

SENATE No. 496

The Commonwealth of Massachusetts

PRESENTED BY:

Joseph A. Boncore

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 improving air quality in airport environmental justice communities.

PETITION OF:

NAME:

DISTRICT/ADDRESS:

Joseph A. Boncore

First Suffolk and Middlesex

Adrian C. Madaro

1st Suffolk

SENATE No. 496

By Mr. Boncore, a petition (accompanied by bill, Senate, No. 496) of Joseph A. Boncore and Adrian C. Madaro for legislation to improve air quality in airport environmental justice communities. Environment, Natural Resources and Agriculture.

The Commonwealth of Massachusetts

**In the One Hundred and Ninety-Second General Court
(2021-2022)**

An Act improving air quality in airport environmental justice communities.

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. Chapter 465 of the Acts of 1956 is hereby amended by adding the following
2 5 sections:-

3 Section 37. (a) The Authority shall prepare and publish a strategy report containing
4 policies with respect to the assessment and management of the current and future quality of air
5 and noise levels in the East Boston section of the city regarding the environmental impact of the
6 General Edward Lawrence Logan International Airport, hereinafter referred to as Logan Airport.

7 The strategy shall consist of or include—

8 (1) a statement which relates to the East Boston section of the city; and

9 (2) statements with respect to standards and measurements relating to the quality of air
10 and noise levels; objectives for the restriction of the levels at which particular substances are
11 present in the air and objectives for restrictions of noise levels; and measures which are to be

12 taken by the Authority, state and local authorities and other persons for the purpose of achieving
13 those objectives.

14 (b) Before publishing the strategy or any modification of it, the Authority shall publish a
15 draft of the proposed strategy or modification, together with notice of a date before which, and
16 an address at which, public comments may be made to the Authority concerning the draft so
17 published; and shall take into account any such representations made. Copies of the draft or any
18 modification shall be made available to the public at no charge.

19 (c) The Authority shall from time to time cause a review to be conducted of the quality
20 for the time being, and the likely future quality within the relevant period, of air and noise levels
21 within the Authority's East Boston area of Logan Airport. The Authority shall also cause an
22 assessment to be made of whether air quality standards and objectives and noise level standards
23 and objectives are being achieved, or are likely to be achieved, within the relevant period. The
24 Authority shall forthwith prepare, before the expiration of the period of 12 months beginning
25 within the effective date of this section, a report of the results of the assessment.

26 (d) If, on an assessment under subsection (c), it appears that any air quality standards or
27 objectives or noise level standards and objectives are not being achieved, or are not likely within
28 the relevant period to be achieved, within the area of Logan Airport, the Authority shall identify
29 any parts of its area in which it appears that those standards or objectives are not likely to be
30 achieved within the relevant period.

31 (e) Where, as a result of the air quality and noise level review, it appears that any air
32 quality standards or objectives or noise level standards and objectives are not being achieved, or
33 are not likely within the relevant period to be achieved, within the East Boston area of Logan

34 Airport, the Authority shall designate the East Boston area as an air quality management area or
35 a noise level management area hereinafter referred to in this act as the “designated area”, all or
36 any part of East Boston in which it appears that those standards or objectives are not being
37 achieved, or are not likely to be achieved within the relevant period.

38 (f) The Authority shall post air quality and noise level measurements on a publicly
39 accessible internet website as reasonably frequent as possible. The Authority shall utilize said
40 data in all reporting on the environmental impacts of operations at Logan Airport.

41 Section 38. The Authority, in consultation with state and local government, shall take
42 measures to remediate the designated area.

43 The Authority shall prepare a written action plan in pursuit of the achievement of air
44 quality standards and objectives or noise level standards and objectives in the designated area, of
45 any powers exercisable by the Authority.

46 The action plan shall include a statement of the time or times by or within which the
47 Authority proposes to implement each of the proposed measures comprised in the action plan.

48 The Authority may from time to time revise an action plan.

49 Section 39. (a) If the Authority fails to make an assessment of whether air quality
50 standards and objectives or noise level standards and objectives are being achieved in accordance
51 with this act, or are likely to be achieved within the relevant period, within the designated area,
52 the department of environmental protection, hereinafter referred to as the department, shall issue
53 an order that:

54 (1) air quality standards or objectives are not being achieved, or are not likely within the
55 relevant period to be achieved by the Authority, within the designated area;

56 (2) noise level standards or objectives are not being achieved, or are not likely within the
57 relevant period to be achieved by the Authority, within the designated area;

58 (3) that the Authority has failed to discharge any duty imposed on it under or by virtue of
59 sections 37 to 39, inclusive;

60 (4) that the actions, or proposed actions, of the Authority in purported compliance with
61 the provisions of this act are inappropriate in all the circumstances; or

62 (5) that developments in science or technology, or material changes in circumstances,
63 have rendered inappropriate the actions or proposed actions of the Authority in pursuance of
64 sections 37 to 39, inclusive.

65 (b) Upon the issuance of such order the department shall give directions to the Authority
66 requiring it to take such steps as may be specified by the department, including, that the
67 department shall require the Authority to cause an air quality review or noise level review to be
68 conducted under direction of the department whether in whole or in part, or to be so conducted
69 with such differences as may be specified or described in such requirement; and to prepare in
70 accordance with such requirement an action plan for the designated area and to implement, in
71 accordance with the directions, any measures in an action plan.

72 Section 40. (a) The Authority shall establish and maintain a network of air quality
73 monitoring devices in the East Boston section of the city and in the town of Winthrop, excluding

74 Logan Airport. Such air quality monitoring devices shall be placed, to the greatest extent
75 feasible, in a grid pattern spaced equidistant from each other, and shall number no less than 191.

76 (b) The Authority shall be empowered to enter into agreements with property owners,
77 state and municipal government agencies, and public utility companies to facilitate the siting of
78 said air quality monitoring devices, and the subsidization of electricity costs to operate said
79 devices. Should the Authority be unable to secure the ability to site an air quality monitoring
80 device in a manner consistent with subsection (a), the Authority shall make every effort to place
81 said air quality monitoring device in a location as close as can be secured.

82 (c) Each air quality monitoring device shall measure, at a one minute temporal resolution,
83 pollutants including, but not limited to: carbon monoxide, carbon dioxide, nitric oxide, nitrogen
84 dioxide, ozone, particulate matter sized 10 microns or less, particulate matter sized 2.5 microns
85 or less and particulate matter sized 1 micron or less.

86 (d) For no less than ten percent of air quality monitoring device locations, spaced
87 proportionately, the Authority shall also monitor, at one minute temporal resolution, ultrafine
88 particulate matter sized 100 nanometers or less.

89 (e) The Authority shall make available to the public in real time the data from said
90 network of air quality monitoring stations through a publicly accessible mobile application..

91 SECTION 41. The Massachusetts Port Authority in coordination with the bureau of
92 environmental health of the department of public health shall conduct an environmental risk
93 assessment of the health impacts of the General Lawrence Logan Airport in the East Boston
94 section of the city of Boston and the town of Winthrop. Such assessment shall include, but not be
95 limited to: (1) air quality monitoring, utilizing data from the air quality monitoring network

96 established in section 40 of chapter 465 of the acts of 1956, and the total particle number
97 concentration of both indoor and outdoor spaces, in addition to additional mobile monitoring of
98 the pollutants outlined in said section 40 in order to increase spatial resolution; (2) air quality
99 modeling, utilizing data from said air quality monitoring to construct high spatial resolution
100 pollution concentration estimates for the East Boston section of the city of Boston; (3) time
101 activity exposure analysis, utilizing data from said air quality monitoring with a time activity
102 analysis to calculate integrated participant exposure to each pollutant; and (4) health association
103 surveys, to associate pollutant exposure with classes of health outcomes, including, but not
104 limited to: cardiovascular diseases, neurological diseases, respiratory diseases and cancers.

105 The Authority shall report its findings together with any recommended response actions
106 by the commonwealth to the house and senate committees on ways and means not later than
107 January 1, 2028.

108 SECTION 2. Section 142B of chapter 111 of the General Laws, as appearing in the 2016
109 Official Edition, is hereby amended by striking out the eighth paragraph and inserting in place
110 thereof the following paragraph:-

111 The department shall maintain and operate such air sampling stations and devices; make
112 or perform such routine and special examinations, inspections, observations, determinations,
113 laboratory analyses, and surveys; maintain such records; and perform such other acts as it deems
114 necessary to conduct an adequate air pollution control program within the metropolitan air
115 pollution control district. The department shall, in its annual Air Monitoring Network plan,
116 which it prepares in accordance with Title 40 CFR Part 58.10, at each location where the
117 department monitors for particulate matter 2.5 micrometers and smaller in diameter, monitor and

118 report for ultrafine particulate matter less than 100 nanometers in diameter, in addition to its
119 other monitoring at those locations.

120 SECTION 3. Section 142B of chapter 111 of the General Laws, as appearing in the 2016
121 Official Edition, is hereby amended by adding at the end thereof the following new paragraphs:-

122 (a) Notwithstanding any general or special law to the contrary, the Department shall
123 create a new air pollution control district known as the Airport Community Air Pollution Control
124 District.

125 (b) The Airport Community Air Pollution Control District shall consist of the territory
126 and waters in the sections of cities and towns within a two-mile radius of Logan Airport. These
127 sections shall include; the East Boston, Charlestown, North End, Downtown, Chinatown, and
128 South Boston sections of the City of Boston; the city of Chelsea; the city of Revere; and the town
129 of Winthrop. A city, town, or part thereof membership in the Airport Community Air Pollution
130 Control District shall not preclude such cities, towns, or parts thereof from being members of the
131 Municipal Air Pollution Control District as established by this section.

132 (c) The department of education in coordination with the department of environmental
133 protection shall establish a grant program, subject to appropriation, to be known as the runway
134 proximity air quality grant program for the purpose of providing grants to assist school districts
135 and Horace Mann and commonwealth charter schools with the procurement of high-efficiency
136 particulate air purifiers, hereinafter referred to as HEPA purifiers. The grants shall support (1)
137 the procurement of not less than one HEPA purifier per classroom and communal space in each
138 school; (2) filter replacements; (3) maintenance; (4) additional electricity costs associated with
139 the purifiers; and (5) educational programming to improve compliance.

140 (d) The Massachusetts Port Authority, as defined in Chapter 465 of the Acts of 1956,
141 shall subsidize not less than 80 percent of costs associated with the airport community air quality
142 grant program as described in subsection (c) of this section for schools eligible through
143 subsection (b) of this section.

144 (e) School districts in each city or town in the air quality grant program as described in
145 subsection (b) of this section shall subsidize not less than 20 percent of costs associated with the
146 airport community air quality grant program as described in subsection (c) for only the schools
147 within that city, town, or section thereof.

148 SECTION 4. Section 2 shall take effect on January 1, 2023.

149 SECTION 5. Section 3 shall take effect on January 1, 2023.