

SENATE No. 344

The Commonwealth of Massachusetts

PRESENTED BY:

William N. Brownsberger

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act creating a process to evaluate exposure to catastrophic flooding as a result of climate change.

PETITION OF:

NAME:	DISTRICT/ADDRESS:
<i>William N. Brownsberger</i>	<i>Second Suffolk and Middlesex</i>
<i>Martha M. Walz</i>	<i>8th Suffolk</i>
<i>Lori A. Ehrlich</i>	<i>8th Essex</i>
<i>Jason M. Lewis</i>	<i>Fifth Middlesex</i>
<i>Kay Khan</i>	<i>11th Middlesex</i>
<i>Michael J. Barrett</i>	<i>Third Middlesex</i>
<i>James M. Cantwell</i>	<i>4th Plymouth</i>
<i>Karen E. Spilka</i>	<i>Second Middlesex and Norfolk</i>
<i>Sal N. DiDomenico</i>	<i>Middlesex and Suffolk</i>
<i>David M. Rogers</i>	<i>24th Middlesex</i>
<i>Patricia D. Jehlen</i>	<i>Second Middlesex</i>

SENATE No. 344

By Mr. Brownsberger, a petition (accompanied by bill, Senate, No. 344) of William N. Brownsberger, Martha M. Walz, Lori A. Ehrlich, Jason M. Lewis and other members of the General Court for legislation to create a process to evaluate exposure to catastrophic flooding as a result of climate change. Environment, Natural Resources and Agriculture.

The Commonwealth of Massachusetts

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In the Year Two Thousand Thirteen
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An Act creating a process to evaluate exposure to catastrophic flooding as a result of 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 WHEREAS recent hurricanes and intense storms have caused severe damage in
2 Massachusetts and neighboring states; and

3 WHEREAS there has been a trend of sea level rise in Massachusetts over the past several
4 decades; and

5 WHEREAS the National Oceanic and Atmospheric Administration (NOAA) projects
6 continued sea level rise over the next several decades; and

7 WHEREAS Massachusetts has many coastal communities and a wealth of resources that
8 are potentially vulnerable to flooding; and

9 WHEREAS there is a need to gauge the flooding risks facing our infrastructure, eco-
10 systems, and populace to inform decision making and further the safety, health, and economic
11 vitality of the Commonwealth; and

12 WHEREAS there is a need for the Commonwealth to have a common set of flood-risk
13 scenarios that describe future potential conditions to support decision making,

14 Notwithstanding any general or special law to the contrary, the secretary of Energy &
15 Environmental Affairs shall convene an advisory committee on flood risks created by climate
16 change. The advisory committee shall be chaired by the secretary, or his designee, and be
17 comprised of representatives with expertise in the following areas: coastal zone and river

18 flooding, hydrological and hydraulic modeling, natural hazard preparedness and mitigation, sea
19 level and storm surge projections, risk measurement and reduction, emergency management
20 planning and scenario planning.

21 The advisory committee, shall, within 18 months from the date of enactment complete an
22 initial report which shall include:

23 (1) a set of combined sea-level rise and storm-surge scenarios for Massachusetts;

24 (2) estimates of risk levels of each scenario occurring by 2030, 2050 and 2100;

25 (3) estimates of flood water levels in coastal areas under each scenario which shall
26 reflect appropriate local information such as local uplift and subsidence, and coastal erosion
27 rates;

28 (4) estimates based on hydrological and hydraulic modeling of flood water levels in each
29 scenario in historically coastal areas now currently protected by dams, including the Charles
30 River Basin and the Mystic River Basin;

31 (5) develop scenario-planning and the capability to explore policy options for guiding
32 where to build, what to build, and how to strengthen communities in areas of greatest risk.

33 The committee shall conduct a public hearing before procuring any contract for
34 consulting services and a second hearing before finalizing its initial report.

35 The initial report shall serve as the basis for vulnerability assessments which state
36 agencies and public utilities shall develop for their portfolio of assets. For the purposes of this
37 paragraph, state agencies shall include all executive agencies, including without limitation:
38 Massachusetts Department of Transportation, Department of Environmental Protection,
39 Department of Capital Asset Management & Maintenance, Department of Conservation and
40 Recreation, Department of Public Utilities, Department of Public Health, Massachusetts
41 Emergency Management Agency and independent and quasi-public agencies, including but not
42 limited to, the Massachusetts Bay Transportation Authority, the Massachusetts Water Resources
43 Authority, and the Massachusetts Port Authority. Public utilities shall include energy generation,
44 and transmission, solid waste, drinking water, wastewater and stormwater and
45 telecommunication utilities serving areas identified in the initial report as subject to material risk
46 of flooding.

47 The vulnerability assessments shall classify the losses over time associated with each
48 major asset for each flooding scenario as unacceptable, non-critical or immaterial. For assets
49 exposed to material risk of unacceptable losses, the vulnerability assessment shall include order-
50 of-magnitude cost-estimates (a) for measures to protect the assets from flooding; (b) for
51 measures to make the assets flood-resilient; and (c) for removal and relocation of the assets from
52 flood-exposed areas. Estimates will also be prepared for the economic, social, and

53 environmental damages if no adaptation actions are taken. Qualitative benefit-cost discussions
54 of projected social impacts of flood prevention versus flood resilience shall also be included.

55 The vulnerability assessments shall be submitted to the advisory committee within 18
56 months of the completion of the initial report and the advisory committee shall compile the
57 results into a final report. The final report shall include identification of any major potential
58 inter-agency investments such as multi-property sea walls or drainage systems that decrease
59 overall costs versus investments targeted at protection of individual assets. The advisory
60 committee shall conduct a public hearing before issuing its final report. The advisory committee
61 shall issue its final report within 30 months of the date of enactment and shall file the same with
62 the clerks of the House and the Senate.