-Level Rise Resilience Plan which are located in a municipality 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 the Office of Economic and Demographic Research's website ~~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; include all critical assets owned or maintained by the grant applicant; and use the most recent publicly available Digital Elevation Model and generally accepted analysis and modeling techniques. An assessment may encompass a smaller geographic area or include only a portion of the critical assets owned or maintained by the grant applicant with appropriate rationale and upon approval by the department. 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 ~~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 ~~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 ~~sea level~~ rise and high tide conditions. Vulnerability assessments for noncoastal communities must include the depth of rainfall-induced flooding for a 100-year storm and a 500-year storm, as defined by the applicable water management district or, if necessary, the appropriate federal agency. Projections of future rainfall conditions should be utilized, if available.

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 ~~sea level~~ rise scenarios, which must include the 2017 National Oceanic and Atmospheric Administration intermediate-low and intermediate-high sea-level ~~sea level~~ rise projections.

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

d. Local sea-level ~~sea level~~ data that has been interpolated between the two closest National Oceanic and Atmospheric Administration tide gauges. Local sea-level ~~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 ~~SEA LEVEL~~ RISE DATA SET AND ASSESSMENT.—

(a) By July 1, 2023 ~~2022~~, the department shall complete the development of a comprehensive statewide flood vulnerability and sea-level ~~sea level~~ rise data set sufficient to conduct a comprehensive statewide flood vulnerability and sea-level ~~sea level~~ rise assessment. In developing the data set, the department, in coordination with the Florida Flood Hub for Applied Research and Innovation, 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 ~~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, 2024 ~~2023~~, the department shall complete a comprehensive statewide flood vulnerability and sea-level ~~sea level~~ rise assessment that identifies inland and coastal infrastructure, geographic areas, and communities in this ~~the~~ state that are vulnerable to flooding and sea-level ~~sea level~~ rise and the associated risks.

1. The department shall use the comprehensive statewide flood vulnerability and sea-level ~~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 ~~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 ~~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 ~~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 ~~sea level~~ rise to coastal and inland communities in the state. All eligible projects submitted to the department under this section must be ranked and included in the plan. Each plan must include a detailed narrative overview describing how the plan was developed, including a description of the methodology used by the department 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 with projects separated by "eligible" and "not eligible," the total number of project proposals received and deemed eligible, the total funding requested, and the total funding requested for eligible projects.

(b) The plan submitted by December 1, 2021, before the comprehensive statewide flood vulnerability and sea-level ~~sea level~~ rise assessment is completed, will be a preliminary plan

that includes projects that address ~~addresses~~ risks of flooding and sea-level ~~sea level~~ rise identified in available local government vulnerability assessments and projects submitted by water management districts which mitigate the risks of flooding or sea-level rise on water supplies or water resources of the state. The plan submitted by December 1, 2022, and the plan submitted by December 1, 2023, will be updates ~~an update~~ to the preliminary plan. The plan submitted by December 1, 2024 ~~2023~~, and each plan submitted by December 1 thereafter, must ~~shall~~ address risks of flooding and sea-level ~~sea level~~ rise identified in the comprehensive statewide flood vulnerability and sea-level ~~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, the following entities ~~counties and municipalities~~ may submit to the department a list of proposed projects that address risks of flooding or sea-level ~~sea level~~ rise identified in vulnerability assessments that meet the requirements of subsection (3):~~.~~

a. Counties.

b. Municipalities.

c. Special districts, as defined in s. 189.012, which are responsible for the operation and maintenance of an airport or a seaport facility.

For the plans submitted by December 1, 2021; December 1, 2022; and December 1, 2023, such entities may submit projects identified in existing vulnerability assessments which do not comply with subsection (3). A regional resilience entity may also submit ~~such~~ proposed projects to the department pursuant to this subparagraph on behalf of one or more member counties or municipalities.

2. By September 1, 2021, and each September 1 thereafter, the following entities ~~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 ~~sea level~~ rise on water supplies or water resources of this ~~the~~ state and a corresponding evaluation of each project:~~.~~

a. Water management districts.

b. Drainage districts.

c. Erosion control districts.

d. Flood control districts.

e. Regional water supply authorities.

3. Each project submitted to the department pursuant to this paragraph ~~by a county, municipality, regional resilience entity, 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.

f. The project sponsor.

(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, regional resilience entity, 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 ~~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 for expenses to mitigate water quality impacts caused by the project or expenses related to water quality which are necessary to obtain a permit for 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 ~~sea level~~ rise identified in the local government vulnerability assessments or the comprehensive statewide flood vulnerability and sea-level ~~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 be less than ~~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.

(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 ~~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 ~~Sea Level~~ Rise Resilience Plan.

Section 4. Section 380.0933, Florida Statutes, is amended 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 ~~sea level~~ rise challenges of this ~~the~~ state.

(2) The hub shall, at a minimum:

(a) Organize existing data needs for a comprehensive statewide flood vulnerability and sea-level ~~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 ~~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 in the development of a workforce in this ~~the~~ state that is knowledgeable about flood and sea-level ~~sea level~~ rise research, prediction, and adaptation and mitigation strategies.

(h) Develop opportunities to partner with other flood and sea-level ~~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 ~~sea level~~ rise research centers.

(3) The hub must provide tidal and storm surge flooding data to counties and municipalities for vulnerability assessments that are conducted pursuant to s. 380.093(3). The

hub must provide rainfall-induced and compound flooding data sets; however, more localized data or modeling may be used.

(4) The hub shall employ an executive director.

(5) ~~(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 5. Subsection (2) of section 472.0366, Florida Statutes, is amended to read:

472.0366 Elevation certificates; requirements for surveyors and mappers.—

(2) Beginning January 1, 2023 ~~2017~~, a surveyor and mapper shall, within 30 days after completion, submit to the division a digital copy of each elevation certificate that he or she completes as outlined on the division's website. The copy must be unaltered, except that the surveyor and mapper may redact the name of the property owner. The copy need not be signed and sealed when submitted to the division; however, an original signed and sealed copy must be retained in the surveyor and mapper's records as prescribed by rule of the board.

Section 6. This act shall take effect July 1, 2022.