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HOUSE BILL NO. 2320

Offered January 12, 2017

A BILL to establish the Hurricane and Flooding Risk Reduction Act of 2017.

Patrons—Miyares, Villanueva, Davis, Holcomb and James; Senator: Wagner

Referred to Committee on Agriculture, Chesapeake and Natural Resources

WHEREAS, the Commonwealth of Virginia has historically suffered severe floods in mountainous areas, along rivers, and on coasts that have taken hundreds of lives and caused extensive property and environmental damage; and

WHEREAS, the Commonwealth remains under constant threat of additional such floods; and

WHEREAS, it is the first responsibility of any state to provide for the safety and security of its citizens; and

WHEREAS, the Commonwealth is organized to support management but not reduction and elimination of existing and future federally designated flood plains; and

WHEREAS, Virginia's mountains and rivers have been plagued by floods. Floods have caused almost 200 deaths and \$3.7 billion in damage in those areas since 1969 alone. The hardest-hit areas in that timeframe have been the basins of the Roanoke, James, Potomac, Tye, Rockfish, Rivanna, Maury, and Shenandoah Rivers and the mountains of the Counties of Nelson, Page, and Rockingham; and

WHEREAS, for a devastating historical example of coastal and estuary storm surge, consider the great Chesapeake-Potomac Hurricane of 1933. It hit Hampton Roads, the Eastern Shore, the Northern Neck, and the Potomac River basin especially hard. The combination of the high tide and storm surge (called storm tide) flooded Norfolk streets with five feet of water. The same storm today would flood Hampton Roads with almost seven feet of water above high tide levels, which equals eight and one-half feet above mean sea level. The mean elevation of Norfolk is 10 feet above mean sea level and of Virginia Beach is 12 feet above mean sea level; and

WHEREAS, there are proven civil engineering and environmental restoration methods to mitigate the effects of hurricanes and floods and reduce or eliminate individual flood plains that can be completed at costs far less than their measurable benefits. These benefits include both structural and nonstructural methods; and

WHEREAS, the most threatened flood plains require structural flood barrier measures such as storm surge barriers, flood walls, levees, seawalls, revetments, bulkheads, and beach restoration and protection measures; and

WHEREAS, Virginia is not organized to play its necessary role in flood plain reduction and elimination through construction of flood barriers or management of nonstructural solutions. The required organization will be staffed by managers, civil engineers, and economists trained and experienced in hurricane and flooding risk assessments and construction of risk reduction measures to work with the federal government in such efforts. Virginia has no such agency; and

WHEREAS, most individual Virginia communities do not have the resources in skills and funding to do this alone. Those that do need, in any case, to cooperate with the federal government and with other Virginia communities in regional solutions or with other states in multistate solutions for coasts and river basins. Neither local governments nor regional planning district commissions are empowered to manage and fund assessments and construction of regional or interstate flooding mitigation solutions; and

WHEREAS, if flood barriers other than levees are to be built in Virginia, the U.S. Army Corps of Engineers (USACE) will plan, permit, and build them in partnership with the Commonwealth, other affected states, and their communities. While levees and nonstructural projects can contribute to mitigation and reduction efforts and can be designed, managed, and funded by other actors, they too must be permitted by USACE in its role as the federal regulator for all water projects; and

WHEREAS, the federal government through the Flood Control Act of 1936 brought flood control projects under federal control and officially recognized USACE as the major federal flood control agency. USACE is one of the world's largest public engineering, design, and construction management agencies. It is by law the only entity permitted to construct hurricane risk reduction and flood risk mitigation structures other than levees in Virginia; and

WHEREAS, the Water Resources Development Act and recurring associated appropriations have directed USACE to plan, issue permits for, partially fund, and build such structures and develop and manage projects in partnership with nonfederal sponsors under its Civil Works Program; and

WHEREAS, USACE Civil Works boundaries are defined by coastlines and river watersheds rather

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HB2320

59 than state boundaries. Virginia is drained by nine major river systems. USACE Civil Works projects in
60 Virginia are, depending upon the location, the responsibility variously of the North Atlantic Division's
61 Norfolk, Huntington, or Baltimore District or the South Atlantic Division's Wilmington District; and

62 WHEREAS, each Civil Works project must have a nonfederal sponsor. Section 221 of the 1970
63 Flood Control Act defines a nonfederal sponsor for a USACE water resources project as a nonfederal
64 interest that is "a legally constituted public body with full authority and capability to perform the terms
65 of its agreement and to pay damages, if necessary, in the event of failure to perform." A sponsor can be
66 a state or any other political subpart of a state or group of states, an Indian tribe, or a port authority,
67 provided that it has the legal and financial authority and capability to provide the cash and real estate
68 requirements needed for a project. A sponsor can also be an interstate agency, established under a
69 compact between two or more states with the consent of Congress under Section 10 of Article I of the
70 United States Constitution; and

71 WHEREAS, the strategic approach to the Civil Works mission directs coordinated development and
72 management of water and related resources that considers economic benefits, ecosystem quality, and
73 health and public safety; and

74 WHEREAS, USACE works to establish comprehensive flooding solutions for specific coastal and
75 watershed regions in compliance with all federal water engineering and environmental regulations. It
76 thereby tries to avoid one-off solutions for a specific political jurisdiction to ensure effective efforts and
77 efficient use of resources; and

78 WHEREAS, USACE is required to assess the benefits and risks of water projects in partnership with
79 a nonfederal sponsor before recommending them to Congress for authorization and funding. Such
80 projects when nominated by a nonfederal sponsor are considered and recommended by USACE and
81 authorized and funded by Congress for a first phase (3x3x3) investigation. The 3x3x3 designation stands
82 for 3 years, \$3 million, and 3 levels of USACE review - District, Division, and Headquarters. Such
83 3x3x3 investigations are conducted by USACE Districts with the assistance of the U.S. Fish and
84 Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) in partnership with the
85 nonfederal sponsor. USACE and the nonfederal sponsor share equally the fixed \$3 million cost of each
86 investigation; and

87 WHEREAS, any 3x3x3 investigation must find a minimum benefit-to-cost ratio of 4-to-1 in order for
88 the results to be forwarded to USACE headquarters for approval. Such approval is required before the
89 federal administration will recommend any project to Congress for construction authorization and
90 funding; and

91 WHEREAS, the 3x3x3 investigation assesses and recommends federal and nonfederal cost shares for
92 the construction of the project. The standard for such cost shares in hurricane and flooding risk
93 reduction projects is 65percent for the federal government and 35percent for the nonfederal sponsor; and

94 WHEREAS, the financial benefits to the nonfederal sponsor consist of the combination of assessed
95 construction project benefit-to-cost ratio and federal contribution of construction costs. Thus, the net
96 economic benefit to the nonfederal sponsor will be at least 12 times its investment; and

97 WHEREAS, nonfederal sponsors are required to provide political coordination, economic investments
98 such as land, rights of way, and cash as well as engineering, economic assessment, and management
99 support to USACE in such projects. The total economic contributions of the nonfederal sponsor toward
100 construction may include land, rights of way, cash, and other items that all count toward the nonfederal
101 sponsor's share; now, therefore,

102 **Be it enacted by the General Assembly of Virginia:**

103 1. § 1. *This act shall be known as the Hurricane and Flooding Risk Reduction Act of 2017.*

104 § 2. *Establishment of the Commonwealth of Virginia as a nonfederal sponsor of hurricane and*
105 *flood risk reduction projects.*

106 *The Commonwealth of Virginia is hereby established as a nonfederal sponsor of hurricane and*
107 *flood risk reduction projects in partnership with the USACE Civil Works Program. The goals of this*
108 *partnership are to (i) reduce or eliminate in a highly cost-effective way the potentially most destructive*
109 *floodplains in Virginia through construction of flood control structural and nonstructural mitigation*
110 *solutions; (ii) save lives, prevent economic and environmental destruction, reduce citizens' flood*
111 *insurance burdens, and permit less-expensive development and redevelopment in the floodplains reduced*
112 *or eliminated by such projects; and (iii) enable Virginia communities currently threatened by flooding to*
113 *wage more successful campaigns to attract economic investment and to retain and maintain the*
114 *economic drivers they already possess, including but not limited to public infrastructure, private*
115 *businesses, and private homes.*

116 *To meet these goals there is hereby established the Virginia Hurricane and Flooding Risk Reduction*
117 *Authority (the Authority), a board of directors of the Authority (the Board), and the Governor's Advisory*
118 *Commission on Hurricane and Flood Risk Reduction (the Commission).*

119 *Authority over the Virginia Dam Safety program, Virginia's role in the National Flood Insurance*
120 *Program, and the floodplain management program shall remain with the Department of Conservation*

and Recreation.

Authority over emergency response shall remain with the Department of Emergency Management.

§ 3. The Board.

The Board shall exercise for the Governor executive authority over all phases of hurricane and flood risk reduction programs, including investigations, construction, and operations and maintenance; it shall be established and meet within 60 days of the effective date of this act.

Nothing in this act restricts local governments, Indian tribes, or the Virginia Port Authority from acting as nonfederal sponsors of projects entirely within their jurisdiction, but authority to act in such capacity must be sought from and granted by the Board prior to contacting USACE for such a project.

The Board shall:

1. Represent the state's position in policy relative to reducing the risks to its people, public and private property, and economy from hurricanes and floods;

2. Establish a strategic plan aligned where feasible and appropriate with the USACE Civil Works Strategic Plan;

3. Develop a master plan for the integrated and prioritized protection of our coasts, river systems, and mountain communities from storms and flood damage through the construction and management of protection projects;

4. Enforce compliance with the master plan throughout the state government; and

5. Provide mission guidance, operational direction, and oversight to the Authority.

The Board shall design program structure, including organization design, policies, standards, performance measures, processes, and terminologies in consultation with the (i) headquarters of the USACE and its North Atlantic and South Atlantic Divisions and (ii) Board of Louisiana's Coastal Protection and Restoration Authority (CPRA), a state model for this program.

The Board shall request and arrange the training of Board, Authority, and Commission members in the appropriate courses offered by USACE to its own civil works leadership and planners.

After coordination with USACE HQ and the North and South Atlantic Divisions, the Board shall direct the Authority to establish working relationships with the Norfolk, Baltimore, Huntington, and Wilmington, NC District offices of USACE.

The Board shall request from USACE the assignment of a senior, experienced civil works planner to be colocated with the Authority and serve as liaison for the Board and the Authority with USACE and as a resource to help develop planning expertise within the Authority.

The Board shall direct the Authority to coordinate investigations, construction, and operations and maintenance projects with USACE, appropriate local governments, and regional planning district commissions.

The Board shall direct the Authority to act for Virginia as its representative in any interstate agency established for purposes of hurricane and flood risk reduction under a compact among Virginia and one or more other states with the consent of Congress under Section 10 of Article I of the United States Constitution.

The Board shall direct the Authority as its first order of business after reaching initial operational capability to work with FEMA and USACE to define potential Civil Works projects yielding the highest benefit-to-cost ratios. Candidates shall include mountain, riverine, and coastal Special Flood Hazard Areas (SFHA) in Virginia. The Authority shall coordinate with USACE and FEMA Region 3 in characterizing relative flood risk among the SFHA; specifically, the Authority shall seek to utilize a National Flood Risk Characterization tool, currently in late stage development by USACE in collaboration with FEMA, that is designed for this task. The tool will provide information in a GIS format to support federal, state, and regional decision makers, planners, and policy analysts in determining investment priorities, responding to future conditions and flood risk drivers, improving resilience, and reducing risk in the long term.

The Board shall be composed of:

1. One representative designated by the Speaker of the House of Delegates;

2. One representative designated by the majority leader of the Senate; and

3. Seven representatives, including a Chairman and a Vice-Chairman, appointed by the Governor. One of the members of the board appointed by the Governor shall be the Secretary of Transportation and one shall be the Secretary of Natural Resources.

§ 4. The Authority.

The Authority shall act as directed by the Board.

The Authority shall initially be composed of a Director, a Deputy Director, five staff civil engineers, one staff economist, and five direct administrative support personnel. The Director shall be a civil engineer with significant experience in USACE Civil Works projects. The Deputy Director shall be an economist with significant experience in forecasting the economic effects of flooding and flood risk reduction.

182 *The Authority shall be hosted by the Virginia Department of Transportation (VDOT). VDOT shall*
183 *provide support, including but not limited to work facilities, administrative management, logistics,*
184 *human resources, legal, contracts, and information resources support to the Authority.*

185 *§ 5. The Commission.*

186 *The mission of the Commission includes but is not limited to assisting the Governor and the Board*
187 *in the development and implementation of a complete and integrated master plan to achieve hurricane*
188 *and flooding risk reduction by advising the Governor and the Board. The Commission shall review*
189 *programs, conditions, trends, and scientific and engineering findings that affect integrated risk reduction*
190 *in order to make recommendations for improvements. The Commission shall develop advice with respect*
191 *to the identification and resolution of conflicts among agencies and stakeholders related to the risk*
192 *reduction efforts and to assist in the identification of any other activity that might conflict with those*
193 *efforts. The Board shall provide staffing services for the Commission.*

194 *The Commission shall consist of members appointed by the Governor as he shall deem necessary*
195 *and one member each appointed by:*

- 196 1. *The Senate Majority Leader;*
- 197 2. *The Speaker of the House of Delegates;*
- 198 3. *The Chairman of the House Committee on Appropriations;*
- 199 4. *The Chairman of the House Committee on Transportation;*
- 200 5. *The Chairman of the House Committee on Counties, Cities and Towns;*
- 201 6. *The Chairman of the House Committee on Agriculture, Chesapeake and Natural Resources;*
- 202 7. *The Chairman of the Senate Committee on Local Government;*
- 203 8. *The Chairman of the Senate Committee on Transportation;*
- 204 9. *The Chairman of the Senate Committee on Finance; and*
- 205 10. *The Chairman of the Senate Committee on Agriculture, Conservation and Natural Resources.*