

SENATE No. 2196

The Commonwealth of Massachusetts

In the One Hundred and Ninetieth General Court
(2017-2018)

An Act providing for the establishment of a comprehensive adaptation management plan in response to climate change.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. The General Laws are hereby amended by inserting after chapter 21O the
2 following chapter:-

3 CHAPTER 21P.

4 COMPREHENSIVE ADAPTATION MANAGEMENT PLAN TO ADDRESS
5 CLIMATE CHANGE.

6 Section 1. As used in this chapter, the following words shall have the following meanings
7 unless the context clearly requires otherwise:

8 “Adaptation”, a response and process of adjustment to actual or expected climate change
9 and its effects that seeks to increase the resiliency and reduce the vulnerability of the
10 commonwealth’s built and natural environments and seeks to moderate or avoid harm or exploit
11 beneficial opportunities to reduce the safety and health risks that vulnerable human populations
12 and resources may encounter due to climate change.

13 “Executive office”, the executive office of energy and environmental affairs.

14 “Hazard mitigation”, an effort using nonstructural measures to reduce loss of life and
15 property by lessening the impacts of major storms.

16 “Plan”, the comprehensive adaptation management plan to address climate change and
17 any revised plans developed pursuant to this chapter.

18 “Public utility company”, shall have the same meaning as defined in the second
19 paragraph of subsection (j) of section 5 of chapter 21E.

20 “Resilience”, the ability to respond and adapt to changing conditions and withstand and
21 rapidly recover with minimal damage from disruption due to climate-related events and impacts
22 that may include, but shall not be limited to, shoreline improvement, seawall maintenance and
23 expansion, infrastructure improvement and innovative building design and construction.

24 “State agency”, a legal entity of state government established by the legislature as an
25 agency, board, bureau, department, office or division of the commonwealth with a specific
26 mission that may report to an executive office or secretariat or be an independent division or
27 department.

28 “State authority”, a body politic and corporate constituted as a public instrumentality of
29 the commonwealth and established by law to serve an essential governmental function; provided,
30 however, that “state authority” shall include energy generation and transmission, solid waste,
31 drinking water, wastewater and stormwater and telecommunication utilities serving areas
32 identified by the executive office as subject to material risk of flooding; provided further, that
33 unless designated as such by the secretary of energy and environmental affairs, “state authority”

shall not include: (i) a state agency; (ii) a city or town; (iii) a body controlled by a city or town; or (iv) a separate body politic for which the governing body is elected, in whole or in part, by the general public or by representatives of member municipalities.

Section 2. (a) The secretary of energy and environmental affairs and the secretary of public safety and security, in consultation with appropriate secretariats as determined by the governor, shall develop, draft and adopt a comprehensive adaptation management plan to address climate change. The plan shall be revised at least once every 5 years. The plan shall be developed and revised with guidance from the comprehensive adaptation management plan advisory commission established in section 3.

The plan shall include policies to encourage and provide guidance to state agencies, state authorities, municipalities and regional planning agencies to proactively address the impacts of climate change. The plan shall also provide a process for local and regional climate vulnerability assessment and adaptation strategy development and implementation and may encourage and provide guidance to municipalities on how to proactively address the impacts of climate change.

Upon the adoption of the plan, all certificates, licenses, permits, authorizations, grants, financial obligations, projects, actions and approvals issued thereafter by a state agency or state authority shall be consistent, to the maximum extent practicable, with the plan. A copy of the plan and any revisions thereof shall be filed with clerks of the senate and house of representatives.

(b) The plan shall include, but not be limited to: (i) a statement setting forth the commonwealth's goals, expected outcomes and a path for achieving results and priorities and principles for ensuring effective prioritization for the resiliency, preservation, protection,

restoration and enhancement of the commonwealth's built and natural infrastructure; (ii) a commitment to sound management practices that takes into account the existing natural, built and economic characteristics of the commonwealth's most vulnerable areas and human populations; (iii) data on existing and projected climate trends that is based on the latest data, forecasting and models regarding climate change indicators and trends that shall include, but not limited to, extreme weather events, changes for temperature, precipitation, drought, sea level, inland and coastal flooding and wildfire; (iv) a statement on the preparedness and vulnerabilities in the commonwealth's emergency response and infrastructure resiliency that shall include, but not be limited to, energy, transportation, communications, health and other systems; (v) an assessment of economic vulnerability that shall include, but not limited to, an assessment of local businesses in high-risk communities; (vi) an assessment of natural resources and ecosystems that identifies vulnerabilities and strategies to preserve, protect, restore and enhance the natural resources and ecosystems; (vii) approaches for the commonwealth to increase the resiliency of government operations; and (viii) policies and strategies for ensuring that adaptation and resiliency efforts complement efforts to reduce greenhouse gas emissions and contribute towards the commonwealth's ability to meet the statewide emission limits established pursuant to chapter 21N.

Section 3. (a) There shall be a comprehensive adaptation management plan advisory commission to assist the secretary of energy and environmental affairs and the secretary of public safety and security in developing the plan under section 2. The commission shall consist of: the secretary of energy and environmental affairs or a designee; the secretary of public safety and security or a designee; 1 member to be appointed by the president of the University of Massachusetts who shall be employed by the university and have expertise in climate science

and 19 persons to be appointed jointly by the secretary of energy and environmental affairs and the secretary of public safety and security, 1 of whom shall be an employee at the Massachusetts emergency management agency, 1 of whom shall have expertise in transportation and built infrastructure, 1 of whom shall have expertise in commercial, industrial and manufacturing activities, 1 of whom shall have expertise in commercial and residential property management and real estate, 1 of whom shall have expertise in energy generation and distribution, 1 of whom shall have expertise in wildlife and land conservation, 1 of whom shall have expertise in water supply and conservation, 1 of whom shall have expertise in the outdoor recreation economy, 1 of whom shall have expertise in economic and environmental justice, 1 of whom shall have expertise in ecosystem dynamics, 1 of whom shall have expertise in coastal zones and oceans, 1 of whom shall have expertise in rivers and wetlands, 1 of whom shall be a professional engineer, 1 of whom shall be from a statewide nonprofit land and water conservation organization; 1 of whom shall have expertise in historic and cultural resources, 1 of whom shall be a property owner in a coastal community, 1 of whom shall have expertise in small business administration, 1 of whom shall be a certified floodplain manager and 1 of whom shall have expertise in local government. The secretary of energy and environmental affairs and the secretary of public safety and security shall jointly designate 1 commission member to serve as chair.

(b) The advisory commission shall prepare a report that:

(i) identifies: (A) how the secretary of energy and environmental affairs can support existing adaptation, resilience and hazard mitigation efforts of state agencies, such as the StormSmart Coasts program in the office of coastal zone management, the coastal erosion commission report, BioMap2 at the department of fish and game and vulnerability studies being conducted by state agencies; (B) new actions that may be implemented immediately using

existing state agency legal authority, state resources and funding based upon the recommendations included in the climate change impact report prepared pursuant to section 9 of chapter 298 of the acts of 2008 and existing climate change plans prepared by regional planning agencies and municipalities; (C) unilateral actions that may be taken by the executive branch to increase climate adaptation, resilience and hazard mitigation which shall include, but not be limited to, executive orders and policy directives issued by the governor or policies, regulations and guidance issued by the secretary of energy and environmental affairs; (D) recommendations of new climate resilience and adaptation actions that require legislative approval, state resources or funding, including identification of funds to leverage opportunities through public and private partnerships; and (E) the cost of climate adaptation management within the 5-year term of the plan based upon the adaptation actions recommended in the report, existing climate adaptation plans, including those prepared by regional planning councils and municipalities, and state agency cost assessments outlined in section 4; and

(ii) provides information relative to the risks associated with climate change, both means and extremes, including, but not limited to, the risks associated with changes in temperature, drought, increased precipitation and coastal and inland flooding identified in the report of the advisory committee on flood risks created by climate change established in section 39 of chapter 52 of the acts of 2014.

The advisory commission shall submit revisions or amendments to the report as necessary.

Section 4. Each state agency, state authority and public utility company as designated by the secretary of environmental affairs and the secretary of public safety and security shall, in

consultation with the executive office and at least once every 5 years, develop and update a vulnerability and adaptation assessment for the portfolio of assets of the state agency, state authority or public utility company. The vulnerability assessment shall be based on the relevant scientific data and information collected by the comprehensive adaptation management plan advisory commission pursuant to section 3.

The vulnerability assessments shall classify the economic losses over time associated with each major asset for the relevant climate risks as unacceptable, noncritical or immaterial; provided, however, that such climate risks shall include, but not be limited to, coastal and inland flooding and extreme heat. For assets exposed to unacceptable losses, the vulnerability assessment shall include order-of-magnitude cost-estimates for: (i) measures to protect the assets; (ii) measures to make the assets resilient; and (iii) removal and relocation of the assets from exposed areas. Estimates shall also be prepared for the economic, social and environmental damages if adaptation actions are not taken. Qualitative cost-benefit discussions of projected social impacts of flood prevention versus flood resilience shall also be included in the vulnerability assessment.

Section 5. The secretary of energy and environmental affairs and the secretary of public safety and security shall, not less than 6 months before establishing the plan pursuant to this chapter, provide for public access to the draft plan in electronic and printed copy form and shall provide for a public comment period that shall include at least 5 public hearings across the commonwealth. The secretary of energy and environmental affairs and the secretary of public safety and security shall publish notice of a public hearing in the Environmental Monitor not less than 30 days but not more than 35 days before the date of a hearing. Notice of a public hearing shall also be published at least once a week for the 4 consecutive weeks preceding a public

147 hearing in newspapers of general circulation serving the municipality in which the hearing shall
148 be held. The public comment period shall remain open for not less than 60 days from the date of
149 the final public hearing. After the close of the public comment period, the secretary of energy
150 and environmental affairs and the secretary of public safety and security shall issue a final plan.
151 The plan, together with legislation necessary to implement the plan, if any, shall be filed with the
152 clerks of the senate and house of representatives.

153 Section 6. The plan shall be consistent with this chapter and any other relevant general
154 and special laws. Nothing in the plan shall be construed to supersede existing general or special
155 laws or to confer any rights or adversely impact existing rights or remedies in addition to those
156 conferred by general or special laws existing on the effective date of this chapter.

157 Section 7. The secretary of energy and environmental affairs shall develop and support a
158 comprehensive adaptation management plan grant program. The program shall consist of: (i)
159 financial assistance to municipalities for the development and implementation of comprehensive
160 cost-effective adaptation management plans; (ii) technical planning guidance for adaptive
161 municipalities through climate vulnerability assessments and adaptation strategy development;
162 and (iii) development of a definition of impacts by supporting municipalities conducting climate
163 vulnerability assessments. The grants shall be used to advance efforts to adapt land use, zoning,
164 infrastructure, policies and programs to reduce the vulnerability of the built and natural
165 environment to changing environmental conditions that are a result of climate change. The
166 secretary of energy and environmental affairs shall develop and implement an outreach and
167 education program about climate change and its effects in low-income and urban areas. The
168 department of energy resources may make available monies from amounts collected by the

169 Department of Energy Resources Credit Trust Fund established in section 13 of chapter 25A for
170 the grant program.

171 Comprehensive adaptation management plans shall include, but not be limited to: (i) a
172 climate vulnerability assessment and adaptation strategy development; (ii) a demonstrated
173 understanding of municipal characteristics, including environmental and socioeconomic
174 characteristics; and (iii) prioritization of protecting identified inland and coastal vulnerable
175 locations not yet built upon.

176 Section 8. The executive office, in consultation with the division of capital asset
177 management and maintenance, may acquire, by purchase from willing sellers and for
178 conservation and recreation purposes, land that abuts or is adjacent to areas that are subject to the
179 ebb and flow of the tide or on barrier beaches or in velocity zones of flood plain areas and on
180 which structures have been substantially and repeatedly damaged by severe weather, including
181 those areas that have been rejected by the Pre-Disaster Mitigation Grant Program and the Hazard
182 Mitigation Grant Program administered by the Federal Emergency Management Agency.

183 Prior to the acquisition of land under this section, the executive office shall, after
184 consultation with the municipality in which the land is located, develop a conservation and
185 recreation management plan and a coastal erosion mitigation and management plan for the land.
186 The plan shall set forth the priority, description and location of lands to be acquired and any land
187 management agreement reached between the agency and municipality that provides for local
188 responsibility to carry out the development and management of the property. Land acquired
189 pursuant to this section shall contain a deed restriction stating that the land shall be used for
190 conservation and recreation purposes only.

Land shall not be acquired under this section until after a public hearing to consider the management plan has been held by the executive office in the municipality in which the land is located. The executive office shall notify the mayor or city manager and city council or board of alderman in a city or the board of selectmen, planning board and conservation commission, if any, of a town not later than 10 days before such a hearing.

If the executive office deems it necessary to make appraisals, surveys, soundings, borings, test pits or other related examinations to obtain information to carry out this section, the executive office or its authorized agent or employee may, after due notice by registered mail, enter upon lands, water and premises, not including buildings, to make such an appraisal, survey, sounding, boring, test pit or other related examination and the entry shall not be a trespass. The executive office shall provide reimbursement for any injury or actual damages resulting to the land, water or premises caused by an act of the executive office or its authorized agent or employee and shall, so far as possible, restore the land, water or premises to its condition prior to the appraisal, survey, sounding, boring, test pit or other related examination.

Section 9. (a) The executive office, acting for and on behalf of the commonwealth, may lease to a municipality or nonprofit organization certain property acquired by the commonwealth pursuant to section 8 or by the Federal Emergency Management Agency under 42 U.S.C. § 4001, et seq for use as conservation and recreation areas. The lease shall be for not more than 25 years.

A lease shall be in such form and contain such provisions as the secretary of energy and environmental affairs, in consultation with the division of capital asset management and maintenance, shall determine, including terms and conditions necessary to comply with laws relative to the protection of barrier beaches; provided, however, that the form shall be approved

213 by the attorney general. A lease shall include express conditions that the land shall be used for
214 conservation and recreation purposes only and that permanent structures shall not be erected on
215 the land and a reversionary clause that requires the lease to be terminated if the leased land is
216 used in violation of a law relative to barrier beaches or a condition of the lease.

217 (b) In consideration for the granting of a lease authorized in subsection (a), the lessee
218 municipality or nonprofit organization shall agree to maintain the acquired land as a clean, safe
219 and orderly conservation or recreation area.

220 SECTION 2. Funds shall be expended from item 2000-7070 of section 2A of chapter
221 286 of the acts of 2014 for the comprehensive adaptation management plan grant program
222 established in section 7 of chapter 21P of the General Laws.

223 SECTION 3. Not later than 180 days after the effective date of this act, the
224 commissioner of environmental protection shall promulgate rules regulating the dredging, filling
225 or altering of land subject to coastal storm flowage pursuant to section 40 of chapter 131 of the
226 General Laws.

227 SECTION 4. The comprehensive adaptation management plan advisory commission shall
228 complete the report required by subsection (b) of section 3 of chapter 21P of the General Laws
229 not later than January 1, 2019.