

**HOUSE . . . . . No. 968**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

*Adrian C. Madaro*

*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:	DATE ADDED:
<i>Adrian C. Madaro</i>	<i>1st Suffolk</i>	<i>2/19/2021</i>
<i>Jeffrey Rosario Turco</i>	<i>19th Suffolk</i>	<i>6/2/2021</i>
<i>Lydia Edwards</i>	<i>First Suffolk and Middlesex</i>	<i>1/28/2022</i>

**HOUSE . . . . . No. 968**

By Mr. Madaro of Boston, a petition (accompanied by bill, House, No. 968) of Adrian C. Madaro for legislation to require the Massachusetts Port Authority to conduct an environmental risk assessment of the health impacts of the General Lawrence Logan Airport in the East Boston section of the city of Boston and the town of Winthrop. 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  
107 than 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.