

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
 100 Cambridge Street, Suite 900
 Boston, MA 02114

Maura T. Healey
 GOVERNOR

Kimberly Driscoll
 LIEUTENANT GOVERNOR

Rebecca L. Tepper
 SECRETARY

Tel: (617) 626-1000
 Fax: (617) 626-1081
<http://www.mass.gov/eea>

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CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
 ON THE
 2022 LOGAN AIRPORT ENVIRONMENTAL STATUS AND PLANNING REPORT

PROJECT NAME : 2022 Environmental Status and Planning Report (ESPR)
 PROJECT MUNICIPALITY : Boston/Winthrop
 PROJECT WATERSHED : Boston Harbor
 EOEA NUMBER : 3247
 PROJECT PROPONENT : Massachusetts Port Authority
 DATE NOTICED IN MONITOR : June 7, 2024

As Secretary of Executive Office of Energy and Environmental Affairs (EEA), I hereby determine that the Environmental Status and Planning Report (ESPR) submitted on this project **adequately and properly complies** with the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.06 of the MEPA regulations (301 CMR 11.00). However, as described below, I am directing Massport to participate in a work group process to consider supplemental community mitigation measures for environmental justice neighborhoods surrounding the Airport, with the goal of forming recommendations for specific actions within one year. Massport should report on the status of these work group discussions in its next Environmental Data Report (EDR) submission.

Logan Airport Environmental Review and Planning

EDR and ESPR Reporting Process

The environmental review process for Logan Airport (the “Airport”), first established in the 1970s, has been structured to occur on two levels: airport-wide and project-specific. The

Environmental Status and Planning Report (ESPR) has evolved from a largely retrospective status report on Airport operations to a broader analysis that also provides a prospective assessment of long-range plans. It has thus become, consistent with the objectives of the MEPA regulations, part of the Massachusetts Port Authority's (Massport) long-range planning process. The ESPR provides a "big picture" analysis of the environmental impacts associated with current and projected activity levels, and presents a comprehensive strategy to avoid and minimize impacts. The ESPR analysis is supplemented by (and ultimately incorporates) the detailed analyses and mitigation commitments of project-specific Environmental Impact Reports (EIRs). The ESPR is generally updated on a five-year basis. The previous ESPR for the year 2017 (2017 ESPR) was filed in August of 2019. The Scope for the 2022 ESPR was included in the Certificate on the 202/2021 EDR which was issued on January 30, 2023.

EDRs are filed in the years between ESPRs. The EDR is a retrospective document that is generally filed annually and identifies environmental impacts based on actual passenger activity and operations. The EDR provides opportunities to compare activity levels and impacts against the prior year's EDR, as well as projections set forth in the five-year ESPR. In more recent years, the EEA Secretary has allowed the filing of combined EDRs (e.g., 2018/2019 EDR and 2020/2021 EDR). The 2020/2021 EDR responded to the Certificate on the 2018/2019 EDR. I note that recent delays in the filing of EDRs have led to concerns about data lags, as each EDR is sometimes filed up to a year after the end of the time period over which the EDR is required to report data. With extended comment periods necessitated by the increasing complexity of these filings, lengthy MEPA reviews of EDR filings have also delayed scoping for future EDRs and ESPRs. As discussed below, given that this 2022 ESPR is again being issued towards the end of 2024 (almost a full two years after the close of 2022), I am allowing the filing of another combined 2023/24 EDR (to be filed sometime in 2025) to alleviate concerns about a further lag between the time when data become available and when they are reported in public disclosures. I am also instructing Massport, as part of the 2023/24 EDR, to propose innovative solutions to address this issue, for instance, by making real-time data available to the public through a public-facing portal. As the availability of real-time data could reduce the need and public demand for multiple complex MEPA filings and associated reviews on an almost-annual basis, Massport could consider a simplified format for future EDRs and ESPRs. Alternatively, one ESPR could be submitted on a five-year cycle with one EDR as an interim update in year 2 or 3, provided that real-time data and key metrics (e.g., on a dashboard with certain agreed-upon metrics) are made available with more frequent updates on the Massport website. Further input should be gathered through the work group on community mitigation referenced below.

As reiterated in prior ESPR certificates, these EDR and ESPR reports are intended to subject Logan Airport to comprehensive and regular MEPA review, including opportunities for public comment on cumulative impacts from all aspects of Airport operations. As stated in a companion Certificate issued on October 11, 2024 for Hanscom Field (EEA #5484/8696), I acknowledge that Logan EDRs and ESPRs are not intended to analyze the impacts of specific projects proposed at Hanscom. However, these documents themselves are a form of environmental review, and are prepared to comply with the overarching directive of MEPA that Agencies, including state authorities such as Massport, review and evaluate the impact on the natural environment of all works, projects or activities conducted by them, and to "use all practicable means and measures to minimize damage to the environment." To that end, ESPRs

and EDRs should include, in addition to a cumulative inventory of all Airport operations and associated impacts, a description of all practicable measures planned to avoid or minimize, and where appropriate, to mitigate such impacts within the confines of Massport's legal authority. Consistent with the 2021 Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy ("Climate Roadmap Act"), St. 2021, c. 8, §§ 55-60, these measures should also consider environmental justice (EJ) principles by fostering the equitable distribution of environmental benefits and burdens in impacted neighborhoods, while considering any identified unfair or inequitable environmental burdens borne by surrounding EJ populations. More specific analysis required for future EDRs and ESPRs will be set forth in formal scoping documents, including the Scope below for the 2023/24 EDR.

2022 ESPR

At the time of the 2017 ESPR filing, it was projected that Logan Airport would reach 50 million annual passengers in the next 10 to 15 years (the Future Planning Horizon) until 2028 to 2032. As noted in the 2018/19 EDR Certificate, the 2019 passenger activity level represented an all-time high of 42.5 million, an increase of 3.9 percent over 2018 (40.9 million) and future trends were on track to exceed the 50 million annual passengers projected in the 2017 ESPR much sooner than the previously identified 10-15 year time frame. The 2022 ESPR is based on a Future Planning Horizon ending 2032 to 2037, and projects an increase to 53.5 million annual passengers in that time frame, seven percent greater than the projection in the 2017 ESPR. The 2022 ESPR reports that a return to 2019 passenger levels is expected by 2025. While the number of aircraft operations is projected to increase by a lesser amount (reported as 2% increase over 2017 ESPR projections, largely due to so-called "load factors" or the number of passengers per flight), total operations are still projected to exceed 2019 levels over the Future Planning Horizon and show a 31 percent increase over 2021 levels.

These trends in passenger and flight activity levels demonstrate that, while activity levels still remain below the all-time highs in 2019, they show clear recovery from COVID-19 conditions and a trajectory of exceeding 2019 levels by as early as 2025. I note that associated GHG and air emissions, while also showing an upward trend, are projected to increase at a slower rate; specifically, GHG emissions are projected remain below 2019 levels over the Future Planning Horizon, though other air pollutants, notably NOx, are predicted to increase markedly. The slower pace of GHG and air emissions increases appears to be due to the variety of measures in place and planned to reduce emissions impacts of Airport operations, and Massport should be applauded for striving to reduce all "Scope 1" emissions (albeit a small percent of total) to 0 by the Future Planning Horizon. Consistent with the Scope issued in the 2020/2021 EDR, the 2022 ESPR indicates that Massport has taken concrete steps to implement planned capital projects or programs that were deferred from 2018-19 due to pandemic conditions. These include several planned capital projects that were asserted to provide environmental benefits and reduce impacts associated with Airport operations, such as: the Logan Airport Parking Project (EEA# 15665) (5,000 new parking spaces, solar photovoltaic system, and electric vehicle charging stations), Phase 2 of Terminal E Modernization (EEA# 15434) (3 new terminal gates), several high-occupancy-vehicle investments (addition of 1,000 new spaces to Framingham Logan Express Garage (EEA# 16168), opening a new Logan Express suburban location, and implementing a

2nd urban Logan Express Service at North Station. The specific emissions reductions associated with these projects are not identified in the 2022 ESPR.

The Scope issued with the 2020/2021 EDR also required that Massport consider a framework and planning process for community mitigation, in collaboration with surrounding EJ populations and other community stakeholders. Both the 2017 ESPR Certificate and the 2018/2019 EDR Certificate indicated that Massport should ensure that community benefits are being provided commensurate with increased growth and associated impacts, and strongly urged that additional mitigation measures be considered if actual growth at the Airport exceeds projections in the ESPR. Prior Certificates have noted Massport's efforts, in response to a Department of Public Health (DPH) study conducted in 2014, to support public health services in the surrounding neighborhoods, including contributions to Chronic Obstructive Pulmonary Disease (COPD) treatment at a local health center. In the 2022 ESPR, Massport indicates that it conducted more intensive community engagement during preparations for this filing, and it has participated in small group discussions led by the MEPA Office since December 2023. In additional correspondence with the MEPA Office, Massport commits to undertaking the following improvements beyond existing measures to further minimize impacts and improve transparency:

- Report on Massport's Net Zero Plan accomplishments and progress on an annual basis
- In accordance with the Secretary's Plan and the Report of the Climate Chief on SAF, report on Massport's work in establishing a Commonwealth multi-agency working group to expedite the adoption of SAF at Massport and Massachusetts' airports, including production and delivery.
- Provide updates on ongoing FAA sponsored ultrafine particulate (UFP) research. Incorporate and report on Massport funded MCAC study that is measuring UFPs around Logan Airport
- Provide details on Massport's Residential Sound Insulation Program (RSIP).
- Create a new Logan ESPR/EDR landing page on Massport's website. The new webpage will include links to existing ESPR/EDR documents, public notices, and links to available data resources
- Continue to work with MEPA to refine and improve the Environmental Justice and public health analysis included in the ESPR
- Continue to monitor and report on idling at Logan Airport's terminal curbs. Establish a curb idling reduction plan with input from the MEPA Office and stakeholders. Present updates to MEPA and stakeholders at regularly scheduled briefings
- Include additional details in the ESPR on implementation and tracking of project-specific environmental benefits and mitigation (e.g., project related VMT reductions, GHG reductions, etc.)
- Continue to meet with MEPA and stakeholders on data requests, accessibility, and availability, including ways to improve ESPR/EDR format

I note that comments received on the 2022 ESPR continue to criticize Massport's outreach efforts and urge a stronger mitigation program to address impacts on surrounding communities commensurate with the increase in flight and passenger activity levels. As discussed below, while the 2022 ESPR included preliminary information related to

Environmental Justice (EJ) Populations in accordance with new MEPA EJ protocols released in January 2022, it did not provide comprehensive analysis of potential impacts to these neighborhoods. As further described below, Massport should continue its efforts to strengthen and improve relations with surrounding communities, especially those representing EJ populations located in close proximity to Logan Airport. Even a preliminary review of environmental and public health screening indices shows that these indicators are substantially elevated in areas directly adjacent to Logan Airport. I am also aware that the U.S. Environmental Protection Agency (EPA) is leading a stakeholder effort to consider the “cumulative impacts” of historic and current activities on overburdened communities in Chelsea, including from the ongoing impacts of Logan Airport operations. Massport should report on any findings and action items that may result from that effort.

As noted, the 2022 ESPR shows recovery trends post-COVID and flight and passenger activity levels are projected to exceed 2019 levels as early as 2025, with commensurate (though somewhat smaller) increases in GHG and air emissions. In light of these trends, and the increased focus on EJ considerations during MEPA reviews since 2022, I am also directing Massport to participate in a work group, facilitated by MEPA and the EEA EJ Office, to consider supplemental mitigation measures to address public health impacts of Airport operations on surrounding EJ populations. The work group should engage public health experts to advise on effective intervention strategies to address air quality impacts and aim to form recommendations within one year for specific actions to be taken by Massport within the scope of its legal authority. Such actions could include partnerships with local or municipal organizations interested in HEPPA filters, establishment of a curb idling reduction plan, enhanced community air monitoring in partnership with MassDEP and other air pollution sources, or other similar interventions to directly address the public health impacts of degraded air quality around the Airport. The work group should also consider improvements to Massport’s EDR and ESPR reporting process, including through availability of real-time data and abbreviated formats for future filings. Massport is directed to provide administrative support and facilitate the convening of work group meetings, in consultation with the MEPA Office. The 2023/2024 EDR should report on the results of this work group process. In addition, consistent with the approach set forth in the 2017 EPSR, if actual growth in passenger and/or aircraft operations outpace forecasts during a reporting period, I expect that additional mitigation and policies and strategies will be considered to address the proportional growth in impacts.

Review of the 2022 ESPR and Scope for the 2023/2024 EDR

While the 2022 ESPR is generally responsive to the Scope, comments from stakeholders highlight several key areas where the document does not fully respond to specific items in the Scope on the 2020/2021 EDR and fails to provide substantiating data to back up more general claims. While the 2022 ESPR introduced a new, more focused format with emphasis on current updates on existing initiatives, new programs and planning, and future forecasting, rather than prior initiatives and accomplishments, comments from stakeholders continue to cite the difficulty of reviewing filings due to their length and format. The 2022 ESPR included a new chapter (Chapter 2) which reports on Massport’s Environmental Justice (EJ) practices, community outreach and sustainability including initial data from Massport’s “Roadmap to Net Zero”

introduced in March of 2022.¹ The 2022 ESPR describes public involvement activities conducted prior to filing. It discusses the continued progress towards a recovery to pre-COVID-19 pandemic activity levels and operations and the status of future projects and programs including those put on hold during the pandemic. The technical studies (included as a separate Technical Appendices document) in the 2022 ESPR included reporting and analysis of key indicators of airport activity levels, the regional transportation system, ground access, noise, air and water quality, environmental management, and project mitigation tracking.

As noted in the 2020/2021 EDR Certificate, prior Massport filings indicated a rapid increase in passenger activity levels and aircraft operations during the years 2018 and 2019 due to strong economic conditions at that time. By 2019, air passenger activity levels at Logan Airport had reached an all-time high of 42.5 million and were on track to exceed the 50 million annual passengers projected in the 2017 ESPR much sooner than the previously identified 10-15 year time frame. However, in March 2020, flights in and out of Logan Airport were dramatically reduced and passenger levels dropped by over 90 percent at the peak of the COVID-19 pandemic in the spring and summer of 2020. The 2018/2019 EDR indicated that total flight operations remained reduced by approximately 50 percent, and passenger levels by approximately 70 percent, during the reporting period as compared to January through October 2019, though strong signs of recovery were evident as of the end of 2021 to early 2022 as documented in the 2020/2021 EDR and corresponding Certificate.

The 2022 ESPR updated the cumulative impacts of passenger growth and associated ground and aircraft operations based on revised forecasts, documented trends, and environmental impacts. It reviewed methodologies and metrics related to growth projections and associated impacts and mitigation and provided a comparison to the FAA Terminal Area Forecast (TAF) on which Massport's projections are based. The next EDR will analyze calendar years 2023/2024 and as directed above, should propose a simplified format that could be accompanied by more frequent updates of available data through the Massport website. This reporting format is in response to several comments which have noted the complexity and length of the reporting documents and difficulty in responding to lengthy, data-heavy analyses. Due to the lag in reporting noted above, stakeholders have expressed a need for more real-time data for environmental factors (air, noise, traffic, flights) to provide communities in close proximity to the Airport with information necessary to educate and contribute to the analysis of cumulative impacts. Massport has indicated that this information (to the extent is available) will be part of an EDR/ESPR webpage which is being developed to provide community stakeholders and the public a better understanding of future filings and access to collected environmental data in one location. The 2023/2024 EDR should report on the status of this website or dashboard and the data that is/will be available.

The 2023/2024 EDR must include information on the environmental policies and planning that form the context of environmental reporting, technical studies, and environmental mitigation initiatives against which projects at Logan Airport can be evaluated. This should include identification of the cumulative effects of Logan Airport operations and activities,

¹ The most current Massport Sustainability, Net Zero, and Resiliency Reports can be found at: <https://www.massport.com/sustainability>. Massport's next sustainability and resiliency report covering 2022 and 2023 will be published in late 2024.

compared to previous years, as appropriate. Review of the 2022 ESPR reveals that some reports/data summarized in the 2022 ESPR are not yet available for review, including the results of the 2022 Air Passenger Ground-Access Survey and the 2022/2023 Sustainability and Resiliency Report. The 2023/2024 EDR should include timely reporting of related environmental data to ensure a full picture of the information summarized in the report. The 2022 ESPR also includes updated timelines for implementation of deferred mitigation projects to ensure that mitigation efforts keep up with increasing rates of travel as pandemic restrictions ease and travel resumes. The 2023/2024 EDR should provide information on EJ populations in proximity to the Airport and summarize relevant information on community health data and outreach as discussed further below.

The 2023/2024 EDR must include copies of all ESPR and EDR Certificates and a distribution list for the 2023/2024 EDR. Supporting technical appendices should be provided as necessary. As noted previously, the 2023/2024 EDR should propose a streamlined process for environmental reporting, which may be supplemented through real-time data and other metrics made available with more frequent updates through the Massport website.

Public Comments

I received comments from two municipalities (Boston and Milton) and other individuals and organizations that identified impacts associated with operation of the Airport on surrounding areas, and expressed concern that impacts will increase with the anticipated growth in passengers and aircraft operations. Many of the commenters took issue with the format and complexity of the ESPR and with the lag in time between filings which results in a lack of real-time data for understanding current impacts. Among the key issues and requests identified in comments are the following:

- Coordinate with stakeholders to revamp the ESPR format to reduce the non-relevant information; condense information into smaller discrete subject sections, and make them more readable
- EJ outreach should include an opportunity for community input on form and content of future EDR/ESPRs prior to their preparation
- Provide language interpretation services for languages spoken by at least five percent of a census tract's population who have Limited English Proficiency (LEP)
- Mitigation measures should be linked to actual passenger and flight activity levels rather than relying on forecasts which, according to commenters, have historically underestimated this growth
- Provide more real-time, monthly data to reflect current trends related to operations and passenger growth
- Make data available to the public in a format that is easily accessible, and which allows impacted community members to ask questions of the data (excel or similar format)
- Include a stand-alone chapter on climate resilience focused on plans and projects that actively address the risks of extreme heat, intense precipitation, and coastal flooding, including efforts focused on employees, guests, operations, assets and adjacent properties

- Recommendation for improved Logan Express service including a new Logan Express site at the former I-90 toll plaza and consideration of remote TSA security screening locations for Logan Express passengers
- Provide more data, methodology and quantified impacts/benefits when reporting TDM and HOV information including RideApp
- Implement measures to reduce curbside idling by vehicles waiting to pick up passengers
- Provide the results of the Ground Access Survey to inform recommendations to improve TDM and HOV programs
- ESPRs should measure emissions of ultrafine particulates (UFP) and provide a comprehensive assessment of UFPs building upon the methodologies and results of studies under way by Tufts University
- Massport should be required to file an Environmental Notification Form (ENF) with MEPA for each new service route added at Logan
- The 65 decibel (dB) Day-Night Sound Level (DNL) (detailed below) noise standard is antiquated and does not reflect actual impacts to area residents, including human health impacts, and Massport should adopt a lower standard to assess impacts of the airfield
- Develop a system for the fair and equitable distribution of aircraft overflights that provides real relief to the highly impacted surrounding communities, especially those that are under multiple RNAVs (Area Navigation)
- Adoption of a ground level air quality monitoring system using a high resolution network of sensors to inform air quality mitigation, strategies, and policies
- Address lead pollution impacts in future EDR/ESPRs. Massport should discuss the availability of unleaded aviation fuel and its usage

Massport should consider these comments and suggestions in preparing the 2023/2024 EDR. I encourage Massport to provide responses as part of the subject matter sections of the 2023/2024 EDR, to provide context to commenters on this document, and to explain how recommendations have been incorporated into the Scope. I encourage Massport to evaluate feasible suggestions for increased analysis and monitoring of air emissions, noise and traffic impacts, and to actively consider ways to make real-time tracking data available to the public.

Environmental Justice

Logan Airport is within two EJ populations designated as Minority and is within one mile of 62 EJ populations characterized as Minority, Income and English Isolation (8); Minority and English Isolation (14); Minority and Income (7); Minority (30); and Income (3). Within the census tracts containing the above EJ populations, within one mile of the project site Spanish/Spanish Creole, Chinese, Korean and Arabic are identified as those spoken by 5% of more of residents who also identify as not speaking English very well. Within 5 miles of the site, six additional languages were identified including Haitian Creole, Portuguese, Vietnamese, Russian, and Mon-Khmer.

Public Engagement

As noted in 2022 ESPR, since 2013, Massport has been advised by the Massachusetts Port Authority Community Advisory Committee (MCAC) (see St. 2013, c. 46, §§ 55, 82, as amended), which consists of representatives from 35 communities potentially impacted from Airport operations and located within 5 or more miles around the Airport. Massport relies on input from the MCAC as a government representative for the 35 communities surrounding Massport facilities. Meetings of the MCAC are open to the public through both remote and in-person participation. Meetings are posted in advance of the meeting date and recordings and meeting minutes are available on the MCAC website.² Chapter 1 of the 2022 ESPR including the *Introduction and Executive Summary* was translated into Spanish, Portuguese, Simplified Chinese and Haitian Creole. In addition, the 2022 Massport provided a “Babel Notice” for five additional languages. A Babel Notice informs readers, in English and other languages, how to access language translation services and how to request project materials in a specific language. The additional languages included Vietnamese, Russian, Mon-Khmer, Arabic, and Korean. At public meetings, Massport offered online interpretation services for Spanish (without advance request), and additional languages were available upon request.

The 2022 ESPR indicates that the “designated geographic area” (DGA) (as defined in 301 CMR 11.02) should be defined as one mile for future filings. Because ESPRs are distinct from standard project reviews, it is not necessary to define a formal DGA. However, to be consistent with other MEPA reviews, I find it appropriate for Massport to continue public engagement efforts, at minimum, over a 1-mile radius around the outer perimeter of Logan Airport. As noted below, analysis of noise impacts provided in the ESPR shows that potential impacts over the Future Planning Horizon could extend out to over 2 miles from the runway ends, when considering the most conservative 60dB DNL and TA contours. In addition, Massport has noted the existence of ongoing studies of UFP around the Airport, and preliminary findings from related studies at Hanscom Airport are stated to show high levels of UFP around the Airport. Consistent with the approach taken at Hanscom Airport, Massport should identify any potential areas of additional impact around the Airport based on these and other ongoing studies, and conduct additional focused outreach to such areas. Massport should continue to engage with the MCAC and local organizations, and take recommendations for additional methods and areas of public engagement for future ESPRs and EDRs.

As required by the Scope, the 2022 ESPR included a public engagement plan which provided opportunities for early input on the development of the filing as well as opportunities for comment once the ESPR was filed. Outreach efforts were summarized in Appendix E of the filing and included the following:

² [Massport CAC | Massachusetts | The Library](#)

Table E-1 Environmental Justice and Community Outreach

Date	Meeting/Outreach Type
Prior to the Filing of the ESPR	
6/26/2023	Public Information Session – Technical Analyses Methodologies and Forecasts ¹
11/28/2023	MEPA Comment Review Meeting
12/12/2023	MEPA and Advocacy Group Meeting
1/17/2024	Public Information Session – Preliminary Findings ¹
3/19/2024	MEPA Meeting
Following the Filing of the ESPR	
6/26/24	Public Post-filing Meeting
Massport-wide, Ongoing	
Regular Meetings with the Massport Community Advisory Committee (CAC)	
Regular Meetings with City of Boston Officials	
Regular Meetings with the Winthrop Town Council	
Regular Meetings with the Harborview Neighborhood Association	
Regular Meetings with the Jeffries Point Neighborhood Association	
Regular Meetings with the Orient Heights Neighborhood Council	
Regular Meetings with the Piers Park Advisory Committee (PierPAC)	

1 Indicates a copy of this presentation is included in the following section.

The Certificate on the 2020/2021 EDR indicated that the public engagement plan should reflect community-based strategies beyond formal public hearings; however, comments from stakeholders on the 2022 ESPR note that the public meetings were held in a similar format to prior EDR/ESPR meetings with the focus being Massport’s presentation of information and data followed by an open comment period. The 2023/2024 EDR should prioritize engagement strategies that meet the community where they are, especially by holding meetings in more publicly accessible locations within the EJ communities most impacted by Airport activities. As previously stated, Massport should also explore alternative methods of involvement beyond formal public hearings, such as hosting “open house”³ style public meetings, organizing small group discussions with stakeholders, or distributing community surveys to collect feedback. Additionally, Massport is encouraged to meet EJ community members where they already gather by hosting pop-up informational sessions at existing community events (e.g., community celebrations, farmer markets, and cultural events). Given the large percentage of households identified as having limited English proficiency (LEP) (almost half of EJ block groups within 1 mile of the Airport have over 20% of households who report limited English proficiency), the 2023/2024 EDR should also report on specific events planned/attended and strategies enacted to intensify engagement with members from these LEP populations.

³ Open house-style public meetings differ from traditional public meetings by offering a more flexible schedule. Instead of a fixed one- to two-hour agenda, the meeting space is made available for four to five hours, allowing residents to drop in to ask questions, share feedback, and receive updates at their convenience.

Baseline Assessment

The 2022 ESPR included a baseline assessment of existing “unfair or inequitable Environmental Burden and related public health consequences” impacting EJ populations in accordance with 301 CMR 11.07(6)(n)(1) and the MEPA Interim Protocol for Analysis of EJ Impacts. The baseline assessment included a review of the data provided by the Department of Public Health (DPH) EJ Tool regarding “vulnerable health EJ criteria”; this term is defined in the DPH EJ Tool to include any one of four environmentally related health indicators that are measured to be 110% above statewide rates based on a five-year rolling average.⁴ According to the 2022 ESPR, the data surveyed indicate that 15 census tracts within one mile of Logan Airport exhibit rates of high childhood blood lead levels that exceed 110% of the statewide average; these 15 census tracts are within the municipalities of Boston, Chelsea, Revere and Winthrop. In addition, ten census tracts within one mile exhibit rates of low birth weight that exceed 110% of the statewide average; these census tracts are within Boston, Chelsea and Winthrop. At the municipal level, the following communities within one mile exceed 110% of the statewide averages for the noted of the four vulnerable EJ health criteria:

- Boston: low birth weight, pediatric asthma
- Chelsea: heart attack, elevated blood lead levels, low birth weight and pediatric asthma
- Revere: none
- Winthrop: elevated blood lead levels

The 2022 ESPR indicated that the following sources of potential pollution exist within 1 mile of the Airport, based on the mapping layers available in the DPH EJ Tool:

- Major air and waste facilities: 49
- M.G.L. c. 21E sites: 27
- “Tier II” toxics use reporting facilities: 52
- MassDEP sites with Activity and Use Limitations (AULs): 81
- Wastewater treatment plants: 10
- Underground storage tanks (USTs): 60
- EPA facilities: 3
- Road infrastructure: not identified
- MBTA Bus and rapid Transit: not identified
- Energy generation and supplies: 2 power plants

The 2022 ESPR also surveyed environmental indicators tracked through the U.S. EPA’s “EJ Screen,” which shows the indicators measured at the following percentiles for the identified EJ populations as compared to the MA statewide average. The 2022 ESPR indicates that the following indicators are elevated at 80th percentile or higher of statewide average within the identified EJ populations: Diesel Particulate Matter (DPM), Risk Management Plan (RMP) Proximity, Traffic Proximity, Hazardous Waste Proximity, and the Wastewater Discharge

⁴ See <https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html>. Four vulnerable health EJ criteria are tracked at the municipal level in the DPH EJ Viewer (heart attack hospitalization, childhood asthma, childhood blood lead, and low birth weight); of these, two (childhood blood lead and low birth weight) are also available at the census tract level.

Indicator. At least two of these indicators (DPM and Traffic Proximity) are directly related to air quality. The full list of 13 environmental burden indicators presented in the ESPR and their reported percentiles compared to the statewide average is provided in the table below. I note that, while PM2.5 and Ozone are not elevated above the 80th percentile, they are reported at the 74th and 73rd percentile, respectively.

Indicator	Exposure v. Risk	Percentile as Compared to MA Statewide Average
NATA Air Toxics Cancer Risk (lifetime exposure)	Risk/Hazard	3
NATA Respiratory Hazard Index Ratio	Risk/Hazard	49
NATA Diesel PM (DPM)	Potential Exposure	90
Toxic Releases to Air	Potential Exposure	60
Particulate Matter (PM2.5) (annual average)	Potential Exposure	74
Ozone (summer seasonal average, daily 8-hr max)	Potential Exposure	73
Lead Paint (% of housing built before 1960)	Potential Exposure	64
Traffic Proximity and Volume Count of vehicles (average annual)	Proximity/Quantity	86
Proximity to RMP (Risk Management Plan / hazardous waste cleanup) Sites	Proximity/Quantity	81
Proximity to TSDFs (Hazardous waste Treatment, Storage, and Disposal Facilities)	Proximity/Quantity	90
Proximity to NPLs (National Priority List / Superfund sites)	Proximity/Quantity	23
Underground Storage Tanks (count/km ²)	Proximity/Quantity	71
Wastewater Discharge Toxicity (based on NPDES permitted discharge locations)	Proximity/Quantity	96

The 2023/2024 EDR should present an updated analysis of existing environmental conditions and public health risk within EJ populations. This updated analysis should present data on all air quality and climate indicators presented in MassDEP's Cumulative Impact Analysis framework (which overlap in large part with EJ Screen data).⁵ Indicators above the 80th percentile as compared to statewide averages should be reported for each individual census tract (not for entire 1-mile radius) containing EJ populations within 1 mile of the Airport. In addition,

⁵ MassDEP finalized regulations related to a CIA framework for certain air permits. The regulations and associated guidance are available here: <https://www.mass.gov/info-details/cumulative-impact-analysis-in-air-quality-permitting>.

these data should be reported for any EJ populations located within the largest geographic area associated with documented impacts from the Airport, most notably, the largest sound contours (e.g., 60 DNL) documented in the 2022 ESPR. Moreover, because pediatric asthma prevalence is elevated above 110% in Boston and Chelsea at the municipal level, the 2023/2024 EDR shall present asthma prevalence for kindergarten through 8th grade (K-8) schools using the MassDEP CIA methodology to analyze asthma prevalence at a finer scale for each EJ census block identified as described above. All requested data can be downloaded on the MassDEP CIA website (Indicator Data for Cumulative Impact Analysis) and all pre-kindergarten to twelfth grade (PK-12) public schools can be identified on the online MassDEP CIA Mapping Tool.⁶ The 2023/2024 EDR should contain a section on Environmental Justice to present this analysis, which should be separate from discussions of sustainability efforts or other distinct topics.

Community Mitigation

While the 2022 ESPR acknowledges that Logan Airport activities and operations might be contributing source of some of these forms of pollution, it asserts that the data and technology needed to differentiate each of the pollution sources affecting EJ populations are not available. As discussed further below and summarized in prior filing, the ESPR details environmental initiatives undertaken to lessen the Airport's environmental impacts from Airport controlled sources, including a High-Occupancy Vehicle (HOV) Strategy, RideApp Management, Long-Term Parking Management Plan, Noise Abatement and Sound Insulation, Alternative Fuel Vehicles Program, Electric Ground Services Equipment, and Energy Planning. As noted, these various measures appear to have slowed the rate of increase in GHG and air emissions, as compared to corresponding increases in flight and passenger activity levels. Nonetheless, with increased activity levels, associated impacts, including air emissions, noise, and traffic, show an upward trend over the Future Planning Horizon.

As required by the Scope, the 2022 ESPR reported on methodologies for growth projections and included Appendix F, *Activity Levels Supporting Documentation*, in response to comments received during meetings with MEPA and community stakeholders. The 2022 ESPR also included relevant metrics for assessing Airport impacts which are discussed further below and include noise, air quality and greenhouse gas (GHG) emissions and include review of emerging research around ultrafine particles (UFPs), the use of alternative jet fuels, and dispersion models of nitrogen oxide (NO₂) and sulfur dioxide (SO₂) and the public health impacts of aviation-related air pollution. Massport continues to work with the FAA and research institutions including the Massachusetts Institute of Technology (MIT), Boston University (BU), and Tufts University to expand research including on UFP and black carbon.

As part of the FAA-affiliated Center of Excellence for Alternative Jet Fuels and Environment, also known as the Aviation Sustainability Center (ASCENT), Massport is supporting a BU research effort to assess Community Measurements of Aviation Emission Contributions to Ambient Air Quality. The primary goal of this project is to conduct a new air pollution monitoring campaign beneath flight paths to and from Logan Airport, using a protocol specifically designed to determine the magnitude and spatial distribution of UFPs in the vicinity of arrival flight paths. Data were collected to assess whether aircraft emissions, particularly

⁶ [MassDEP CIA Mapping Tool](#)

arrival emissions, significantly contribute to UFP concentrations at appreciable distances from the Airport.⁷ The ESPR also references a 2022/2023 study conducted by BU which evaluated the impact of arrival aircraft on UFP concentrations using particle number concentrations (PNC)⁸ as a proxy. The study found that that arrival aircraft contributes significantly but intermittently to ambient PNC at six sites near Logan Airport (Chelsea, Revere, South Boston and Winthrop) during high aircraft activity hours. According to the 2022 ESPR, research is ongoing in East Boston, South Boston, and the Chelsea area. The 2023/2024 EDR should continue to report on the studies' findings and additional mitigation measures implemented in response to new findings. The 2023/2024 EDR should provide updates and implications from continuing institutional research on UFP, black carbon, the public health impacts of aviation-related air pollution.

The 2022 ESPR reviewed ongoing community giving conducted through the Massport Charitable Contribution Program, funded through Massport's operating budget and appropriated by a seven-member board which reviews grant requests and makes funding recommendations to organizations in Massport's neighboring communities that serve predominantly people of color. Other programs include a Community Summer Jobs Program (275 youth summer employment positions in Massport's neighboring communities); the East Boston, South Boston and Winthrop Foundations (\$600,000 to local organizations helping to improve quality of life for area residents); the East Boston Neighborhood Health Center to expand the efforts of its Pediatric Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program in East Boston and Winthrop;⁹ and the Diversity STEM and Memorial Scholarships to six local students as well as annual scholarships to high school students in Charlestown, Chelsea, East Boston, South Boston, Revere, and Winthrop.

As noted above, while studies on air quality impacts are ongoing, the 2022 ESPR clearly shows recovery from COVID-19 conditions and upward trends in Airport activity levels and associated impacts. Consistent with other MEPA reviews conducted under MEPA EJ protocols, the baseline conditions assessment above supports a conclusion that surrounding EJ populations within 1 mile of the Airport may be subject to existing unfair or inequitable burdens due to the cumulative impact of historic and current activities in and around Logan Airport. In light of these trends, and as stated above, I am directing Massport to participate in a work group, facilitated by MEPA and the EEA EJ Office, to consider supplemental mitigation measures to address public health impacts of Airport operations on surrounding EJ populations. The work group should engage public health experts to advise on effective intervention strategies to address air quality impacts, and aim to form recommendations within one year for specific actions to be taken by Massport within the scope of its legal authority. Such actions could include partnerships with local or municipal organizations interested in HEPPA filters, establishment of a curb idling reduction plan, enhanced community air monitoring in partnership with MassDEP and other air pollution sources, or other similar interventions to directly address the public health impacts of degraded air quality around the Airport. The work group should also consider improvements to

⁷ For more information: <https://s3.wp.wsu.edu/uploads/sites/2479/2022/10/ASCENT-Project-018-2021-Annual-Report.pdf>

⁸ Particle number concentration (PNC) and particle number size distribution (PNSD) are used as metric to quantify ambient UFPs (Kumar et al., 2010, 2016).

⁹ Massport entered into an agreement with the East Boston neighborhood health center beginning in 2014 in response to the Logan Airport Public Health Study.

Massport's EDR and ESPR reporting process. Massport is directed to provide administrative support and facilitate the convening of work group meetings, in consultation with the MEPA Office. The 2023/2024 EDR should report on the results of this work group process. In addition, consistent with the approach set forth in the 2017 EPSR, if actual growth in passenger and/or aircraft operations outpace forecasts during a reporting period, I expect that additional mitigation and policies and strategies will be considered to address the proportional growth in impacts.

Activity Levels

Air traffic activity levels at Logan Airport are the basis for the evaluation of noise, air quality, and ground access conditions associated with the Airport. In this section, current activity levels at the Airport are compared to prior-year levels, and historical passenger and operations trends at Logan Airport dating back to 2000, which is the year Massport approved an Environmental Management Policy.

In 2017, air passenger activity levels at Logan Airport reached 38.4 million, an increase of 5.9 percent from 2016. At the time of the 2017 ESPR filing, it was projected that Logan Airport would reach 50 million annual passengers in the next 10 to 15 years (the Future Planning Horizon) until 2028 to 2032. As noted in the 2018/19 EDR Certificate, the 2019 passenger activity level represented an all-time high of 42.5 million, an increase of 3.9 percent over 2018 (40.9 million) and future trends were on track to exceed the 50 million annual passengers projected in the 2017 ESPR much sooner than the previously identified 10-15 year time frame. The 2022 ESPR is based on a Future Planning Horizon (until 2032 to 2037) and projects an increase to 53.5 million annual passengers in that time frame, seven percent greater than the 10 to 15-year projection in 2017. The 2022 ESPR reports that a return to 2019 passenger levels is expected by 2025. Table 3-11 of the ESPR illustrates these projected trends in passenger levels, showing an estimated 48 percent growth over the Future Planning Horizon as compared to 2022 levels (26 percent growth as compared to 2019 all-time high numbers):

Table 3-11 Actual and Forecast Logan Passengers, 1990, 2019, 2022, and Future Planning Horizon

Passengers	1990	2019	2022	Future Planning Horizon	% Change 2019-Future	% Change 2022-Future
Scheduled/Charter						
Domestic	19,519,247	34,098,788	29,527,910	41,826,300	+23%	+42%
International	3,358,944	8,317,993	6,450,000	11,556,000	+39%	+79%
Europe / Middle East / Africa	N/A	5,003,881	4,124,245	6,586,920	+32%	+60%
Canada	N/A	985,051	602,835	1,617,840	+64%	+168%
Latin America / Caribbean	N/A	1,727,057	1,573,468	2,311,200	+34%	+47%
Asia	N/A	602,004	149,452	1,040,040	+73%	+596%
Total Scheduled / Charter	22,878,191	42,416,781	35,977,910	53,382,300	+26%	+48%
General Aviation	N/A	105,630	112,806	117,700	+11%	+4%
Total Passengers	22,878,191	42,522,411	36,090,716	53,500,000	+26%	+48%

Source: Massport and InterVISTAS Logan Airport Forecast

In 2022, Logan Airport handled 378,613 aircraft operations, which represents a 31 percent increase from 2021 (266,034 operations), but still 11.4 percent less than the 427,176 aircraft operations reported in 2019. Passenger aircraft operations account for the largest share of aircraft operations (89.9 percent) followed by general aviation (GA) (8.1 percent) and all cargo (2.1 percent). The 2022 ESPR reports that total passenger operations of 340,311 increased by 45.3 percent over 2021 (234,219), though still remaining 13.1 percent below 2019 levels (391,424). However, the ESPR indicates that air cargo business has rebounded and operated close to pre-pandemic levels returning to 93.9 percent of 2019 volumes and 3.8 percent over 2021 volumes. The ESPR notes that commercial passenger airlines' share of cargo (carried as "belly" cargo underneath the plane) was 44.3 percent, or 298 million pounds, compared to 375 million pounds flown on exclusively cargo carriers.

According to the 2022 ESPR, the average number of passengers per flight at Logan Airport was returning to pre-pandemic levels at 95.3 passengers per flight as compared to 99.5 passengers per aircraft in 2019 and well above the 85.2 number in 2021. This is a slight change in trends noted in the 2018/2019 EDR, which indicated an increase in operational efficiency and "aircraft load factors."¹⁰ The increase in average passengers per operation prior to the COVID-19 pandemic was attributed to the introduction of newer and larger aircraft at Logan Airport like the Airbus 350 and Boeing 787, in addition to flights operated by Boeing 777 and Airbus A380 superjumbo jets, especially for international long-haul flights, many of which were reinstated in 2022 after the pandemic. This trend is expected to continue, and means that, even while passenger numbers are projected to increase over the Future Planning Horizon (7 percent over the 2017 ESPR projections), the corresponding increase in flight operations is projected to be less (reported as 2% increase over 2017 ESPR projections). However, as noted, cargo operations have rebounded significantly and are projected to increase by 34% over the 2017 ESPR projections in the Future Planning Horizon.

Table 3-13 of the ESPR illustrates these projected trends in flight operations, showing an estimated 31 percent growth over the Future Planning Horizon as compared to 2022 levels (though 16% growth as compared to 2019 all-time high numbers):

¹⁰ The load factor is the percentage of actual passengers on a flight relative to the number of seats potentially available on the aircraft of the given flight.

Table 3-13 Actual and Forecast Operations, 1990, 2019, 2022, and Future Planning Horizon

Category	1990	2019	2022	Future Planning Horizon	% Change 2019-Future	% Change 2022-Future
Passenger						
Jet	N/A	296,514	244,971	344,223	+16%	+41%
Regional Jet	N/A	49,417	60,891	67,939	+37%	+12%
Non-jet	N/A	45,492	34,449	40,763	-10%	+18%
Subtotal	N/A	391,423	340,311	452,925	+16%	+33%
Cargo	N/A	6,830	7,798	9,900	+45%	+27%
General Aviation	24,976	28,922	30,504	32,175	+11%	+5%
Total Operations	424,568	427,175	378,613	495,000	+16%	+31%

Source: Massport and InterVISTAS.

The 2022 ESPR indicates that forecast methodology relies on widely accepted aviation industry guidance¹¹ for aviation demand forecasting, and relies on economic data which are analyzed in different combinations and for different historical time periods to assess the statistical relationships between these drivers and annual growth in Logan Airport passenger levels, and to produce ranges of statistical factors for forecasting future passenger levels. The 2022 ESPR uses this information to update the Logan Airport long-term forecasts for passengers, Airport operations, and fleet mix.

The 2023/2024 EDR should continue to report passenger and activity levels and consider planning/mitigation commensurate with the anticipated return to pre-pandemic levels in 2025; in particular, air, noise, and traffic reduction measures should be a significant emphasis of future EDR and ESPR reporting. As discussed, prior Certificates, including the 2017 ESPR and 2018/19 EDR Certificates, urged caution as flight and passenger levels in 2019 reached all-time highs and were on track to exceed Massport's own forecasts over the Future Planning Horizon. While COVID-19 conditions drastically reduced flight activity after that time, the 2022 ESPR unequivocally shows a return to pre-COVID conditions and projects a return to 2019 activity levels as early as 2025. In light of these trends, and consistent with the approach set forth in the 2017 EPSR, the 2023/2024 EDR should continue to track flight and passenger levels and specifically note whether these levels have reached 2019 levels as of the reporting year; it should also indicate whether trends are on track to exceed projections based on actual activity levels gathered by the reporting year. If actual growth in passenger and/or aircraft operations outpace forecasts, I expect that additional information will be provided in future EDRs and ESPRs to demonstrate that additional mitigation and policies and strategies will be implemented to address the proportional growth in impacts.

Planning

In prior filings, Massport indicated that several capital improvement projects that were asserted to have emissions benefits by reducing the number of vehicular trips to and from the Airport would be deferred due to the COVID-19 pandemic. In light of data showing early

¹¹ A list and web links to all forecasting documents can be found on page 3-32 of the 2022 ESPR.

recovery to pre-pandemic conditions by 2020, the 2020/2021 EDR Certificate directed Massport to describe a decision making process and timetable for implementation of planned capital projects or programs that were deferred due to pandemic conditions. These include several planned capital projects that were asserted to provide environmental benefits and reduce impacts associated with Airport operations as activity levels recover, such as: the Logan Airport Parking Project (EEA# 15665) (5,000 new parking spaces, solar photovoltaic system, and electric vehicle charging stations), Phase 2 of Terminal E Modernization (EEA# 15434) (3 new terminal gates), several high-occupancy-vehicle investments (addition of 1,000 new spaces to Framingham Logan Express Garage (EEA# 16168), opening a new Logan Express suburban location, and implementing a 2nd urban Logan Express Service at North Station.

The Airport Planning section of the 2022 ESPR describes the status of projects underway or completed at Logan Airport through the end of 2022. Planning projects fall into the following categories: Ground Transportation (including HOV) improvements and Parking; Terminals; Airside Planning, Service Areas; Airport Buffers and Open Space; and Energy, Sustainability, and Resiliency. The 2022 ESPR provided updates on over twenty projects as shown in the table below, including the capital projects noted above. As indicated by Massport, projects in the planning phases are discussed as short-term (expected by 2028) or long-term (expected by 2035).

Table 4-1 Logan Airport Short- and Long-Term Planning Initiatives

ID	Project	Status as of December 31, 2022	Construction	
			Short-Term By End of 2028	Long-Term By End of 2035
Airport Ground Transportation/Parking Projects and Planning Concepts				
1	Logan Airport Parking Project in front of Terminal E (approximately 4,300 spaces)	Permitted	➔	
2 ¹	Logan Airport Parking Project: Parking Freeze Studies (Airport-wide)	Complete (2019)		
3	Airport-wide RideApp Infrastructure Improvements and Policy	Complete (2022)		
4 ¹	Logan Express Route and Facility Expansions (off-Airport)	Feasibility / Planning	➔	➔
Terminal Area Projects and Planning Concepts				
1	Terminal E Modernization (Phase 1 – 4 gates / Phase 2 – 3 gates)	Phase 1 – Complete (2023) Phase 2 – Permitted		➔
2	Terminal B Optimization	Complete (2022)		
3	Terminal C Canopy, Connector, and Roadway Projects	Complete (2023)		
4	Terminal A to B Airside Connector	Feasibility / Planning		➔
5	Central Heating Plant Conversion	Feasibility		➔
Airside Projects and Planning Concepts				
1	Runway Incursion Mitigation (RIM) Study and Comprehensive Airfield Geometry Analysis and Mitigation	Feasibility / Planning	➔	➔
2	Runway 9-27 Runway Safety Area (RSA) Improvement Project	Planning / Permitting	➔	
3	Runway 15-33 Rehabilitation Project	Complete (2023)		
4	Taxiway B North Rehabilitation	Construction (2024)	➔	
Service Area Projects and Planning Concepts				
1	Logan Airport, Equipment Storage and Maintenance North Service Area (NSA)	Planning / Permitting	➔	
2	Jet Fuel Storage Addition (NSA)	Under construction	➔	
3	Green Bus Depot Relocation – Southwest Service Area (SWSA) Redevelopment	Feasibility		➔
4	Governors Island Equipment Storage	Feasibility		➔
5 ¹	Relocated Compressed Natural Gas (CNG) Station – North Cargo Area (NCA)	Planning	➔	
6 ¹	Cargo Through-put Facility	Feasibility / Planning		➔
7 ¹	Replacement Cargo Facilities (NCA)	Feasibility		➔
8 ¹	Joint Operations Center (JOC)	Feasibility / Planning		➔

Notes: Anticipated completion dates and status as of December 31, 2022, as denoted by ➔. Short-term projects are anticipated to be constructed by 2028 and long-term projects are anticipated to be constructed by 2035. Details of each project or planning concept are provided in the sections that follow.

1 Not applicable; project and initiative is either Airport-wide or a location has yet to be identified.

The 2022 ESPR provides additional detail about the emissions reductions and other benefits that are anticipated through deferred capital projects as highlighted below:

- *Logan Airport Parking Project*: Construction of the Parking Garage Project in front of Terminal E was deferred during the pandemic, but as passenger demand has rebounded, the demand for commercial parking has again increased. The updated program for the project now calls for approximately 4,300 commercial revenue spaces, which would be built in a new garage in front of Terminal E; however, no parking spaces will be constructed atop the Economy Garage. As stated in the 2022 ESPR, long-term parking reduces vehicle trips as passengers would make one trip to the Airport and one trip to leave, rather than two trips for drop-off and two trips for pick-up. The updated Garage in front of Terminal E will continue to comply with the Logan Airport Parking Freeze and will allow Massport to recover 2,000 spaces that were formerly located in Central Garage and in Terminal B Garage, but were lost due to HOV and RideApp initiatives at Terminals C and B.
- *RideApp (formerly Transportation Network Company (TNC)) Infrastructure and Policy (Airport-wide)*: In 2022, more than a quarter of on-Airport traffic was from activities related to RideApp operations, which contributed to congestion on Airport roadways. In 2022, Terminal B RideApp pick-up and drop-off operations from the ground floor of the Central Garage were moved to the second floor of the Terminal B Garage. The shift provided approximately 60 more parking spaces, including three ADA accessible and four EV spaces in the Central Garage.
- *Logan Express Route and Facility Expansion (Off-Airport)*: As noted above, postponed construction of additional parking at Framingham Logan Express: Project resumed and is in the design phase with construction currently estimated to begin in 2024. Peabody Logan Express at the new North Shore Mall location opened in 2022. Additional priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing Back Bay Logan Express. Danvers Logan Express is expected to open towards the end of 2024 (the ESPR is not clear if this facility will replace the new Peabody location or is in addition to).¹²
- *Terminal E Modernization Project*: Construction of the first phase of the Terminal E Modernization Project which added four gates¹³ to the international terminal was completed in October 2023. Phase 2 will ultimately add three additional gates, for a total of seven gates. Mitigation for the project included a 20 percent reduction in building energy use below the MA Energy Code, reduced operational-related GHG by a minimum of 30 percent, included 25,000 sf of rooftop solar PV. Once completed the project is expect to result in a decrease in carbon monoxide (CO) emissions in the area of Terminal E and the associated aircraft apron by approximately 9 percent, nitrogen oxide (NO_x) emissions by approximately 44 percent, and sulfur oxides (SO_x) emissions by approximately 33 percent and a decrease of Volatile Organic Compounds (VOCs) in the project area by approximately 6 percent and particulate matter (PM₁₀ and PM_{2.5}) by approximately 9 percent and 25 percent, respectively.

¹² Page 6-12 indicates that the larger facility in Davers will be used to temporarily relocate the Peabody Logan Express.

¹³ The Terminal E Modernization Project will add the three gates approved in 1996 as part of the International Gateway West Concourse project (EEA # 9791), but never constructed, and add an additional four gates.

- *Central Heating Plant (CHP)* Massport is studying the feasibility of converting the CHP from fossil fuel to electricity or another alternative source of energy. The study will consider not only the CHP, but also the connections and equipment serving the terminals and other Airport buildings.
- *Runway 9-27 RSA Improvement Project:* The FAA has approved the use of an Engineered Materials Arresting System (EMAS) for construction of a runway safety area for aircraft overrun protection. The RSA improvements will include a pile-supported deck over Boston Harbor at the approach-end of Runway 27. Construction is currently projected for 2025 and 2026.
- *Green Bus Depot – Southwest Service Area (SWSA):* Massport is studying the relocation of the functions of the green bus depot from NSA to the SWSA to support the transition to an electric fleet, as part of Massport’s Net Zero by 2031 plan. The depot building would be reused. As part of this effort, Massport will assess the existing ground transportation uses in the SWSA as well as future needs such as net zero requirements of other alternative-fueled ground transportation modes
- *Piers Park Phase II:* Completed in 2023, Piers Park II, an addition of 4.5 acres to Piers Park, features a central lawn area, children’s playground, climbing structure, music garden, spray fountain, and a multigenerational fitness area. Upgrades included resiliency landscape features, elevated for flood protection, and a new community sailing center building. Piers Park II was one of the high-impact community benefit projects identified by both the City of Boston and members of the Logan Impact Advisory Group (LIAG) through their review of the Terminal E Modernization Project.

The 2023/2024 EDR should continue to assess planning strategies for improving Logan Airport’s operations and services in a safe, secure, more efficient, and environmentally sensitive manner. As owner and operator of Logan Airport, Massport must accommodate and guide tenant development. The 2023/2024 EDR should describe the status of planning initiatives for the following areas:

- Roadways and Airport Parking;
- Terminal Area;
- Airside Area;
- Service and Cargo Areas;
- Airport Buffers and Landscaping;
- Energy, Sustainability, and Resiliency.

The 2023/2024 EDR should update the timeline of long-range planning activities identified in the table above and should indicate a clear commitment to return to prior environmental commitments relative to capital projects intended to minimize air emissions impacts. The ESPR should identify the status and assess effectiveness of ground access changes, including roadway, parking projects, and transit projects that consolidate and direct Airport-

related traffic to centralized locations and minimize Airport-related traffic on streets in adjacent neighborhoods.

Ground Access to and from Logan Airport

The 2022 ESPR notes that the effects of ground transportation are measured in two ways; the number of vehicles that enter the Airport (via gateway roadways¹⁴) and the vehicle miles traveled (VMT) by those vehicles while on Airport roadways. The Airport's gateway roadways are equipped with permanent traffic count stations, which are part of the Airport-wide Automated Traffic Monitoring System (ATMS). The 2022 ESPR reports that annual average daily traffic (AADT) entering and departing the Airport via its gateway roadways increased by 26.1 percent between 2021 and 2022 but was 18.9 percent less than the 2019. Similarly, the average VMT in 2022 was lower than in 2019 by 21.6 percent.

As reported, ridership numbers in 2022 (for all applicable surface transportation modes, including HOV) rebounded to align with the Airport passenger numbers more closely, although both the number of riders and passengers in 2022 were still less than reported 2019 levels. The ESPR states that Massport continues to plan for the recovery of air passenger activity and remains committed to implementing the broad range of ground access and trip reduction strategies aimed at increasing the number of passengers arriving by transit or other HOV mode. According to the 2022 ESPR, Massport set a target to reach a 35.5 percent HOV mode share by 2022 and 40 percent by 2027. A summary of the *2022 Air Passenger Ground-Access Survey*¹⁵ found HOV mode share reached 38.4 percent, which exceeds the 2022 target and indicates Massport is also on track to meet the 2027 target. Comments from the City of Boston note that the survey methodologies and results are not fully disclosed in the ESPR which raises questions about how these numbers were derived. The ESPR provides a discussion of ground access modes and trip generation associated with each mode including: (1) transit and shared-ride HOV services; (2) drive to Logan Airport and park; or (3) drop-off/pick-up mode, which can involve a private vehicle, taxi, limousine, or RideApp/TNC.¹⁶

According to the 2022 ESPR, parking freeze limits were not exceeded in 2022. The Logan Airport Parking Freeze sets an upper limit on the supply of commercial and employee parking spaces at Logan Airport. The ESPR provides a review of Massport's Long-Term Parking Management Plan including completed and proposed efforts to manage the supply, pricing and operation of parking including:

- Add 4,300 commercial spaces in a new garage in front of Terminal E
- Adding 1,000 additional spaces to the Framingham Logan Express site
- Offering reduced parking at Logan Express facilities (previously \$11 now \$7)
- Economy Parking was raised to \$32.00 per day; terminal-area garage and lot rates are \$41.00 per day

¹⁴ Gateway roadways are defined as access points to and from Logan Airport, which include Route 1A from the north, Sumner and Callahan Tunnels (Route 1A to and from the south), Interstate 90 Ted Williams Tunnel ramps, Frankfort Street to Service Road to and from the northeast.

¹⁵ The 2022 Air Passenger Ground-Access Survey is currently in draft format and is not currently posted. The survey is administered every 3 years.

¹⁶ Transportation Network Companies (TNCs) are now referred to as RideApp companies (e.g., Uber and Lyft).

- Massport continues to sponsor free outbound (from Logan Airport) Silver Line bus service and Back Bay Logan Express service
- Massport provides employee parking in Chelsea with free shuttle bus transportation to the Airport (reopened in 2022)
- Massport offers reduced employee rates to encourage the use of Logan Express facilities. Additional early morning and late-night bus service has been added to Logan Express sites to encourage use and better serve Logan Airport employee schedules.

As noted above, Logan Airport is anticipated to reach 53.5 million annual passengers in the next 10-15 years and is committed to promoting and supporting public and private HOV and shared-ride services aimed at serving air passengers, Airport users, and employees. According to the ESPR, in the Future Planning Horizon, daily on-Airport VMT is estimated to be 212,022,¹⁷ which is 1 percent more than the 2019 daily VMT of 209,900 and 29 percent more than the 2022 daily VMT of 164,625. The increase in VMT is primarily attributed to the forecasted increase in air passenger activity.

Key initiatives implemented in 2022 or planned for the immediate future to promote sustainable transportation mode usage and alleviate traffic congestion and parking constraints include:

- Promoting Logan Express ridership by:
 - Increasing capacity for air passengers at Braintree Logan Express service in the short-term by relocating commuters to a new dedicated employee park and ride lot in nearby Quincy
 - Adding approximately 1,000 additional spaces to the Framingham garage
 - Investing in a new, larger facility in Danvers to temporarily relocate the Peabody Logan Express
 - Identifying at least one new urban Logan Express location (North Station or similar location), and potential additional locations west of Boston
 - At Back Bay Logan express: Provided discount one-way fare from \$7.50 to \$3.00, and free service from Logan Airport and piloted priority Airport passenger security line status for riders
- Ongoing and future improvements to Blue Line access to Logan Airport, including direct service to Terminals and future investments in better integration of Airport Station to Terminal E; and
- Continued partnership with private bus companies to support multi-state and regional transit access to Logan Airport.

Other infrastructure modifications implemented in the next 10 to 15 years may include:

- Construction of a new parking garage near Terminal E;
- Reconstruction of the terminal area roadways between Terminals C and E (arrivals and departures);
- RideApp Lot relocations, pick-up and drop-off modifications, and routing changes;

¹⁷ Estimated using the VISSIM model of Logan Airport: PTV America. 2021. Verkehr In Städten Simulationsmodell – VISSIM version 2021 [computer software].

- Terminal A curbside optimization.

I note comments from Airport Impact Relief, Inc. (AIR, Inc), the City of Boston, and Conservation Law Foundation (CLF), which indicate that, without tracking data related to some of these initiatives (such as Logan Express, HOV, and TMA usage, Uber/Lyft matching program), it is difficult to see the efficacy of these programs in actually reducing VMT in and around the Airport. Comments from AIR, Inc. also specifically criticize Massport's lack of effort in controlling curbside idling, which Massport commits to consider through future initiatives. The 2023/2024 EDR should report on any improvements made in these areas, and Massport should proactively consider ways to make tracking data available on a more frequent basis.

The 2023/2024 EDR should continue to address the following topics:

- Target HOV mode share and incentives including a review of how the reported % by mode share is calculated and the methods used to incentivize;
- Impact of RideApps on Logan Airport landside operations and effectiveness of the RideApp management plan including information on how Massport quantifies the improvement in congestion and any related drop in GHG emissions;
- Update on parking conditions including the status of construction of the new parking garage and project associated GHG and air quality mitigation commitments;
- Non-Airport through-traffic;
- Cooperation with other transportation agencies to increase transit ridership to and from Logan Airport via the Blue Line, Silver Line, Water Transportation, and Logan Express;
- Report on efforts to increase capacity and use of Logan Express and improvements to and expansion of service;
- The expansion of piloted projects including the priority Airport passenger security line status for Logan Express riders;
- Progress on enhancing water transportation to and from Logan Airport;
- Results and recommendations of the most recent ground access survey including links to the most recent report;
- Results and recommendations of the Long-term Parking Management Plan required by the Parking Freeze amendments; and
- Reporting of data (and comparison to prior years (2019-2022)) associated with the Logan Transportation Management Association (TMA) including number of employees participation in the various strategies (transit pass, shuttle services, etc.) and strategies for enhancing services and increasing employee membership in the Logan Airport TMA.

To the extent feasible, the 2023/2024 EDR should report on specific reductions in VMT that could be achieved through these measures, and indicate how such goals can be tracked over time.

Noise

As required by the Scope, Massport modeled 2022 noise conditions of aircraft operations and compared the findings to those for 2019 and 2021. Noise levels are calculated using the Day Night Average Sound Level (DNL) metric and presented as a series of contours of equal sound levels that are measured in decibels (dB). The 2022 ESPR provides noise modeling results from the FAA's Aviation Environmental Design Tool (AEDT) (version 3d). The model requires detailed operational data as inputs for noise calculations, including numbers of operations per day by aircraft type and by time of day, which runway is used for each arrival and for each departure, and flight track geometry for each track. The ESPR indicates that the 2022 DNL contours are similar in shape to the 2019 contours which is a result of fewer aircraft operations as well as changes in the aircraft fleet mix, with the phasing out of some noisier, less-efficient aircraft that were in the 2019 fleet. As shown in the table below, the number of people residing within the modeled 2022 DNL 65 dB contour (8,185 people) was 7 percent below the 2019 level (8,665 people) but 228 percent greater than the 2021 level (2,497) primarily because air operations in 2022 were 42 percent greater than in 2021.

Population Exposed to DNL 65 dB or Greater

Year	> 75 DNL	70-75 DNL	65 ³ -70 DNL	Total (65+) ³ DNL
All Communities				
1990 (INM)	676	2,989	40,477	44,142
1998	577	2,102	20,617	23,296
2000 (INM)	247	1,304	16,194	17,745
2010 (INM)	0	130	3,700	3,830
2019	0	103	8,665	8,768
2020	0	0	804	804
2021	0	0	2,497	2,497
2022	0	27	8,158	8,185

The 2022 ESPR also compared DNL values modeled using the AEDT to measure noise levels at 30 permanent monitoring located in communities around the Airport (Table 7-8 in the ESPR). The ESPR notes that the differences between the average measured and modeled DNL have narrowed over the years and of the 30 monitor locations, 16 of the sites recorded higher measured noise levels than the corresponding model-computed noise levels with the difference between measured and modeled DNL within 1 dB at 11 of the sites. Three of the sites had equipment malfunctions on some days which is being addressed by the vendor.

Massport also tracks operations occurring during the DNL nighttime period of 10:00 PM to 7:00 AM, when each modeled flight is weighted tenfold in calculations of noise exposure. According to the 2022 ESPR, nighttime operations represented approximately 14 percent of total operations for 2022 at Logan Airport as compared to 17 percent in 2019. The majority of 2022 nighttime operations (between 10:00 PM and 7:00 AM) occurred either before midnight or after 5:00 AM, to accommodate connecting flights and international time zones. The proportion occurring in the “shoulder hours” between 10:00 PM and midnight or between 5:00 AM and 7:00 AM was approximately 81 percent of total nighttime operations in 2019, 76 percent in 2021, and 83 percent in 2022.

The 2022 ESPR included projected DNL contours for the Future Planning Horizon for when annual passenger counts reach 53.5 million and annual aircraft operations reach 495,000. The modeling assumptions include an increase in total operations from 1,040 per day in 2022 to over 1,350 per day and the forecast fleet is expected to primarily consist of jet aircraft, resulting in the continued use of the highest-capacity runway configurations. Departures for the Future Planning Horizon on Runways 9 and 27 would be higher than in 2022, while departures on Runways 22R and 33L would be lower. Arrivals for the Future Planning Horizon on Runways 4L and 33L are predicted to be higher than for 2022, while use of Runways 22L and 27 is expected to decrease. Utilizing these assumptions, the 2022 ESPR presents a comparison between the 2022 DNL contours and the Future Planning Horizon DNL contours which shows that the area contained within the forecast contours is larger than the area within the 2022 contours due to the expected growth in number of aircraft operations. The total number of nighttime operations for the Future Planning Horizon is expected to increase approximately 35 percent from 2022 levels, while the daytime operations are expected to increase by 30 percent. The ESPR includes a detailed description of the forecasted contours for each impacted community. The number of people exposed to noise levels greater than 65 DNL is expected to increase from 8,185 people in 2022 to 9,325 people in the future forecast (an increase of 15.2 percent). Massport notes that the aircraft in the future forecast fleet are likely to have quieter and more efficient engines than older aircraft in the current fleet, and thus this forecast is conservative. The noise modeling relies on an extensive database of aircraft noise and performance (ANP) profiles within AEDT and must use current versions of aircraft as “substitutes” for future types. Therefore, the future forecast DNL contours presented in this chapter are a conservative estimate of the future noise levels.

Comments from the Town of Milton expressed detailed concerns regarding the impact of noise on communities as far as 10 miles beyond the Airport. Comments indicate that the FAA’s civil aviation Noise Policy which relies on DNL 65 dB as its sole noise metric, is outdated and most often calculated on an annual basis, masking the acute impacts that several hundred aircraft flying over a home has on the occupants. According to the Town, there are four RNAV’s for runways 4R, 4L, 27 and 33L which fly over the community resulting in lack of and disrupted sleep. The 2023/2024 EDR should address Milton’s concerns and the feasibility of implementing Block 1 and Block 2 recommendations from the recent MIT Study and specifically those relating to Runways 4R and 27.

The 2022 ESPR provides a review of noise abatement goals associated with the Noise Abatement Management Plan. While no additional dwelling units were insulated in 2022,

Massport restarted its residential sound insulation program (RSIP), applying for and receiving an initial grant to fund the beginning phase of the new program. The 2023/2024 EDR should report on the progress, timeline and insulation goals of the new program. Other mitigation plan elements include the voluntary use of reduced-engine taxiing (shutting one engine off) but no data is provided to show use of the recommended measure.¹⁸ According to the ESPR, the Massport Noise Abatement Office received 272,943 noise complaints from 80 communities, an increase of about 1.4 percent as compared to the 268,929 complaints received from 86 communities in 2019. Of note, the community of Winthrop generated about 31 percent of the complaints in 2022 (but only 3.5 percent in 2019). A summary of the noise complaint line data is included in table 7-17 of the ESPR.

Massport also notes collaboration with ASCENT on two research projects focused on aircraft noise and flight procedures and continues to provide technical assistance and analysis using noise monitoring systems to support the FAA and others in monitoring jet departure tracks from Runway 27 and Runway 33L. Massport and the FAA completed an Area Navigation (RNAV) evaluation project in 2021 designed to identify ways to reduce noise from the RNAV procedure (which concentrates flights). As a result of the RNAV project, Massport submitted a request to the FAA for review and implementation of two procedures at Logan Airport. These include modifying the existing RNAV Standard Instrument Departures (SID) from Runway 15R to shift departures further north over water away from Hull, and a new over-water Required Navigational Performance (RNP) 38 approach to Runway 33L. The FAA completed development of these procedures and published the procedures in December 2021. Thus, 2022 represents the first full year of use for the procedures. The 2023/2024 EDR should report any data used to measure the effectiveness of these improvements including the number of noise complaints from the previously impacted areas.

The Logan Airport noise mitigation program includes operational restrictions on certain runways, limits to engine runup locations, late night runway preference, and noise abatement turns. The 2023/2024 ESPR should continue to report on the Airport noise mitigation program including summaries of the findings and recommendations of reports and studies focused on reducing community noise levels.

Climate Change

Massport assets and Logan Airport, in particular, are critical infrastructure and play an important role in the economy. Governor Baker's Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth was issued on September 16, 2016. The Order recognizes the serious threat presented by climate change and directs Executive Branch agencies to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The urgent need to address climate change was again recognized by Governor Baker and the Massachusetts Legislature with the recent passage of St. 2021, c. 8, An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy, which sets a goal of Net Zero emissions by 2050. I note that the MEPA statute directs all Agencies to consider reasonably foreseeable climate change impacts, including

¹⁸ Mandatory single engine taxiing was also one of the proposed measures in the BLANS but the FAA rejected them due to safety concerns.

additional greenhouse gas emissions, and effects, such as predicted sea level rise, when issuing permits, licenses and other administrative approvals and decisions.

The 2022 ESPR identifies that Massport's sustainability reports highlight efforts to improve and enhance sustainability and climate resiliency across the entire organization. The *2020 and 2021 Sustainability and Resiliency Report*,¹⁹ included new initiatives that Massport explored to be a better community partner through reducing noise and air pollution, improving ground access to Logan Airport, and extending diversity, equity, and inclusion (DE&I) initiatives beyond its operational borders. As discussed further below, the most recent report highlights Massport's net zero commitments including reaching net zero by 2031; however, a review of the report reveals little information that identify the future vulnerabilities of Logan Airport infrastructure or proposed plans to address future sea level rise, extreme precipitation and extreme heat. The ESPR notes that in 2013, Massport launched a comprehensive resiliency initiative to maximize business continuity amidst various human and natural threats. The ESPR lists the goals guiding this process but does not list any identified outcomes of the initiative. According to the ESPR, Massport has been collaborating with regional resiliency efforts including City of Boston initiatives, to protect surrounding communities and points to its open space and Airport edge buffer parks as an example of this district-scale resiliency approach. As described in the ESPR, Massport has worked with communities to develop a system of parks and open spaces encompassing over 30 acres. These green spaces capture GHG emissions, provide relief from extreme heat, and create recreational opportunities, and waterfront parks, like Piers Park I and II and the Navy Fuel Pier Buffer, which establish a buffer area for neighborhoods in the event of extreme flooding.

The 2023/2024 EDR should report on all climate resiliency measures planned or implemented/constructed. It should provide general information on the forecast methodology being used to identify threats and vulnerabilities to Logan Airport facilities and infrastructure and projects that actively address the risks of extreme heat, intense precipitation, and coastal flooding and sea level rise.

GHG emissions

As previously identified in the 2020/2021 EDR, Massport incorporates GHG emissions reporting consistent with that provided in the 2017 ESPR but with a change in methodology. In prior years, GHG emissions were quantified using emission factors and methodologies outlined in the *Greenhouse Gas Emissions Policy and Protocol* issued by EEA and the Transportation Research Board's *Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories* (Airport Cooperative Research Program (ACRP) Report 11, Project 02-06). The 2020/2021 GHG reporting utilized additional guidance from the Airports Council International (ACI) and the Airports Carbon Accreditation Program (ACA) which separates emissions based on ownership/control: Scope 1/Direct – emissions that are controlled by Massport; Scope 2/Indirect - emissions associated with the generation of electricity consumed but generated off-site at public utilities; Scope 3/Indirect and Optional – GHG emissions that are associated with the activities of the reporting entity (Massport), but are associated with sources that are owned and

¹⁹ [Massport Sustainability & Resiliency Report 2020 & 2021](#) Massport's next sustainability and resiliency report covering 2022 and 2023 will be published in 2024.

controlled by others (aircraft-related emissions, tenant activities, and ground transportation). The 2022 ESPR quantifies and reports GHG emissions for all three scopes and provides forecasts for the Future Planning Horizon. The 2022 ESPR and future GHG inventory is based on this same guidance.

The 2022 ESPR provides GHG data by scope and provides a comparison to data from 2017 through 2022, noting that 2020 and 2021 were influenced by the pandemic and were not representative. The analysis showed that total GHG emissions in 2022 increased by about 60 percent over 2021 levels but decreased by 27.5 percent from 2019 levels. However, as shown in the table below, despite an increase in activity levels, Scope 1 emissions decreased from 2021 to 2022 which is generally attributable to Logan Airport facilities and equipment operating more efficiently over time as Massport is shifting to cleaner fuel sources for fleet vehicles and other Massport-controlled equipment. In 2022, Massport-controlled emissions and purchased electricity, Scope 1 and 2, represented 12.7 percent of Airport-wide GHG emissions and Scope 3 emissions, which are public and tenant-owned and controlled, represent the remaining 87.3 percent of GHG emissions.

Table 8-9 Comparison of Estimated Total Greenhouse Gas (GHG) Emissions (MT CO₂e) by Scope at Logan Airport – 2017 through 2022

Scope	2017	2018	2019	2020	2021	2022
Scope 1 Emissions	49,305	47,493	51,360	32,764	33,067	31,415
Scope 2 Emissions	48,448	44,716	43,226	39,949	38,711	42,853
Scope 3 Emissions	607,794	685,465	713,539	247,530	321,388	511,452
Total Emissions¹	705,547	777,674	808,125	320,242	393,166	585,720
Percent of State Totals²	<1%	1%	1%	<1%	<1%	<1%

Source: Massport and CMT, 2024.

Notes: Totals may not add exactly due to rounding.

MT – metric tons of CO₂ equivalents (1 MT = 1.1 Short Tons). CO₂ equivalents (CO₂e) are bases for reporting the three primary GHGs (e.g., CO₂, N₂O, and CH₄) in common units. Quantities are reported as “rounded” and truncated values for ease of addition.

1 Total Emissions = Scope 1 + Scope 2 + Scope 3.

2 Percentage based on most recent relative amount of total emissions to statewide total from MassDEP, MassDEP, 2nd Addendum to the Statewide Greenhouse Gas Emissions Level: 1990 Baseline Update, June 2022, available at <https://www.mass.gov/doc/2nd-addendum-to-statewide-ghg-level-proposed-1990-baseline-update-june-2022/download>.

The 2022 ESPR reports on updates to ongoing initiatives to reduce emissions including:

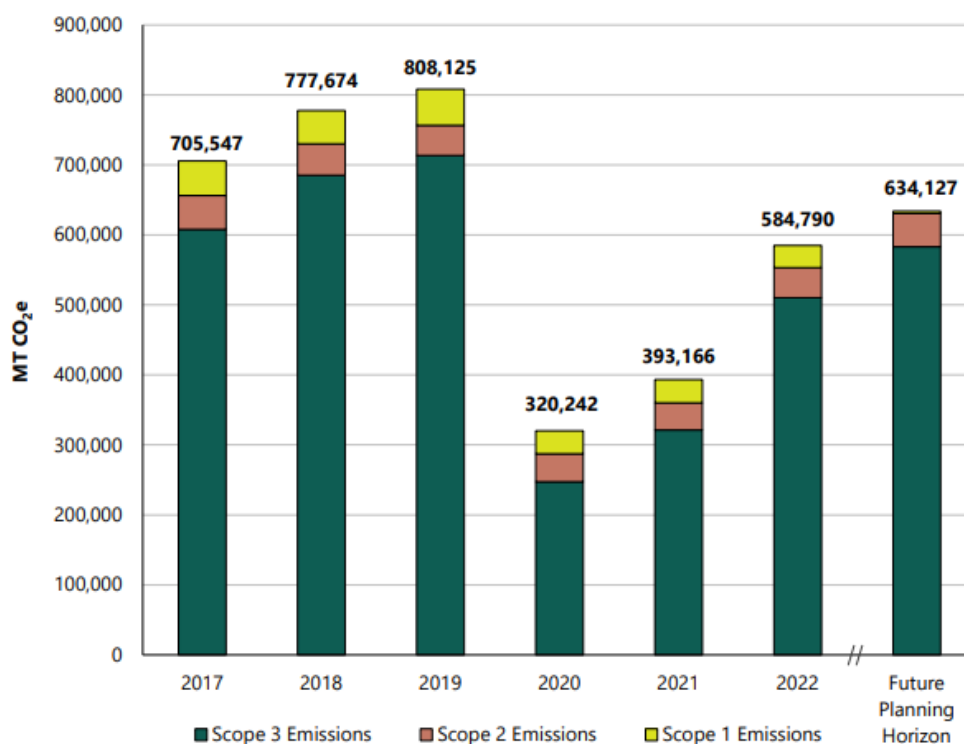
- Initiated a fleet decarbonization assessment to review the Authority’s existing on-road fleet inventory and to identify recommendations for electric vehicle (EV) replacements over a 15-year period beginning in 2024, while looking at the financial and environmental benefits of such transitions. The assessment is also identifying electric alternatives for Massport’s off-road equipment.
- By the end of 2022, there were over 70 EV charging ports across Logan Airport available for use by shared-ride companies and the general public, with additional ports owned and proposed by rental car companies at the Rental Car Center (RCC).

- Massport had a goal of reaching 35.5 percent HOV by 2022, and 40 percent HOV by 2027. Massport achieved the 2022 goal with 38.4 percent HOV for the year.
- Massport provides free, clean-fuel shuttle bus service for passengers and employees between the MBTA Blue Line Airport Station, all terminals, the RCC, and the Logan Airport water transportation dock along Harborside Drive.
- Massport published its Roadmap to Net Zero by 2031, an Authority-wide program to achieve net zero GHG emissions by 2031 for the activities under Massport's control.

The Certificate on the 2018/2019 EDR requested that Massport consider comments from the Department of Energy Resources (DOER) which recommend electrification of space and water heating, as well as evaluation of opportunities for distributed renewable energy generation. DOER comments on the 2022 ESPR recommend that the Airport upgrade its new building standards to mandate the Specialized Code with electrification and notes that the Specialized Opt-in Code is already mandatory in Boston. For existing building renovations, Massport should mandate low air infiltration and ventilation energy recovery when renovating. Comments also urge Massport to reassess central plant heating utilization based on the fossil fuel elimination strategy as detailed further in the comment letter. According to the 2022 ESPR, Massport is evaluating net zero options for the Logan Central Heating Plan including electrification. Massport continues to report that on-site photovoltaic (PV) solar development and other distributed energy resources such as battery storage are under consideration; however, this information was previously provided in the 2020/2021 EDR, with no further update included in the 2022 ESPR. Massport continues to maintain existing PV arrays at Logan and notes several additional PV systems planned as part of project mitigation including a 300,000-kilowatt hour (kWh) rooftop solar array at the new Terminal E and a solar PV system at the new garage in front of Terminal E capable of offsetting 50 percent of the facility's total energy consumption. As previously noted in the 2020/2021 EDR, in March 2022, Massport published its Net Zero Roadmap. The 2022 ESPR provides a link to the 2020 and 2021 Sustainability and Resiliency Report but indicates that the report covering 2022 and 2023 will be published in 2024. Future EDR/ESPRs should look to align this reporting to provide a better picture of GHG emissions and efforts to reduce emissions through electrification.

The 2022 ESPR provides the future GHG inventory based on the same methodology used to report the 2022 data and includes data for Scope 1, 2 and 3 Emissions as shown in the graph below. Massport notes that the estimated remaining Scope 1 and Scope 2 emissions presented below will be negated through the use of offsets and renewable energy certificates (RECs), and where possible, Massport will be looking to ensure that the benefits of these economic mechanisms for reducing emissions are accrued in Massachusetts. As shown below, Massport's projections show a clear upward trend in GHG emissions over the Future Planning Horizon, though total emissions are projected to remain below 2019 levels. Notably, all "Scope 1" emissions are projected to be reduced to 0 by the Future Planning Horizon. The 2023/2024 EDR should provide the information requested in DOER's comment letter and further detail its pathway to Net Zero including DOER's recommendations.

Figure 8-12 Emissions of GHG at Logan Airport 2010-2017, Future Planning Horizon



Source: Massport and CMT, 2024

Note: Scope 1 emissions are from sources that are owned or controlled by Massport, Scope 2 emissions are from electrical consumption, which are generated off-Airport at power generation plants, and Scope 3 emissions are from Airport tenants and the ground transportation to and from the Airport.

Air Quality/Emissions Reduction

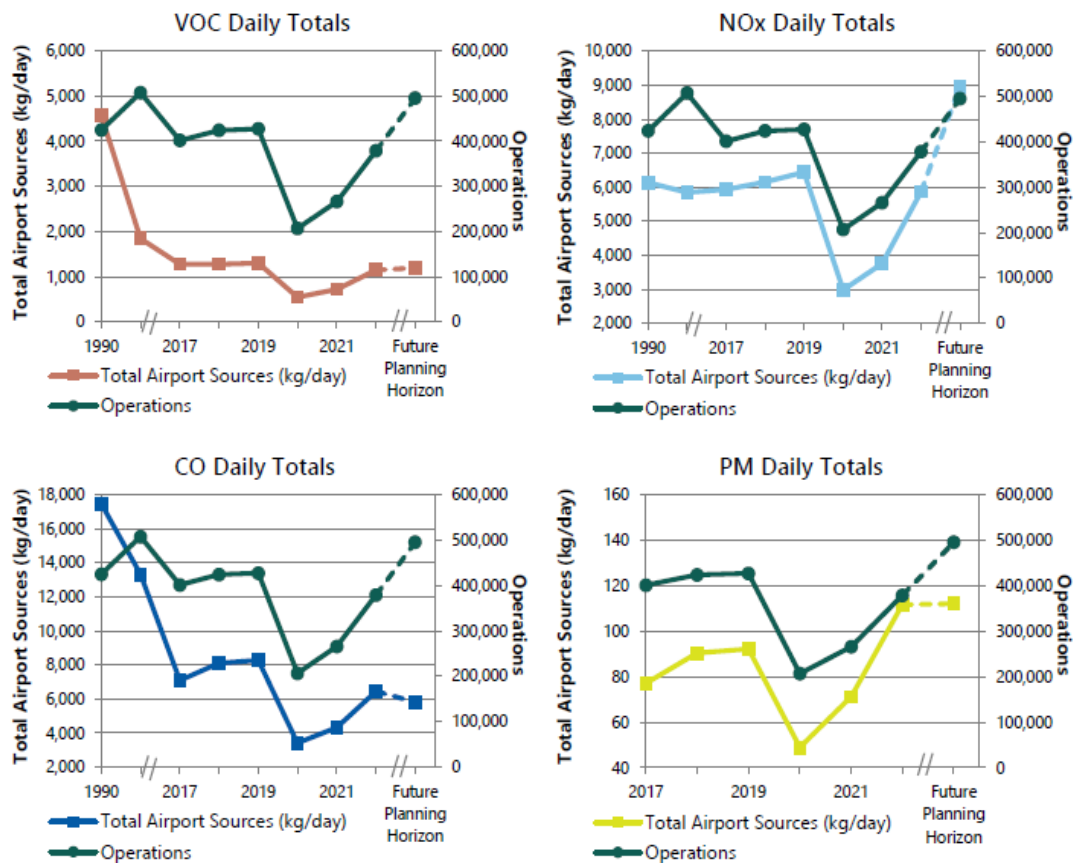
The 2022 ESPR provides an overview of Airport-related air quality factors for 2022 and the efforts to reduce emissions. The air quality modeling is based on aircraft operations, fleet mix characteristics, and airfield taxiing times combined with GSE usage, motor vehicle traffic volumes, and stationary source utilization rates. The 2022 ESPR uses FAA’s approved computer model for calculating emissions from aircraft-related sources, the Aviation Environmental Design Tool (AEDT) (model v. AEDT 3e). The 2022 ESPR notes that the 2020/2021 EDR previously reported data using AEDT3d with the primary differences between the two model versions (AEDT3e versus the previous AEDT3d) being the updates to the aircraft fleet inputs. As a result of the differences between available aircraft and engine combination model defaults, the AEDT3e model results with the 2022 aircraft fleet presented in Table 8-1 show a slight increase in aircraft emissions for VOC, CO, and PM10/PM2.5 (1.4 percent, 0.4 percent, and 0.2 percent, respectively), and a negligible decrease in NOX (less than 1 percent) when compared to AEDT3d. These changes are attributable to model updates and refinements, not changes in operations or other factors.

Massport prepared aircraft emissions inventories for 2022 for the criteria pollutants carbon monoxide (CO), particulate matter (PM10/PM2.5), volatile organic compounds (VOCs), and oxides of nitrogen (NOx). Total modeled emissions of volatile organic compounds (VOCs), oxides of nitrogen (NOX), carbon monoxide (CO), and particulate matter (PM10/PM2.5) decreased from 2019 to 2022 by about 12 percent, 8 percent, 22 percent, and 19 percent, respectively. The decrease in all types of pollutant emissions from 2022 (AEDT3e) compared to 2019 (AEDT3c) is primarily attributable to the 13 percent decline in aircraft operations from 2019 to 2022. However, the 2022 total modeled emissions of VOC, NOX, CO, and PM10/PM2.5 increased by about 68 percent, 59 percent, 51 percent, and 45 percent, respectively, from 2021 levels, showing a clear upward trend in these emissions. These increases are primarily attributable to the 42 percent increase in operations between 2021 and 2022.

Figure 8-10 of the 2022 ESPR (below) shows trends in VOC, NOx, CO, and PM10/PM2.5 emissions over the Future Planning Horizon, indicating increases in some cases to above 2019 levels and sometimes above 1990 levels. The ESPR indicates, however, that CO levels are projected to decline from 2022 to future years, primarily due to the use of cleaner passenger vehicles on the roadway network and Massport's commitment to electrifying ground service equipment (GSE). VOCs and PM emissions are projected to increase slightly or remain steady, but NOx emissions are projected to increase markedly by almost 53% from 2022 to the Future Planning Horizon, or 39% from 2019 levels. Massport attributes this increase to the use of quieter airplanes that emit higher levels of NOx. Figure 8-10 shows trends in air emissions as compared to overall activity levels at the Airport, showing that emissions will increase at a slower rate than Airport operations.

Figure 8-10 and associated tables with more granular data are shown below:

Figure 8-10 Emission Trends of VOCs, NO_x, CO, and PM¹ at Logan Airport, 1990-Future Planning Horizon



Source: Massport and CMT, 2024.

Notes: The dashed line represents projected values

CO – carbon monoxide; NO_x – oxides of nitrogen; PM – particulate matter; VOC – volatile organic compounds.

1 PM emissions were not estimated until 2005.

Table 8-10 Future Planning Horizon Emission Estimates (in kg/day) at Logan Airport

Source Categories	VOC		NO _x		CO		PM ₁₀ /PM _{2.5}	
	2022	Future	2022	Future	2022	Future	2022	Future
Aircraft Sources								
Air carriers	422	434	4,834	8,095	3,042	3,614	39	44
Commuter aircraft	93	64	322	352	1,849	1,265	3	3
Cargo aircraft	85	93	423	370	393	364	3	3
General aviation (GA)	80	169	71	63	302	341	2	2
Total Aircraft Sources	681	760	5,650	8,881	5,586	5,584	47	52
Ground Service Equipment (GSE)²	27	7	123	52	522	63	11	6
Motor Vehicles								
Parking / curbside ¹	4	1	2	<1	10	2	1	1
On-Airport vehicles	19	11	5	3	312	164	49	52
Total Motor Vehicle Sources	22	13	7	4	322	166	50	53
Other Sources								
Fuel storage and handling ²	410	410	-	-	-	-	-	-
Miscellaneous sources ³	5	2	86	21	20	5	3	1
Total Other Sources	415	412	86	21	20	5	3	1
Total Airport Sources	1,144	1,191	5,866	8,958	6,449	5,818	112	112
Percent Change		4.1		52.7		-9.8		0.3

Source: Massport and CMT, 2024.

Notes: Values may reflect rounding.

kg/day - kilograms per day; 1 kg/day is equivalent to approximately 0.40234 tons per year (tpy).

CO – carbon monoxide; NO_x – oxides of nitrogen; PM₁₀/PM_{2.5} – particulate matter with a diameter that is 10 micrometers and smaller (PM₁₀) which is inclusive of particulate matter with a diameter that is 2.5 micrometers and smaller (PM_{2.5}); VOCs – volatile organic compounds.

1 GSE emissions include aircraft auxiliary power units (APUs) and vehicles and equipment converted to alternative fuels.

2 Includes the Central Heating Plant, emergency electricity generation, snow melter usage, and other stationary sources.

3 Fuel storage and handling activities do not emit CO and therefore, are not included in the table.

The 2022 ESPR continues to update information on Ultrafine Particles (UFPs) which is particulate matter (PMs) subdivided into categories based on their diameters. UFPs have diameters less than 0.1 micrometers (µm). As previously stated in the 2020/2021 EDR, in December of 2020, the Environmental Protection Agency (EPA) published a final action in the Federal Register detailing the agency's review of the National Atmospheric Air Quality Standards (NAAQS) for PM₁₀/PM_{2.5}. UFP is addressed in the supplemental information of the notice. In their review of the PM₁₀/PM_{2.5} NAAQS, EPA determined that due to significant uncertainties and limitations, as well as the limited availability of air monitoring data, that the PM_{2.5} NAAQS would be retained as the indicator for UFP. As discussed above, Massport has been supportive of cooperative research efforts being funded by the FAA and co-led by BU and Tufts, for ASCENT as detailed in the most recent annual report published by ASCENT (2023).²⁰ As stated in the 2022 ESPR, the primary purpose of the research is the measurement of aviation emissions and aviation's contribution to ambient levels of air pollution. As part of the studies,

²⁰ [ASCENT 2023 Annual Report \(wsu.edu\)](https://www.wsu.edu/ascnt/2023-annual-report). The 2022 ESPR included the annual report for 2020.

ASCENT is measuring UFPs in the vicinity of Logan Airport to determine variations in the contribution of aviation emissions to ground-level air pollutant concentrations by location and over time. The 2023/2024 EDR should provide the most recent updates to this study and its findings as they relate to the study area communities. To the extent that the studies provide measurements of UFPs in adjacent communities (or a methodology to do so), this data should be reported.

The 2023/2024 EDR should continue to provide an overview of the environmental regulatory framework affecting aircraft emissions, changes in aircraft emissions, and the changes in air quality modeling including a mobile sources emissions inventory for CO, NO_x, VOCs, and PMs. The 2023/2024 EDR should quantify the emissions reductions associated with Massport's air emissions/GHG reduction initiatives to the extent feasible including the reductions associated initiatives target to reduce emissions and those associated with MEPA reviewed projects where GHG mitigation requirements were made.

Comments from MCAC note appreciation for the support that Massport has provided to university researchers studying the impacts of air pollution on "near-in" communities and requests that data sharing be made available to MCAC to further development of its data visualization tool which will share information to its constituent communities and allow people to more fully understand the air pollution impacts of Airport operations on their lives and to inform and develop a community mitigation framework. Comments from the City of Boston also suggest the need for more data about how Massport's air quality reduction strategies, especially those not under Massport's direct control, will be implemented to keep operation sources of VOCs, NO_x, CO, PM₁₀, and PM_{2.5} at "similar" levels over the next 10 to 15 years. As discussed herein, to the extent the benefits of mitigation measures can be quantified, these values should be reported and tracked over time.

Water Quality/Environmental Compliance

The 2022 ESPR describes Massport's ongoing environmental management activities including National Pollutant Discharge Elimination System (NPDES) compliance, stormwater, fuel spills, activities under the Massachusetts Contingency Plan (MCP), and tank management. Massport's primary water quality goal is to prevent or minimize pollutant discharges, to limit adverse water quality impacts of Airport activities. According to the 2022 ESPR, Massport performed Stormwater Pollution Prevention Plan (SWPPP) inspections and made recommendations on how to optimize best management practices (BMPs). The Logan Airport SWPPP addresses stormwater pollutants including deicing and anti-icing chemicals, bacteria, fuel and oil, and other sources of stormwater pollutants and includes BMPs specific to aviation activities. Massport also conducted training for personnel responsible for implementing activities identified in the SWPPP. Massport also maintains a Spill Prevention, Control, and Countermeasures (SPCC) Plan for its facilities that store petroleum products. Tenants meeting certain thresholds are required to prepare their own SPCC plans for their facilities. Massport checks for SPCC plans during environmental compliance inspections. Additionally, tenants receive information on Massport BMPs, which focus on spill management and prevention.

As stated in the ESPR, the Logan Airport NPDES Permit regulates stormwater discharges from Logan Airport outfalls, including the North, West, Northwest, Porter Street, Maverick Street, and airfield outfalls. Grab samples are taken monthly from North, West, Porter Street and Maverick Street Outfalls and tested for pH, oil and grease, total suspended solids (TSS), benzene, surfactants, fecal coliform bacteria, and Enterococcus bacteria during both wet and dry weather. Grab samples are also taken quarterly from these four outfalls during wet weather events to analyze for eight distinct polycyclic aromatic hydrocarbons (PAHs), and from the Northwest and Airfield outfalls for pH, oil and grease, TSS, and benzene. Deicing monitoring is also conducted from October/November through March/April, depending on weather conditions. Due to weather conditions, only one deicing sampling event occurred during the 2021-2022 deicing season. The ESPR indicates that over 97 percent of samples were in compliance with standards for pH, oil and grease, and TSS but does not report on compliance with standards for the other listed pollutants. The ESPR points to Appendix K for more details which includes tables of data showing the monitoring reports for each quarter but does not indicate where exceedances exist. Information regarding exceedances, including data on which contaminant and outfall location should be included in future reporting. The 2023/2024 should describe how exceedances are addressed and if community reporting and/or alerts are required.

According to the ESPR, Massport's Facilities Department conducts biannual inspections of the six Stormceptor devices (for stormwater pre-treatment) located throughout the Airport and routinely inspects catch basins located within 100 yards of aircraft, vehicle and equipment maintenance facilities. Catch basins are cleaned on as needed basis. Treated wastewater generated from fire training exercises, which generally occur from April through November, are collected and stored in an above ground holding tank onsite. Wastewater is treated by OW separation and granular activated carbon (GAC) filtration methods to remove fuel contaminants, then reused onsite to recharge the fire training pit for training exercises. As noted in the ESPR, in March 2021, the U.S.EPA issued a minor modification to the NPDES Permit No. MA0032751 to clarify that grab samples should be collected from above ground holding tanks after the water has undergone treatment, but prior to discharge. The ESPR also reports that Massport has eliminated the use of Aqueous film forming foam (AFFF) containing per- and polyfluoroalkyl substances (PFAS) if fire training exercises and indicates that when a PFAS-free AFFF replacement product becomes available, Massport will follow FAA guidance and safety requirements regarding transitioning to the new product and its use.

According to the 2022 ESPR, Massport Fire Rescue maintains records of spills at Logan Airport. As required by regulation, fuel spills of 10 gallons or more are reported to MassDEP. Spills that enter storm drains of any volume must also be reported to MassDEP. Massport maintains records of spills, including those less than the reporting threshold. In 2022, of the oil and hazardous material spills reported to Massport Fire Rescue, only three were reportable quantity spills requiring MassDEP notification. The spills did not enter the storm drains. Of the three reportable spills in 2022, two were due to aircraft malfunctions and the other fuel spill was due to a hydrant truck malfunction.

Mitigation

The 2022 ESPR includes a list of projects previously reviewed by MEPA (several of which were reviewed, permitted and completed 10 to 20 years ago). Projects currently in the planning phases or under construction include the following:

- Terminal E Modernization Project, EEA #15434
- Logan Airport Parking Project, EEA #15665
- Runway 27 End Runway Safety Area Improvements Project, EEA #16433

Of the three projects, only the Terminal E project has proceeded to construction (Phase I) where construction period mitigation measures were implemented. Other implemented mitigation measures include replacement and upgrading of the stormwater management system and reduction of operational-related carbon dioxide (CO₂) emissions associated with the project by a minimum of 30 percent. Other mitigation commitments include a building designed to achieve energy efficiencies of a minimum of 20 percent below the current Mass Energy Code. It is unclear in the filing if 25,000 sf solar photovoltaic system has been constructed. The ESPR indicates that Phase I has been completed and that Phase II is being advanced.

As summarized above, the overall trends in passenger and flight activity levels show that, while activity levels still remain below the all-time highs in 2019, they show clear recovery from COVID-19 conditions and a trajectory of exceeding 2019 levels by as early as 2025. I note that associated GHG and air emissions impacts, while also showing an upward trend, are not projected to exceed 2019 levels over the Future Planning Horizon.

To enhance public transparency and tracking of mitigation measures, future EDR and ESPR filings should improve the reporting of mitigation measures and present all applicable measures in a tabular format organized by subject matter (traffic, noise, air quality, GHG emissions, environmental justice, etc.). The table should indicate whether the measures are ongoing or planned (and if the latter, provide an estimated timeframe for implementation). To the extent specific mitigation results from an individual project review, those commitments should be listed separately with a quantification, to the extent documented through the individual review, of the estimated reductions to applicable impacts (e.g., GHG reductions) that would result from the mitigation measure. As noted above, to the extent the benefits of other mitigation measures (e.g., VMT or GHG reduction targets) can be quantified, these values should be reported and tracked over time. If same or substantially same level of reduction was not actually achieved, or mitigation commitments have changed over time, those updates should be reflected in the ESPR and may require a further Notice of Project Change (NPC) filing for the individual project. This type of format aligns more closely with reporting of mitigation commitments for standard MEPA reviews, and would allow for better tracking and public transparency with respect to implementation of mitigation measures.

Response to Comments

The 2023/2024 EDR should include a copy of this Certificate. It should include copies of all comments received on the 2022 ESPR and provide responses to the comments and to this

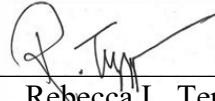
Certificate. In order to ensure that the issues raised by commenters are addressed, the 2023/2024 EDR should include direct responses to comments to the extent that they are within MEPA jurisdiction.

Conclusion

Massport may prepare a 2023/24 EDR for submission consistent with the Scope included in this Certificate. As noted above, I am also directing Massport to participate in a work group, facilitated by MEPA and the EEA EJ Office, to consider supplemental mitigation measures to address public health impacts of Airport operations on surrounding EJ populations. In addition, consistent with the approach set forth in the 2017 EPSR, if actual growth in passenger and/or aircraft operations outpace forecasts during a reporting period, I expect that additional mitigation and policies and strategies will be considered to address the proportional growth in impacts.

October 18, 2024

Date



Rebecca L. Tepper

Comments received:

06/26/2024
 & 10/11/2024 Airport Impact Relief Inc. (Air Inc) (including supplemental email comments x 2)
 09/10/2024 Town of Milton
 10/09/2024 Mother's Out Front (MOF)
 10/10/2024 A. Hartnett
 10/10/2024 A. McCoy
 10/11/2024 Blue Skies Advocates
 10/11/2024 City of Boston
 10/11/2024 Conservation Law Foundation (CLF)
 10/11/2024 Massport Community Action Advisory Committee (MCAC)
 10/11/2024 F. Salvucci
 10/15/2024 D. Reilly
 10/15/2024 R. Marchi
 10/16/2024 G. Miller
 10/17/2024 Department of Energy Resources (DOER)

RLT/JAH/jah



To: EEA
From: AIR, Inc.

June 26, 2024

Good Morning,

I'm writing today to express deep concerns with Massport's ESPR 2022 environmental documentation. After the Climate Roadmap Law, the public had a right to expect improvements on to many procedural complaints regarding Massport's iterative disclosure series detailed within comments to MEPA submitted by AIR, Inc. over many years.

Not only is the document NOT provided in a scalable, searchable format which is acceptable to stakeholders whose only internet connectivity is provided through smart phone use, but its length and complexity are still unacceptable. Unfortunately, it appears as though Massport has used the climate Roadmap as an opportunity to take its reporting further in the wrong direction. To this point I first call attention to the second chapter of the ESPR, titled *Sustainability, Outreach and Environmental Justice*. This chapter is a new addition to the document series which is intended to address Massport's responsibilities pursuant to the Climate Roadmap and recommendations in previous EEA certificates. In Ch 2, Massport misclassifies environmental justice as among 'informal' or voluntary commitments by asserting that 'formal' mitigation commitments are made as part of projects for which MEPA review is required.

The formal versus voluntary classification when applied to the ESPR / EDR series supports Massport's assertion that the document series are not subject to MEPA review. AIR, Inc. plans to challenge this on the grounds that such a conclusion could only be true if all impacts over the expected lifetime of MEPA-level project proposal EIR's had been evaluated within the EIR review in accordance with the standard MEPA review protocols.

However, the Weld / Cellucci era regulatory procedure which has been hand-crafted for and is unique to Logan removes air pollution emissions and noise impacts from consideration in the EIR review process for Logan projects, displacing them into the iterative annual documentation series. Importantly, the EDR / ESPR documents subsequently do not report air pollution and noise data on a project by project basis. This combination of #1 removal of consideration of public comment regarding environmental pollution from airport facilities project MEPA EIR review, and #2 failure to specifically track, report and make available for public comment the subsequent environmental pollution data of each individual project over time violates the state's environmental protection laws by denying the public a meaningful opportunity to comment on decisions which hold the likelihood of increasing adverse environmental burdens.

For example, the Terminal E EIR theorized that demand for air travel is driven NOT by the facilities Massport builds, but by a combination of external economic and industry conditions outside of Massport's control. AIR, Inc. objected to this claim in its comments, pointing out that the new terminal was built to address capacity constraints and would allow the Authority to process more passengers, increasing the negative environmental burdens. AIR, Inc. further commented that alternatives to building the expanded terminal capacity at Logan -such as offloading over-capacity demand to other regional commercial airports- existed, but were not evaluated in the scoping process for the project.

The Authority counterclaimed that they had considered alternatives (full build, half build, no build), and that if further congestion at Logan developed, the environmental consequences would be worse without the newer, more efficient facilities. In essence this says that it's better when you are being polluted more, to at least be polluted by a smaller increase. Nowhere is there an option not to be polluted more.

The result of the unique handling of Logan environmental filings under the regulatory review procedure created by a Republican administration over 20 years ago, which was not included in the recent MEPA regulatory review above AIR, Inc.'s objections, is that facilities get built to pave the way for the growth of aviation activities at Logan without any opportunity for public comment on environmental impacts, then growth just 'happens', and pollution rises.

A related issue of great concern is that due to the use of long range forecasts to predict passenger levels and associated impacts, when growth occurs at faster than forecasted rates, mitigation plans lag behind. So in this system, not only does the public not get any opportunity to comment on the projects which pollute them, nor do we ever receive specific data on the environmental performance of those projects, but the airport as a whole as a project with a rolling segmented growth agenda, is allowed to pollute first, and mitigate later.

All agencies under MGL Part I, Title III, Chapter 30, Section 61 are required to minimize environmental damage. The fact that under an internationally ineffective regulatory system, certain procedures allow EIR level environmental damage to be displaced into an iterative annual review of cumulative impacts, does not change that. Nowhere in the statute is there any grey area about who is required to minimize damage.

The law states: "All agencies, departments, boards, commissions and authorities of the commonwealth shall review, evaluate, and determine the impact on the natural environment of all works, projects or activities conducted by them and shall use all practicable means and measures to minimize damage to the environment." Massport is an Authority.

Thus, Massport is required to minimize damage and whether they report any determination of damage before or after the fact, and whether they report damage in EIR's, EDR's, or ESPR's, when they report damage they are issuing a determination of environmental impact, and therefore, they are required to issue findings that all feasible measures have been taken to avoid or minimize that damage. Thus, classification of Logan Express (LEX) HOV efforts, for

instance, as voluntary -which Massport does in the ESPR, is incorrect. Traffic congestion is an environmental impact. LEX is designed to reduce that impact. Massport is required to reduce that impact by the statute. Therefore LEX is not a voluntary environmental mitigation program. It is required.

Regarding expanded public outreach:

Massport has scheduled a public information session for tonight. The location for tonight's meeting, the Cathy Leonard McLean room, does not satisfy the requirements of public meeting space for environmental justice community public information meetings as provided by the Public Involvement Protocol for Environmental Justice Populations found within the Interim Protocol on Climate Change Adaptation and Resiliency as required by the Climate Roadmap law, which outlines public involvement requirements for projects identified as negatively affecting EJ populations and states that "The meeting(s) must be held at accessible locations near public transit to the greatest extent possible and facilitate remote attendance, with oral interpretation required with 48 hours' notice."

Located 0.6 miles from the center of the Jeffries Point neighborhood, 1 mile from Maverick, 1.25 miles from Eagle Hill, 1.5 miles from Harborview, 1.8 miles from the Belle Isle Inlet area, and 2.15 miles from Orient Heights, the Cathy Leonard McLean Community room is unnecessarily remote from most of the residential environmental justice areas in East Boston. Its location in the airport's service area is difficult to find with no wayfinding signage posted in and around the area to assist meeting-goers on foot or in cars. This facility is also not located along any MBTA bus or train line.

Massport's government affairs and community relations staff have access to multiple appropriate meeting venues centrally located within walking distance to most of residential East Boston, all of which are also located along numerous bus routes reaching all neighborhoods of East Boston, and many in Chelsea, Winthrop, and Revere, as well as on within blocks of the Blue Line's WoodIsland station. Venues including the East Boston Public Library, Excel Academy, and Spinelli's function hall all satisfy the requirements for environmental justice public information meetings.

The timing of this public information meeting is also not ideal. Community stakeholders are offered an extended 60 day public comment period for airport filings due to their length and complexity. While public information sessions held prior to the release of the ESPR provided brief snapshots of the full report's contents, this 678 page technical document contains voluminous detail and should be expected to illicit many questions once thoroughly read. Holding a public information session 19 days after the inception of the comment period does not give the public access to the full comment period to sufficiently read the document and formulate questions.

Furthermore, any new information which might be provided in response to potential questions would alter the document and require additional extension of the comment period to provide the public with the time needed to analyze and respond accordingly.

AIR, Inc. reiterates its comments made in previous EDR and ESPR's as well as through our involvement in the recent MEPA regulatory review, that neither MEPA's standard 45 day nor its extended 60 comment period provide anywhere near an appropriate opportunity for public comment. These iterative documents take the Port Authority nearly a full year to develop and are compromised of a wide variety of dense technical concepts which require extensive analyses. We once again suggest that these environmental reporting documents be released in final draft form prior to their release formal submission for MEPA review.

We believe the current handling of Massport's Logan Airport environmental reporting violates both the letter and the spirit of Massachusetts law as during the antiquated disjointed comment and answer cycle, public stakeholders never get the opportunity to communicate objections such as these directly to EEA, nor do we have the opportunity to consult with the state's regulatory leaders about our concerns.

We ask that EEA specifically address our belief that:

1. The EIR - EDR/ESPR arrangement is illegal in that it denies the public due process (lack of opportunity to comment on environmental pollution from specific projects)
2. The long range impact forecasting system is illegal in that it allows environmental impacts of Logan to go unreported when growth of airport impacts accumulates beyond forecasted levels (failure to review, evaluate, and determine)
3. That Massport's refusal to evaluate alternatives to building further capacity at Logan and deferring and delaying of efforts to avoid and minimize impacts is illegal in that they are required to prove that they are taking all reasonable means (failure to provide findings that all measures have been taken)

We believe that at a minimum, the certificate for the 2022 ESPR should:

1. Require the Port Authority to provide data and respond to comment on the environmental impacts of all projects individually over time
2. Review, evaluate, and determine environmental impacts in real time by yoking policy and mitigation planning to actual present and future impacts
3. Require the Authority to provide findings that all environmental mitigation efforts have been and are being taken to minimize said environmental damage by developing and implementing real time mitigation strategies by or before the time impact increases are realized
4. Require the Authority to report all mitigation efforts along a continuum of formal measures required to minimize or avoid environmental damage
5. Require the Authority to release its next report closer to the end of the reporting period, and then it's next again closer

6 Require the Authority to release a final draft report with a complete comment cycle

These are our thoughts for now. AIR, Inc. thanks you for your consideration of the above listed concerns. We would also like to schedule a time to meet with the Secretary or her staff privately. The last attempt we made to do so ended up to be a cbit version including MEPA, and Massport. And while we appreciate Id that opportunity, we believe that our concerns would be better addressed in discussion with EEA exclusively.

Sincerely,

A handwritten signature in blue ink, appearing to read 'cmarchi', written in a cursive style.

Chris Marchi
Vice President
Airport Impact Relief, Incorporated
AIR, Inc.
161 Saratoga Street
East Boston, Ma 02128
617-417-2093
cbmarchi@gmail.com



TOWN ADMINISTRATOR
NICHOLAS MILANO
TEL 617-898-4845

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON
OFFICE OF THE SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186

TEL 617-898-4843
FAX 617-698-6741

SELECT BOARD

RICHARD G. WELLS, JR.,
CHAIR

ROXANNE F. MUSTO,
VICE CHAIR

JOHN C. KEOHANE,
SECRETARY

ERIN G. BRADLEY,
MEMBER

BENJAMIN D. ZOLL,
MEMBER

September 10, 2024

The Honorable Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Massachusetts Environmental Policy Act ("MEPA") Office
Jennifer Hughes, EEA No. 3247
100 Cambridge Street, Suite 900
Boston, MA 02114

**Re: Comments of the Town of Milton on the Boston Logan International Airport
2022 Environmental Status and Planning Report (2022 ESPR)**

Dear Secretary Tepper:

The Select Board of the Town of Milton ("Milton") is pleased to provide the following comments in response to the Boston Logan International Airport 2022 Environmental Status and Planning Report ("2022 ESPR"), which was submitted to you by the Massachusetts Port Authority ("Massport") on May 31, 2024.

1. **Request for Assistance and a Meeting with the Secretary**

As you will see from (a) our November 14, 2019 comment letter to your predecessor, Secretary Kathleen A. Theoharides, on the Boston Logan International Airport 2017 Environmental Status and Planning Report (the "2017 ESPR"), attached hereto as Exhibit A, and (b) our March 12, 2021 comment letter to Secretary Theoharides on the Boston Logan International Airport 2018-2019 Environmental Data Report (the "2018-2019 EDR"), attached hereto as Exhibit B, neither the Federal Aviation Administration ("FAA") nor Massport has addressed the serious environmental and public health concerns about airplane noise and pollution that we and many other overflight communities¹ affected by air traffic to and from Logan raised in response to the 2017 ESPR, the 2018-2019 EDR, and prior ESPRs and EDRs during the past decade. At this time, Milton and other overflight communities need assistance from State officials,

¹ In its "Request for Comments on the Federal Aviation Administration's Review of the Civil Aviation Noise Policy" issued on May 1, 2023, the FAA defined "overflight communities" as "communities located under the flight paths of aircraft and vehicles that are distressed by aircraft noise and are located outside of the DNL 65 dB contour." See 88 Fed. Reg. 26,641 (May 1, 2023), footnote 28.

including the EOEEA and the Massachusetts Department of Public Health (“DPH”). We urge the EOEEA and the DPH to engage with Massport, the FAA, and the affected overflight communities to achieve meaningful solutions to the public health issues that the FAA’s concentration of flight paths has created for overflight communities such as Milton.

The noise from Logan operations impacts citizens of the Commonwealth across municipal boundaries, but, just like climate change, no one community is empowered to find a solution on its own. In fact, municipalities that have sought solutions on their own have been criticized for acting at the expense of others. Milton and the entire Logan overflight area need our leaders at the State level, including the EOEEA, for oversight, empowerment, and solutions to this significant cross-boundary problem.

For the reasons detailed herein and in Exhibits A and B, we make the following requests of the Secretary and EOEEA:

- a. Not to certify the 2022 ESPR, and to direct Massport to prepare a supplemental ESPR which fully and realistically addresses projected increases to Logan operations and airport throughput, and the resulting environmental impacts.
- b. Direct Massport to demand that the FAA test and implement all of the recommendations in Block 1 and Block 2 of the recent MIT Study, and specifically those relating to Runways 4R and 27.
- c. Work with the FAA, Massport, and Milton to develop and implement late-night aircraft overflight restrictions which are protective of Milton and its residents, including consideration of an 11:00 PM to 6:00 AM landing prohibition on Runways 4R and 4L.
- d. Direct Massport and the Massport Community Advisory Committee (“MCAC”) to promptly develop a system for the fair and equitable distribution of aircraft overflights that provides real relief to the highly impacted surrounding communities, especially those that are under multiple RNAVs (defined herein).
- e. Direct Massport to collaborate with DPH and DEP to develop and conduct noise and air pollution studies in highly impacted surrounding communities, especially those that are under multiple RNAVs.
- f. Direct Massport to consider off-airport noise and pollution impacts, including but not limited to the health impacts from increased and concentrated arrival and departure operations due to RNAVs, in all communities under any RNAV, in all future EDRs and ESPRs.
- g. Direct Massport to include all of the points made above in the scope of the 2022 ESPR. This includes impacts to health from noise and pollution from: off-airport impacts of growth, cumulative impacts of RNAV overflights, increased nighttime operations, moving to updated noise measurements which are more protective of human health and which account for acute impacts more realistically than the DNL standard; and working directly with impacted communities to more fully understand and evaluate the human health effects from Logan operations.
- h. Include the hours from midnight to 7:00 AM in the dwell and persistence calculations to provide a clearer indication of the noise burden being borne by communities subject to nighttime operations.
- i. For future public health existing conditions reviews and future ESPRs and EDRs, direct Massport to include impacts to environmental justice (“EJ”) populations that are located in overflight communities.

- j. Direct Massport to consider, for future ESPRs and EDRs, the impacts of emerging advanced air mobility (“AAM”) technology on communities overburdened by operations at Logan.

In addition to the above, we request a meeting with you and your staff to discuss in person the concerns that we have outlined here, as well as our specific requests for assistance. Our Town Administrator, Nicholas Milano, will follow up with your office to schedule a meeting. Please confirm your office’s receipt of this comment letter.

2. Executive Summary

Like the two years that preceded it, 2022 was an anomaly due to the COVID-19 pandemic. As Massport noted in its May 31, 2024 letter to you, “[i]n 2022, Logan Airport continued to progress towards a recovery to pre-pandemic passengers and aircraft operations activity levels, but passenger activity still remained 15 percent less than 2019 levels and aircraft operations were 11 percent less than 2019.” Section 1.1.1 of the 2022 ESPR further states that “[i]n 2020 and 2021, the pandemic caused a significant reduction in Airport activity.” Because of the pandemic, data pertaining to operations at Boston Logan International Airport (“Logan”) during the early years of this decade does not describe the true impacts that concentrated air traffic has had, pre-pandemic and post-pandemic, on overflight communities, including Milton.

Milton is overburdened by excessive aircraft noise and pollution from four (4) concentrated flight paths that bring airplanes arriving on Runways 4R and 4L and airplanes departing Runways 27 and 33L over our town. It is common for Milton to experience many consecutive days with several hundred airplanes flying over homes, schools, parks, playgrounds, and senior communities. Residents continue to complain to us about the adverse health and quality of life impacts from excessive airplane noise and pollution, including sleep disruption, the inability to work or to have a conversation in one’s own home or yard, anxiety, and the inability to enjoy the outdoors. Milton residents continue to file a substantial number of noise complaints with Massport. A recent community health assessment conducted by our Health Department identified air traffic as one of the public health challenges facing Milton.

Like its predecessor ESPRs and EDRs, the 2022 ESPR does not address the many issues that we have raised in years past. The 2022 ESPR fails to address the impact of Logan’s operations, and the cumulative effects of concentrated flight paths, on overflight communities. It relies on an outdated noise metric (DNL 65 dB) that cannot adequately measure the noise from several hundred airplanes a day on homes, schools, parks, playgrounds and senior communities. The 2022 ESPR fails to adequately address nighttime operations, dwell and persistence, and air pollution caused to overflight communities. Massport’s forecast of a substantial increase in the number of future operations and passenger throughput at Logan requires immediate solutions to existing noise and air pollution problems. Although we are pleased that the 2022 ESPR analyzes Logan’s operations on EJ populations in parts of Boston, such analysis does not go far enough because it ignores EJ populations living in overflight communities.

During the past dozen years, Milton engaged in extensive outreach to, and communication with, the FAA and Massport, but has received no relief from the noise and pollution burden caused by the FAA’s implementation of performance-based navigation (“PBN”),

including area navigation (“RNAV”), at Logan. At the request of the FAA and Massport, the Massachusetts Institute of Technology (“MIT”) studied many of Logan’s flight paths and, in 2022, recommended three flyable alternatives for Runway 4R that, if used in rotation, would reduce some of the noise burden on Milton. However, Massport and the FAA have not even tested, let alone implemented, MIT’s alternative paths. It is long past time for the Commonwealth to direct Massport and the FAA to test and implement these alternatives, and for the EOEEA and the DPH to acknowledge the serious public health and environmental consequences that PBN/RNAV has had on overflight communities like Milton. We demand that the Commonwealth work with Massport and the FAA act to solve the problems that the FAA created.

3. **Background**

For the past dozen years, Milton has engaged in extensive communication with Massport and the FAA with respect to the FAA’s PBN systems, including RNAV. PBN placed four (4) RNAVs over Milton. These RNAVs bring arriving airplanes over Milton on their approach to Runways 4R and 4L. They also bring airplanes departing Runways 27 and 33L over Milton. The most significant noise and pollution impacts to Milton come from the arrivals to Runways 4R and 4L, overburdening Milton residents by all too often placing several hundred airplanes a day at low altitudes over the same homes, schools, parks, playgrounds, senior communities, and other densely populated areas.

As noted in Section 2.2.3.4 of the ESPR, in 2022, MIT concluded its study of PBN/RNAV systems that the FAA had implemented during the prior decade (the “MIT Study”), with the goal of identifying opportunities to reduce noise impacts from concentrated flight paths. Block 2 of the MIT Study recommended three (3) feasible alternative flight paths for arrivals to Runway 4R. These alternative 4R flight paths would move some, but not all, of the arrivals to 4R from Milton to neighboring communities that were, prior to PBN, overflowed by such arrivals. The multiple paths for 4R would be used in rotation, so that no one community would be overburdened, as Milton currently is. Milton has consistently advocated for such flyable 4R alternatives to be further studied and implemented. However, the FAA and Massport have failed to take any action on the Block 2 recommendations for Runway 4R.

The 2022 ESPR notes, at pages A-21 and A-55, that, despite the FAA’s initial determination that no Block 2 procedures would be recommended, two procedures for Runways 22L and 22R were subsequently modified and Massport has recommended them to the FAA for implementation. It is completely unacceptable that Massport has not recommended that the FAA test and implement Block 2 procedures for Runway 4R. We will continue to advocate that the three alternative flight paths deemed flyable by MIT be implemented. We seek your help in addressing the serious public health impacts that Logan’s operations have caused to Milton by, among other things, advocating for Massport to recommend, and the FAA to test and implement, the Block 2 procedures for Runway 4R.

The Milton Health Department recently completed a two-year Community Health Assessment (Summer 2024) (“Milton Community Health Assessment”). It identified several overall health challenges affecting residents of our town, including concern about air traffic noise and air pollution. The Milton Community Health Assessment notes, in part, the following:

“Decades of scientific evidence show that noise may contribute to hearing loss, annoyance, sleep disruption, cardiovascular disease, metabolic disturbances, and exacerbation of anxiety and depression. It also has adverse impacts on communication, activities, learning, productivity, and quality of life. (American Public Health Assn, Policy Statement 202115, Oct. 26, 2021).

Noise and air pollution generated by tens of thousands of aircraft using the 4L/R flight paths over Milton each year is a significant public health concern expressed by many Milton residents in our qualitative interviews. Noise pollution arising from Boston Logan International air traffic in certain areas of Milton has also raised environmental health concerns among residents. Residents have voiced that these health issues may disproportionately affect specific segments of the community, while others remain relatively unaffected.

Besides noise, some residents have also expressed concern about trace metal soil contamination from fuels. One study, conducted by environmental health graduate students at Boston University found not soil contamination, but they recommended further study.”

One of the top ten recommendations from the 410 respondents who took part in a Community Health Survey (which comprised one portion of the community health assessment process) was “less airplane traffic.”

The findings of the Milton Community Health Assessment relating to air traffic impacts come as no surprise to us. Members of the Milton Select Board have been receiving complaints about airplane noise and pollution on a regular basis since the FAA implemented the RNAV for Runway 4R arrivals close to a decade and a half ago. The FAA’s and Massport’s inaction and failure to mitigate the impacts of PBN/RNAV on overflight communities has caused us and, we suspect, our colleagues on Select Boards in other towns, to spend considerable time and resources advocating for the public health interests of our constituents.² Overflight communities need much more help from State agencies, including the EOEEA and its MEPA Office, than we have received to date.

We implore you to take action to resolve the inequity and injustice that exists with respect to air traffic. Residents of all cities and towns in Greater Boston benefit from Logan; all should bear some of the noise and pollution burdens of Logan’s operations. No community should experience hours and hours, let alone consecutive days, of constant airplane noise from several hundred airplanes, while neighboring communities experience little to no airplane noise. Justice demands a solution, and active engagement by EOEEA, the DPH, the Attorney General, and the Governor. A good starting point would be to

² Municipal leaders, including elected volunteers as well as salaried employees, confront many challenging issues on a daily basis: budgets with Proposition 2 ½ constraints, public safety, public works, and school issues, zoning, the creation of affordable housing, senior services, transportation challenges, and quality of life issues, to name a few. The FAA’s implementation of PBN, with little or no planning for how PBN would affect communities subjected to excessive noise from concentrated RNAV flight paths, has created an exorbitant amount of work for municipal governments and has diverted precious time and resources from traditional municipal services.

demand that the FAA and Massport test and implement all of the recommendations in Block 1 and Block 2 of the MIT Study.

The following detailed comments are directed primarily to Chapter 7 of the 2022 ESPR, which addresses noise from air traffic operations at Logan. However, we begin by noting one new comment (on a new topic in the 2022 ESPR) and some of our prior comments on earlier ESPRs that Massport and the FAA still have not addressed.

4. New Comment

We applaud Massport's consideration, at the Secretary's direction, of the impact of Logan's operations on EJ populations, which are discussed in Chapter 2, entitled *Sustainability, Outreach and Environmental Justice*. However, the 2022 ESPR's EJ analysis is woefully inadequate because the designated geographic area ("DGA") that Massport studied is much too small. Massport ignored the adverse impact that PBN operations has had on EJ populations that live several miles away from Logan.

According to the 2022 ESPR, Massport's consideration of EJ populations is limited to those located within a one (1) mile or five (5) mile radius of Logan. See Section 2.3.4 and Figure 2-4. As requested by the Secretary, Massport conducted "a public health existing conditions review for communities surrounding Logan Airport, with a focus on EJ communities." See Section 2.4. That review was limited to communities and EJ populations within only one (1) mile of Logan. Section 2.5 acknowledges that "[t]he municipalities within the DGA included in the existing conditions review are Boston, Chelsea, Revere and Winthrop."

Milton has EJ populations that are overburdened by noise and pollution impacts caused by arrivals to Runways 4L and 4R and departures from Runways 27 and 33L. Our neighbors in Mattapan, Dorchester, and Hyde Park (all located within Boston, but not within one mile of Logan) are also adversely affected by some of these flight paths. We suspect that several other cities and towns on the North Shore and the South Shore that are affected by PBN/RNAV have EJ populations. They, too, have been ignored by Massport's public health existing conditions review.

Massport's claim, in Section 2.3, that it "has demonstrated a consistent commitment to engaging with nearby communities and enhancing the quality of life of Massport's neighbors" rings hollow. Perhaps it is true for communities that are adjacent to, or immediately surround, Logan. But, despite knowing, for a dozen or more years, that the FAA's implementation of PBN/RNAV has imposed new noise and pollution burdens on overflight communities, Massport has shown very little interest in mitigating the burden on overflight communities. We urge you to require Massport, in future ESPRs and EDRs, to cast a much wider net in reviewing impacts on EJ populations and overflight communities generally.

5. Unresolved Prior Comments

We reiterate, and update, many of the comments that we made in response to the 2017 ESPR and the 2018-2019 EDR:

A. Inadequate Scope of 2022 ESPR

Like its predecessors, the 2022 ESPR is focused on the environmental impact of operations at Logan, rather than around Logan. Failing to fully address off-airport impacts ignores the robust science that demonstrates that airport operations can impact communities as far as 10 miles beyond the airport location, particularly where those communities are overflown by multiple RNAVs and the aircraft traffic is concentrated and persistent.

One of the many significant concerns is increased noise and annoyance due to the early deployment of landing gear for arrival into Logan. Lowered landing gear makes up a significant amount of the noise created by arriving planes. Milton has provided observer data that demonstrates that it is now commonplace for pilots to deploy an aircraft's landing gear over Milton, earlier than necessary (prior to the waypoint), which makes the noise burden on Milton and other overflight communities even worse.

B. Failure to Consider Cumulative Effects

There is no analysis of the cumulative impacts that multiple RNAVs have on some overflight communities. Milton is affected by four (4) RNAVs for Runways 4R, 4L, 27 and 33L. Looking at the impacts of each RNAV in isolation does not provide an actual assessment of on-the-ground, real-life impacts. We incorporate herein by reference the comments we provided in our 2021 comment letter on the 2018-2019 EDR.

C. Outdated, Inadequate Noise Metric

We reiterate our prior comment that the FAA's civil aviation noise policy (the "Noise Policy"), which relies on DNL 65 dB as its sole noise metric, is outdated and wholly inappropriate to measure noise in the PBN/RNAV context. As you may know, since 2023, the FAA has been engaged in a review of its Noise Policy. Last year, Milton joined thousands of other commenters from across the country in providing comments and recommendations on the Noise Policy. A copy of our September 28, 2023 detailed comment letter on the Noise Policy is attached hereto as Exhibit C.

Section 7 of the 2022 ESPR states the following:

"Noise levels are calculated using the Day Night Average Sound Level (DNL) metric and presented as a series of contours of equal sound levels that are measured in decibels (dB). This *2022 Environmental Status and Planning Report* (ESPR) presents annual noise contours in 5 dB intervals between 60-75 dB, and also calculates the population within those areas. FAA currently considers DNL 65 "A"-weighted decibel (dBA) as 'the threshold of significant noise exposure' and therefore much of the noise discussion in this chapter focuses on the DNL 65 contour and populations within that contour. The FAA noise model acknowledges that nighttime noise can be more impactful than daytime noise; to adjust for quieter nighttime background noise, the model multiplies the noise of each individual nighttime operation (between 10 PM and 6 AM) by a factor of ten."

The DNL 65 dB standard must be discontinued for overflight communities such as Milton, which experience noise and pollution from several hundred aircraft in a given day. The logarithmic nature of the DNL standard, which has been widely criticized, combined with the fact that this calculation is most often calculated on an annual basis masks the acute impacts that several hundred aircraft flying over a home has on the occupants. It also masks the acute impacts felt in a community when it is overflown for hours on end, with little break in the incoming aircraft.

Massport has the ability to calculate DNL on a much more frequent basis, and is supposed to be calculating this figure monthly but chooses not to do so. Calculating DNL across shorter time periods (e.g., monthly, weekly), would provide a more accurate indication of the suffering that Milton residents are enduring as a result of concentrated flightpaths and long hours of overuse, and would compel Massport to act to reduce airplane noise in Milton and other communities.

D. Lack of Collaboration and Meaningful Engagement by Massport and FAA

We continue to urge real and substantive collaboration between Massport, the Secretary, the FAA, and the communities impacted by Logan overflights. Multiple communities surrounding Logan (not just Milton) take the brunt of the impact of the operations of Logan, and the situation has worsened substantially in the years since the FAA implemented PBN/RNAV. These communities should have direct and regular access to Massport and the Secretary, and both agencies should be willing to work on real and meaningful solutions to address the problems from airport operations – especially noise and pollution – occurring in those communities. While we understand that some of that work must be done via the MCAC, the large size and the organization of the MCAC has the unintentional effects of diluting the voices of the most affected communities and creating a zero-sum game.

E. Increased Airport Operations and Impacts on Surrounding Communities

It is important that Massport's forecasting of the number of airline operations and passenger throughput at Logan in its ESPRs be correct, because that forecast becomes the basis for planning and mitigation of the impacts of Logan operations for the next five years (at least). However, as we noted in our 2019 comment letter on the 2017 ESPR, Massport has consistently underestimated the increased number of airline operations and passenger throughput at Logan.

For example, Massport's forecasting of growth as set forth in its ESPR for 2011 was off by as much as 300%. According to that document, Logan throughput would grow by approximately 1.5% per year, and Logan would handle 38.9 million passengers by 2030. Instead, the 2017 ESPR reported that Logan surpassed 38.9 million passengers in 2017, 13 years ahead of forecasts. Passenger counts (and increased environmental impact from those passengers on the airport and off of the airport, including in the surrounding communities overflown by airport operations) increased by 12 million passengers, to 40.9 million in 2018.

Now, despite the pandemic-related decrease in operations at Logan from 2020 to 2022, the 2022 ESPR states that the 2017 ESPR's long-range (10 to 15 years) planning forecast

underestimated the number of passengers and operations significantly. Section 3.5.7 of the 2022 *ESPR* states, in relevant part:

“The current 2022 *ESPR* forecast of 53.5 million passengers is higher by about 3.4 million, or 7.0 percent, than the previous 2017 *ESPR* forecast of 50.1 million passengers. The current 2022 *ESPR* forecast of 495,000 aircraft operations is higher by about 8,600, or 2.0 percent, than the previous 2017 *ESPR* forecast of 486,400 aircraft operations. The 2022 *ESPR* planning forecast has an average of 108 passengers per aircraft operation compared to 103 passengers per aircraft operation in the 2017 *ESPR* forecast.”

If Massport’s new forecast is correct, then the number of passengers traveling through Logan will increase from 38.9 million in 2017 to 53.5 million over the 10 to 15 year period following 2022 (*i.e.*, 2032 to 2037). Such a substantial increase in passengers and operations will exacerbate the noise and pollution over communities such as Milton that are already overburdened by airplane noise. Yet Massport provides no analysis or recognition that these increased operations come with a significant cost to overflight communities.

Additionally, we found no reference to, or discussion of, the emerging technology known as AAM in the 2022 *ESPR*. On May 17, 2023, the United States Department of Transportation (“DOT”) published a “Request for Information on Advanced Air Mobility” that sought public input to help inform DOT’s development of a national strategy for AAM. DOT defined AAM as “an emerging field in which novel aircraft currently in design and testing could provide new levels of accessibility, convenience, and connectivity for people and cargo – and thus transform our nation’s transportation system to provide enhanced mobility for the traveling and shipping public.”³ AAM is expected to include electric-powered or hybrid aircraft that can takeoff and land vertically. Obviously, communities that are already overburdened by traditional aircraft operations at Logan have reason to be concerned about the additional noise impacts that AAM will have on them. Future *ESPRs* and *EDRs* must take into account AAM as it moves from the design stage to the testing and implementation stages.

While Logan plays a role in the economic development of New England, that development cannot come at the price of the right of citizens to peacefully co-exist within their homes. There must be a better balance between the economic success of the region, on the one hand, and the duty of Massport and the airlines to protect the neighbors and communities underneath the publicly owned airspace through which they travel, on the other hand. EOEEA, DPH, the Attorney General, and the Governor must lead the mitigation effort at the State level.

Given Massport’s persistent understatement of the growth of its Logan operations, we believe the Secretary should not accept the 2022 *ESPR* as an accurate baseline planning tool without further scrutiny, and should require Massport to justify and explain why its *ESPR* projections consistently fall short of foreseeable growth rates.

F. Other Comments

³ See 88 Fed. Reg. 31,593 (May 17, 2023).

1. Noise Complaints

Table 7-17 shows a substantial decrease in the number of complaints and the number of callers from Milton and many other communities from 2019 to 2022. That is not surprising, given the significant decrease in air travel during the COVID-19 pandemic. The pandemic years were an anomaly. The trend in recent years is far more significant. We reiterate our 2019 comment about noise complaints documents in Massport's 2017 ESPR:

“Table 6-22 demonstrates that no single community made as many complaints on the Noise Complaint Line as Milton, although the numbers for other communities are catching up. Overall, and in Milton, both the number of complaints and the number of callers has increased. In 2016 Massport received 21,796 complaints from 466 callers. Those numbers increased to 23,940 complaints from 486 individual callers in 2017. For reference, the 2014 EDR reported 2,669 complaints and 4,991 were reported in the 2015 EDR. That represents almost a 900% increase in the number of complaints filed. Overall, Massport reports an 89% increase in the number of individual complainers on the noise complaint line, from 2016 to 2017 in all 15 reported overflowed communities. Complaints on the Massport complaint line from Milton have continued to increase since 2012, coinciding with and increasing as the use of performance-based navigation at Logan has been implemented.”

Like the 2017 ESPR, the 2022 ESPR does not discuss the importance of noise annoyance as a factor of environmental impact and harm. Noise annoyance in the Logan overflight communities – which includes lack of sleep, disrupted and interrupted sleep, interrupted conversation, and impacts on use of outside spaces such as decks and yards, playgrounds, parks, and civic spaces – is growing. This noise annoyance is not simple NIMBYism. It is a public health issue, as further discussed below. These are real impacts, suffered by real people, who live in nearby communities. It is outrageous that Massport virtually ignores these complaints in the 2022 ESPR, and still has no plan in place to address impacts on these citizens. The closest analogy is climate change, which impacts the day-to-day lives of many citizens. Further, like climate change, the noise from Logan operations impacts citizens across town boundaries, yet no one community is empowered to find a solution. Instead, we must turn to our leaders at the State level, including the EOEEA, for oversight, empowerment, and solutions.

2. Nighttime Operations

Nighttime operations at Logan are defined as flights between 10:00 P.M. and 7:00 A.M. Massport notes that, in 2022, Logan had approximately 137 commercial nighttime operations per night. That represents a 27% decrease from 2019, in which there were 186 commercial nighttime operations per night. *See* Table 7-4. That decrease is irrelevant, because it relates to the slow recovery of air travel from the COVID-19 pandemic.

Table 7-4 shows an upward trend in commercial nighttime operations between 1990 and 2019. Total commercial nighttime operations increased by more than 141% from 1990 to

2019. Half of that increase occurred during the nine (9) years before 2019. From 2010 to 2019, the increase was almost 73%.

Although the noise complaint data is not broken down by time of day, it follows that some portion of the complaints in Milton and other communities is driven by increased nighttime operations. Data continues to be developed which indicates airplane noise in overflowed communities disrupts sleep patterns, which has been shown to result in adverse human health impacts. Many Milton residents continue to complain about noise from airplanes flying over their homes both after midnight and before 5:00 A.M.

Information from Milton residents indicates that the noise from airplanes in Milton is clearly heard above background noise in both commercial and residential areas. As elected officials, we hear frequently from Milton residents who suffer from interrupted sleep, anxiety and a reduced quality of life because of the noise pollution caused by very frequent – and some days continuous – flights over Milton at low altitudes. We cannot overstate the seriousness of the health problems that these RNAVs cumulatively pose for Milton residents, and the adverse cumulative environmental impact that the RNAVs and the low flying planes have on our entire community. Noise from airplane overflights can also negatively impact property values.

We request that the Secretary work with the FAA, Massport, and Milton to implement late night aircraft restrictions, similar to those set forth in 740 CMR 24.04, which are protective of Milton and its residents, as well as EJ populations in and around Milton. In particular, it is important to discuss restrictions on RNAV usage and routes that overfly residential neighborhoods, including spreading the routes further so that the nighttime noise is less concentrated in residential neighborhoods, or moving routes over the ocean during certain periods of time. Specifically, as there are already nighttime restrictions on arrivals to Runway 4L, we request the same restrictions (no arrivals between 11:00 PM and 6:00 AM) for Runway 4R. *See* Massachusetts Port Authority Noise Rules and Regulations I.1(b), Summary of Runway Use Restrictions, Boston Logan International Airport (May 2, 2016) (also referenced in FAA BOS ATCT Noise Abatement Order 7040.1H).

3. Air Pollution and Public Health

The 2022 ESPR only discusses air pollution from airport operations in the context of the actual operations of Logan airport, on Logan property. We repeat our comments to the 2014, 2015 and 2018-2019 EDRs and the 2017 ESPR that this perspective is overly and conveniently narrow. A study of Los Angeles International Airport (“LAX”) (Hudda, *et al.*, May 2014) found ultrafine particle (“UFP”) counts as far as ten miles from heavily used arrival runways at LAX. UFPs are believed to have negative effects on respiratory and cardiovascular health in humans. Massport does not dispute that UFP pollution is an issue at Logan⁴. As we were in 2019, we are disappointed that the 2022 ESPR did not consider the developed science on this important environmental impact to the citizens living in the Logan overflight area. The health of our residents, employees, and visitors depends upon policy and operational procedures that takes this data into account.

⁴ <https://www.wgbh.org/news/local-news/2019/09/24/air-pollution-from-logan-airport-harms-surrounding-communities-research-shows>

We request that the Secretary direct Massport, in conjunction with DPH and the Department of Environmental Protection (“DEP”), to conduct noise and air pollution studies in Milton and other overflight communities that receive a substantial number of low-flying arrival aircraft. This work would be consistent with the evolving science on this point, and protective of the residents in these communities. We further request that (a) the scope of future ESPRs and EDRs be expanded to consider the health impacts from increased and concentrated arrival and departure operations due to RNAVs, and (b) pollution data be measured for every community under any of the many Logan RNAVs.⁵

4. Dwell and Persistence

Dwell and persistence relate to the length of time that noise impacts occur. As defined by Massport, dwell is a daily measure while persistence is calculated over a period of 3 days. Both measures define exceedance as being more than a set number of hours of operation between 7:00 AM and midnight (7 hours for dwell, 23 hours for persistence), meaning that the nighttime operations that Milton is often subjected to are not counted towards this measure. Also, in contrast to the annual Preferential Runway Advisory System (“PRAS”) goals,⁶ Massport uses the number of hours the runway is in operation, not the actual number of operations that take place on that runway, creating a misleading and inaccurate picture of what is happening on the ground.

The omission of night-time operations from the dwell and persistence calculations harms communities like Milton because it discounts the negative impact that constant operations have on daily life by ignoring the existence of sleep interruption created by these nighttime flights. This forecasted rise in air traffic means that more flights will be overhead when residents are trying to sleep at a time when Massport regularly fails to optimize over-water operations during nighttime hours.

6. Conclusion

Thank you for your attention to and consideration of our comments on the 2022 ESPR. The MIT Study and its recommendations with respect to Runways 4R and 27 demonstrate that there are solutions available to remedy and mitigate the ongoing impact of Logan operations on the residents of Milton and other overflight communities. We request that the Secretary work with Massport, Milton, the MCAC, and other affected communities to help remedy the multiple impacts discussed above.

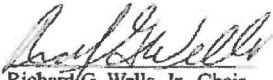
⁵ In our comment letter on the 2017 ESPR, we asked the EOEEA to ensure that no new RNAV overflight paths be put into use until such study is complete and all parties agree that no additional detrimental effects will be experienced by residents in communities bearing the brunt of low-flying airplane overflight. Notwithstanding this, and our opposition to the FAA’s 4L RNAV, the FAA implemented the 4L RNAV over Milton in 2022.

⁶ As noted above, although PRAS was abandoned many years ago, Massport continues to use PRAS for public reporting purposes. See 2022 ESPR, page 7-18.

As noted above, we seek a meeting with you and your staff to personally discuss the concerns we have outlined here, as well as our specific requests for assistance. Our Town Administrator, Nicholas Milano, will follow up with your office to schedule a meeting.

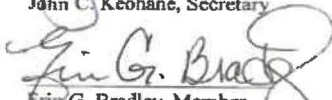
Sincerely,

Select Board of the Town of Milton


Richard G. Wells, Jr., Chair


Roxanne F. Musto, Vice Chair


John C. Keohane, Secretary


Erin G. Bradley, Member


Benjamin D. Zoll, Member

cc: U.S. Representative Stephen F. Lynch
U.S. Representative Ayanna S. Pressley
U.S. Senator Elizabeth A. Warren
U.S. Senator Edward J. Markey
State Senator Walter F. Timilty Jr.
State Representative William J. Driscoll Jr.
State Representative Brandy Fluker Oakley
Milton Board of Health
Milton Airplane Noise Advisory Committee
Town Administrator Nicholas Milano
Assistant Town Administrator Nicholas Connors
Town Counsel Karis North

Exhibit A

Milton's November 14, 2019 comment letter re: 2017 ESPR

See attached.



MICHAEL D. DENNEHY
TOWN ADMINISTRATOR

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON

OFFICE OF THE SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186

TEL. 617-898-4843
FAX 617-698-6741

SELECT BOARD

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KATHLEEN M. CONLON
MEMBER

RICHARD G. WELLS, JR.
MEMBER

November 14, 2019

The Honorable Kathleen A. Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Massachusetts Environmental Policy Act ("MEPA") Office
Anne Canaday, EEA No. 3247
100 Cambridge Street, Suite 900
Boston, MA 02114

**Re: Comments of the Town of Milton on the Boston Logan International Airport 2017
Environmental Status and Planning Report (2017 ESPR)**

Dear Secretary Theoharides,

The Select Board of the Town of Milton ("Milton") is pleased to provide the following comments in response to the Boston Logan International Airport 2017 Environmental Status and Planning Report ("2017 ESPR"):

1. Scope of the 2017 ESPR

In Milton's January 2017 comments to Massport's 2015 Environmental Data Report ("EDR"), we noted several concerns we sought to be addressed in the 2016 ESPR (deferred to 2017):

- A. The off-airport impacts of the growth of Boston Logan International Airport ("Logan"), including increased throughput and increased aircraft operations. We were specifically concerned about how the increased demand for airport services impacts the surrounding communities, including increasing the volume and concentration of overflights, and increasing the amount of nighttime operations and nighttime overflights. We noted that each of these impacts must be studied in order to have a true assessment of the environmental impacts resulting from operations at Logan.

We appreciate that the 2017 ESPR does address some off-airport impacts of Logan operations. However, we feel the bulk of the report is still focused on the environmental impact of operations at Logan, rather than around Logan. Failing to

fully address off-airport impacts ignores the robust science that demonstrates that airport operations can impact communities as far as 10 miles beyond the airport location, particularly where those communities are overflowed by multiple RNAVs and the aircraft traffic is concentrated and persistent.

- B. We were and remain concerned that there is no analysis of the cumulative impacts from increasing numbers of RNAVs flown over surrounding communities. As discussed in numerous other comment letters, there are three RNAVs that overfly Milton, with two others proposed. Looking at these impacts in isolation does not provide an actual assessment of on-the-ground impacts – some of which are reflected in the increasing number of noise complaints filed in these communities.
- C. We urged, and we repeat this request, that Massport and the Secretary must move to a more updated method for noise assessment (e.g., N70, which focuses on the number of noise events greater than 70 dB(A)¹), and either discontinue using the DNL standard, or reduce the threshold at which noise impacts are considered significant, as well as increase the frequency with which it is calculated. The logarithmic nature of the DNL standard, which has been widely criticized, combined with the fact that this calculation is most often calculated on an annual basis “masks” the acute impacts a succession of aircraft flying over a home has on the sleeping residents within, and also masks the acute impacts felt in a community when it is overflowed for hours on end, with little break in the incoming aircraft. Massport has the ability to calculate DNL on a much more frequent basis, and is supposed to be calculating this figure monthly but chooses not to do so. Calculating DNL across shorter time periods (e.g., monthly, weekly), would provide a more accurate indication of the suffering that Milton residents are enduring as a result of concentrated flightpaths and long hours of overuse, and would compel Massport to act to reduce airplane noise in Milton and other communities.
- D. We continue to urge real and substantive collaboration between Massport, the Secretary, and the communities impacted by Logan overflights. Multiple communities surrounding Logan (not just Milton) take the brunt of the impact of the operations of Logan, and the situation has worsened substantially since the FAA implemented NextGen. These communities should have direct and regular access to Massport and the Secretary, and both agencies should be willing to work on real and meaningful solutions to address the problems from airport operations – especially noise and pollution -- occurring in those communities. While we understand some of that work must be done via the Massport Community Advisory Committee (“MCAC”), the large size and the organization of the MCAC has the unintentional effect of diluting the voices of the most affected communities. With respect to the MIT study, three years after it began, Milton’s requests for specific analysis and relief through that study have not yet been acted upon.

¹https://www.infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/files/1.3_Guideline_A_attachment1.pdf

2. Increased Airport Operations and Impacts on Surrounding Communities

Massport consistently undersells the increased number of airline operations and passenger throughput at Logan, by comparing aircraft operation numbers to pre-2000 data. This comparison is no longer valid, as airlines have significantly changed their modes of operation in the intervening 15 years, by relying on progressively larger airplanes, with progressively larger, more powerful, and louder jet engines. Further, the implementation of the FAA's RNAV systems has also changed how aircraft arrive and depart over surrounding communities.

It is important that Massport's forecasting through its ESPR be correct, as that forecast becomes the basis for planning and mitigation of the impacts of Logan operations for the next five years (at least). Massport's forecasting of growth as set forth in the 2011 ESPR was off by as much as 300%. According to that document, Logan throughput would grow by approximately 1.5% per year, and Logan would handle 38.9 million passengers by 2030. Instead, the 2017 ESPR reports that Logan surpassed 38.9 million passengers in 2017, 13 years ahead of forecasts. Passenger counts (and increased environmental impact from those passengers on the airport and off of the airport, including in the surrounding communities overflown by airport operations) increased by 12 million passengers, to 40.9 million in 2018.

This is hardly surprising. In our 2015 EDR comments we indicated that we believed the growth in airport passenger traffic and airport operations would continue to increase. As set forth in the text above, the 2017 ESPR proves our beliefs to be correct. What is missing from the analysis, however, is recognition that these operations come with a cost -- the impacts to Milton and other communities continue to increase. While we understand and support Logan's role in the economic development of New England, we believe that development cannot come at the price of the right of citizens to peacefully co-exist within their homes. There needs to be a better balance between the economic success of the region and the duty of Massport and the airline community to protect the neighbors and communities underneath the publicly owned airspace through which they travel.

Such rapid growth is only going to continue, but once again, Massport under-projects growth. The 2017 ESPR growth forecasts predict 50 million passengers within the next 10-15 years. However, with the present 5% annual growth,² increasing operations of JetBlue and Delta which

² According to the 2017 ESPR (p. 2-3):

Logan Airport is an important origin and destination (O&D) airport both nationally and internationally and is one of the fastest growing major U.S. airports in terms of number of passengers over the past five years. From 2016 to 2017, U.S. passenger traffic grew by 3.5 percent, whereas Logan Airport experienced a passenger growth of 5.9 percent. In 2017, passenger activity levels reached an all-time high of 38.4 million passengers and aircraft operations totaled 401,371, in direct response to the strong national and regional economies. In 2018, passenger activity levels reached 40.9 million and aircraft operations totaled 424,024. Despite the increase in passengers, aircraft operations at Logan Airport for both 2017 and 2018 remained well below the 487,996 operations in 2000 and the historic peak of 507,449 operations reached in 1998 (Figure 2-1 and Figure 2-2). This has been the result of a steady increase in aircraft size at the Airport and improving aircraft load factors (passengers/available seats). Note also, as mentioned above, that JetBlue and Delta are building hubs at Logan.

are building competing hubs at Logan,³ and the improvements to Terminal E bringing in even more international flights, 50 million passengers will be reached by 2022, or 8-12 years ahead of the 2017 ESPR forecasts. Given Massport's persistent understatement of the growth of its Logan operations, we believe the Secretary should not accept the 2017 ESPR as an accurate baseline planning tool without further scrutiny, and should require Massport to justify and explain why its ESPR projections consistently fall short of foreseeable growth rates.

3. Increased Noise Complaints Reported

Table 6-22 demonstrates that no single community made as many complaints on the Noise Complaint Line as Milton, although the numbers for other communities are catching up. Overall, and in Milton, both the number of complaints and the number of callers has increased. In 2016 Massport received 21,796 complaints from 466 callers. Those numbers increased to 23,940 complaints from 486 individual callers in 2017. For reference, the 2014 EDR reported 2,669 complaints and 4,991 were reported in the 2015 EDR. That represents almost a 900% increase in the number of complaints filed. Overall, Massport reports an 89% increase in the number of individual complainers on the noise complaint line, from 2016 to 2017 in all 15 reported overflowed communities. Complaints on the Massport complaint line from Milton have continued to increase since 2012, coinciding with and increasing as the use of performance-based navigation at Logan has been implemented.

The 2017 ESPR does not discuss the importance of noise annoyance as a factor of environmental impact and harm. Noise annoyance in the Logan overflight communities -- which includes lack of sleep, disrupted and interrupted sleep, interrupted conversation, and impacts on use of outside spaces such as decks and yards, playgrounds, and civic spaces -- is growing. This noise annoyance is not simple NIMBYism, it is a public health issue, as further discussed below. These are real impacts, suffered by real people, who live in nearby communities. It is outrageous that Massport virtually ignores these complaints in the 2017 ESPR, and still has no plan in place to address impacts on these citizens. The closest analogy is climate change, which impacts the day-to-day lives of many citizens. Further, like climate change, the noise from Logan operations impacts citizens across boundaries, yet no one community is empowered to find a solution. Instead, we must turn to our leaders at the state level, including the EOEEA for oversight, empowerment, and solutions.

4. Increased Nighttime Operations

Nighttime operations at Logan -- defined as from 10:00 P.M. to 7:00 A.M. -- continue to increase. Nighttime operations increased by 15% from 2016 to 2017 (Table 6-4). Total nighttime operations have increased by almost 100% since 1990.

Although the noise complaint data is not broken down by time of day (either that the complaint was filed, or that the complaint concerned), it follows that some portion of the increase in complaints in Milton and other communities is driven by increased nighttime operations. Data

³ <https://www.forbes.com/sites/tedreed/2019/07/23/jetblue-to-delta-in-boston-come-and-get-us/#556512660cc8>

continues to be developed which indicates airplane noise in overflowed communities disrupts sleep patterns, which has been shown to result in adverse human health impacts.

Information from Milton residents indicate that the noise from airplanes in Milton is clearly heard above background noise in both commercial and residential areas. As elected officials, we hear frequently from Milton residents who suffer from interrupted sleep, anxiety and a reduced quality of life because of the noise pollution caused by very frequent – and some days continuous – flights over Milton at low altitudes. Indeed, this is one of the two most common requests for relief we receive from residents. We cannot overstate the seriousness of the health problems that these RNAVs cumulatively pose for Milton residents, and the adverse cumulative environmental impact that the RNAVs and the low flying planes have on our entire community. The noise from airplane overflights can also negatively impact property values. Fewer buyers are willing to purchase a home in an area with known noise impacts, and prices can be suppressed. Meanwhile, recent buyers have been vocal on social media that they would not have purchased a home in Milton had they been aware of the amount of airplane noise in the town.

We request that the Secretary work with the FAA, Massport, and Milton to implement late night aircraft restrictions, similar to those set forth in 740 CMR 24.04, which are protective of Milton and its residents. In particular, it is important to discuss restrictions on RNAV usage and routes that overfly residential neighborhoods, including spreading the routes further so that the nighttime noise is less concentrated in residential neighborhoods, or moving routes over the ocean during certain periods of time. Specifically, as there are already nighttime restrictions on arrivals to runway 4L, we request the same restrictions (no arrivals between 11:00 PM and 6:00 AM) for runway 4R. See Massachusetts Port Authority Noise Rules and Regulations I.1(b), Summary of Runway Use Restrictions, Boston Logan International Airport (May 2, 2016) (also referenced in FAA BOS ATCT Noise Abatement Order 7040.1H). In addition, early-morning departures from runway 27 also routinely overfly Milton and the other communities under the runway 27 RNAV.

5. Air Pollution and Public Health.

The 2017 ESPR only discusses air pollution from airport operations in the context of the actual operations of Logan airport, on Logan property. We repeat our comments to the 2014 and 2015 EDRs that this perspective is overly and conveniently narrow. Recent studies at LAX (Hudda, et al., May 2014) found ultrafine particle (UFP) counts as far as ten miles from heavily used arrival runways. Although study of the negative effects of UFPs are ongoing, UFPs are believed to have negative effects on respiratory and cardiovascular health in humans, and Massport does not dispute that UFP pollution is an issue at Logan⁴. We are disappointed that the 2017 ESPR did not consider the developed science on this important environmental impact to the citizens living in the Logan overflight area. The health of our residents, employees, and visitors depends upon policy and operational procedures that takes this data into account.

We request that the Secretary direct Massport, in conjunction with the Department of Public Health (“DPH”) and the Department of Environmental Protection (“DEP”), to conduct noise and

⁴ <https://www.wgbh.org/news/local-news/2019/09/24/air-pollution-from-logan-airport-harms-surrounding-communities-research-shows>

air pollution studies in communities like Milton which receive a substantial number of low-flying arrival aircraft. This work would be consistent with the evolving science on this point, and protective of the residents in these communities. We further request that the scope of the future EDRs be expanded to consider the health impacts from increased and concentrated arrival and departure operations due to RNAVs, and that pollution data be measured for every community under any of the many Logan RNAVs, and that no new RNAV overflight paths be put into use until such study is complete and all parties agree that no additional detrimental effects will be experienced by residents in communities bearing the brunt of low-flying airplane overflight.

6. Dwell and Persistence

Dwell and persistence relate to the length of time that noise impacts occur. As defined by Massport, dwell is a daily measure while persistence is calculated over a period of 3 days. Both measures define exceedance as being more than a set number of hours of operation between 7:00 AM and midnight (7 hours for dwell, 23 hours for persistence), meaning that the nighttime operations that Milton is often subjected to are not counted towards this measure. Also, in contrast to the annual Preferential Runway Advisory System (“PRAS”) goals, Massport uses the number of hours the runway is in operation, not the actual number of operations that take place on that runway, creating a misleading and inaccurate picture of what is happening on the ground.

For example, Figure 6-17, creates the false impression that dwell and persistence exceedance is a relatively small issue for people living under the 4s even though the 4s typically see the plurality of operations annually.⁵ The reason for this is two-fold:

1. As defined, the period from midnight to 7:00 AM is not counted in these figures. Therefore, Milton could – and does – see constant air traffic through the night but not have this traffic count towards dwell and persistence exceedance counts.
2. Some runways are given “credit” towards dwell and persistence exceedance counts because they are available for use but are not experiencing any flight operations.⁶

This omission of night-time operations from the dwell and persistence calculations harms communities like Milton because it discounts the negative impact that constant operations have on daily life by ignoring the existence of sleep interruption created by these nighttime flights. This rise in air traffic means that more flights will be overhead when residents are trying to sleep at a time when a) Massport’s calculations are demonstrably understated (in Table 6-20, Massport predicts that nighttime flights will only reach 167.75 per day for the Future Planning Horizon –

⁵ 2017 was an anomalous year as Runway 4R/22L was closed from May 15 - June 23, 2017 and had reduced availability through September 15th for 4R arrivals because of construction at Logan. In comparison, arrivals to 4R and 4L totaled (57,899 to 4R and 7,274 to 4L) in 2018, or 35.3% of all arrivals for the year. Also – please note that Table 6-6 erroneously notes this anomalous decline as an improvement in effective usage for 4R/L under PRAS.

⁶ Logan will often report that 15R is available for arrivals when 4R is in use, giving 15R “credit” towards dwell and persistence calculations. However, arrivals on 15R are rarely if ever observed at times when 4R is in use, as demonstrated by the disparity in arrival numbers. In the anomalous 2017, 4R saw 21.6% of arrivals compared to 15R’s 4.4%. The 2018 figures are more indicative of a typical year as 4R saw 31.4% of arrivals and 15R saw but 0.4%.

an increase of 0.15% despite double-digit growth in the years prior), and b) Massport regularly fails to optimize over-water operations during nighttime hours.

7. Conclusion and Request for Assistance.

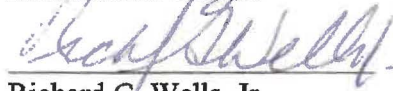
Thank you for your attention to and consideration of our comments on the 2017 ESRP. We believe that there can be solutions available to remedy and mitigate the ongoing impact of Logan operations on the residents of Milton. We request that the Secretary work with Massport, Milton, the MCAC, and other affected communities to help remedy the multiple impacts discussed above. Specifically, the requests made are as follows:

- a. Not to certify the 2017 ESRP and to direct Massport to prepare a Supplemental ESRP which fully and realistically addresses projected increases to Logan operations and airport throughput, and the resulting environmental impacts;
- b. Work with the FAA, Massport, and Milton to develop and implement late-night aircraft overflight restrictions which are protective of Milton and its residents, including consideration of an 11:00 PM to 6:00 AM landing prohibition on runway 4R;
- c. Direct Massport and the MCAC to promptly develop a system for the fair and equitable distribution of aircraft overflights that provides real relief to the highly impacted surrounding communities, especially those that are under multiple RNAVs;
- d. Direct Massport to collaborate with DPH and DEP to develop and conduct noise and air pollution studies in highly impacted surrounding communities, especially those that are under multiple RNAVs;
- e. Direct Massport to consider off-airport noise and pollution impacts, including but not limited to the health impacts from increased and concentrated arrival and departure operations due to RNAVs, in all communities under any RNAV, in all future EDRs
- f. Direct Massport to include all of the points made above in the scope of the 2017 ESRP. This includes impacts to health from noise and pollution from: off-airport impacts of growth, cumulative impacts of RNAV overflights, increased nighttime operations, moving to updated noise measurements which are more protective of human health and which account for acute impacts more realistically than the DNL standard; and working directly with impacted communities to more fully understand and evaluate the human health effects from Logan operations.
- g. Include the hours from midnight to 7:00 AM in the dwell and persistence calculations to provide a clearer indication of the noise burden being borne by communities subject to nighttime operations.

We would appreciate a time to meet with you and your staff to personally discuss the concerns we have outlined here, as well as our specific requests for assistance.

Sincerely,

Select Board of the Town of Milton


Michael F. Zullas, Chair
Melinda A. Collins, Vice Chair
Anthony J. Farrington
Kathleen M. Conlon
Richard G. Wells, Jr.

cc: Representative Stephen F. Lynch
Representative Ayanna Pressley
U.S. Senator Elizabeth A. Warren
U.S. Senator Edward J. Markey
State Senator Walter F. Timilty
State Representative William Driscoll
State Representative Daniel Cullinane
Milton Board of Health
Milton Airplane Noise Advisory Committee Chair Andrew Schmidt
MCAC Representative Thomas Dougherty
Town Counsel Karis North

Exhibit B

Milton's March 12, 2021 comment letter re: 2018-2019 EDR

See attached.



MICHAEL D. DENNEHY
TOWN ADMINISTRATOR

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON
OFFICE OF SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186
Telephone: 617-898-4843
Fax: 617-698-6741

SELECT BOARD
MELINDA A. COLLINS
CHAIR
KATHLEEN M. CONLON
VICE CHAIR
ARTHUR J. DOYLE
SECRETARY
RICHARD G. WELLS, JR.
MEMBER
MICHAEL F. ZULLAS
MEMBER

March 12, 2021

The Honorable Kathleen A. Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Massachusetts Environmental Policy Act ("MEPA") Office
Anne Canaday, EEA No. 3247
100 Cambridge Street, Suite 900
Boston, MA 02114

via EMAIL to env.internet@mass.gov and anne.canaday@mass.gov

Re: Comments of the Town of Milton on the Boston Logan International Airport 2018-2019 Environmental Data Report (2018-2019 EDR)

Dear Secretary Theoharides,

The Select Board of the Town of Milton ("Milton") is pleased to provide the following comments in response to the Boston Logan International Airport 2018-2019 Environmental Data Report (2018-2019 EDR).

We understand that this combined 2018-2019 EDR was prepared during the ongoing COVID-19 pandemic and includes updates through the fall of 2020. We note that the dramatic reduction in passengers and flight operations has provided some respite to the ongoing airplane noise and pollution issues experienced in Milton, but still no real solutions have been proposed to successfully insulate the on-the-ground impacts from increasing airplane overflights on the Logan Airport surrounding communities. We urge Massport and the FAA to use this period of respite to continue to consider the impacts noise and pollution has on your neighbors and customers.

1. Scope of the 2018-2019 EDR

Milton summarizes and repeats its comments on the 2017 ESPR concerning scope of Massport's review of environmental impacts, as we are specifically concerned about how the increased demand for airport services impacts the surrounding communities, including increasing the

volume and concentration of overflights, and increasing the amount of nighttime operations and nighttime overflights.

As is typical with these EDRs and the ESPR, the focus remains on environmental impact of operations at Logan, rather than around Logan. Failing to fully address off-airport impacts ignores the robust science that demonstrates that airport operations can impact communities as far as 10 miles beyond the airport location, particularly where those communities are overflowed by multiple RNAVs and the aircraft traffic is concentrated and persistent.

2. Cumulative Impacts Analysis and PRAS

We repeat the need for an analysis of the cumulative impacts from increasing numbers of RNAVs flown over surrounding communities. As discussed in numerous other comment letters, there are three RNAVs that overfly Milton, with two others proposed. Looking at these impacts in isolation does not provide an actual assessment of on-the-ground impacts – some of which are reflected in the increasing number of noise complaints filed in these communities. Neither the EDRs, the ESPRs, nor the proposed rulemaking for the 4L RNAV approach appropriately analyzes cumulative impacts – and such analysis is required by law.

As defined in the FAA’s own guidance (Order 1051.1F), cumulative impacts are those that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, whether Federal or non-Federal. The Massachusetts Environmental Protection Act (MEPA) also requires that projects be analyzed together, and segmentation to evade analysis of cumulative impacts is prohibited. While not directly applicable to the EDR analysis, the same theory applies -- when analyzing the environmental impacts of Massport operations, the off-premises operations must be analyzed in toto, and not evaluated in separate boxes.

When cumulative impacts are analyzed appropriately, then those impacts may be appropriately distributed among the impacted communities. This was the concept behind the Preferential Runway Advisory System (PRAS), which was unfortunately abandoned in 2012. PRAS was established “to provide an equitable distribution of Logan Airport’s noise impacts on surrounding communities.” The two primary objectives of the PRAS goals are: (1) to distribute noise on an annual basis; and (2) to provide short-term relief from continuous operations over the same neighborhoods at the ends of the runways. See EDR, page 6-19.

While no other guidelines are in place, Massport still reports runway usage with respect to the PRAS goals (Table 6-6). The PRAS goals offer at least some picture of what a fair distribution of aircraft traffic might look like using one particular tool, i.e. differential runways (being mindful that these PRAS goals were created well before RNAV concentrated flight routes were implemented). Thus, at this stage, only achieving balanced runway usage would not be sufficient to relieve those under the RNAVs, although it would be a step in the right direction.

Ultimately, a fair resolution of these ongoing noise issues in Milton will require further dispersion of the aircraft traffic from the concentrated RNAVs.

Milton continues to be ready to work on these equity issues, either via the MCAC, or directly with Massport and the EEA agencies. The 2018-2019 EDR's response to Milton's prior comments concerning equitable runway use, and a fair allocation of noise distribution, as set forth in section 7-2 to 7-4 of the Appendix is wholly insufficient. The response simply throws up its hands and shifts the burden of developing a procedure to the MCAC. As we all know, leaving it to the communities is unproductive, and pits neighbors against each other. We again request that the Secretary direct Massport and the EEA agencies, with the support of the MCAC, to promptly develop a system for the fair and equitable distribution of aircraft overflights that provides real relief to the highly impacted surrounding communities.

3. Evaluation and Updating of Noise Metric

We urged, and we repeat this request- Massport and the Secretary must move to a more updated method for noise assessment using currently available noise measurements (e.g., N70, which focuses on the number of noise events greater than 70 dB(A)¹ or Lmax²), and either discontinue using the DNL standard, or supplement its use with these additional metrics. The logarithmic nature of the DNL standard, which has been widely criticized, combined with the fact that this calculation is most often calculated on an annual basis "masks" the acute impacts a succession of aircraft flying over a home has on the sleeping residents within, and also masks the acute impacts felt in a community when it is overflowed for hours on end, with little break in the incoming aircraft. Massport has the ability to calculate DNL on a much more frequent basis, and is supposed to be calculating this figure monthly but chooses not to do so. Calculating DNL across shorter time periods (e.g., monthly, weekly) would provide a more accurate indication of the suffering that Milton residents are enduring as a result of concentrated flightpaths and long hours of overuse, and would compel Massport to act to reduce airplane noise in Milton and other communities.

Massport's responses to Milton's comments from the 2017 ESPR are not encouraging. It simply notes, vaguely, that Massport uses a variety of noise metrics and measurements. This is not enough. There is significant evidence that the DNL significantly under-measures noise and annoyance. FAA has recognized this in the 1050.1F guidelines, and suggests that DNL can be supplemented. The guidance states:

DNL analysis may optionally be supplemented on a case-by-case basis to characterize specific noise impacts. Because of the diversity of situations, the

¹https://www.infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/files/1.3_Guideline_A_attachment1.pdf

² The Lmax measurement measures "maximum sound level" during a single event. This measurement is successfully used by the Federal Highway Administration (FHA), a DOT agency just like FAA.

variety of supplemental metrics available, and the limitations of individual supplemental metrics, the FICON report concluded that the use of supplemental metrics to analyze noise should remain at the discretion of individual agencies.

In comments we are also submitting this month on the Neighborhood Environmental Survey (NES), we make a similar point. DNL under-measures noise and annoyance, because it dilutes measurement of noise annoyance during in-use runway days by inclusion of days not in-use, and it fails to take into account the noise disturbance contribution of peak-time continual short-interval overflight aircraft separation. Supplemental metrics (which already exist) lower the measurement threshold for particular hours (like overnight), or take into account the short interval between noise events, are necessary to make the noise and sound measurement real and useful, in working with impacted overflight communities. We urge the Secretary to require Massport to update its measurements to use these supplemental metrics, when evaluating the impacts of airplane noise on the communities surrounding Logan.

4. Collaboration

We continue to urge real and substantive collaboration between Massport, the Secretary, and the communities impacted by Logan overflights. Multiple communities surrounding Logan (not just Milton) take the brunt of the impact of the operations of Logan, and the situation has worsened substantially since the FAA implemented NextGen. While, as noted above, the pandemic has lessened these impacts, the respite is temporary and now is the time to build better communications and collaboration for a region-wide approach to overflight noise, annoyance, and pollution. Direct and regular access to Massport and the Secretary/all EEA agencies may help develop real and meaningful solutions to address the problems from airport operations – especially noise and pollution -- occurring in those communities. While we understand some of that work must be done via the Massport Community Advisory Committee (“MCAC”), the large size and the organization of the MCAC has the unintentional effect of diluting the voices of the most affected communities. With respect to the MIT study, four years after it began, Milton’s requests for specific analysis and relief through that study remains incomplete.

3. Increased Noise Complaints Reported

Table 6-16 demonstrates that no single community made as many complaints on the Noise Complaint Line as Milton, although the numbers for other communities are catching up. Overall, and in Milton, both the number of complaints and the number of callers continues to increase. Table 6-16 reports a total increase in calls from Milton in 2018 - 10,962 and total a further increase in calls in 2019 - 6,673. Total calls in 2018 were 34,902, and in 2019 were 41,575. For reference, the 2014 EDR reported 2,669 complaints and 4,991 were reported in the 2015 EDR. That represents over a 1000% increase in the number of complaints filed. Overall, Massport reports more than a 400% increase in the number of individual complainers on the noise complaint line, from 2017 to 2019 in all 15 reported overflowed communities. Complaints

on the Massport complaint line from Milton have continued to increase since 2012, coinciding with and increasing as the use of performance-based navigation at Logan has been implemented.

The 2018-2019 EDR continues to ignore the importance of noise annoyance as a factor of environmental impact and harm. Noise annoyance in the Logan overflight communities -- which includes lack of sleep, disrupted and interrupted sleep, interrupted conversation, and impacts on use of outside spaces such as decks and yards, playgrounds, and civic spaces -- is growing. This noise annoyance is not simple NIMBYism, it is a public health issue, as further discussed below. These are real impacts, suffered by real people, who live in nearby communities. It is outrageous that Massport virtually ignores these complaints in the 2018-2019 EDR, and still has no plan in place to address impacts on these citizens. The noise from Logan operations impacts citizens across boundaries, yet no one community is empowered to find a solution. Instead, we must turn to our leaders at the state level, including the EOEEA for oversight, empowerment, and solutions.

4. Increased Nighttime Operations

Nighttime operations at Logan -- defined as from 10:00 P.M. to 7:00 A.M. -- continue to increase steadily. Nighttime operations increased by 15% from 2016 to 2017 increased again, by another 5.1% from 2018-2019 (Table 6-4). Total nighttime operations have more than doubled since 1990.

Although the noise complaint data is not broken down by time of day (either that the complaint was filed, or that the complaint concerned), it follows that some portion of the increase in complaints in Milton and other communities is driven by increased nighttime operations. Data continues to be developed which indicates airplane noise in overflowed communities disrupts sleep patterns, which has been shown to result in adverse human health impacts.

Information from Milton residents indicate that the noise from airplanes in Milton is clearly heard above background noise in both commercial and residential areas. As elected officials, we hear frequently from Milton residents who suffer from interrupted sleep, anxiety and a reduced quality of life because of the noise pollution caused by very frequent -- and some days continuous -- flights over Milton at low altitudes. Indeed, this is one of the two most common requests for relief we receive from residents. We cannot overstate the seriousness of the health problems that these RNAVs cumulatively pose for Milton residents, and the adverse cumulative environmental impact that the RNAVs and the low flying planes have on our entire community. The noise from airplane overflights can also negatively impact property values. Fewer buyers are willing to purchase a home in an area with known noise impacts, and prices can be suppressed. Meanwhile, recent buyers have been vocal on social media that they would not have purchased a home in Milton had they been aware of the amount of airplane noise in the town.

We repeat the request we made in our comments to the 2017 ESPR, which were not sufficiently addressed in Appendix 7 to the 2018-2019 EDR, that the Secretary work with the FAA,

Massport, and Milton to implement late night aircraft restrictions, similar to those set forth in 740 CMR 24.04, which are protective of Milton and its residents. In particular, it is important to discuss restrictions on RNAV usage and routes that overfly residential neighborhoods, including spreading the routes further so that the nighttime noise is less concentrated in residential neighborhoods, or moving routes over the ocean during certain periods of time. Specifically, as there are already nighttime restrictions on arrivals to runway 4L, we request the same restrictions (no arrivals between 11:00 PM and 6:00 AM) for runway 4R. See Massachusetts Port Authority Noise Rules and Regulations I.1(b), Summary of Runway Use Restrictions, Boston Logan International Airport (May 2, 2016) (also referenced in FAA BOS ATCT Noise Abatement Order 7040.1H). In addition, early-morning departures from runway 27 also routinely overfly Milton and the other communities under the runway 27 RNAV.

5. Air Pollution and Public Health.

Once again the 2018-2019 EDR only discusses air pollution from airport operations in the context of the actual operations of Logan airport, on Logan property. We repeat our comments to the 2014 and 2015 EDRs, and the 2017 ESPR, that this perspective is overly and conveniently narrow. Recent studies at LAX (Hudda, et al., May 2014) found ultrafine particle (UFP) counts as far as ten miles from heavily used arrival runways. Although study of the negative effects of UFPs are ongoing, UFPs are believed to have negative effects on respiratory and cardiovascular health in humans, and Massport does not dispute that UFP pollution is an issue at Logan³. We are disappointed that the 2018-2019 EDR did not consider the developed science on this important environmental impact to the citizens living in the Logan overflight area. The health of our residents, employees, and visitors depends upon policy and operational procedures that takes this data into account.

We repeat the request we made in our comments to the 2017 ESPR, which were not sufficiently addressed in Appendix 7 to the 2018-2019 EDR, that the Secretary direct Massport, in conjunction with the Department of Public Health (“DPH”) and the Department of Environmental Protection (“DEP”), to conduct noise and air pollution studies in communities like Milton which receive a substantial number of low-flying arrival aircraft. This work would be consistent with the evolving science on this point, and protective of the residents in these communities. We further request that the scope of the future EDRs be expanded to consider the health impacts from increased and concentrated arrival and departure operations due to RNAVs, and that pollution data be measured for every community under any of the many Logan RNAVs, and that no new RNAV overflight paths be put into use until such study is complete and all parties agree that no additional detrimental effects will be experienced by residents in communities bearing the brunt of low-flying airplane overflight.

7. Conclusion and Request for Assistance.

³ <https://www.wgbh.org/news/local-news/2019/09/24/air-pollution-from-logan-airport-harms-surrounding-communities-research-shows>

Thank you for your attention to and consideration of our comments on the 2017 ESPR. We believe that there can be solutions available to remedy and mitigate the ongoing impact of Logan operations on the residents of Milton. We request that the Secretary work with Massport, Milton, the MCAC, and other affected communities to help remedy the multiple impacts discussed above. Specifically, the requests made are as follows:

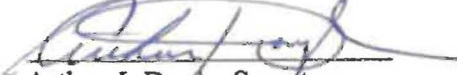
- a. Direct Massport to prepare a Supplemental EDR which fully and realistically addresses projected increases to Logan operations and airport throughput, and the resulting environmental impacts;
- b. Work with the FAA, Massport, and Milton to develop and implement late-night aircraft overflight restrictions which are protective of Milton and its residents, including consideration of an 11:00 PM to 6:00 AM landing prohibition on runway 4R;
- c. Direct Massport and the MCAC to promptly develop a system for the fair and equitable distribution of aircraft overflights that provides real relief to the highly impacted surrounding communities, especially those that are under multiple RNAVs;
- d. Direct Massport to collaborate with DPH and DEP to develop and conduct noise and air pollution studies in highly impacted surrounding communities, especially those that are under multiple RNAVs;
- e. Direct Massport to include all of the points made above in the scope of the 2018-2019 EDR and in all future EDRs. This includes impacts to health from noise and pollution from: off-airport impacts of growth, cumulative impacts of RNAV overflights, increased nighttime operations, moving to updated noise measurements which are more protective of human health and which account for acute impacts more realistically than the DNL standard; and working directly with impacted communities to more fully understand and evaluate the human health effects from Logan operations.
- f. Direct Massport to utilize supplement metrics when measuring sound and annoyance from airplane overflights in Milton and all other communities.

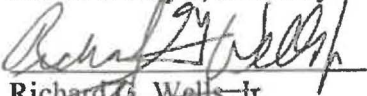
We would appreciate a time to meet with you and your staff to personally discuss the concerns we have outlined here, as well as our specific requests for assistance.

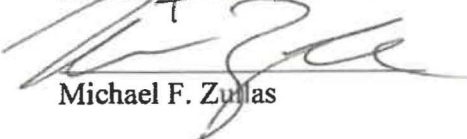
Sincerely,


Melinda A. Collins, Chair


Kathleen M. Conlon, Vice Chair


Arthur J. Doyle, Secretary


Richard G. Wells, Jr.


Michael F. Zullas

Milton Select Board

- cc: Representative Stephen F. Lynch
Representative Ayanna Pressley
U.S. Senator Elizabeth A. Warren
U.S. Senator Edward J. Markey
State Senator Walter F. Timilty
State Representative William Driscoll
State Representative Brandy Fluker Oakley
Milton Board of Health
Milton Airplane Noise Advisory Committee Chair Andrew Schmidt
MCAC Representative Thomas Dougherty
Town Counsel Karis North

Exhibit C

Milton's September 28, 2023 comment letter re: FAA's Civil Aviation Noise Policy

See attached.



TOWN ADMINISTRATOR
NICHOLAS MILANO
TEL 617-898-4845

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON
OFFICE OF THE SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186

TEL 617-898-4843
FAX 617-698-6741

SELECT BOARD

MICHAEL F. ZULLAS,
CHAIR

ERIN G. BRADLEY,
VICE CHAIR

ROXANNE MUSTO,
SECRETARY

RICHARD G. WELLS, JR.,
MEMBER

BENJAMIN ZOLL,
MEMBER

September 28, 2023

Docket Operations, M-30
U.S. Department of Transportation (DOT)
1200 New Jersey Avenue SE
Room W12-140, West Building Ground Floor
Washington, DC 20590-0001

Re: Docket No. FAA-2023-0855

Dear Sir or Madam:

The Town of Milton, Massachusetts (“Milton” or the “Town”), through its Select Board, is pleased to provide comments in response to the FAA’s “Request for Comments on the Federal Aviation Administration’s Review of the Civil Aviation Noise Policy” (the “Request for Comments”).

As background, Milton is significantly overburdened with overflights to and from Boston’s Logan International Airport (“Logan”). The noise and pollution burden has only increased during the past dozen years. The fleet mix has changed, with an increase in larger jets in operation; the volume of flights at Logan was increasing before the COVID-19 pandemic and is currently climbing back to pre-pandemic levels; and aircraft are overflying Milton at lower altitudes than they had previously, creating more and louder noise. However, the root of the problem is the FAA’s implementation of Next Generation Air Transportation System (“NextGen”) Performance-Based Navigation (“PBN”), which has caused flight paths to the Nation’s airports, including Logan, to be concentrated over a fewer number of people. Prior to NextGen and PBN, air traffic was dispersed over wide geographic areas.

PBN has produced inequitable, unbearable and dangerous results for some neighborhoods, placing hundreds of loud, low-flying planes a day over the same people, disrupting sleep, creating anxiety, and increasing health risks for people exposed to concentrated airplane noise¹ and

¹ Residential exposure to aircraft noise and hospital admissions for cardiovascular diseases: multi-airport retrospective study *BMJ* 2013;347:f5561 doi: 10.1136/bmj.f5561 (Published 8 October 2013); Aircraft noise and cardiovascular disease near Heathrow airport in London: small area study *BMJ* 2013;347:f5432 doi: 10.1136/bmj.f5432 (Published 8 October 2013); Airport noise and cardiovascular disease *BMJ* 2013;347:f5752 doi:

pollution.² The noise burden has caused some residents to sell their homes. Post-pandemic, many people work from home full-time or part-time, but their work is interrupted by incessant airplane noise from the “highways in the sky” over their homes. We hear from residents of Milton who are not only annoyed by days of constant airplane noise, but are unable to sleep, work, enjoy being outdoors in their own backyards, and engage in conversation with neighbors because of the noise burden. In addition to residential neighborhoods, numerous public and private elementary schools and high schools, senior living communities, and a college are located under, and overburdened by, loud aircraft noise from concentrated RNAV arrival and departure flight paths at Logan. For the past decade, this Board and many of our employees and appointees have spent an exorbitant amount of time and resources battling the noise burden that the FAA’s actions have imposed on our community.

Our comments herein respond to the numbered topics and questions raised by the FAA in Part II of its Request for Comments with respect to the civil aviation noise policy (the “Policy”).³

Preliminarily, we make three important observations. First, we are not, nor should we be expected to be, noise experts. We are elected local government officials writing to you on behalf of our Town and on behalf of the approximately 28,000 residents of Milton. We believe our role is to identify existing noise conditions and problems with the FAA’s current sole noise metric and suggest alternative noise measures for the FAA to evaluate and consider. The FAA employs many aviation specialists, noise experts, analysts, and scientists, and is in a much better position than most commenters: will be to propose and analyze new noise metrics, particularly those of a technical nature. In our view, the FAA should consult with both the United States Congress and the United States Environmental Protection Agency (“EPA”) about the relevance today of its decades-old Policy, the concerns raised by commenters, and proposed changes to the Policy. We urge you to do so.

Second, Milton is located approximately ten (10) miles southwest of Logan and, as such, would be characterized, for purposes of your Request for Comments, as an overflight or corridor community rather than as a community in the vicinity of an airport. Accordingly, our comments are directed at the FAA’s Policy *as it relates to overflight communities*. As set forth below, we believe that both (a) the Day-Night Average Sound Level (“DNL”) metric and (b) the FAA’s use of DNL 65 dB as the level for determining whether noise impacts on overflight communities are significant are outdated, irrelevant and grossly inadequate in the age of NextGen/PBN aviation

10.1136/bmj.f5752 (Published 8 October 2013). See also Soumya Karlamangla, “How Noise Can Take Years Off Your Life,” *The New York Times*, June 14, 2023.

² Although this comment letter addresses only noise because that is what the FAA’s Civil Aviation Noise Policy governs, we note that air traffic generally, and PBN in particular, raise significant pollution-related public health concerns. Aircraft noise and pollution must be addressed by the FAA through both policy and its regulation and oversight of the Nation’s air traffic.

³ The Request for Comments states that the “policy is set forth in various agency regulations, orders, guidance and policy statements.”

Docket Operations, M-30
U.S. Department of Transportation (DOT)
September 28, 2023

operations. We leave to other commenters suggestions for the Policy as it relates to communities that are adjacent to or in the vicinity of an airport.

Third, in addition to the comments provided herein, we support and endorse the comment letter filed or soon to be filed by the Massport Community Advisory Committee (“MCAC”). Among other things, we agree with the MCAC’s summary of existing noise conditions in overflight communities; its call for the FAA to treat aircraft noise as a public health issue; its recommendation that the National Academies of Medicine prepare a consensus report on the public health issues caused by aviation noise; and its call for strict enforcement of violations of new noise metrics through noise-based landing fees, noise surcharges, and other mitigation methods.

Executive Summary

Mr. Don Scata, Manager of the Noise Division in the FAA’s Office of Environment and Energy, summarized the problem well in his introduction to each of your four (4) Noise Policy Review webinars:

“Historically noise issues were airport-centric, [the] result of infrequent operations and dispersed flight paths, and very loud jet aircraft. Noise concerns were raised primarily by communities immediately adjacent to airports. In communities[,] lived experience included low cadence of relatively loud aircraft noise events separated by long intervals. Our current noise problem is an airspace or overflight noise problem resulting from frequent operations, concentrated flight paths, relatively quiet aircraft, and noise concerns raised primarily by corridor communities further from airports. Communities[’] lived experience includes a high cadence of daily, relatively quiet aircraft noise events separated by short intervals.”⁴

For overflight or corridor communities such as Milton, DNL 65 dB is a wholly inadequate and outdated noise metric, and must be abandoned. A revised Policy must apply to commercial jets and all new entrants into the National Air Space, and create a system of metrics that captures noise burden by vehicle type, location and purpose. Such metrics should be companion, not supplemental, metrics. The FAA’s Neighborhood Environmental Survey has shown that the Schultz Curve is outdated and not an appropriate method for representing community response to aircraft noise. We urge the FAA to revise its Policy to implement Number Above (“NA”) 45 dB as an alternative noise metric for overflight communities.

As it revises the Policy, the FAA has an opportunity to reverse the public’s negative perception and mistrust of the FAA, but that will happen only if the new Policy actually solves the noise problems that NextGen foisted upon overflight communities with no meaningful notice or public input. It is imperative that changes to the Policy, including the establishment of one or more noise metrics, be applied retroactively as well as prospectively. That is, a revised Policy must address

⁴ FAA’s Noise Policy Review Webinar #1 at 8:38 through 9:25, and Transcript, page 5. FAA’s Noise Policy Review Webinar #2 at 8:37 through 9:25, and Transcript, pages 5-6.

current noise problems; it *cannot* be limited to only future decision-making and future environmental reviews. The FAA must collaborate with, and be much more responsive to, state and local government officials than it has been if it wishes to solve the serious public health issues caused by concentrating aircraft noise (and pollution) over residential and other populations.

Detailed Comments

1. Vehicle Type

Currently, the aviation noise that plagues Milton stems primarily from commercial jet arrivals to, and departures from, Logan. Helicopter activity (including but not limited to helicopter traffic over I-93 in East Milton) also contributes to the noise problem. We anticipate that, for the foreseeable future, these will remain the most significant causes of the noise burden on the Town. However, some areas of Milton have been impacted by noise from drones. Moreover, news reports and the Request for Comments indicate that advanced air mobility (“AAM”) is an emerging system of automated transportation that is expected to carry passengers and cargo between relatively short destinations. As such, AAM, including but not limited to air taxis, can be expected to impose a substantial noise burden on communities across the country in the not too distant future.⁵

We urge the FAA to modify its Policy to apply to all current and future air vehicle activity. In addition to airplanes (commercial, private and governmental), the Policy should apply to drones, AAM and other future air vehicle activity. As required by the Aviation Safety and Noise Abatement Act of 1979 (“ASNA”), the Policy must use a system of metrics. The FAA now realizes that the system must capture noise burden by vehicle type, location (*i.e.*, in the vicinity of airport or vertiport or away from airport or vertiport (such as an overflight community)), and purpose (*e.g.*, for purposes of compliance with the National Environmental Policy Act of 1969 (“NEPA”) or noise mitigation eligibility).

Your Request for Comments specifically mentions supersonic activity. In 2019, we provided comments to the United States Department of Transportation in response to the FAA’s proposed revised regulations for “Special Flight Authorizations for Supersonic Operations” (Docket No. FAA-2019-0451). A copy of our comment letter dated August 21, 2019 is attached hereto as Exhibit A. In that letter, we objected to the proposed regulations, noting that until the FAA resolves the noise and pollution burdens that PBN has imposed on Milton and many other communities across the Nation, the FAA must not permit supersonic testing (let alone supersonic air travel) to occur. We also urged the FAA to seek guidance from the United States Congress and the EPA on the wisdom (or lack thereof) of permitting supersonic testing and travel. Our position with respect to supersonic activity has not changed since 2019. We reiterate the comments contained in our August 21, 2019 letter, and strongly oppose any consideration of supersonic activity by the FAA, whether through the Policy or any other means.

⁵ Please see our comments on AAM in our letter to the U.S. Department of Transportation (“DOT”) dated August 8, 2023 and submitted to Docket No. DOT-OST-2023-0079. Our comment letter was posted on August 10, 2023 with ID No. DOT-OST-2023-0079-0103.

2. Operations of Air Vehicles

As noted above, Milton would be characterized as an overflight community rather than a community in the vicinity of an airport. (Request for Comments, Part II.2.b and Part II.2.c) However, as drone activity continues to grow and AAM operations emerge, it is possible, and perhaps even likely, that Milton could eventually fall within the FAA's categories of communities that are in the vicinity of vertiports or "in the vicinity of UAS (drone) package delivery or other newly emerging technology operations." (Request for Comments, Part II.2.e)

For current subsonic fixed-wing commercial overflight operations, we are concerned about noise from flights en route to and from Logan and, in particular, flights that are making their final descent and approach to Logan. In our view, the FAA's revised noise metric(s) should be used for both the FAA's decision-making and its public disclosure of noise impacts. A system of noise metrics should allow for different metrics and thresholds for the FAA's Part 150 regulations and decision-making with respect to land compatibility, Part 161 determinations of eligibility, and NEPA reviews.

Arrivals to Logan's closely spaced parallel Runways 4R and 4L are (1) flying over Milton at altitudes that are too low and (2) far too often deploying landing gear over Milton, sooner than is necessary for safety purposes. Deployment of landing gear contributes to the noise that is heard by residents. Additionally, the Town is impacted by noise from concentrated flight paths for aircraft departing Runways 27 and 33L at Logan.

As discussed below, for overflight communities, DNL is an outdated and grossly inadequate noise metric and must be replaced by one or more alternative noise metrics. Companion metrics, not supplemental metrics,⁶ are required to address the multi-level matrix of noise exposure by vehicle type, location and regulation. Additionally, runway use restrictions (especially at nighttime) should be imposed, and the FAA should impose monetary penalties on commercial and private airlines that violate the restrictions. Noise complaint data can and should help inform the FAA's revision of the Policy as well as its future rulemaking and decision-making.

At this time, we are not in a position to comment on the type(s) of noise metric(s) that should apply to drones or AAM operations. AAM technology is too new and emergent for us to have sufficient knowledge of it to comment. However, for the reasons stated below, at a minimum, DNL should not be the metric for determining acceptable levels of noise from drones and AAM. We expect that, similar to the problems created by PBN flightpaths, the frequency of drone/AAM noise events, not the loudness/intensity of the event, should be the primary factor captured by the noise metrics used for decision-making about drone/AAM noise exposure. Additionally, we encourage the FAA to use C-weighted measurements and estimates.

⁶ Our understanding, based on the Request for Comments and the FAA's Noise Policy Review Webinars, is that supplemental metrics would not be used by the FAA in connection with decision-making under NEPA, but that companion metrics would be so used.

3. DNL

The Request for Comments concedes that the Policy is “based on research conducted many decades ago.” In response to the ASNA, the FAA established, and continues to use, a single metric – DNL – to measure and analyze how aircraft noise is experienced by people on the ground. According to the Request for Comments, ASNA

“requires the FAA to develop a single system for analyzing aircraft noise exposure; however, the system does not have to be composed of a single metric. Rather the system must have a high degree of correlation between the projected noise exposure levels and the surveyed reactions of people to those noise levels and must account for the intensity, duration, frequency, and tone of noise-producing activity, as well as the time of occurrence.”

Pursuant to FAA Order 1050.1F, the FAA considers aviation noise impacts significant only if they are DNL 65 dB or greater.⁷

DNL has long been criticized as an adequate measure of aviation noise impacts. DNL is a flawed metric because it measures sound and averages it over a 24-hour period (a so-called “representative day”) on an annual basis. Therefore, DNL dilutes actual noise impacts by averaging noise data over a daily basis and an annual basis. For communities like Milton, DNL’s flaws also include the fact that, because of input assumptions, the software used to estimate DNL (AEDT) does not adequately capture noise events resulting from deployment of an aircraft’s landing gear. Regardless of whether DNL was ever an appropriate metric for aviation noise, the FAA’s reliance on DNL as its sole measure of noise is obsolete and irrelevant in the age of NextGen and PBN.

By diluting overflight noise over a 24-hour period and on an annual basis, DNL does not accurately measure the real life noise impacts to people on the ground. PBN causes overflight communities like Milton to experience, on some days, flyovers from several hundred airplanes and, on other days, zero flyovers. Averaging them on an annual basis dilutes the true level of annoyance, sleep deprivation, work and school interruption,⁸ conversation interruption, and adverse health impacts that are suffered by people on the ground in Milton on days on which hundreds of aircraft fly overhead, separated by very short time intervals (i.e., a minute or two). No citizen of the United States lives in the FAA’s model DNL world or experiences a “representative

⁷ ASNA requires that the FAA’s single system for assessing aviation noise is one “which includes noise intensity, duration, frequency, and time of occurrence”, which is different than accounting for frequency as stated in the above quotation. “Including” frequency means that the metric distinguishes aviation noise burdens from, say, one hundred 94.4dBA SEL noise events close to an airport compared with one thousand 84.4 dBA SEL noise events in overflight communities, both of which would have a DNL of 65 dBA despite the 10-fold difference in frequency. Although DNL “accounts” for frequency in its logarithmic average, it does not “include” frequency in its representation of noise burden.

⁸ With more people working from home post-pandemic, PBN has caused greater work interruptions in overflight communities than it did even a few years ago.

day” of airplane noise. People live in the real world and, all too often, the unlucky ones in overflight communities suffer the ill effects of hundreds of airplanes flying over them in an 18-hour period or longer.

The DNL metric also underrepresents the noise impacts attributable to the deployment of landing gear. When landing gear is being lowered, an airplane emits a loud whistling sound that is highly audible and disturbing to people on the ground. The deployment of landing gear only increases the noise annoyance that is already caused by the overflying aircraft. Our community has substantial experience with this issue, because pilots routinely deploy landing gear earlier than they need to, adding to the noise burden wrought by NextGen. At a minimum, the Policy should recognize early deployment of landing gear as a contributing factor to the noise burden in overflight communities, and take it into account in establishing one or more new noise metrics.

By the FAA’s own admission, most overflight communities have DNL levels below 65 dB, yet still experience noise and disturbance at a level much greater than the DNL reveals.⁹ During the FAA’s Noise Policy Review Webinar #2, Ryan Weller, an environmental protection specialist with the FAA’s Western Service Center, explained that DNL 65 dB is usually the level of noise experienced at an airport itself or by a community in the vicinity of an airport, whereas DNL contours for overflight communities are typically at lower levels (e.g., DNL dB ranges in the 40s and 50s). Mr. Weller observed that the FAA is considering and seeking comment on, among other things, whether “DNL is the right metric for addressing those communities that are farther away or, as we call them now, overflight communities, in the lower DNL levels; and does the DNL as a metric adequately address the impacts that those communities ... are experiencing....”¹⁰ During the same webinar, Andrew Brooks, Regional Environmental Program Manager for the FAA’s Eastern Region Airports Division, referenced a presentation slide that showed both DNL contours for Logan and noise complaints filed by residents along Logan’s arrival and departure RNAV corridors. Mr. Brooks acknowledged that

“one of the things that we’ve realized, especially through the implementation of NextGen and precision based navigation, as these procedures come forward, is that the effects that communities are experiencing from these procedures are being experienced much farther afield than what our current Policy considers. And certainly seeing how those complaints have grown at farther areas, that’s kind of our attempt to capture those concerns, those complaints, into a noise policy analysis to develop methods for analyzing those changes, disclosing those changes,

⁹ In 2012, Milton residents filed 102 noise complaints with the Massachusetts Port Authority (“Massport”), which operates Logan. In 2016 and 2019, Milton residents filed 21,796 noise complaints and 41,575 noise complaints, respectively. Other communities that are impacted by departures and arrivals from and to Logan also experienced a significant increase in the number of noise complaints filed by residents.

¹⁰ FAA’s Noise Policy Review Webinar #2 at 1:02:50 through 1:04:45.

informing communities underneath those changes, and determining how those would influence future decisions moving forward.”¹¹

We applaud the FAA for acknowledging what citizens and elected officials across the country have been arguing to it for years: that NextGen, PBN, and concentrated RNAV corridors have called into serious question the legitimacy and relevance of the FAA’s use of DNL 65 dB as a valid measure of noise exposure in overflight communities. For residents of these communities, it is possible that none of the hundreds of aircraft flying over them in a single stream, hour after hour for most of a day, will produce noise at a level of 65 dB. However, that does not mean that the noise generated by those hundreds of planes, separated by only a minute or two from each other, is insignificant. To the contrary, the concentration of flight paths traveled by hundreds of planes per day produces near-constant noise and a much greater level of annoyance, sleep deprivation, speech interference, and other adverse health risks than would a single overflight with a noise level of 65 dB.¹²

We believe that, for overflight communities, DNL must be either lowered significantly, *i.e.*, from DNL 65 dB to DNL 45 dB, or replaced with one or more alternative metrics that will accurately measure the noise that is experienced by people under concentrated RNAV corridors. The FAA’s use of DNL 65 dB as the measure of significant noise exposure for overflight communities is in no way reflective of current conditions on the ground.

The FAA’s framing paper entitled “The Foundational Elements of the Federal Aviation Administration Civil Aircraft Noise Policy: The Noise Measurement System, its Component Noise Metrics, and Noise Thresholds” (the “Framing Paper”) identifies various other noise metrics. Among those metrics identified as “Single Event/Operational” on pages 12 and 13 of the Framing Paper are NA¹³ and Time Above (“TA”). NA is defined as “[a] metric that presents the number of noise events that exceeds a specified noise level over a set time interval.” TA is defined as “[a] metric that presents the total duration of noise events above a specified noise level over a set time interval.” Examples provided for NA and TA in the Framing Paper use 60 dB as a threshold.

We believe that NA and TA are potential alternative metrics to DNL, but only if a reasonable dB level is used as the threshold. In our view, 60 dB is too high a threshold for overflight communities like ours, which is ten miles from the airport and, post-RNAV, is overflowed by several hundred large aircraft at low altitudes when Logan’s Runways 4R/4L are in use. NA and TA would have to be measured at a much lower level than 60 dB because the noise

¹¹ FAA’s Noise Policy Review Webinar #2 at 1:04:45 through 1:06:06.

¹² During the FAA’s Noise Policy Review Webinar #2, Mr. Weller acknowledged, with respect to NextGen, that “it would be probably fairly annoying to have an aircraft fly over your house on a consistent basis where you only used to have one every so often...”, and invited comments on alternative metrics. *See* FAA’s Noise Policy Review Webinar #2 at 1:52:05 through 1:53:00. We agree with Mr. Weller except for his use of the word “fairly.” We have been telling the FAA for years that hundreds of planes flying over Milton residents in an 18-hour period or longer is not only *extremely* annoying but unbearable and dangerous to public health.

¹³ As noted above, NA means Number Above.

is virtually constant for 18 hours or more. An appropriate level would be 45 dB, because ambient noise levels in communities like ours tend to be in the 40s range.¹⁴ The threshold should be *no more than 50* noise events per 24-hour period. Additionally, we believe the FAA should use C-weighted measurements and estimates or, at a minimum, study whether both A-weighting and C-weighting are appropriate tools for new noise metrics and a new Policy.

Lastly, we note that noise complaint data can help the FAA identify where noise problems exist in corridor communities. We believe such data should be considered in the FAA's decision-making processes for determining whether noise impacts are significant. The United States Court of Appeals for the District of Columbia Circuit has held that noise complaints, in and of themselves, constitute substantial evidence of a noise problem regardless of whether DNL is above 65 dB. See *Helicopter Assoc. Int'l, Inc. v. F.A.A.*, 722 F.3d 430, 435-37 (D.C. Cir. 2013). Indeed, in that case, the FAA itself based its decision-making on noise complaint data.

In *Helicopter Assoc.*, the FAA, seeking to abate helicopter noise over residential populations on Long Island, mandated a specific route for helicopters traveling between New York City and Long Island. 722 F.3d at 432. The FAA modeled the noise impacts and concluded that the sound levels were below DNL 45 dB. *Id.* at 433. Despite the fact that DNL was well below 65 dB, the FAA "relied on a host of externally generated complaints from elected officials and commercial and private residents of Long Island" and decided to mandate a new helicopter route. *Id.* at 435-436. The Court of Appeals noted that DNL 65 dB

"was established for use in mapping noise exposure within the vicinity of airports, not residential areas far removed from an airport environment (citation omitted). It serves as a reference point from which the FAA can reasonably deviate when determining whether a particular noise reduction intervention is in the public interest (citation omitted)."

Id. at 436. Accordingly, the Court of Appeals concluded that the petitioning helicopter association failed to meet its burden of proving that the FAA used an incorrect methodology. *Id.* at 437.

Noise complaints filed by residents in overflight communities such as Milton have increased dramatically.¹⁵ The *Helicopter Assoc.* decision established the validity of noise complaints as a measure of significant noise impacts and annoyance to overflown residents, and affirmed the FAA's use of such data for decision-making purposes. In addition to establishing an alternative noise metric to DNL 65 dB, the FAA should take into account noise complaint data when making decisions that will impact overflight communities.

¹⁴ The World Health Organization recommends 45 dB (Lden) for aircraft noise exposure (and 40 dB (Lnight) for nighttime aircraft noise exposure). See https://cdn.who.int/media/docs/default-source/who-compendium-on-health-and-environment/who_compendium_noise_01042022.pdf?sfvrsn=bc371498_3.

¹⁵ See footnote 9.

4. Averaging

For the reasons stated above, the FAA's use of DNL to model a representative day (referred to in the Request for Comments as an Average Annual Day ("AAD")) is outdated and irrelevant in the age of NextGen/PBN. Averaging dilutes the true level of annoyance, sleep deprivation, work interruption, and adverse health impacts that are suffered by people on the ground on days on which hundreds of aircraft fly overhead. Therefore, DNL, AAD and averaging are not appropriate ways to describe noise impacts for overflight communities burdened by NextGen. We do not believe that any other alternative averaging scheme is appropriate. For the reasons stated above, we recommend that NA 45 dB be used in place of any averaging for purposes of both decision-making and public disclosure of noise.

5. Decision-making Noise Metrics

With the implementation of NextGen/PBN beginning at least a dozen years ago at some airports, the FAA's decision-making metric for actions that are subject to NEPA and airport noise compatibility planning studies pursuant to 14 CFR part 150 is long overdue for an overhaul. DNL makes absolutely no sense as the FAA's metric when flight paths are concentrated over fewer people who experience hundreds of overflights on days that an RNAV path is in use. We reiterate that Milton often experiences overbearing, incessant noise from several hundred airplanes from early in the morning (i.e., approximately 5:00 a.m.) until well after midnight. On such days, there is no relief whatsoever. Yet DNL averages the 18 or more hours of constant noise on such days with the lack of noise that the same people experience when there are no overflights. The average result is misleading and in no way reflects the reality that people on the ground experience.

It has been disingenuous for the FAA, more than a dozen years after it began to implement NextGen, to cling to DNL as its sole noise metric when making decisions or taking any action. Increased noise complaint data from affected communities nationwide demonstrates how irrelevant and obsolete DNL has become. Moreover, elected officials at the federal, state, and local levels of government have, for years, brought to the FAA's attention serious public health concerns related to PBN's concentrated flight paths. Concerns and comments expressed by governmental officials on behalf of the people they represent should also be accorded weight by the FAA in its decision-making processes.

We identified above NA 45 dB as the noise metric that we believe should be used for overflight communities. Part II.5.b of the Request for Comments asks whether the FAA should "use a noise metric other than DNL to evaluate noise exposure in quiet settings, such as national parks, national wildlife and waterfowl refuges, etc." Our answer is yes, but the FAA's example is woefully inadequate. The FAA should use a noise metric other than DNL to evaluate noise exposure in all settings in overflight communities, and particularly those in which residential homes, schools, hospitals, senior living facilities, business districts, recreational facilities and the like are situated. Often, these areas are already subjected to noise from motor vehicle traffic, buses, trains, commercial and industrial operations, and everyday life. Residential populations should be accorded as much, if not greater, consideration than wildlife populations.

6. Communication

First, the FAA can improve communication regarding changes in noise exposure by meeting in person (and not solely via Zoom or other online platforms) with elected officials and members of the public in communities that bear the burden of the FAA's actions. Such corridor communities are easily identifiable; they are the communities that have been pleading for relief from aviation noise and concentrated flight paths caused by NextGen/PBN for the past decade. Noise complaints in unaffected communities are non-existent or minimal, whereas residents and elected officials in affected communities file many complaints and continue to seek relief from the FAA and airport operators. Therefore, it is reasonable for affected communities to expect the nine (9) regional FAA offices to host regional meetings to provide information about changes in noise exposure and actions that the FAA plans to take.

Second, we urge the FAA to listen to, and take seriously, the public health concerns voiced by residents and elected officials, engage in meaningful dialogue, and propose real-world, workable solutions to noise problems. For far too long, public perception has been that the FAA acts in a manner that is dismissive of both noise complaints and requests for relief from NextGen. If safety truly is at the core of the FAA's mission, vision, and values (as its mission statement on its website states), then the FAA must give serious consideration to the safety (*i.e.*, the public health) of people on the ground whose daily lives and well-being have been adversely impacted by the FAA's decision-making and abolish DNL as the noise metric for overflight communities. For overflight communities, DNL 65 dB should be replaced with NA 45 dB.

In response to Part II.5.c of the Request for Comments, we suggest that the FAA hold regional public information sessions about emerging AAM trends and how the FAA will regulate drones, AAM and the noise that they will generate. We suspect that most U.S. citizens are not well informed on the topic of AAM generally. The public will benefit from proactive educational outreach by the FAA.

7. NEPA and Land Use Noise Thresholds Established Using DNL or for Another Cumulative Noise Metric

We were not surprised to read in the Request for Comments that the FAA's "Neighborhood Environmental Survey results show [a] higher percentage of people who self-identify as 'highly annoyed' by aircraft noise across all DNL levels studied in comparison to the Schultz Curve." That study demonstrates that, as a result of PBN, the Schultz Curve is outdated as a method for representing community response to aircraft noise. The Schultz Curve should be replaced by the National Curve.

8. FAA Noise Thresholds Using Single-Event or Operational Metrics

The FAA notes in the Request for Comments that its Neighborhood Environmental Survey demonstrated that "people are bothered by individual aircraft noise events, but their sense of annoyance increases with the number of those noise events." This is hardly surprising. NextGen has placed hundreds of aircraft over Milton on many days of the year. The incessant loud noise

produced by hundreds of overflights at low altitudes substantially increases both the burden on Milton and its residents and results in increased noise complaints that Milton residents file with Logan's operator, Massport. The FAA must adopt a noise metric that takes into account the fact that, thanks to NextGen, some residential populations are exposed to hundreds of "single events" a day, while others rarely or never experience any aircraft noise.¹⁶

As noted above, we recommend that the FAA consider NA and TA as potential alternative metrics to DNL, but only if a reasonable dB level, such as 45 dB, is used as the threshold. We believe that an alternative noise metric of NA 45 dB makes the most sense for overflight communities such as ours.

9. FAA Noise Thresholds for Low-Frequency Events

The Request for Comments identifies as an example of a low-frequency event "the launch and reentry of commercial space transportation vehicles authorized by the FAA Office of Commercial Space Transportation." As there are no spaceports (launch/reentry sites) in the New England area, we offer no comments on this issue.

10. Miscellaneous

In response to part II.10 of the Request for Comments, we make two important comments.

A. Retroactive Application of Revised Policy

Any changes to the Policy, including but not limited to the establishment of one or more alternative noise metrics for overflight communities, must be accompanied by the FAA's commitment to revisit (and, more importantly, to resolve the noise and pollution problems associated with) extant RNAV flight paths. Changes to the Policy must *not* be applied only prospectively to future decision-making and actions by the FAA; they must address current problems.

When NextGen and PBN were first implemented, the serious public health risks to people in overflight communities could not have been known by the public, but could and should have been anticipated and known by the FAA. Over the past decade, the FAA has continued to roll out more RNAV paths at airports nationwide despite the outcry from affected communities and elected officials at all levels of government. Notwithstanding that the FAA has had at least ten (10) years' notice of serious public health issues stemming from NextGen, the FAA has stubbornly clung to its obsolete DNL 65 dB metric and resisted, until now, considering any alternative noise metric.

¹⁶ In addition to the weaknesses described above, utilization of DNL pits communities against each other, and makes it more challenging to find community-based solutions to overflight noise. Utilizing a more accurate measure of noise and annoyance would help communities assist the FAA and local airport operators in identifying real solutions to noise complaints.

Through your various Noise Policy Review Webinars, FAA employees have stated that any revisions to the Policy will be applied only to future decision-making, and will not change existing noise exposure, existing flight paths, or completed or ongoing environmental reviews.¹⁷ That position cannot stand the test of time. It would be unconscionable for the FAA not to use a revised Policy to solve serious, foreseeable, and existing public health problems that the FAA itself created when it implemented NextGen and PBN. The ongoing damage done to corridor communities across the country by the federal government only ensures the continuance of noise complaints, public outcry, and public pressure on Congress and the Executive Branch to act. The FAA would be wise to commit itself to using a revised Policy, among other measures,¹⁸ to provide short-term and long-term relief to overflight communities.

B. FAA's Opportunity to Reverse Public Perception and Solve Problems

When reviewing comments and the Policy, the FAA should consider the adverse public perception of itself and its wholly inadequate response to community concerns about NextGen. In general, public trust in the federal government has declined in recent decades.¹⁹ Specifically, the FAA's failure to abate civil aviation noise impacts on residential populations has created mistrust of the FAA, and will make it harder for the FAA to regulate AAM. It is imperative that the FAA relieve the noise burden on overflight communities in an expeditious, diligent manner and with a sense of urgency.

We cannot emphasize to you enough that Milton, and many other communities in Massachusetts and around the country, have been overburdened by aircraft noise (and pollution) for more than a decade. Despite substantial efforts since 2013 by Milton's local officials (including but not limited to this Board and our employees and appointed representatives to the Massport Community Advisory Committee and a volunteer advisory committee), State Senators, State Representatives, U.S. Senators, U.S. Representatives, and tax-paying residents, neither the FAA nor Massport has done *anything* to provide permanent or temporary relief to noise and pollution problems that the FAA created by implementing NextGen/PBN at Logan.

A multi-year study conducted by the Massachusetts Institute of Technology ("MIT") and funded pursuant to a joint agreement between the FAA and Massport produced, among other things, recommendations for regional dispersion of overflights arriving to Runway 4R at Logan (*i.e.*, three flyable alternative RNAV paths that would be used in rotation with the existing RNAV path) and the relocation of a waypoint for departures from Runway 27 at Logan. Both recommendations would help to reduce the substantial aviation noise burden on Milton. MIT delivered its recommendations to the FAA more than two years ago, but, to date, the FAA has

¹⁷ See, e.g., FAA's Noise Policy Review Webinar #3 at 46:48 through 48:20; FAA's Noise Policy Review Webinar #4 at 1:53:53 through 2:00:02.

¹⁸ PBN technology itself can be used to disperse air traffic. The below-referenced MIT study of operations at Logan demonstrated that it is possible to use multiple flight paths for arrivals to a single runway in rotation with each other to disperse air traffic and noise more equitably.

¹⁹ See <https://www.pewresearch.org/politics/2022/06/06/public-trust-in-government-1958-2022/>.

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September 28, 2023

failed to implement them, even on a trial basis. Despite the fact that Milton engaged extensively with the FAA, Massport and MIT during the study, the FAA has had zero proactive communication with Milton about MIT's recommendations during the past two years. Therefore, it should come as no surprise that the perception many people have of the FAA is that it does not take seriously the valid public health concerns that were first brought to its attention a decade ago. Sadly, the perception is that the FAA cares more about efficiency and fuel cost savings for commercial airlines than it does about the safety and health of people on the ground. However, the FAA now has an opportunity to change that perception and to take a leadership role on a critical environmental and health issue. We urge you to do so.

As an agency of the federal government, the FAA should engage with elected officials at the federal, state and local levels with respect to the Policy in a collaborative and meaningful way. Local government officials are your colleagues in government, and represent some of the same people that the FAA and the DOT serve. We offer these comments on the Policy in good faith and in the spirit of collaboration. We desire to work with you to achieve solutions that will benefit the people we represent and others similarly situated while at the same time being workable for the FAA.


11. Literature Review

We call to your attention the health studies (one of which is cited in Appendix 1 to the Framing Paper) and the recent article published in *The New York Times* that are cited in footnote 1 to this comment letter.

Thank you for the opportunity to comment on the Policy and for your consideration of our recommended modifications.

Sincerely,

MILTON SELECT BOARD



Michael F. Zullis, Chair

Erin G. Bradley, Vice Chair
Roxanne Musto, Secretary
Richard G. Wells, Jr., Member
Benjamin Zoll, Member

cc: U.S. Secretary of Transportation Pete Buttigieg
U.S. Senator Edward J. Markey
U.S. Senator Elizabeth Warren

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U.S. Department of Transportation (DOT)
September 28, 2023

Representative Stephen F. Lynch
Representative Ayanna Pressley
Attorney General Andrea Campbell
State Senator Walter F. Timilty
State Representative William Driscoll, Jr.
State Representative Brandy Fluker-Oakley
Milton Airplane Noise Advisory Committee
Milton Community Advisory Committee Representative
Milton Town Counsel

Exhibit A

Town of Milton Select Board's August 21, 2019 letter to the U.S. Department of Transportation
(re: FAA's proposed revised regulations for
"Special Flight Operations for Supersonic Operations")

See attached.



MICHAEL D. DENNEHY
TOWN ADMINISTRATOR

COMMONWEALTH OF MASSACHUSETTS
TOWN OF MILTON

OFFICE OF THE SELECT BOARD
525 CANTON AVENUE, MILTON, MA 02186

TEL. 617-898-4843
FAX 617-898-6741

SELECT BOARD

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MEMBER

August 21, 2019

Docket Operations, M-30
U.S. Department of Transportation
1200 New Jersey Avenue SE
Room W12-140, West Building Ground Floor
Washington, DC 20590-00001

Re: Docket No. FAA-2019-0451

Dear Sir or Madam:

The Town of Milton, Massachusetts, through its Select Board, hereby objects to the FAA's proposed revised regulations for "Special Flight Authorizations for Supersonic Operations," to be codified as 14 C.F.R. § 91.818.

Supersonic civil flights are prohibited without the FAA's express authorization. 14 C.F.R. § 91.817. This little-used FAA regulation dating back to 1973 allows the FAA to authorize supersonic flights for the purpose of testing and developing new aircraft. Currently, application requirements are found in Appendix B to 14 C.F.R. Part 91. In its June 28, 2019 notice of proposed rulemaking (the "Notice"), the FAA states that it has received only "a handful of inquiries since 1973" and has granted only three (3) authorizations for supersonic flight testing, two (2) of which related to the testing of an experimental space vehicle attached to an airplane. Notwithstanding this, according to the Notice, the FAA "expects that renewed interest in the development of supersonic aircraft will lead to increased requests to authorize flights in excess of Mach 1."

As a preliminary matter, we note that, in the four decades since the FAA promulgated 14 C.F.R. § 91.817 and Appendix B, there have been material changes in aviation operations both in the United States and internationally. For example, today there are more airlines than there were

in the 1970s; the fleet mix has changed, with an increase in larger (and louder) jets in operation; and the volume of flights has increased. Perhaps most significantly, in recent years, the FAA has implemented NextGen precision-based navigation, causing a concentration of flight paths at airports around the country. NextGen has produced inequitable, unbearable and dangerous results for some neighborhoods, placing hundreds of loud, low-flying planes a day over the same people, disrupting sleep, creating anxiety, and increasing health risks for people exposed to concentrated airplane noise and pollution.¹ For years, communities located near airports around the United States have been sounding the alarm about NextGen, raising serious public health concerns and seeking relief from the FAA. Yet the FAA has failed to address the noise and pollution problems wrought by NextGen.² After several years, no solutions to this FAA-created problem have been forthcoming from the FAA.

As leaders of a community with neighborhoods that are already significantly overburdened with overflights to and from Boston's Logan International Airport, we are very concerned about what the FAA described in the Notice as "renewed industry interest in developing new civil supersonic aircraft." The Notice makes clear that the FAA's revisions to Appendix B to Section 91.817 "are intended to support the growth of the civil supersonic industry." The Notice further states that technological advances as well as renewed industry interest "have prompted the FAA to consider policy and regulatory changes to enable the domestic certification and operation of [supersonic] aircraft." The Town of Milton strongly objects to the FAA's supporting or in any way fostering the advent of supersonic flights to, over or from the United States. Unless and until the FAA resolves the very significant NextGen-related airplane noise and pollution concerns that we and so many other communities have raised, the FAA should take no action to further the aviation industry's apparent recent interest in supersonic air travel. No supersonic testing, let alone supersonic air travel, should be performed until the FAA has fully addressed the problems caused by NextGen.

By the FAA's own admission, in the four decades since the FAA promulgated its existing regulations on supersonic aircraft, the airline industry has shown little commercial interest in supersonic air travel. Indeed, Concorde, the only supersonic commercial jet ever to be placed in service, ended operations in 2003. The combination of NextGen and supersonic air travel would have a disastrous environmental impact on our town and other communities around the country. Therefore, we believe that, before the FAA takes any action to "support the growth of the civil supersonic industry," the United States Congress and the United States Environmental Protection Agency (the "EPA") should weigh in on whether, as a matter of public policy, the encouragement and development of supersonic aircraft is in the Nation's best interest. We are sending copies of this letter to our Congressional delegation with a request that they consider the wisdom of permitting supersonic aircraft to fly over the United States as well as its regulation by

¹ Residential exposure to aircraft noise and hospital admissions for cardiovascular diseases: multi-airport retrospective study *BMJ* 2013;347:f5561 doi: 10.1136/bmj.f5561 (Published 8 October 2013); Aircraft noise and cardiovascular disease near Heathrow airport in London: small area study *BMJ* 2013;347:f5432 doi: 10.1136/bmj.f5432 (Published 8 October 2013); Airport noise and cardiovascular disease *BMJ* 2013;347:f5752 doi: 10.1136/bmj.f5752 (Published 8 October 2013).

² In Boston, a study being performed by the Massachusetts Institute of Technology for the FAA and the airport operator is now in its third year. No interim relief has been provided to the affected communities, and none of the first round of recommendations has yet been implemented.

a federal agency that has thus far failed to resolve the serious damage that its NextGen program has caused to communities.

In addition to the foregoing general objection to the FAA's pursuit of supersonic air operations at this time, we offer the following comments on the specific text of the proposed revised regulation. The FAA proposes, in part, to move application criteria from Appendix B to 14 C.F.R. § 91.817 to a newly created Section § 91.818. While we do not object to a mere reorganization of existing application requirements, we do object to certain revisions to, and the substance of, portions of the proposed regulation. Additionally, in response to the FAA's request for comments on removing or retaining Section 91.818(b), we urge the FAA to remove such provision.

1. Time of Day

Proposed Section 91.818(a)(5) would require an applicant to include "the time of day the flights would be conducted." Section 91.818(a)(5) would make clear that "[p]roposed night operations may require further justification for their necessity." The increased noise from supersonic flights would be unduly burdensome during daytime hours, and even worse at night when people are trying to sleep. Under no circumstances should nighttime testing of supersonic aircraft be permitted. Communities that are already adversely affected by NextGen cannot and should not be subjected to the noise of supersonic jets, either during daytime or nighttime hours.

2. Additional Reason for Authorization

Currently, the FAA may authorize supersonic flights for only four (4) reasons: to show compliance with airworthiness requirements; to determine the sonic boom characteristics of an aircraft; to establish a means of reducing or eliminating the effects of sonic boom; and to demonstrate the conditions and limitations under which a supersonic flight will not cause a measurable sonic boom to reach the ground. To this list, the FAA proposes to add, through Section 91.818(a)(8)(v), a fifth reason: to measure the noise characteristics of an aircraft to either demonstrate compliance with noise requirements or determine limits for operation. The Notice describes this new reason for authorization as "forward-looking" because it may help establish noise limits for supersonic air travel, which do not currently exist. As stated above, unless and until the FAA adequately responds to and resolves the significant harm it has already imposed on communities as a result of its NextGen implementation, we object to any action that may add to the noise and pollution burden imposed upon people on the ground.

3. "Overocean" Testing

Section 91.818(a)(9) would require an applicant to show "why its intended operation cannot be safely or properly accomplished over the ocean at a distance ensuring that no sonic boom overpressure reaches any land surface in the United States." While the revised language is clearer and better than the existing text, we believe that the FAA must go further than requiring an applicant to justify its request for testing supersonic jet capability over land. Instead, the FAA should mandate that future supersonic testing be conducted over the ocean (in such a manner that no sonic boom overpressure reaches land) successfully before any testing over land is authorized.

4. Duration of Authorizations

Section 91.818(e)(1) would authorize the Administrator to determine the length of time that is necessary for supersonic flights to be flown in a test area, presumably on a case-by-case basis. The Notice states that Appendix B does not currently specify a maximum time period for testing supersonic flights. We believe that a bright line test must be provided in the regulation. A maximum allowable testing duration, which may be shortened but not lengthened by the Administrator, must be stated. We further believe that the FAA should seek the input of the EPA in determining the maximum allowable testing duration.

We agree with the FAA that an applicant should submit separate applications for testing supersonic flights for different phases of a project. However, we believe that the FAA must do more than “encourage” such separate applications; the regulation should be revised to mandate separate applications for distinct phases of a project.

5. Test Areas

The Notice provides that:

“[t]o support the current development efforts of the industry, the FAA seeks to provide supersonic flight test applicants with the broadest opportunity to request an appropriate flight test area, consistent with applicable regulations. Whether an applicant chooses to request an area already used for non-civil supersonic flights or an area in another location would be up to the applicant. The ability to request a flight test area appropriate for an applicant’s needs would allow the applicant to control the costs and benefits of various options, and to develop its business plan accordingly. The requirement to submit the environmental impact information remains, which allows the FAA to determine the acceptability of the location and the effect on the environment of the proposed flights as well as its duty to determine the level of review required under NEPA.”

This paragraph makes clear that the FAA prioritizes the airline industry’s business purposes and costs, not the need to protect either the health of people on the ground who would be affected by supersonic test flights or the environment. Section 91.818(a)(6) should not leave it up to aviation industry applicants to designate a test area to be overflown. If overland flights are to be considered, the regulation must designate as a test area either an area that is unpopulated or, at worst, one of the military test ranges (the locations of which are not disclosed in the Notice) that the FAA approved for three (3) previous applicants. According to the Notice, environmental impact statements have already been approved for such military test ranges. The Notice also points out that using these military sites will be “more efficient and less costly” than establishing a new test area. Therefore, these sites, not residential areas, should be the approved test areas. Specifically, we object to any testing of supersonic aircraft at or near Boston’s Logan International Airport.

6. Supersonic Operations Outside Test Area

The Notice invited public comment on whether the FAA should maintain or remove a provision (Appendix B, section 2(b)) of the existing regulation that allows an applicant to request supersonic non-test flights outside of a test area. For the reasons stated in the Notice, we strongly urge the FAA to remove Section 91.818(b) from the proposed regulation. According to the Notice, the “prerequisites for this supersonic operation are considerable” and would be “difficult” to satisfy, and “the FAA knows of no aircraft that can meet the ‘no overpressure’ provision.” Forty-five years after the existing regulation was promulgated, “no operator has applied for an authorization to demonstrate a supersonic flight capable of producing no measurable sonic boom overpressure such as to qualify for this operating allowance.” Lastly, the Notice points out that “speeds slightly above Mach 1 are often the least fuel-efficient and may have the most negative effects on an aircraft.”

We submit that removal of Section 91.818(b) from the proposed regulation will have no measurable consequence upon any aircraft that may be under development. Testing is a necessary prerequisite to commercial flight operations and would continue to be governed by the re-codified regulation. If at some point in time, the aviation industry is able to successfully test a supersonic flight first over the ocean and then over an appropriate overland test area, the FAA will have adequate time to write a new and suitable regulation to govern flights outside of a test area. Such a regulation would be informed by current aviation practice and conditions, not aviation practice and conditions that existed in the 1970s.³ We believe that the FAA must seek current guidance from the EPA and the United States Congress on the critical issue of whether supersonic air travel is in the Nation’s best interest and, if so, under what conditions and limitations it should be authorized. Removing Section 91.818(b) and crafting an appropriate new regulation only after successful testing is demonstrated and Congressional, EPA and other governmental and public input is obtained, is in the best interests of the people we represent and, in our opinion, the entire Nation.


³ We submit that the Notice itself provides the obvious answer to the question of whether Section 91.818(b) should be included in the final regulation. The Notice states that “[t]he records of the adoption of this provision in 1973 contain no discussion of how these flights would be included in the overall operation of the national airspace system (NAS). The sheer volume of increased activity in the NAS since 1973 would demand a more comprehensive consideration of the impact of supersonic flights. Moreover, in the event that some level of supersonic boom or other noise generated by supersonic flight is determined to be consistent with the FAA’s statutory authority to protect the public health and welfare, the FAA would consider all available regulatory tools . . . to allow such flights, rather than rely on a 45-year-old standard that was included in a regulation designed primarily to approve test flights (emphasis added).”

Lastly, as noted above, our position is that unless and until the FAA adequately resolves the significant noise and pollution burden it has imposed on our town and other communities through its implementation of NextGen's precision-based navigation, the FAA should pursue no new technology or measures that would add to that burden.

Thank you for your consideration of our comments.

Sincerely,

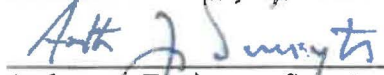
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State Representative Daniel R. Cullinane
Milton Airplane Noise Advisory Committee
Milton Community Advisory Committee Representative
Milton Town Counsel

October 9, 2024

The Honorable Rebecca Tepper,
Secretary Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900,
Boston, Massachusetts 02114
Re: Logan Airport 2020 / 2021 Environmental Status and



Dear Secretary Tepper,

Mothers Out Front East Boston urges you to reject Massport's 2022 ESPR. We represent not only concerned parents who are extremely worried about the role Logan Airport is playing in our children's environment they're inheriting - and also parents who want to hold Massport, as the biggest polluter in the Commonwealth, accountable for their impacts just like other city and state entities - but also local East Boston residents who see the daily and long-term replications of living amidst the pollution that is choking us.

There are many reasons to reject this ESPR:

- It is not compliant with the EEA's previous directives or with state laws and engagement requirements.
- Its forecasts are inaccurate and don't measure real impacts, nor does it offer any plans to mitigate against them.
- It makes misleading claims about pollution, such as larger planes creating less pollution
- It doesn't include pollution impacts from terminals.
- It's missing information needed to assess pollution and noise.

We request that the state requires Massport:

- to accurately measure pollution and noise and create a way for the community to access this information in real time
- to include measures they plan to mitigate against their impacts, and mitigation that benefits the health of our Commonwealth such as an air filtration program
- Disclose any data corrections they may have made
- Stop inaccurately forecasting growth, and measure real impacts as they happen
- Make the ESPR transparent to the community in a way that is accessible

Thank you for your consideration of this hugely important matter. Massport needs to do better.

The Mothers Out Front East Boston Team:

Sonja Tengblad	Lilliana Arteaga	Valinda Chan	Sandra Nijjar.	Anna Catani
Emma Uppal	Alyssa Vangeli	Taylor Lalemand	Tania Castro-Daunais	

From: [Aubrey Hartnett](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: Mothers Out Front East Boston
Date: Thursday, October 10, 2024 3:26:13 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi Jennifer,

I am writing in support of mothers out front comments regarding the Massport report outlining air quality in East Boston. I agree that there need to be additional protections for residents of East Boston, particularly the most vulnerable young children and elderly residents.

Thank you for your attention to this matter, Aubrey Hartnett

From: mccoy4@verizon.net
To: [Hughes, Jennifer \(EEA\)](#)
Subject: Comment for Logan Airport EEA# 3247
Date: Thursday, October 10, 2024 8:54:22 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Hughes,

- I am an Ayer resident and founding member of the Groton Ayer Buzz, an aviation-impacted community group working both locally and nationally. In my area, noise from jets arriving into Logan disrupts residents' sleep before 5 am and after 11pm. The ESPR should include impacts of the RNAVs on overflight communities.

"Logan Airport activity levels are projected to increase to approximately 53.3 million annual air passengers (MAP) and 495,000 aircraft operations over the Future Planning Horizon of the next 10 to 15 years."

- Increased operations at Logan are not compatible with residential living in the local vicinity due to current pollution issues. The future planning information should match the 5 year timeline of the ESPR, not extend further into the future.

"In addition to Airport-specific initiatives, Massport is joining others across the aviation industry in implementing long-term strategies to reduce GHG emissions, such as transitioning to sustainable aviation fuels (SAF) made from non-petroleum feedstocks that reduce lifecycle GHG emissions."

- The [viability of SAF](#) has yet to be demonstrated, therefore Massport should not include SAF as a strategy to reduce GHG emissions. Given that an estimated [70% of Logan's traffic is for leisure travel](#), addressing airport demand is a more viable strategy for reducing GHG emissions than touting a technology that is currently nothing more than industry [greenwashing](#).

- Massport's community outreach for their ESPRs is inadequate. I know meetings are required, but I was unaware of any of the public meetings held regarding this ESPR. No representatives from Massport made an announcement about the ESPR or the public comment deadline during the MCAC (Massport Community Advisory Committee) meeting in September. Notifications for ESPRs should be announced in major news publications such as the Boston Globe and Boston Herald, local TV news and local radio, such as WBZ 1030. Notifications should be released to local newspapers.

- [Ultrafine particle pollution](#) and [lead pollution](#) impacts are not adequately addressed in the ESPR.

- Overflight communities have limited to no access to aircraft data from Massport. Information about airport jet counts per RNAV should be published in the ESPR and

easily accessible to the public on Massport's website.

- Impacts of short hop jet travel, especially between Hanscom and Logan, should be reported in the ESPR.

- Directing readers to Massport's *Floodproofing Design Guide* is not adequate. Flood impacts should be fully discussed in this ESPR.

- I support AIR, Inc.'s comment.

- Thank you for reviewing my comments.

Amy McCoy



October 11, 2024

The Honorable Rebecca Tepper,
Secretary Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900,
Boston, Massachusetts 02114
Re: Logan Airport 2020 / 2021 Environmental Status and Planning Report (2022 ESPR) EEA#
3247

Dear Secretary Tepper,

Airport Impact Relief, Incorporated (AIR, Inc.) thanks you for the opportunity to comment on the Massport 2022 Logan Airport Environmental Status and Planning Report (the ESPR, the Report, the Document). AIR, Inc. is a community volunteer-led 5013C established in 1981, by East Boston resident airport activists of the 1960's. We organize meetings, analyze airport plans and reports, consult with our members and experts in related fields, and conduct community engagement to promote understanding of the environmental impacts of Logan Airport.

AIR, Inc. participates in the Massachusetts Environmental Policy Act (MEPA) process to contribute the perspectives of the environmental justice communities which are exposed to the most severe impacts. Development of AIR, Inc.'s Logan comments involves reading, researching, fact-checking and analysis and discussions of key topics, formulation of comments, drafting, sharing, gathering feedback from other EJ agencies, final revision, sharing and promoting understanding of the issues within the community, and organizing community action when necessary. Unfortunately, the preliminary review, analyses and drafting efforts for the massive documents Massport continues to submit absorbs most of the comment period, leaving very little time for engagement of EJ communities.

Aviation topics can be technical and abstract. AIR, Inc. strives to make our comments as informative as possible, designing them to explain not only perspectives on Logan's impacts and Massport policies, but also to provide insights into aviation topics not included in the ESPR, but which have bearing on the review process. While these comments are very much focused on Massport's failures, AIR, Inc.'s goal is to advocate for improved environmental outcomes. For this reason, these comments include numerous examples of programmatic and policy alternatives not discussed in the ESPR, but which could significantly reduce environmental impacts of Logan Airport.

We recognize and regret the extreme length of these comments. AIR, Inc. has implored Massport and MEPA to reform this disclosure document series -particularly through streamlining and improving the filings' organization, but also by ceasing to pollute the important discussions with unhelpful pro-aviation industry narratives. In all cases, the Port Authority has failed. Instead, the Authority seems determined to use the ESPR as a public relations platform. For instance, the Authority ingrains the word 'efficiency' throughout the entire ESPR, making over 123 references to the word 'efficient' or its derivatives. The Authority goes out of its way to explain heating, ventilation, lighting and water fixture efficiencies, and insists through the report that modern aircraft are quieter and more fuel efficient, and that more people will travel on less flights, ...increasing efficiency. They claim that increases in seat capacity utilization rates, and multiple on airport projects are aimed at increasing Logan's ability to efficiently handle passengers. Landside, airside, regional, airline networks, roadways... every possible efficiency claim is made. Regarding engine technology, Massport recites qualitative future benefits over and over, saying that newer engines are cleaner and quieter and more efficient at every possible opportunity. It is clear that the intention is to lean on the theory that technological improvements will keep pollution under control.

We cannot neglect to comment on these transgressions, or else we risk that MEPA and the Secretary will think we agree with Massport's claims. Therefore, throughout our comments, we must explain how Massport's framing of concepts such as their postulations and implications that improving efficiency will bring less pollution, noise and public health impacts are incorrect. These comments will show that Massport's claims are simply statements -nothing more than opinions, and that they are not based on facts.

Impacted communities are interested in quantifiable net impact reduction. The public looks to the ESPR to learn how much more or less noise, traffic, and emissions impacts might be, as well as how the Port Authority can combat potential increases. These comments will also detail how the Port Authority totally fails to explain basic facts and industry trends which are essential to understanding airport planning options. And we will provide the lacking explanations and offer examples of feasible alternative planning and mitigation options.

So throughout these comments, we must highlight the multiple misleading narratives Massport has submitted, and correct them. Consider that Massport states that 'enhancing the airports roadways can lead to vehicular circulation efficiency'. But, are Logan's roadways actually becoming more efficient? Can this be even while Logan's roads are increasingly choked with traffic? Throughout these comments we point out that Massport's intent is to mislead, parsing words to tell us what could be, while stating that the opposite is happening. This trend is repeated over and over in the ESPR to the extent where it is clearly not an accident, but instead is an intended initiative to report that environmental conditions are improving even while submitting data that show that environmental impact levels have not been, and will not be improving.

We encourage most readers of these comments to browse through the table of contents and read the sections which are of the most interest. To MEPA, we apologize for the length of these

comments, and suggest that the Secretary demand reform in the circuitous, duplicitous and inappropriate style of Massport's submissions.

Environmental Justice

Plain language

Document format

Airport Activity levels

Regulatory approach

Airport Planning

RE Regional Airport Cooperative Planning

Organizational approach

EXAMPLE: Zero Idling Policy failure

Compliance

Commitment and timetables

Establishment of a collaborative framework

Engagement of EJ communities in document development

Accepting public input before ESPR submission

Identifying metrics and thresholds that would trigger mitigation

Response to request for assessment of socialized costs

Possibilities

Mitigation possibilities

EXAMPLE: Airproofing program

EXAMPLE: Air Quality Sensor Network

EXAMPLE: Remote airport terminals

EXAMPLE: Logan transit hubs

EXAMPLE: Tourism and climate

EXAMPLE: Impact Triggered Mitigation

Noise

Predicted impacts

Technological improvements

Backsliding

Nighttime noise

Noise Mitigation

School soundproofing

Climate

Climate Backsliding

Sustainable aviation fuel

Underestimated carbon impacts

Emissions

Modeling

[Reporting practices](#)

[Backsliding](#)

[Upgauging impacts](#)

[Standards](#)

[Fuel efficiency](#)

[Pollutant data](#)

[VOC](#)

[NOX](#)

[Particulate matter \(PM\)](#)

[CO](#)

[Ultrafine particulate pollution](#)

[Regional Transportation](#)

[Regional economic impacts](#)

[Rail](#)

[Public Health](#)

[Ground Access](#)

[Data gaps](#)

[Logan Express](#)

[Air traveler survey](#)

[Ride apps](#)

Environmental Justice

Regarding environmental justice and the Authority's performance in improving engagement, the ESPR lists a series of meetings held to explain the document. These meetings were examples of one way communications, which are unsatisfactory as EJ engagement measures. We also note that the location of these meetings, being in the Cathy Leonard McLean room, does not satisfy the requirements of public meeting space for environmental justice community public information meetings as provided by the Public Involvement Protocol for Environmental Justice Populations found within the Interim Protocol on Climate Change Adaptation and Resiliency as required by the Climate Roadmap law. This protocol outlines public involvement requirements for projects identified as negatively affecting EJ populations and states that "The meeting(s) must be held at accessible locations near public transit to the greatest extent possible and facilitate remote attendance, with oral interpretation required with 48 hours' notice."

Located 0.6 miles from the center of the Jeffries Point neighborhood, 1 mile from Maverick, 1.25 miles from Eagle Hill, 1.5 miles from Harborview, 1.8 miles from the Belle Isle Inlet area, and 2.15 miles from Orient Heights, the Cathy Leonard McLean Community room is unnecessarily remote from most residential environmental justice areas in East Boston. Its location in the airport's service area is difficult to find with no wayfinding signage posted in and around the area to assist meeting-goers on foot or in cars. This facility is also not located along any MBTA bus or train line.

Massport's government affairs and community relations staff are well aware of the presence of multiple appropriate meeting venues centrally located within walking distance to most of residential East Boston, all of which are also located along numerous bus routes reaching all neighborhoods of East Boston, and many in Chelsea, Winthrop, and Revere, as well as within blocks of the Blue Line's WoodIsland station, including venues such as the East Boston Public Library, Excel Academy, and Spinelli's function hall. Any of these locations would satisfy the requirements for environmental justice public information meetings.

Plain language

The ESPR introduces the term [stage length](#) with no explanation. Stage length is an aviation industry planning term used by airlines in aligning aircraft capacity, fuel consumption and efficiency with flight distances / routes / seating demand. Stage length is calculated by factoring in route length, considering average on-route wind speeds to analyze profitability. It has little relevance to public stakeholders. We remind the Secretary of our previous requests in our 2016 EDR, and 2017 ESPR comments asking EEA to require that Massport cease polluting its public environmental disclosures with [irrelevant and confounding terminology](#). Introduction of unfamiliar technical terminology must be limited to only necessary concepts, and when done must be carefully explained when audiences include readers with known low numeracy and literacy levels. Federal Plain Language guidelines recommend that writers of technical information should align their communications with their audiences by asking: Who is my audience? What does my audience already know about the subject? What does my audience need to know? What questions will my audience have?

AIR, Inc. field tests its MEPA comments for comprehension, clarity and cultural appropriateness by pre-releasing them within a cross-section of environmental justice audiences and accepting feedback. We perform readability testing such as Flesch Reading Ease Scaling to identify areas where writing can be simplified.

Given our repeated comments to this effect, including in a separate meeting between AIR, Inc. and EEA to which Massport and its lead strategic planning and disclosure document development consultant were invited, use unfamiliar and unexplained terminology such as 'stage length', 'upgauging', 'Regional carrier affiliate', 'Mainline connectivity' are evidence that Massport refuses to make its disclosure documents plain and direct.

Overall, each chapter of the document should have a one - two page summary providing the essential concepts and numbers. Each new term should be linked to more detailed explanations. Instead, the ESPR uses a 'data pointillism' approach in which specific data is shared in too zoomed in detail with no big picture overview provided.

Document format

AIR, Inc. has made multiple requests for the length and complexity of the Massport's filings to be reduced. We have outlined, explained and discussed this need with Massport and MEPA extensively. Yet the ESPR at 678 pages and its technical appendices at 474 pages reach an astounding 1,152 pages combined. Today we renew this request and **ask that the Secretary place a 200 page limit on future filings** inclusive of all relevant data and information.



September 5, 2024 PM

The Honorable Rebecca ITepper,
Secretary Executive Office of Energy
and Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900,
Boston, Massachusetts 02114
Re: Logan Airport 2020 / 2021
Environmental Data Report (EDR) EEA#
3247

Introduction

Dear Secretary Tepper,
Airport Impact Relief, Incorporated (AIR,
Inc.) thanks you for the opportunity to
comment on the Massport 2022 Logan
Airport Environmental Status and
Planning Report (the ESPR, the Report,
the Document). AIR, Inc. is a community
volunteer-led 5013C established in 1981,
by East Boston resident airport activists of
the 1960's. We organize meetings,
provide technical analyses of plans and
reports, consult with our members and
experts in related fields, and conduct

Example of smartphone scalability

The vast majority of low income and minority residents connect to the internet through smartphones and few have access to PDF reader software. This makes the use of PDF formats inappropriate for sharing documents for which public engagement is needed. AIR, Inc. has invested great effort into explaining the disadvantages of PDF's, yet Massport has once again submitted the 2022 ESPR in PDF format. Without a search, or 'jump to' option, users embedded in the middle chapters are required to scroll to the table of contents to navigate the document.

In contrast, these comments are submitted in mobile-friendly Google Doc format to ensure that they are scalable to smart phone screens. Google docs can be locked to ensure that the contents remain secure, and provide a document outline feature which is always available from a pull down menu allowing for easy navigation. A 'find and replace' feature allows users to

search for key terms and phrases. And Google docs also supports comments, which users can embed in situ within the document. To further improve Massport's MEPA filings, **we ask the Secretary to prescribe that the Authority provide filings in multiple formats, including Google docs.**

Airport Activity levels

Throughout this ESPR, Massport reports as though its staff are still living in 2022, with the recovery ongoing, and the future uncertain. On multiple occasions, the pandemic is placed in front of readers as a factor in planning. Covid interrupted a 10 year annual growth trend which averaged 3 times over the previously forecasted levels. Starting in March 2020, Logan gained back 22% of its previous high March to March passenger volumes in 2021 with March 2021 reporting 31% of March 2019's benchmark. By March 2022, Logan had gained back another 40%, recovering to 62.5% of its previous annual March to March peak traveler volume, with March 2022 reaching 82% of March 2019. By March of 2023, Logan had gained back another 27.5%, reaching 90% of its 2019 March to March traveler volume, with March 2023 hitting 97% of March 2019. And by March of 2024, Logan had gained back another 7%, reaching 97% of its 2019 March to March traveler volume, with March 2024 equaling March 2019's traveler volume.

With 5 out of the last 10 reported passenger volumes by month equal to or in excess of 2019 peak levels, we have reached the point at which Logan's recovery has now transitioned back into growth. With 8 months reported, growth in 2024 is tracking at over 6%. AIR, Inc.'s monthly passenger tracking indicates that over the past 12 months (August 2023 - August 2024) of reported data, **a new all time peak 12 month passenger volume of 42.54 million passengers has been attained.** The previous annual high was 42.52.

In the 2022 ESPR, Masport reports that during 2022, passenger levels were down by 15% from 2019 peak levels, but flight operations were only down 11%. This confounds the reader, as the Port Authority also states that the trend is moving toward larger, cleaner, and quieter aircraft. Readers would therefore expect that 85% of the travelers would have been served by less than 85% of the operations – perhaps 80% of the operations. Instead the opposite is reported; 85% of 2019 peak passengers were transported not by less aircraft movements, but by 4% more.

Habitual underestimations and transgressions such as the clearly inaccurate prediction that peak level passenger volumes would be achieved by “about 2025” when they had clearly returned to pre-pandemic levels at the time the ESPR was submitted should not be overlooked. They are part of a systemic under-estimation and avoidance of mitigation.

The document confuses, reporting that in 2022 general aviation (GA) operations reached 98% of the peak high-level set in 2016 and that Regional Jet (RJ) connections in 2022 over 2019 levels while elsewhere reporting trends toward larger, more fuel efficient and cleaner aircraft. The growth in GA is not explained. Regarding the increase in RJ connections, Massport explains that this occurred “as carriers optimize their hub airport networks for connecting opportunities and continue to implement strategies to resume pre-pandemic services.” This explanation is almost completely useless to the layman who does not know what carriers optimizing their hub airport networks for connecting opportunities means. One feasible consequence of this that carriers are eliminating RJ flights to Logan from New England cities forcing those passengers to drive to Logan rather than fly in on a RJ, which has the effect of raising the already intolerable level of ground access traffic in nearby communities. The

Secretary should require Massport to explain the consequences of reduced RJ activity at Logan on ground access and congestion.

Massport’s reporting of load factors is also confusing. The ESPR predicts an 84% average load factor and with 141 average available seats in the future planning horizon. But at the projected 495,000 operations, this average seating capacity would appear to bring 58.6 M passengers. The Secretary should require Massport to reconcile the passenger volumes implied by this discussion of load factors and average available seats with its passenger volume forecasts elsewhere in the document.

Later, Massport states that the ESPR forecast is within 5% of the [FAA Terminal Area Forecast](#) (TAF) through the 10 - 15 year future planning horizon. However the Authority doesn’t explain what the TAF is, or whether the 2022 ESPR forecast is 5% over or 5% below the FAA TAF. The Secretary should require Massport to specifically compare the TAF forecast to the Massport forecasts for the same forecasting periods.

Year	2% Growth	3% Growth	4% Growth	5% Growth	6% Growth	7% Growth	8% Growth
2,025	43,031,783	43,453,664	43,875,544	44,297,424	44,719,304	45,141,185	45,563,065
2,026	43,892,419	44,757,274	45,630,566	46,512,295	47,402,463	48,301,068	49,208,110
2,027	44,770,268	46,099,992	47,455,788	48,837,910	50,246,610	51,682,142	53,144,759
2,028	45,665,673	47,482,992	49,354,020	51,279,806	53,261,407	55,299,892	57,396,340
2,029	46,578,986	48,907,481	51,328,181	53,843,796	56,457,091	59,170,885	61,988,047
2,030	47,510,566	50,374,706	53,381,308	56,535,986	59,844,517	63,312,847	66,947,090
2,031	48,460,777	51,885,947	55,516,560	59,362,785	63,435,188	67,744,746	72,302,858
2,032	49,429,993	53,442,525	57,737,223	62,330,924	67,241,299	72,486,878	78,087,086
2,033	50,418,593	55,045,801	60,046,711	65,447,470	71,275,777	77,560,960	84,334,053
2,034	51,426,965	56,697,175	62,448,580	68,719,844	75,552,324	82,990,227	91,080,777
2,035	52,455,504	58,398,090	64,946,523	72,155,836	80,085,463	88,799,543	98,367,240
2,036	53,504,614	60,150,033	67,544,384	75,763,628	84,890,591	95,015,511	106,236,619
2,037	54,574,706	61,954,534	70,246,159	79,551,809	89,984,026	101,666,596	114,735,548
2,038	55,666,200	63,813,170	73,056,006	83,529,400	95,383,068	108,783,258	123,914,392
2,039	56,779,524	65,727,565	75,978,246	87,705,870	101,106,052	116,398,086	133,827,544
2,040	57,915,115	67,699,392	79,017,376	92,091,163	107,172,415	124,545,952	144,533,747

Forecast uncertainty

The 2022 ESPR forecasts 53.5 million passengers within a 10 - 15 year timeframe termed the Future Planning Horizon. Massport explains that its forecasts are derived from a cadre of industry best practices, global and regional economic trends, technological changes, and predictable airline actions, and states that this forecast is in line with previous forecasts. With this reasoning, the Authority appears to be attempting to take the pandemic’s effects in stride. But the 5 year pandemic pause was neither a global nor regional economic trend, nor a

technological change, nor a predictable airline action. It was a one-time depression in economic activity felt across the national economy that has now passed as passenger growth approaches historic levels.

At a conservative 3% growth rate -which is 40% below the pre-pandemic 5-year average, but without the depression in traffic caused by Covid, Logan would be at or around 49 million passengers today. The 2011 ESPR forecast had predicted only 38.5 million passengers by 2030; the 2017 ESPR forecast was equally inaccurate, predicting only 50 million passengers by 2032. If growth stabilizes at 2%, *which is 60% below* the pre-pandemic 5 year average, traveler volumes will reach 54.6 million passengers by 2032, the beginning of the 5 year open planning horizon window.

The 2022 ESPR forecast of 53.5 M within the 10 - 15-year window indicates an average annual growth rate ranging between 2.75% and 4%. However passenger volumes have grown at well over this range since rising 15% in calendar year 2023, reaching 40.8 million passengers. During 2024, growth is averaging over 7% in the past 12 months. During the first four months of calendar year 2024, passenger levels have grown 4.5% over 2023 levels.

Massport stresses that the forecasting methodology they use is in accordance with industry best practices, and considers key trends in the regional economy, the national airline industry, COVID-19 recovery, and competition within the airline industry, among other factors. However, the 2011 and 2017 ESPR forecasts were also presumably based on industry best practices and economic trends, and both forecasts were wrong. Passenger activity at Logan in the period of time between those forecasts and beyond grew at 5% per year, three times the forecasted rate. The result was a growing lag in planning and mitigation which reached 9 million passengers before it was interrupted by the pandemic. So, Massport's industry growth forecasting is unreliable.

Use of a 10 - 15 year planning window (the Future Planning Horizon) introduces an unacceptable level of uncertainty for a metric used to mitigate environmental impacts on affected populations. The 2022 ESPR reported 36 million passengers in 2022, and provides a forecast of 53.5 million within the 10 - 15 year horizon. This forecast indicates an increase of 17.5 million passengers by 2032 - 2037. The projected increase of 17.5 million passengers over 10 to 15 years indicates an average steady state annual growth rate between 2.75% and 4%. At the minimum forecasted growth rate, passenger volumes would rise by 1.167 M passengers per year over 15 years, with 11.7 M additional passengers (47.8 M) at the 10 year mark. At the maximum forecasted rate, an additional 1.75 M passengers per year would occur over ten years, a growth rate which would result 62.3 M annual passengers at the outer end of the Future Planning Horizon (in year 15). The potential difference in passenger growth from the lowest growth in the nearest term to the highest growth in the longest term is a swing of over 14.5 million passengers -an astounding 83% of the forecasted 17.5 M growth.

AIR, Inc.'s 12 month running total passenger volume calculations also indicate that in 2024 42.8 million passengers will use Logan. This indicates the addition of 6.8 million passengers between 2022 and 2024, and leaves only 10.7 M in growth headroom before the 53.5 M level is

reached, with 8 years left before the near term planning horizon is reached. Logan's growth would need to slow to a steady state annual rate of under 2% to avoid a third consecutive inaccurate ESPR under-forecasted growth condition. The growth we are seeing for 2024 is between 6% and 7%, two or three times the presumed steady state growth rate indicated in the present forecast.

If reduction of potential negative impacts is to be achieved, realistic, higher growth scenarios must be analyzed. AIR, Inc.'s proposal of an impact triggered mitigation schedule allows for real time monitoring of growth and 'just-in-time' mitigation.

The Secretary should find that the inaccurate Massport forecasting method is inappropriate for use in developing a mitigation strategy for public health impacts on human populations.

Regulatory approach

The Massachusetts Environmental Policy Act sets out regulations in 301 CMR 11.00 which state its purpose as *"to provide meaningful opportunities for public review of the potential environmental impacts of projects ...and to assist each agency in using ...all feasible means to avoid damage to the environment."*

Residents of the Commonwealth should expect MEPA to identify and prevent potential negative environmental impacts. However, the MEPA review for Logan Airport is mired in the environmental politics of the 1990's, when small government reformers saw Logan as the 'engine of our economy' and dead-ended environmental review for airport projects with a certification process that is not consistent with the MEPA goals.

This has been a recipe for disaster, as state-level political leaders have consistently exercised the option to 'look the other way' as Logan and its environmental impacts have expanded. **We ask the Secretary to build on her strong requirements within her 2020/2021 EDR certificate by prescribing that MEPA meet with specific groups such as AIR, Inc. and GreenRoots, specifically for the purpose of developing a new framework for environmental review and impact-related mitigation..**

The current MEPA procedure for Logan was developed on the heels of the Dukakis Massport's strong environmental performance, and extends an administrative 'benefit of the doubt' to Massport, as though the Authority has earned immunity from causing environmental harm by virtue of its previous good deeds. One of those good deeds was the development of a voluntary environmental reporting system. In 1979, Massport began producing bi-annual environmental assessments called Generic Environmental Impact Reports (GEIRs). These documents were produced voluntarily and were filed with MEPA, not for formal review, but in order to take advantage of the structured public engagement process employed by that agency.

The presumption of good will is a critical flaw in the current Logan MEPA review procedure. Based upon the presumption of the sufficiency of future mitigation and impact reduction

programming, environmental reporting for MEPA level airport facilities projects removes air pollution and noise impacts from Logan project EIRs and displaces these dialogues into unrelated EDR and ESPR documents which report on cumulative airport impacts, but do not report of air pollution and noise data on a project by project basis. This effectively allows *Logan facilities project filings to be certified at the state level as being adequately and properly compliant with state environmental laws prior to the review of their environmental impacts*.

In addition to denying the public an opportunity to review specific impacts from specific projects, the second major flaw in the informally amended regulatory procedure is that the iterative EDRs and ESPRs are often submitted as long as two years after the end of the reporting period. In an ever-changing aviation and economic environment, this delay is absurd; as the public attempts to participate in the environmental review process, we are relegated to analyzing and commenting on decisions which have been made years earlier while the Port Authority reports on past conditions and mitigation strategies it was considering two years ago. The accumulation of hardships this system inflicts on community stakeholders is unfair.

Perhaps the biggest flaw in the Logan review system is that it employs forecasts as planning tools to predict future airport passenger and flight activity growth. These forecasts are then used to assess mitigation needs. As has been chronicled in AIR, Inc.'s past MEPA comments and acknowledged by the Secretary on numerous occasions, these forecasts have been proven to be inherently unreliable.

In 2022, MEPA had an opportunity to revise and update its Logan disclosure system while it conducted a regulatory review of its procedures pursuant to the requirement that all state agencies meet new and more stringent public engagement standards set forth in the Climate Roadmap law. AIR, Inc. participated in this review process. However, discussion of Logan Airport applications were deferred to promised later discussions, which have not been scheduled. Today, the Weld era MEPA filing system for Logan remains in effect.

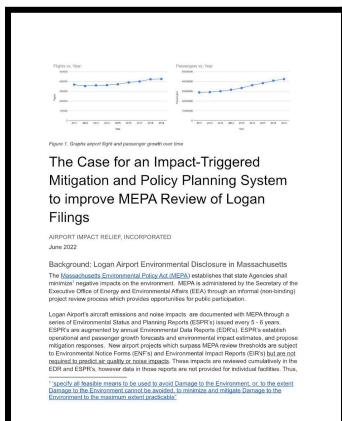
The environmental consequences of this dysfunctional review procedure disproportionately affect low income populations. For example, over the past 20 years, Massport has shared no data regarding the environmental performance of the 2005 Boston Logan Airport Terminal A Redevelopment Project, a \$500 million, 675,000 square feet terminal expansion. Clearly, the additional capacity this facility provided has enabled a portion of the 20 million passenger volume growth experienced at Logan over the past 20 years.

More recently, the Terminal E EIR theorized that demand for air travel is driven NOT by the facilities, but by external economic and industry conditions aka 'demand'. Alternatives to building the expanded international terminal capacity at Logan existed, but were not evaluated in the scoping process for the project. The Authority considered only full build, half build, and no build alternatives, and posited that if further congestion at Logan developed, the environmental consequences would be worse without newer, more efficient facilities. This essentially argued that a smaller increase in pollution was preferable to a larger increase in pollution. Nowhere was the option to be polluted less sought out.

The 2022 ESPR joins past Massport filings in asserting that Logan Airport facilities do not induce demand, but rather respond to it. This is yet another absurd position. AIR, Inc. has researched the history of Logan facilities' development, and our findings clearly refute this claim. Logan Airport's facility development history shows that renovations, optimizations, and modernizations of Logan's facilities, along with additional gates, larger gates, runways, and acreage has tracked directly with passenger growth. Clearly, expansion of Terminal facilities opens the door for passenger volume growth.

Year	65 DNL	65 DNL	Traffic (AWDT)	NOX		PM kg/day		VOC	CO	Year	Year	Passengers	Flights				
2000	17745	17745	101446	5707				1777	13112	2000	2000	27726833					
2001	14246	14246	91588	5168					12056	2001	2001	24474930					
2002	8309	8309	89731	4103					10952	2002	2002	22696141					
2003	7183	7183	93680	3694					10177	2003	2003	22791169					
2004	10720	10720	106278	4290					9851	2004	2004	26142516					
2005	6477	6477	112600	4107		83			9566	2005	2005	27087905					
2006	5583	5583	115500	4151		78			8927	2006	2006	27725443					
2007	8099	8099	119200	4457		128			9233	2007	2007	28102455					
2008	5968	5968	100107	4204		81			8361	2008	2008	26102651					
2009	4335	4335	93670	4061		71			7925	2009	2009	25512086					
2010	3830	3830	98968	3980		64		1025	7962	2010	2010	27462962					
2011	3937	3937	104863	4077		67		1109	6919	2011	2011	28909267	368987				
2012	4569	4569	104439	4099		72		1090	6738	2012	2012	29236087	354869				
2013	4307	4307	107656	4020		92		1187	7340	2013	2013	30218970	361339				
2014	8922	5300	113564	4073		95		1177	6987	2014	2014	31634445	363797				
2015	14097	6300	119288	4262		98		1188	7243	2015	2015	33449580	372930				
2016	7450	7450	125715	5300		96		1280	7350	2016	2016	36288042	391222				
2017	7933	7933	130601	5935		77		1308	7524	2017	2017	38412419	401371				
2018	7034	7034	137105	6152		90		1270	8106	2018	2018	40941925	424024				
2019	8768	8768	143189	6440		92		1295	8267	2019	2019	42522411	427176				
	Corr'n Pass Vol - 65 DNL RAW DATA	36.30%	Corr'n Pass Vol - 65 DNL EDITED DATA	93.88%	Corr'n Pass Vol - ADWT	99.72%	Corr'n Pass Vol - NOX	97.20%	Corr'n Pass Vol - PM	36.54%	Corr'n Pass Vol - VOC	90.23%	Corr'n Pass Vol - CO	92.83%	Corr'n Pass Vol - Night Ops	98.35%	
	Corr'n Flgts- 65 DNL RAW DATA	22.39%	Corr'n Flgts- 65 DNL EDITED DATA	86.12%	Corr'n Flgts- ADWT	96.41%	Corr'n Flgts- NOX	97.37%	Corr'n Flgts- PM	22.95%	Corr'n Flgts- VOC	83.76%	Corr'n Flgts- CO	93.85%	Corr'n Flgts- Night Ops	91.84%	

Despite its 678 page length endless tables and charts, neither the 2022 ESPR, nor the 474 page technical appendices provide a comprehensive analysis of the correlation between passenger and flight growth, and the onslaught of environmental damage. In its 2022 proposal [The Case for Impact Triggered Mitigation](#), AIR, Inc. compiled Massport's data, normalized the data sets, and performed statistical correlation calculations comparing the deviation of the data sets. This effort returned equally clear conclusions that Massport's data show a near perfect correlation between both passenger and flight operation levels, and all reported negative environmental impacts.



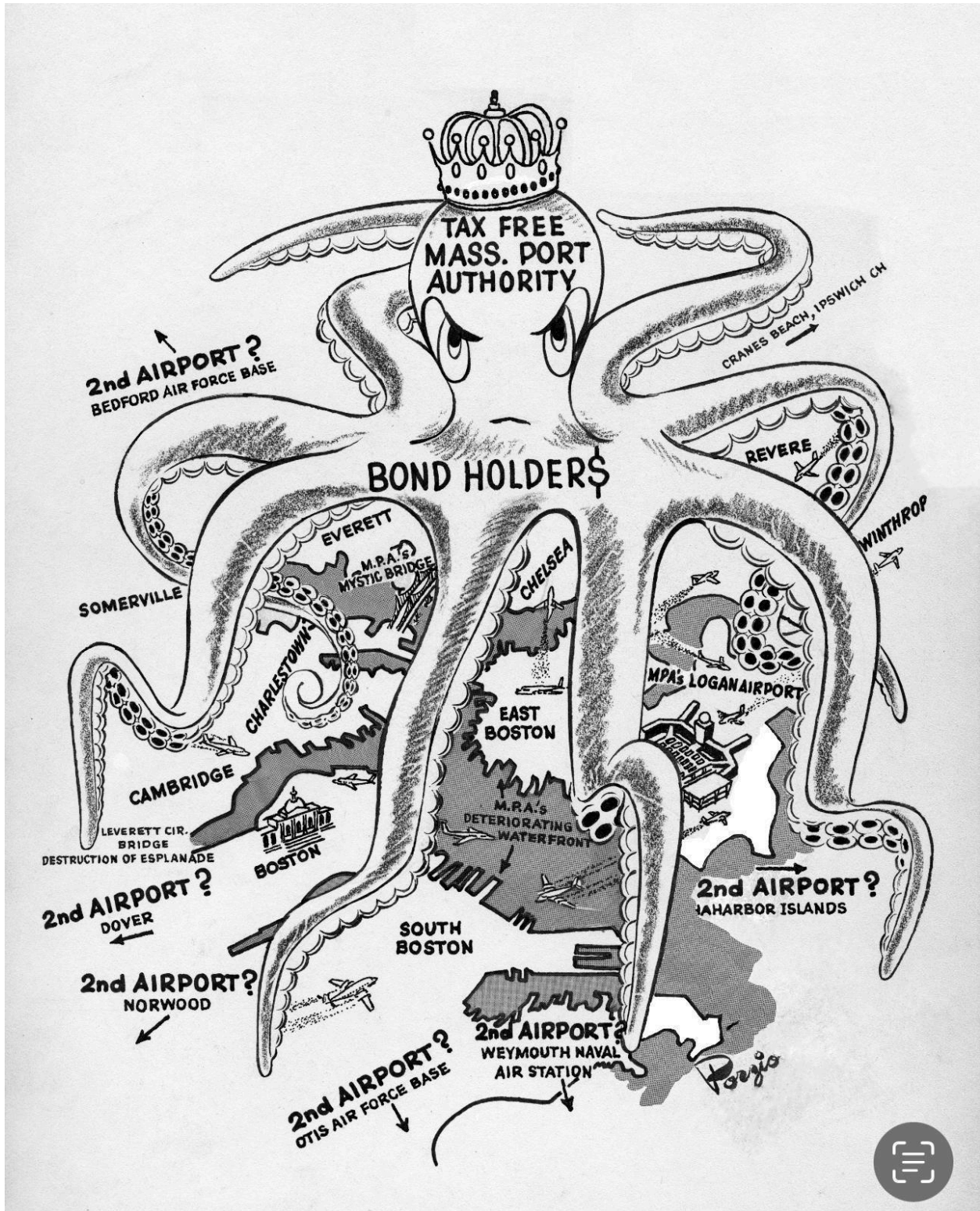
Since airport facility development tracks with passenger growth and passenger growth tracks with environmental damage, then airport facility development tracks with environmental damage. Therefore, in order for the public to have meaningful input on specific airport facilities projects completed in the past, **we ask the Secretary to require Massport to include modeled environmental impacts from Logan facilities project filings approved in the past in EDRs and ESPRs and to include**

evaluation of predicted environmental performance over the expected lifetime of all future ENF and EIR project filings, including at all future capacity levels of service.

Neither of these conditions is met by the current MEPA procedure.

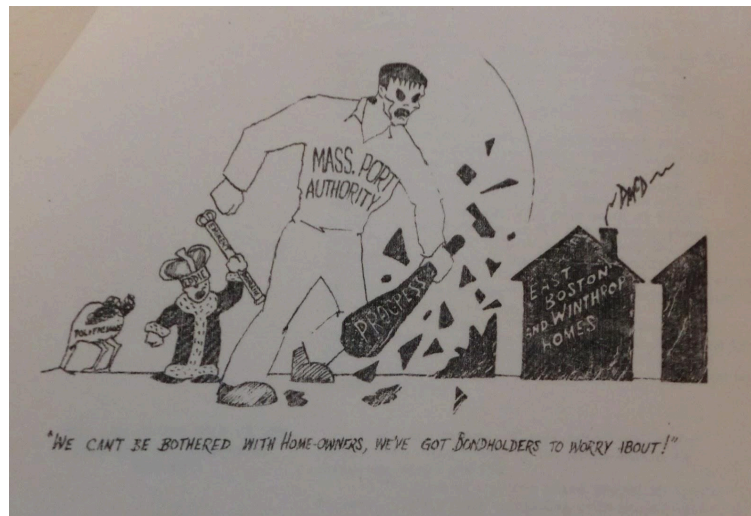
Specifically, because the 2022 ESPR lacks the environmental impact data reporting for each of Logan's facilities normally included in EIR-level reviews but deferred into this document series. This, in turn, denies the public the relevant information needed to assess the environmental burdens associated with project impacts, **we ask the Secretary to make the only reasonable determination; that the Logan Airport ESPR is not compliant with MGL Part I, Title III, Chapter 30, Section 61**, which states that "All agencies, departments, boards, commissions and authorities of the commonwealth shall review, evaluate, and determine the impact on the natural environment of all works, projects or activities conducted by them and shall use all practicable means and measures to minimize damage to the environment."

We ask the Secretary to determine that Massport is non-compliant with Massachusetts' environmental laws, **we ask that the Secretary find that the 2022 ESPR is also not compliant with MEPA regulations 301 CMR 11.00 regarding the provision of meaningful opportunities for public review of the potential environmental impacts of projects.**



Enabled by an [act of the state legislature](#), in 1959, Massport was granted monopolistic powers including the power to issue bonds, the power of eminent domain, and control of all their facilities and revenues. Section 2 of Massport's enabling act stipulates "There is hereby ... a body politic and corporate ... known as the Massachusetts Port Authority, which shall not be

subject to the supervision or regulation of the department of public works or of any department, commission, board, bureau or agency of the commonwealth..."



Political cartoon ca 1970 portraying the Port Authority as a destructive monster

The agency wielded its authority brutally, consuming 1,500 acres of Boston Harbor, subsuming 3 harbor islands including the original Fort Warren, and bulldozing three urban neighborhoods, hundreds of homes and businesses, and two urban parks including an 83 acre Olmsted park.

AIR, Inc. notes that the environmental leadership and collaboration of the 70's and 80's was simply an interruption in a well-chronicled history of environmental destruction. We ask the Secretary to note that the Massport staff which strived to implement environmentally beneficial programming was fired and replaced by the hatchet-wielding small government reformers of the 1990's, and that the regulatory failures described in these comments has invited the Authority to revert to the past insular and destructive culture which precludes collaboration and prohibits innovation.

Today, as outlined in AIR, Inc.'s comments objecting to the unnecessary destruction of additional Boston harbor acreage in the presence of zero impact options in the [Runway 27 RSA Improvement Project](#) the Authority continues to regard environmental costs as the lowest of its priorities.

In this ESPR Massport exhibits an indifference to the environmental impacts of Logan Airport. This is evident in Massport's passive position on noise mitigation, where the Authority tells us that they have applied to the FAA for further grant funding for additional soundproofing. The implication of this passive approach is that continuation of the Massport soundproofing program is contingent on approval of federal funding. Nothing could be further from the truth. If the Authority intends to fund soundproofing activities using FAA funds, then they must follow the FAA funding eligibility rules. However, there is nothing that prevents Massport from using its own money to continue the program.. As a prime example, Massport pays the considerable

costs of operating a Noise Abatement Office out of its revenue from the landing fee with no Federal funding or approvals required.

In [American Airlines et al v Massachusetts Port Authority \(1st Cir. 1977\)](#) the US Court of Appeals ruled unambiguously that Massport has the authority to determine what its legitimate expenses are, and to pay for them with appropriate airport revenue streams as long as their charges are not unjustly discriminatory or unreasonable. This is particularly relevant in view of the results of the massive FAA National Environmental Survey that revealed aviation noise as more annoying to citizens than the 40 year-old data that the FAA funding eligibility is based on. (DOT/FAA/TC-21/4, Federal Aviation Administration, William J. Hughes Technical Center, Aviation Research Division, "Analysis of the Neighborhood Environmental Survey")

AIR, Inc.'s 2022 ESPR comments will demonstrate that despite the many serious challenges, the most crucial of Massport's failures is the agency's lack of institutional ambition to improve environmental analysis and mitigation.

In another example of Massport's staff obstructing progress, the 2022 ESPR confuses discussion of mitigation, by dividing it into two parts located in opposite ends of the document: Section 61 mitigation, which the Authority labels as associated to state EIR level projects located in the document's chapter 10 on project mitigation, or additional community commitments and environmental measures, located in chapter 2 entitled Sustainability, Outreach, and Environmental Justice. The mis categorization of environmental justice as a neighborly program and project mitigation commitments as regulatory requirements is confounding. The Authority's motivations for addressing environmental damage by postulating that there are required and voluntary mitigation programs which are apportioned and aligned with either project required, or sustainability, outreach and environmental justice related voluntary measures are unknown. This misaligns environmental justice as among Massport's good neighborly commitments. AIR, Inc. reminds the Secretary that the first generation of East Boston airport environmental justice activists including Anna DeFronzo, Eleanor Welch, Joe Porzio, Lucy Farrulo and others organized the nation's first environmental justice protest in 1968, blockading Maverick Street while demanding relief from trucking impacts of Logan expansion. These residents were forced into taking this action after they were denied process by state and Port Authority officials, as they pursued public health and safety requests, demanding that heavy trucking be rerouted off of residential neighborhood streets, and onto a construction road which could easily have been, later actually was developed on airport property instead of residential streets. This action, the political interventions which followed, and the resultant on-airport truck road which was developed were not associated with an EIR; they were fought-over points of environmental justice 14 years before EJ was officially recognized after residents of Afton, North Carolina blockaded their dump trucks.

In both cases, as in all EJ struggles, residents are fighting against environmental damage which causes existential damage to their health. This is and has always been the case in Massachusetts' Logan Airport / community environmental struggles. In the case of airport impacts, community motives have always been (for over 60 years) protection against, reduction of, and relief from negative environmental impacts generated by Logan's airport activities,

mainly in the form of noise, air pollution, and traffic congestion. Community stakeholders are primarily concerned with accumulation of impact, not in the state's siloed and segmented administrative procedure.

The ESPR is supposed to offer the public an opportunity to review, analyze, and comment on Logan's environmental impacts. It is not an informational update, as Massport treats it. In fact, within the warped and unhelpful regulations the ESPR is the only opportunity for the public to comment on the current status, trajectory, and future of Logan's negative environmental and health impacts. Therefore, where the document serves to inform, it should do so with the intention of ensuring the public has a solid footing of understanding of aviation industry technical topics and trends in order to help advance helpful dialogues about available opportunities to innovate in environmental impact reduction which are available or may become available. The Port Authority again makes no effort to promote this sort of information and in the above example in fact makes no effort to avoid public stakeholders and regulators forming incorrect conclusions.

This highlights the fact that as it relates to improving Logan's environmental performance, Massport's organizational culture is a key problem. Not only has a staff level resistance against change developed, but along with years of contentious community relations, has come a habit of routine dismissal of community input and a lack of ambition to improve.

Airport Planning

The Secretary has requested that Massport report on growth and impacts in a 5 year timeframe as well as for the year 2040. This request indicates that the Secretary wants to look specifically at both nearer term and longer term forecasting than is normally provided in Massport's ESPRs. With past forecasts inaccuracies in mind, this request is logical; it asks Massport to demonstrate that it can at least predict more reliable short term growth and impact outcomes, and to show that its short term planning is integrated into an appropriate longer term vision.

Instead, the 2022 ESPR continues to report and forecast over a 10 - 15 year range which they call a Future Planning Horizon. This practice introduces an astonishing 50% uncertainty factor. For example, if 100% of the forecasted 17.5 million passenger increase is realized in 10 years, an average of 1.75 M passengers per year increase will be experienced over that timeframe. If the same 17.5 M additional passengers comes in 15 years, then 1.17 M passengers would be expected annually. At the 15 year growth rate, by year 10 year period, 11.7 M additional passengers would accumulate, whereas at the 10 year rate, growth would reach 17.5 M. The 5.8 M potential additional passengers which could come in the 10 year period represents a 50% increase over the the 11.7 M passengers which would come in the 15 year growth scenario.

The ESPR states that 'planning initiatives such as roadway and garage facility enhancements, increased sound insulation, and Massport's Roadmap to Net Zero (Net Zero by 2031) in addition to existing mitigation strategies will reduce adverse effects...' Yet, in each environmental category within the ESPR, Massport predicts increasing impacts. If net impacts are rising, they

are not falling. Small increments of improvement cannot be allowed to become the focus, while huge gains in damage are continuing to increase net impacts.

RE Regional Airport Cooperative Planning

The Authority treats the regional transportation chapter of the ESPR as a requirement to be checked off, rather than as a vital discussion of opportunities. Transportation planning is not merely a related field of interest to stakeholders reviewing Massport's cumulative impact filings, but in fact it is a passageway between today's dysfunction and the answers for tomorrow. Nowhere else in the ESPR is Massport's lack of ambition to drive change more clear.

Logan Airport cannot reasonably be expected to perform better under the stress of increased passenger volumes predicted in this ESPR. Forcing further passengers and larger aircraft through Logan will increase negative environmental burdens. The Possibilities section of these comments outlines the power that [innovative regional planning](#) holds to drive monumental change for transportation and environmental outcomes in metro Boston, as well as in its EJ communities.

Organizational approach

Massport has demonstrated that it is organizationally incapable of self correcting.



EXAMPLE: Zero Idling Policy failure

No standing, no parking signs line Logan's designated private vehicle pick up and drop off zones at terminal curbs. However, motorists routinely arrive early and are allowed to remain -sometimes for prolonged periods awaiting passengers. In 2022, [AIR, Inc.'s idling monitoring project](#) found 50% of passenger cars at Logan idling including 62% of vehicles at the terminal curbs and an every average idling time of 12.5 minutes. With over 143,000 vehicles trips per day, this idling pollution creates a serious but avoidable hazard in residential communities only hundreds of feet away.

AIR, Inc. and Mothers Out Front developed a [draft proposed zero idling policy](#) for Logan and asked the Port Authority to meet with us to discuss implementation options. Massport's behavior at this meeting is indicative of a cultural incapacity to work with community stakeholders. Massport's staff challenged AIR, Inc.'s data. They told us that a no idling policy would be impossible to enforce but said they would consider posting signs as long as the community did not come back to them with complaints about continued idling. In other words, the Authority was saying: 'We'll put the signs up. But we won't enforce.' Massport asked Mothers Out Front's volunteers what they were doing to stop idling elsewhere?

Clearly with Massport reporting Logan emissions of over 35,000 lbs of EPA criteria pollutants daily at peak activity levels, any unnecessary idling at Logan is undesirable, regardless of the methods used to calculate the pollution impacts. Given the fluidity of Logan's terminal curbs, a 'Pull up, and Shut down.' policy is the only enforceable policy. And neither AIR, Inc. nor Mothers Out Front have any obligation to fight idling in front of corner stores.

Ultimately Massport posted what could only be considered spite signs which are non-compliant with roadway signage standards for letter size and detectability. We share the details of this story, not to disparage Massport, but to illustrate that organizational culture has become a primary obstacle to progress on Logan Airport environmental performance and give the Secretary insights into the depth of the Authority's ongoing failure to collaborate.

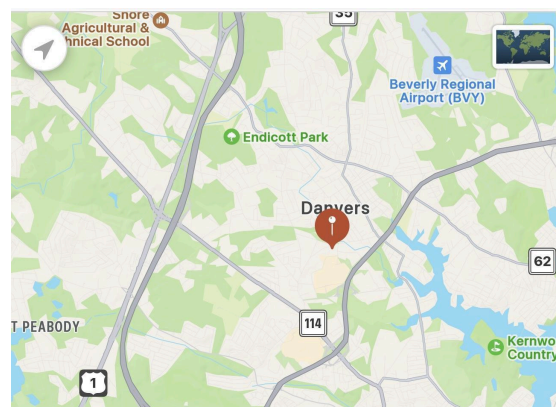
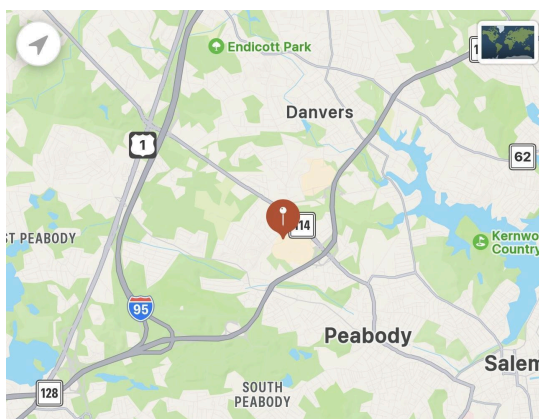
We hope that this example will illustrate that it is not a foregone conclusion that a powerful organization such as Massport can simply flip a switch and change its culture. **We ask the Secretary to ignore the professions of neighborliness and good deeds, and put aside any sense of fraternity, and recognize the Port Authority's behavior and performance in the manner in which they are seen in surrounding EJ communities: as a polluter which is avoiding regulation.**

Compliance

In her January 30, 2023 Certificate on the 2020 & 2021 Logan Airport Environmental Data Report (EDR), Secretary Tepper determined that the EDR for EEA project #3247 (Logan Airport) adequately and properly complied with MEPA regulations during the reporting period. The certificate also provided the scope for the 2022 ESPR outlining specific environmental and public engagement requirements which are responsive to environmental justice (EJ) stakeholders' comments.

The adequacy of Massport's compliance with the Secretary's requests is particularly important in neighborhoods such as East Boston, Chelsea, Winthrop, and Revere, where past environmental review has not effectively protected low income and minority populations (EJ communities) from disproportionate environmental impacts, which correlate directly with airport passenger volume and flight operational growth.

In the 2022 ESPR, as in past ESPRs and EDRs, Massport answers public and EEA comments in a contrived table located in the document's Appendix A, titled MEPA Certificates and Responses to Comments.



Massport's responses to the Secretary's and public comments are indicative of an institutional indifference to environmental impacts, a pattern of avoidance of regulation and a flat refusal to collaborate with local EJ communities. Below, we cite a series of examples in which Massport fails to comply with the Secretary's directives.

Commitment and timetables

Labeled by Massport as comment # A-2, the Secretary asks Massport for a clear commitment and timetable for implementation of environmentally beneficial programs and facilities promised in prior filings including a new suburban Logan Express location and a second urban facility. This is a reasonable request, given the airport's pandemic recovery trajectory, and the existing lag in effective mitigation. Then again, later in a comment labeled in the 2022 ESPR as #A-35, the Secretary specifically pointed out that Massport's responses in past EDRs were not fully responsive to past Secretary's directives, providing 'details on the status of multiple projects without a clear framework for determining when deferred projects, particularly those intended to mitigate air emissions impacts of Airport operations, would be implemented.'

Despite the Secretary's certificatory requirements, Massport's response states that it prioritizes projects based on passenger needs and demand, and lists a series of commitments as either underway, under evaluation, or in conceptual design. However, except for the LEX Framingham garage project, Massport provides no timelines.

In fact, under the heading 'New Logan Express suburban location' Massport seems to attempt to confuse, stating that a 'Peabody Logan Express at a new North Shore location opened in 2022.', and later stating that a 'Danvers Logan Express is expected to open toward the end of 2024.'. This would lead a reader who is unfamiliar with the north shore geography and the history of Logan Express locations to believe that a new suburban LEX opened in 2022, and another would open in 2024. Neither of these assumptions would be accurate.

The original route 1 south Peabody Express had been closed during Covid, then was reopened at a new Peabody location in 2022. That same north shore facility was then planned to be relocated across the street to a location in the neighboring town of Danvers, in 2024. Thus, there are no new suburban Logan Express locations that have been added. Rather the Authority has closed, reopened in a new location, and then relocated an existing location. This chicanery is not helpful in enhancing the reader's understanding of Massport's progress toward fulfilling its prior environmental commitments, nor is it responsive to the Secretary's specific request.

EEA# 3247

2020/2021 EDR Certificate

January 30, 2023

Comments also request that Massport establish a framework and planning process for community mitigation, in collaboration with surrounding EJ populations and other community stakeholders.

A-3

Establishment of a collaborative framework

Labeled by Massport as comment # A-3, the Secretary directs Massport to establish a framework and planning process which establishes collaboration with community stakeholders in developing mitigation strategies. This requirement clearly directs the Port Authority to create a new framework and an improved process, and is directly responsive to AIR, Inc's past comments below:

2015 EDR:

"incorporate multiple opportunities for EJ communities to engage with MEPA and the Port Authority ...from forecast development, problem formulation, and alternatives analyses, ...through mitigation implementation."

2016 EDR

"...convene a subset of community stakeholders ...in the development of ...accurate and easy to read representation of the causes of airport impacts; ...policy alternatives, ...economic costs, and ...available responses to slow the growth of emissions, traffic and noise."

2017 ESPR

"...provide an iterative Special Review Procedure or a 'rolling review' to facilitate public input in selection of project design alternatives and document scoping"

As shown above, public comment on EEA project #3247 has proposed a collaborative planning framework for nearly a decade. Yet, Massport responds to the Secretary's request by naming the department which manages community relations and EJ engagement, and inviting the Secretary to review chapters #10 & #2 for information on current mitigation plans and EJ strategies. The Port Authority makes no effort to comply with the Secretary's directive to describe a framework by which it could incorporate enhanced collaboration with EJ communities in mitigation planning.

Engagement of EJ communities in document development

Labeled by Massport as comment # A-7, the Secretary directs Massport to:

Establish a public engagement plan to govern the development of future ESPRs and EDRs, which will ensure that EJ populations and community stakeholders have **early and meaningful input in the development of the content of these filings**, in addition to having the opportunity to provide formal comment once documents are finalized and filed with the MEPA Office.

The documents should be prepared in a simpler, user-friendly format that can be digested by a broad sector of the public, so that key details and commitments are not buried in voluminous, data-heavy filing.

As if mocking this directive, Massport responds with a 481 word reply, stating that they ‘continue to enhance public engagement as part of preparing the ESPR and future EDRs’, describing the topics they presented on in two public meetings, and misrepresenting their attendance at a meeting between EJ advocacy groups and EEA focused on review of 2020/2021 EDR comments (in which they were contentious and uncooperative) as a discussion ‘of ways to better address these comments in the 2022 ESPR’. This information was followed by a long description of their distribution list, a list of languages into which notifications on the 2022 ESPR was translated, a statement that ‘projects going through the environmental review process also include public meetings’ and a description of topics covered in ESPR Chapter 4 and Chapter 10.

Despite this lengthy reply, Massport made no effort in its response to comply with the specific directive of the Secretary. They failed to provide any information regarding a revised public engagement plan established with the intention of governing development of the ESPR and future EDRs to ensure that impacted populations had early and meaningful input into the development of the filings.

Accepting public input before ESPR submission

Later, in comment A-17, the Secretary directs Massport to:

Provide a conceptual draft of the 2022 ESPR and hold a public information session, held at accessible location and convenient time (such as the evening or weekend) so as to maximize input and participation from EJ neighborhoods and residents before the document is finalized.

Concerned that Massport would bypass this directive by simply offering slide shows, AIR, Inc. wrote to MEPA prior to the first planned session to ask whether the meeting was a formal ‘60 Minute Joint MEPA - EJ PreFiling Consultation’, which require proponents of complex projects to ‘seek out guidance regarding community engagement strategies and the scope of analyses of impacts on EJ communities’. MEPA responded that these meetings were not. And, as feared, despite the Secretary’s direction to maximize input from EJ stakeholders, Massport structured these meetings as slide shows, followed by Q and A sessions.

In response, as explained above, despite the Secretary’s repeated requests for enhanced public participation as is required by state law, Massport once again lists public information sessions “describing ...and updating the forecasting procedures and ESPR development process”. Clearly, ‘describing’ and ‘updating’ are both linear forms of communication in which the sender transmits a message to the receiver, with no opportunity for response. Public input and participation was not solicited.

In this response, Massport again refers to a session “with community advocacy group representatives and the EEA focused on review of 2020/2021 EDR comments and discussed ways to better address these comments in the 2022 ESPR.”. This meeting was neither organized by Massport, nor did the Authority provide any assurance of acceptance of public input. This meeting had been requested by AIR, Inc. and our EJ community stakeholder partner groups, to share our concerns with EEA about MEPA’s Logan Airport public comment system.

MEPA was subsequently invited, and MEPA then suggested that Massport attend. AIR, Inc. regrets agreeing to this. The Authority brought a large delegation of staff and consultants and proceeded to restate past contested assertions, leaving topic after topic unresolvable.

Identifying metrics and thresholds that would trigger mitigation

In her directive labeled by Massport as #A-5, the Secretary requires Massport to:

‘clearly communicate to community stakeholders its methodology for determining growth forecasts and projections, identify potential metrics or thresholds that may trigger the need to consider additional measures to reduce impacts’

This requirement is vital to the improvement of Massport’s environmental performance and embodies a fine response to EJ supporting organizations such as AIR, Inc., and Conservation Law Foundation’s previously submitted MEPA comments establishing the public’s rightful concern with the past inaccuracy of the existing forecast-based mitigation method, and suggesting establishment of an impact triggered mitigation planning framework which would identify and develop appropriate mitigation strategies through a cross sector collaboration between airport, community and technical stakeholders and create an implementation schedule aligned with growth in airport impact metrics such as passenger levels, flight operations, and nighttime flights, to name a few.

Massport responds to this key requirement with what can only be described as insulting wayfinding information explaining in a 277 word jumbled reply as to in which chapters of the ESPR can various pieces of information be found, assuring that Massport uses industry best practices, and that their comparisons and assumptions contribute to data-driven approach. Nowhere in their response does Massport ‘identify potential metrics or thresholds that may trigger the need to consider additional measures to reduce impacts’. This leaves the public with the impression that Massport has decided that it does not need to supply a response to this point.

Response to request for assessment of socialized costs

In a last example, in our 2020/2021 EDR comments, AIR, Inc. requested that the Secretary ‘require Massport to calculate and report the socialized costs of Logan Airport operations’. Whereas so much of Massport’s enabling mission and their public profile revolves around economic development, it is only fair that such calculations should be provided as part of this assessment.

Massport answered this request in response # 3-4, stating: ‘The purpose of the ESPR is to report on the environmental conditions of the areas surrounding Logan Airport, and report on industry standard metrics and indicators of environmental variables. This ESPR provides additional information on public health existing conditions in communities within 1 mile of Logan Airport for all population groups and Environmental Justice populations. See Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.4.’

- This study will be updated biannually. It is intended to be an effective method of accounting for the overall environmental impact of Logan operations. It has served to point out areas where data are lacking. As this data base is expanded, future updates will enable Massport to assess the overall effectiveness of the measures employed to reduce adverse environmental impacts.

This response ignores the request for economic modeling and confounds the reader with irrelevant and incorrect statements: first, that the purpose of the ESPR is to 'report on environmental conditions of the areas surrounding Logan Airport' and to 'report on industry standard metrics and indicators of environmental variables'. This does not respond to AIR, Inc.'s request for thorough cost benefit analyses. Furthermore, in this response, Massport misrepresents the purpose of this environmental review; the original [Draft Generic Environmental Impact Report \(GEIR\)](#), which was developed by Massport under the first Dukakis administration and is the precursor to the Weld / Cellucci EDR / ESPR MEPA series was not only to report on impacts and standard metrics, it was to disclose and discuss Logan's environmental impacts and to evaluate Massport's performance and strategies to reduce or minimize them.

As in the previous examples, Massport's off-target misstatements do not remotely respond to the important request for the calculation of socialized costs of aviation activity in Boston's urban core. Such treatment of good faith requests is insulting and leads participants in the public comment process to the conclusion that the Authority believes its cooperation is optional. The examples described above are not isolated. AIR, Inc. struggles to find a single appropriate and thorough answer to any of the community's -or the Secretary's comments.

As a community volunteer organization which has -over multiple generations of advocacy, participated in true collaborations with past Port Authority staff, our involvement predates the parsimonious culture which has grown over the 30 years since the MEPA procedures were politicized and put in place to effectively immunize Massport from environmental review. We point out to the Secretary that this Massport administration has spent the past 30 years pointing to the environmental achievements of the previous regime, while in practice facilitating increasing unmitigated environmental damage.

On the grounds that Massport has not responded to the Secretary's scoping directives, and has not offered meaningful responses to community input, and thus has failed to satisfy the requirements prescribed by EEA and the [MEPA regulations](#), we ask the Secretary to determine that the ESPR does not comply with the state's environmental regulations, and accordingly issue a determination on non-compliance.

Possibilities

The behaviors and policies we have outlined in these comments explain why EJ communities are so unhappy with Massport's performance. However, travelers are also unhappy. Using Logan is a stressful and chaotic experience. JD Powers' air traveler user satisfaction ratings for North American mega airports (airports with over 30 million annual passengers) place Logan between 3rd worst and 8th worst in traveler satisfaction for ten years running. Massport should be accountable for improving. It should seek collaboration and innovation to drive improvement in both its environmental and user experience performance.

In this section, AIR, Inc. will put forward proposals for what the ESPR should be offering. Environmental goals need not be at odds with economic goals. An alternative paradigm exists in which Massport is motivated and serious about finding opportunities to reduce impacts... about challenging the industry status quo, and about taking any and all actions within their power to reduce and mitigate airport impacts, while improving air travelers' experience. The Possibilities section of this comment letter offers concrete examples of feasible programmatic, planning, and policy solutions each of which would reduce net pollution and improve Massport's environmental performance without damaging -and in most cases dramatically improving air travelers' airport experience. We do not assert that these suggestions will necessarily reduce the environmental impacts of Logan's operations: only that these are feasible opportunities that Massport should have considered in the ESPR.

Mitigation possibilities

Airport layout and operation is closely regulated by the FAA. Day to day flight operations are managed by Air Traffic Control (ATC). The airlines determine their routes and schedules and which aircraft they use. FAA regulates aircraft noise emissions at the federal level, creating federal legal preemption which prevents local lawmakers and or airport sponsors from regulating aircraft noise. Therefore, airport owners such as Massport don't control most aspects of airport flight operations, they don't set schedules or airplane types, nor flight paths, they don't control who flies in or out of their facilities, and they can't regulate noise or pollution impacts. They are landlords who build facilities to suit airline and traveler needs.

However, the many constraints involved in airport planning do not block airport operators from mitigating airport impacts. In fact, the FAA and airlines leave the responsibility of mitigating airport impacts up to local airport operators. And the Port Authority has the ability, the right, and the authority to do great good.

Community stakeholders who absorb extreme levels of exposure to ultrafine particulate pollution are genuinely concerned for the health and wellbeing of their loved ones. This constituency is dealing with chronic and deadly public health issues. Massport's list waving approach to its air quality reporting is insulting. This is made even worse when the list they're waving the most is a nebulous and irrelevant Net Zero 2031 list, a program for which the Authority has committed no funds and released no implementation plans.

While distracting participants in this review with this climate sideshow, the Authority fails its readers in the ESPR's omission of any substantive discussion of the current challenges and opportunities in mitigating aircraft air quality damage around major airports.

The acute negative impacts on human health associated with airport air pollution have increasingly become the primary concern of environmental justice stakeholders. In response to this concern, AIR, Inc. and its partners have funded, designed and implemented first of their kind air quality monitoring networks and public information platforms, leveraging over \$1.5 million dollars in grant funding for air quality monitoring and mitigation locally. In Seattle, similar community concern has prompted litigation over airport pollution with residents in Seattle filing [a class action lawsuit against SEATAC](#) for expanding airport operations while knowing that airport pollution damages public health.

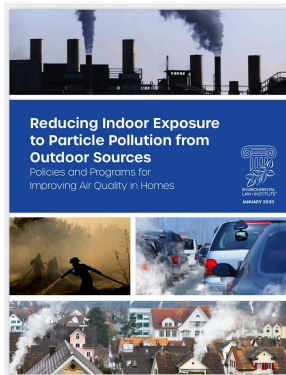
By failing to establish the true current context of concern and neglecting to provide an accurate assessment of the state of the airport air quality action environment, the ESPR fails to adequately and properly inform the public. The social, political and technical landscape around airport air quality mitigation is rapidly changing. For Massport to establish true environmental leadership, they would have had to stop erecting facades of accountability and obstructing paths of advancement for air pollution mitigation concepts, and start collaborating and getting involved in the work at hand.



EXAMPLE: Airproofing program

As the responsible part for mitigating negative environmental impacts, Massport can and should determine that pollution caused by aircraft operations is present in local indoor environments and that the public health impacts of high pollution exposure are airport impacts which need to be mitigated. With this determination, the Authority could assess the temporal and spatial

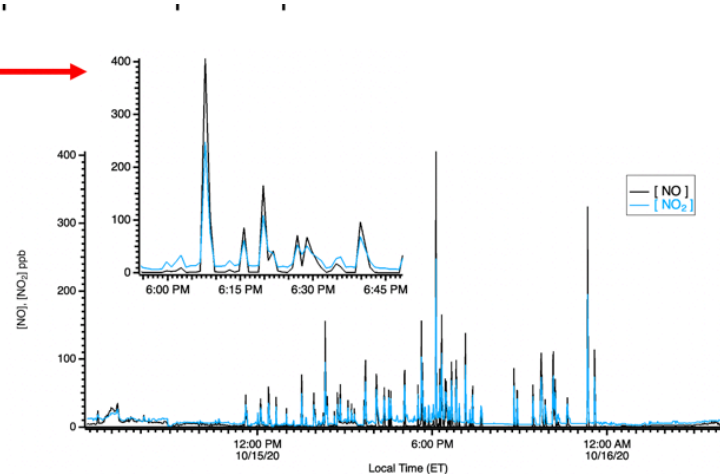
location and intensity of airport pollutants in affected areas, and identify an Airport Sponsored Community Air Pollution Mitigation Program area. Within this area, Massport could engage air quality consultants and develop air purification specifications for indoor environments. The Authority could then implement a program to provide suitable reduction of indoor air pollution through installation of demonstrably effective air purification equipment.



These would not be controversial expenses. The [Environmental Law Institute report on Reducing Indoor Exposure to Outdoor Pollutants](#) concludes that stand-alone plug in, commercially available air purifiers are the most effective and expedient method of protecting indoor air quality. Such purifiers have been extensively researched by AIR, Inc., beginning in 2017, in a collaboration with Olin College of Engineering, Aerodyne Research and Mothers Out Front, as well as by numerous local partners including by multiple member groups of the Logan Community Clean Air Coalition. Since AIR, Inc.'s innovative efforts in 2017, over \$1.5 million in grant funding for air quality testing and filtration research and programming has been leveraged in and around the East Boston area.

AIR, Inc. and its partners' testing in local classrooms and homes has confirmed the ELI study's findings, demonstrating that indoor concentrations of ultrafine particulate pollution can be reduced by 85% by properly specified commercially available, stand alone, plug in HEPA filtration machines. **If this pollution abatement were offered widely throughout high pollution areas through an Airport Sponsored Community Air Pollution Mitigation Program, net childhood exposure to air pollution could be reduced by 70% - 75%.**

The timing of such a program would be justified as airports are increasingly coming under scrutiny as sources of pollution.



Map and real-time NO, NO₂ concentrations as measured by the air quality sensor system deployed in the Bayswater neighborhood. Over a 12-hr period, more than 50 individual aircraft plumes were encountered, typically resulting in NO_x concentrations 5-10x higher than those measured 30 m downwind of near-by I-93 during morning rush hour.

Finally, such a program would respond directly and appropriately to Secretary Theoharides directive in the 2017 ESPR certificate that: contingent on continued over-forecasted levels of growth, Massport should collaborate with groups like AIR, Inc. in the development of an air purification program. Unfortunately, Massport has not accepted accountability for Logan's air pollution impacts. In response to Secretary Theoharides's directive, Massport sought an opinion on the effectiveness of in-home filtration strategies from their asthma programming partner, the East Boston Neighborhood Health Center. In this ESPR, Massport reports that the Health Center expressed a preference to spend its resources on other programming. It should be noted that Secretary Theoharides did not ask Massport to solicit the East Boston Neighborhood Health Center's preference for allocation of its resources for asthma treatment.

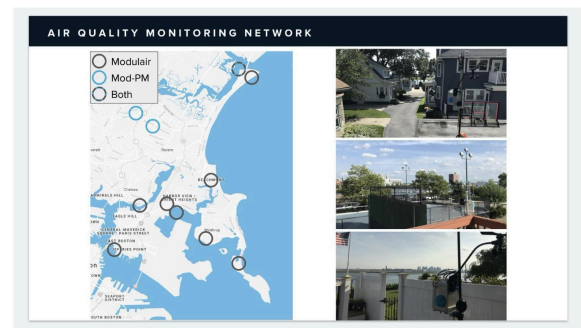


They were directed to work with EJ community stakeholders to develop an air filtration program. This distinction is important because each option has

different constituencies and opens different doors. On one hand, the EBNHC treatment program serves clients of the EBNHC. But all children living and or attending school in East Boston are not patients at the EBNHC. Additional resources expended in EBNHC programming would not identify and treat asthmatic and pre asthmatic children who are not their patients. Development of an air filtration program targeting classrooms and homes has a universal and vastly more impactful constituency. Furthermore, treatment treats disease after it is suffered; filtration would both treat and prevent disease. Finally, it should be noted that EBNHC receives substantial funding from Massport.

EXAMPLE: Air Quality Sensor Network

AIR, Inc.'s 2017 partnership with Mothers Out Front, Olin College of Engineering and Quant AQ piloted a distributed air quality sensor network which located 5 high quality air quality sensors in a network spanning the entire community. These sensors are connected to the internet and upload air quality reading directly to the internet once every minute. This networking approach serves a diverse set of needs: it provides community members with real time data on current air quality conditions throughout the community. Such data informs residents impacted by transportation related air pollution (TRAP) about the temporal and spatial location of air pollution as well as its amplitude. This allows residents to learn when the air quality is dangerous and when it is safe, as well as whether or where conditions may be better.



New sensors: affordable, networked, readings spaced 1 minute apart

A key benefit over mobile labs and scattered research grade pollution monitoring approaches is that the increased granularity of networking less expensive equipment in a tighter grid linked together by software allows users and system managers to sort out pollution readings from in front of and behind flight tracks as well as in close and further away from runway ends. The effects of wind can also be accounted for in such a network of sensors. Therefore a distributed network approach also benefits mitigation planners as it uniquely holds the capacity to sniff out TRAP from aviation as well as a diversity of other indoor and outdoor sources.

AIR, Inc. asked Massport to partner on an [FAA grant application to develop an innovative AQ sensor network](#), Massport participated and ultimately submitted an application. But they refused to incorporate the distributed network idea, and declined to invest \$40K to match funding AIR, Inc. was willing to invest -which would have in turn leveraged a matching FAA grant of another \$80 K. At the time, Their specious response was that such a donation would be an illegal diversion of airport revenues.



Security screening area at Allentown Bethlehem Airport, Baggage check-through Pennsylvania

EXAMPLE: Remote airport terminals

In July of 2023, the Transportation Security Administration (TSA) approved American Airlines [to institute landline connecting flights using buses](#) from smaller regional airports including Allentown/Bethlehem, Pennsylvania (ABE), and Atlantic City, New Jersey (ACY), to Philadelphia International Airport (PHL). Both of these smaller airports are about 50 miles away from PHL. American uses landline ‘flights’ sold through its reservation system to transport its customers via luxury motor coach for these smaller airports, to PHL. These trips are booked and ticketed through American’s regular reservation system, the same as any airline flight.



Passengers using these landline connecting flights conduct their ticketing, baggage handling and security activities just as they would on an aircraft connecting flight. The only difference is that once passengers clear TSA security, and enter the secure side of these

smaller, less congested airports, they board luxury motor coaches, which deliver them to the secure side of PHL without any further TSA screening. This development has massive implications at Logan, a landlocked airport lodged in the core of the most traffic congested city in North America. AIR, Inc. cannot ignore the possibilities: and we ask the Secretary to join us in departing from the standard comments for a moment to imagine the immense benefit of development of secure to secure connections between Logan Airport and surrounding Logan Express facilities. TSA has already expressed its willingness to explore such opportunities and Massport should have identified this as a ground transportation enhancement to Logan Express services. Instead, Massport seems content to regard Logan Express as a low quality remote parking operation rather than a high quality airport access amenity.

Logan accommodates 70% of New England's air travel needs and in 2024 will surpass its previous high passenger volume of 42.5 million passengers. But Logan's primary domestic terminal complex, terminals B and C, are obsolete and do not meet modern airport standards. The 2022 ESPR forecasts that 17.5 million additional passengers will utilize Logan's facilities over the coming decade, while global and national forecasts call for even greater growth. Although Massport remarkably does not list additional domestic terminal capacity as an upcoming project, this is an inevitability as sustained growth of passenger volumes at these terminals which is unimaginable under the current conditions. The ESPR describes Massport's efforts to clear out Logan's North Cargo Area, and in November of 2023 sought bids to build a [cargo throughput facility](#) which would free up a space on the airport campus for expanded domestic terminals. AIR, Inc. considers this a preparatory step to planning additional domestic terminal space.

Additional terminal space will facilitate growth in passenger volumes and flights. Both passengers and flights are directly correlated with increased negative environmental impacts. Massport should mitigate the impacts of this next expansion and avert the additional congestion associated with it by reimagining its Logan Express facilities as full service remote terminals. The same ticketing and baggage handling technologies which make secure to secure landside connections possible in Philadelphia could drive innovation at Logan.

Secure to secure arrangements at Logan Express locations could relieve congestion at Logan, providing additional space and holding rooms, ticketing, baggage handling and passenger ground access- all critically needed at Logan.



Current Logan Express service requires passengers to handle luggage

Current Logan Express lots are normally surface lots

Providing baggage check-through service would relieve travelers of the burden of handling their luggage throughout the most stressful portion of their flight experience. Rather than lifting luggage onto and off of passenger vehicles, travelers could book their ride to Logan as part of their travel itinerary and check their bags at ticket counters at the remote Logan Express Terminal. Checked luggage would be barcoded with the Logan Express Terminal added as the origin identifier just as BOS is used to identify Logan. For example, Logan Express Framingham could be coded BOS-LEXFRAM. Once checked, luggage would be scanned and loaded onto the LEX coach. Logan Express buses would be significantly upgraded just as American Airlines' has branded their ground access service under the name [Landline](#) uses coaches which are designed to resemble aircraft cabins.

Logan Satellite terminals would offer TSA security screening services allowing passengers to avoid the longer lines and uncertainty involved with passing through security at Logan. Once cleared through security, passengers on the LEX leg of the journey would board a their 'land flight'



improved design standards for Logan Express produce clean, comfortable facilities



Logan Express buses could be reimagined and outfitted with airline quality seats, upgraded WiFi, power outlets, first class sections and onboard restrooms. Boarding areas for buses could be housed in indoor facilities sheltered from the elements, with conditioned air and amenities like structured secure and affordable parking garages, restrooms, plentiful seating restrooms and restaurants.

The LEX journey to Logan could offer cost, convenience, and timing advantages through development of dedicated bus lanes which would remove LEX trips from Boston's traffic congestion. Airport employee, commuter shuttles and other true HOV modes could also use these lanes.

EXAMPLE: Logan transit hubs

The benefits of investing in state of the art secure to secure landline service would not be limited to supporting Logan trips. Remote or satellite terminals could be developed as Logan Transit Hubs, with arrangements to collocate regional transit authorities' and private operator bus service at Logan Express Terminals. This would offer travelers further convenience, extending Logan's HOV reach throughout the state and beyond, and expanding the utility of the services offered by multiple transit authorities while facilitating transit movements to and from multiple cities and destinations across the region. Logan Express Transit Hubs could offer restrooms, restaurants and concessions, just like any airport terminal.

Secure, structured remote parking garages could offer online parking reservations, reducing the stress of uncertainty regarding parking. Remote rental car facilities could be located within these parking facilities, diverting travelers from Boston's roadway network.

Finally, the New York and New Jersey Port Authority operates through an agreement known as an interstate compact. Through such a compact between neighboring states of New Hampshire and Rhode Island, Massport could provide valuable transportation services to TF Green and Manchester Boston, further building regional collaboration, reducing population exposure to environmental burdens and easing congestion at Logan.

The ESPR reports that 50% of trips to Logan are initiated outside of Route 128. At peak levels, Logan's average daily weekday trips were at 143,000 trips per day, even after Massport's existing efforts and achievement of 35% claimed HOV levels. The current 35% HOV level and 143,000 ADWT indicate a total daily level of trips to Logan around 193,000 daily weekday trips. With a series of facilities located at strategic locations between Route 128 and Route 495, offering more affordable parking, modern air conditioned, well-lit, full service airport terminals which feature comfortable holding rooms, concessions and feature secure TSA screening, baggage check-through, and luxury WiFi enabled and faster transportation options to Logan, Massport could adjust its HOV goals upward, aiming for a 60% HOV mode share. Reaching this goal would achieve a reduction of an additional 25% of the existing peak trip volume, bringing ADWT to 115,000 trips per day, and removing over 27,000 trips per day.

EXAMPLE: Tourism and climate

In Europe, [scholars are proposing ways that marketing actions](#) can shift tourists' preferences towards tourism experiences offered in nearer locations as a means of reducing the carbon footprint of tourism. Massport reported that Logan emitted 810,000 metric tons of GHG at peak 2019 activity levels. What impact could such a policy to influence more local tourism have in Boston? We don't know, and Massport is not asking.

EXAMPLE: Impact Triggered Mitigation

AIR, inc. is on the record with comment on the 2017 ESP document identifying a mitigation lag of 9 million passengers which occurred after the 2011 ESPR grossly underestimated, long-term passenger volume growth. In response to this problem, AIR, Inc. has, over the past four years,

promoted a change in mitigation development for Logan's MEPA process. We have suggested that rather than using inherently inaccurate forecasts to determine passenger levels and estimate negative impacts and strategies to avoid, and minimize environmental damage, mitigation plans should be prepared in advance of future increased impacts. The term we use for this is impact triggered mitigation.

By hammering out feasible mitigation strategies at potential future high impact levels, monitoring strategies can be developed to inform implementation triggering of agreed-upon appropriate mitigation strategies. This system would have the added benefit that it would not require the Port Authority to implement unnecessary mitigation. Mitigation would be able to be prepared as milestone impact levels are approached and thus be implemented in real time and on time.

However much we would like to see such a responsive and effective solution implemented, we ask the Secretary to avoid asking Massport to develop the community engagement planning to support impact triggered mitigation. Given their historic ineptitude at establishing meaningful community participation, MEPA should opt for a more effective method. AIR, Inc. and its EJ partners in and around East Boston should be asked to draft the initial structure of this system. Our member groups have been leaders in environmental justice for decades. We have the networks and experience to design effective engagement.

At the outset of the process, a cross sector collaboration should be designed to conduct a current conditions assessment. This assessment is essential in reconciling the current effects of the aforementioned mitigation lag. For instance, Logan's traffic congestion has been allowed to grow while Massport has evaluated, considered, and assessed -but not acted. One example of how this has impacted communities around Logan is in the Authority's practice of blocking the Neptune Road Route 145 Bennington Street exit on the East. Boston Expressway northbound. When airport traffic exceeds roadway capacity and congestion begins to build on the airport exit lanes, Massport dispatches a state trooper to block this exit, forcing traffic further north to provide additional vehicle holding capacity, allowing the airport to clear exiting traffic.

If traffic were to back up into the terminal curbs, the inbound airport roadways would quickly become congested delaying travelers' access to departing flights. Neighborhood-bound traffic which gets caught in this detour is forced along a 4 mile detour if they elect to turn around in Revere, or a 2.75 mile detour if they choose to use neighborhood streets. A third 1.5 mile option exists if motorist decide to ignore a time restricted local only turn sign on Addison Street. Massport provides no mitigation for the added congestion caused by this practice. In fact, Massport does not acknowledge this impact nor provide any reporting data in the ESPR on the environmental consequences.

In this example, the mitigation lag associated with Massport's failure to address it's present ground access activities is burdening local communities with airport environmental costs. On a larger scale, airport traffic congestion exceeds the Ted Williams and Sumner tunnels' capacity on a daily basis. Traffic to and from Logan spills into multiple near-airport communities, damaging mobility all over the region. This suggests that Logan's current impacts warrant more

mitigation in the present and speaks to the need for a current conditions assessment in development of an impact triggered mitigation system.

The same can be said of air quality mitigation. Massport's refusal to proactively mitigate airport public health impacts through good faith collaborations has allowed air pollution and public health conditions in and around impacted EJ communities to worsen as Logan has doubled in passenger volumes since 2006 when the Logan Airport Health Study reported a 360% increase in probably Childhood Asthma and a 200% increase in COPD in high airport exposure zones.

A current environmental conditions assessment should be performed by topic experts, community stakeholders and regulators. This cross-sector collaboration would not only assess current environmental conditions and impacts, but it would also evaluate a complete array of feasible mitigations and policy alternatives which could reduce impacts. In the case of air quality impacts for instance, it would evaluate the possibility of air filtration strategies. Once a conditions assessment is completed and all possible mitigation measures have been evaluated, appropriate triggering plateaus or metrics and implementation strategies can be developed.

Under such a system, escalating mitigation and policy strategies would only be required if impact measures do not show net reductions. As a simplified example, using a ground access scenario, a mitigation set including expansions and modifications to the Logan Express system could be prepared. Then, if AWDT does not fall as a result of current initiatives, the next set of more aggressive measures would be implemented. If AWDT does decline, those measures would not be needed. The mitigation set would also include policies such that if impacts instead of declining or remaining unchanged were to increase, policy strategies could be implemented. Keeping with the ground access example, if AWDT increases, an airport roadway fee could be instituted.

Noise

The 2022 ESPR noise chapter is an excessive 68 pages and reports on environmental noise impacts of Logan Airport with a variety of metrics such as Day Night Average Noise Levels (DNL), Time Above, Dwell and Persistence, and effective perceived noise level. None of these noise exposure metrics can portray the true destructive effects of noise in the community. Airport noise gnaws at the human nervous system, oppressing and depressing hundreds of thousands of households stretching out miles away from Logan in every direction, causing chronic disease with deadly consequences. AIR, Inc. focuses on the 65 decibel DNL metric as FAA noise contour maps combined with the population exposure estimates provide a clear visual indication of increases or decreases in net airport noise impact which can assist community stakeholders in understanding the effectiveness of Massport's noise management and mitigation efforts.

Among the 2022 ESPR's many failures is the lack of dialogue about the [Neighborhood Environmental Survey \(NES\)](#). The NES was a noise annoyance survey of 10,000 households administered by the FAA between October 2015 and October 2016. Its findings sent shock waves throughout the airport noise advocacy community, showing that high levels of noise

annoyance occur at as much as 40 or 50 times lower aircraft noise levels than the 65 DNL traditionally used by FAA to define “highly annoyed populations” for funding soundproofing grants. In the ESPR, Massport displays no interest in this development, stating only “The FAA, academia, and other entities are conducting ongoing noise studies to understand the impact of aircraft noise on communities and explore alternative noise metrics.” Later, Massport states that the NES was released in 2021 and that the “FAA is considering public and other stakeholder input and has not made any determination yet in the findings”. This is duplicitous, since the FAA published report on the survey (cited above) clearly states that the prior threshold of DNL 65 seriously underestimates community annoyance to aircraft noise. Massport should not be allowed to invent an interpretation of the FAA’s findings that is not true.

Predicted impacts

The ESPR predicts future noise impacts based upon growth forecasts which utilize a 10 - 15 year window. Therefore, when the ESPR predicts the population exposed to the 65 DNL noise level could increase at a rate which would result in an increase of 15.2% within the 10 year inside range of the future planning horizon, the same rate would cause an increase of 22.8% over the 15 year outside range.

So instead of Boston’s 65+ DNL going from 3862 in 2022, to 4409 in the Future Planning Horizon, adding 547 residents in EJ communities, the increase could be 50% more, or 820 additional residents. Likewise, the total predicted increase in population exposed to the 65+ DNL of 1,240 residents could turn out to be 1,860.

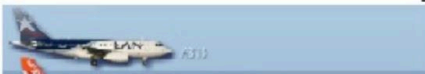



Technological improvements

The ESPR insists that technological improvements in the aircraft engines will have noise and emissions benefits as the fleet at Logan increasingly upgauges to larger aircraft with higher seating capacities and ‘cleaner, quieter’ engine technology. This is another example in which Massport intends to mislead. Engine technological improvements made a significant improvement in noise as stage 2 aircraft were phased out 15 to 20 years ago. Since then, increases in aircraft activity have tracked directly with increases in noise and air pollution. A second wave of improvement may occur in the years following the pandemic, as airlines retire older, less fuel efficient aircraft. However these benefits have been consistently obscured by the growth in flights and passenger volumes and use of larger aircraft:

Table 3: Departure Lmax levels by aircraft grouping

Height (ft)	Turbo-prop	50 seat regional jet	70-90 seat regional jet	125-180 seat single-aisle 2-eng jet	250 seat twin-aisle 2-eng jet	300-350 seat twin-aisle jet	400 seat 4-eng jet	500 seat 4-eng jet
1000-2000	78-71	78-70	85-75	85-75	92-83	90-81	92-84	91-84
2000-3000	71-67	70-65	75-68	75-70	83-77	81-75	84-79	84-80
3000-4000	67-64	65-60	68-64	70-66	77-73	75-71	79-75	80-76
4000-5000	64-62	60-57	64-61	66-63	73-69	71-67	75-72	76-73
5000-6000	62-60	57-55	61-58	63-60	69-66	67-64	72-69	73-71
6000-7000	60-58		58-56	60-59	66-64	64-62	69-67	71-68
7000-8000	58-56		56-56	59-58	64-61	62-60	67-64	68-66
8000-9000	56-56		56-55	58-57	61-59	60-58	64-62	66-65
9000-10000	56-55			57-56	59-58	58-57	62-60	65-63
10000-11000				56-56	58-57	57-56	60-60	63-62
11000-12000				56-56	57-56	56-55	60-59	62-60
12000-13000				56-55	56-56		59-58	60-59
13000-14000					56-55		58-58	59-58
14000-15000							58-57	58-55
15000-16000							57-57	
16000-17000							57-57	
17000-18000							57-56	
18000-19000							56-55	
19000-20000								

In the tables shown here, the effect of aircraft size on noise is clear: larger, more heavily laden aircraft which require greater thrust are progressively louder as size increases. In the data table above, the peak noise of a turbo-prop aircraft is 13 dB less than that of a 4 engine 500 seat jet on departure (the difference between 78 dB and 91 dB). Due to the logarithmic nature of the decibel metric this increase represents more than a hundred-fold increase in sound energy and is perceived as many times louder.

Effective Perceived Noise in Decibels		LEVEL	FLYOVER	APPROACH
A 318		92	82	94
A 321		95	86	96
A 340		96	94	98
A 380		95	93	97

Decibel Value	Increase in Sound Intensity	Perceived Increase in Volume
0 dB		
10 dB	10 times the sound intensity	2 times as loud
20 dB	100 (10 x 10)	4 (2 x 2)
30 dB	1,000 (10 x 10 x 10) etc.	8 (2 x 2 x 2) etc.
40 dB	10,000	16
50 dB	100,000	32
60 dB	1,000,000	64
70 dB	10,000,000	128
80 dB	100,000,000	256
90 dB	1,000,000,000	512
100 dB	10,000,000,000	1024
110 dB	100,000,000,000	2048
120 dB	1,000,000,000,000	4096

Difference in decibel (dB), sound intensity, and perceived volume

Backsliding

In the midst of an era of steadily increasing noise which began with a low exposure of 3830 residents exposed to the 65 DNL contour in 2010, the 2022 ESPR reports that the population exposed to 65 dB annual airport noise will rise to 9435 within the planning horizon (2032 - 2037). Despite this 246% increase over the modern period, the ESPR states that noise is down, characterizing this increase as less than noise exposure 22 or 32 years ago, when excruciating noise levels were the norm for Stage 1 and Stage 2 aircraft.. This misdirection obscures an increase of 8%, or 667 more residents who are expected to be newly exposed to the 65 dB DNL under Massport’s current forecasts. This environmental backsliding will occur largely in the environmental justice communities of East Boston, Chelsea, Winthrop, and Revere.

Nighttime noise

Nighttime aircraft noise is one of the most debilitating Logan Airport noise impacts. With 195 flights per evening between the hours of 10 PM and 5 AM at peak 2019 levels, perhaps nowhere in the ESPR, nowhere is Massport's indifference and lack of initiative more glaring. During late night and early morning hours, the city's residents enjoy a relative quiet period where ambient urban background noise drops from daytime average levels of 55+ dB to around 36 - 40 dB. This respite is shattered by overflights producing single event noise levels of 75 - 95 dB. In 2019, Massport reported 195 average daily nighttime operations during this sensitive rest period. In a 2015 community study of nighttime noise affecting East Boston, Chelsea, and Revere, conducted by AIR, Inc. in partnership with a local youth research team, as many as 48% of residents under the runway 33L departure path reported sleep interruption.

Table 7-16 states a goal to minimize night time noise. However dozens of takeoffs use 33L nightly. The fact is that when pilots request a certain runway, they are granted it, even if that runway routes 95 dB traffic directly over the most densely populated communities in Massachusetts, even if it is 3:15 AM. Air Traffic Control does not recognize community impacts. Massport is not objecting to this practice.

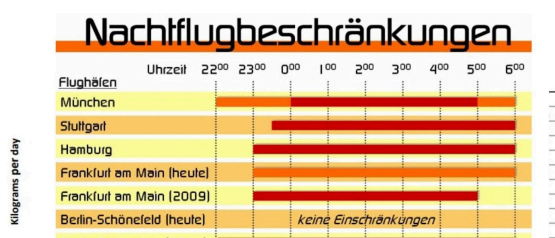
Noise Mitigation

MGL statutes require the Authority to issue findings that at least examine the feasibility of all possible measures. Determinations of feasibility should be informed by a thorough investigation of existing and emerging industry practices and technologies in use locally, nationally and internationally.

Where an environmental program -such as a nighttime flying restriction- with potential to avoid or reduce negative impacts exists elsewhere -such as the curfews used in Europe which in some cases completely eliminate nighttime aircraft noise, that program should be examined in the Authority's feasibility reporting. If the Authority finds that such a program is not feasible, such a finding should be accompanied by evidence that supports that conclusion. At a minimum, the Authority should provide a clear and reasonable explanation of the physical, legal, geographical, or other obstacles to feasibility.

The ESPR makes no attempt to further discussion or promote understanding of night curfews. Massport's position on curfews has been that the FAA has not approved any requests for night restrictions, so there's no point in applying for one. In this case, Massport adopts a defeatist attitude and uses an FAA procedural injustice as an excuse to abrogate its own responsibilities. Regardless of whether the FAA would or would not reject an application for a night flying restriction, Massport should describe the topic in a comprehensive manner. Such discussion would include a review of how night restrictions work in Europe including reporting on the noise reduction and public health benefits and economic effects of these restrictions.

Despite 68 pages of information on noise, Massport has failed to



incorporate discussion of a) the feasibility of updates and adjustments to the PRAS runway use system which could result in avoidance or minimization of noise impacts; b) findings regarding the minimization of nighttime exposure to noise which could include attempts to apply for nighttime restrictions as allowed by FAA part 150 regulations, or the above mentioned PRAS update, or; by c) the reduction of 65 DNL noise exposure which could be achieved through programs aimed at shifting regional market share of air travel through other regional commercial service airports. The Authority has not offered any evidence that they have considered any of these options to reduce noise impacts, nor does the ESPR share any determinations of whether they are feasible.

School soundproofing

The ESPR states that “36 schools were sound insulated since this program began”. However, the ESPR does not point out that the school sound insulation program happened in 1986, and no schools have been added since. This misdirection allows the reader to think that Massport has been implementing soundproofing programming in schools steadily, which is yet another untruth.

Climate

The ESPR greenwashes its discussion of airport emissions by emphasizing a vague bundle of climate related public relations statements it calls Net Zero 2031 as evidence of its environmental leadership. This program is ambitious only in its deceitfulness, as it has never progressed into a defined plan, it uses offsets, and it is aimed only at the climate impacts which Massport categorizes as ‘under its control’.

Climate Backsliding

Even if Massport implements every item on its Net Zero 2031 wish list, a potential savings of half of the CO₂ produced by a subset of airport activities which comprises perhaps 10% of airport sources would produce a 5% net reduction over the lifetime of the program. That 5% one-time total savings is no more than symbolism next to the 30% increase in aircraft related GHG which will occur within the future planning horizon due to the projected 50% increase in passengers.

[Massport Announces Goal to be Net Zero by 2031 | Massport](#)

Massport places a great deal of emphasis on this Net Zero 2031 programming, but carefully avoids calling it a plan. In the above web page the term ‘agenda’ is used to announce this concept. Elsewhere in the 2022 ESPR, Massport calls it a ‘program’ or a ‘report’. Indeed Net Zero 2031 is nothing more than a conceptual sketch of a roadmap to achieve a partial carbon reduction strategy. Of note are the facts that the Authority has not produced detailed plans, budgets and timelines, that heavy use of dubious CO₂ offsets is expected, and that these reductions will not reverse the backsliding of EPA criteria pollutant emissions which has been

occurring in direct relationship with increases in passenger levels which the ESPR projects will rise by 47% over the next 10 -15 year period, and that the vast majority of carbon emitted from Logan comes from aircraft sources which will be rising, not diminishing over the years and decades to come.

Sustainable aviation fuel

Also of note: within this agenda, listed as among the initiatives which Massport's is considering is the agency's potential to influence use of sustainable aviation fuels (SAF) by airlines. This is pure fantasy. Massport has absolutely no control or influence over the fuels that airlines use at Logan. Airport operators' ability to regulate airlines in this is specifically preempted by federal law. Presented on its face, this suggestion, like the agenda as a whole, promotes an intuitive conclusion that use of sustainable fuels is a potential solution to aviation's outsized climate impacts and that Massport will somehow be able to claim the airline's fueling decisions as mitigation for airport impacts.

In the case of SAF, two immutable flaws exist. First, the global commercial airline fuel burn for 2023 is estimated to have been [86 billion gallons](#) while total SAF production topped out at 158 million gallons. This indicates that the total amount of [SAF produced globally is equal to about a quarter of a percent](#) of the total aviation fuel needed. It is a widely understood fact, accepted for decades already among decarbonization experts, that the biggest obstacle to use of SAFs are their production scalability challenges. Whether the raw resources needed to produce SAF are either not available in anywhere near sufficient quantities to effectively meet any significant portion of global aviation fuel demand, as is the case for biofuels derived from recycled restaurant oils, or whether use of agricultural crops would compete with food production -creating moral objections in a world increasingly desperate to feed starving people, or whether the total production of SAFs can be scaled up any time soon -which it cannot, are all in question. Outside of pie in the sky aviation industry projections, analysts agree that 'pegging the aviation sector's sustainable hopes and carbon cuts entirely on SAFs is impractical' as is stated in a [Conservation News article](#).

Massport notes that the GHG savings related to use of SAF occur over the product's lifetime. However, the Authority does not provide any data on the relative emission of SAF compared to traditional jet fuel. This suggests that there is no fuel burn emissions benefit from use of alternative bio fuels. Despite all of the facts, the ESPR reports that its GHG calculations assume use of 30% SAF within the future planning horizon, based on FAA projections. That Massport and its consultants would imply such misdirection is disgraceful.

Even amidst a cloud of misdirection and confusion in Massport's reporting of GHG, the Authority emerges with an estimate that GHG will rise by more than 49,000 tons per year, from 584,790 tons in 2022, to 634,127 tons in the future planning horizon. This increase is also subject to the 50% forecasting uncertainty effect, therefore this increase could just as well be 74,000 tons.

We note that the ESPR's forecasted carbon estimate for 53.5 million passengers is totally unrealistic- as the 2019 reported GHG total at 42.5 million passengers was 810,000 metric tons

per year. If GHG rises proportionately, at 53.5 million passengers Logan will emit 976,000 tons of climate destructive atmospheric gasses. Adding on the 50% uncertainty, that number could be 1,460,000 tons.

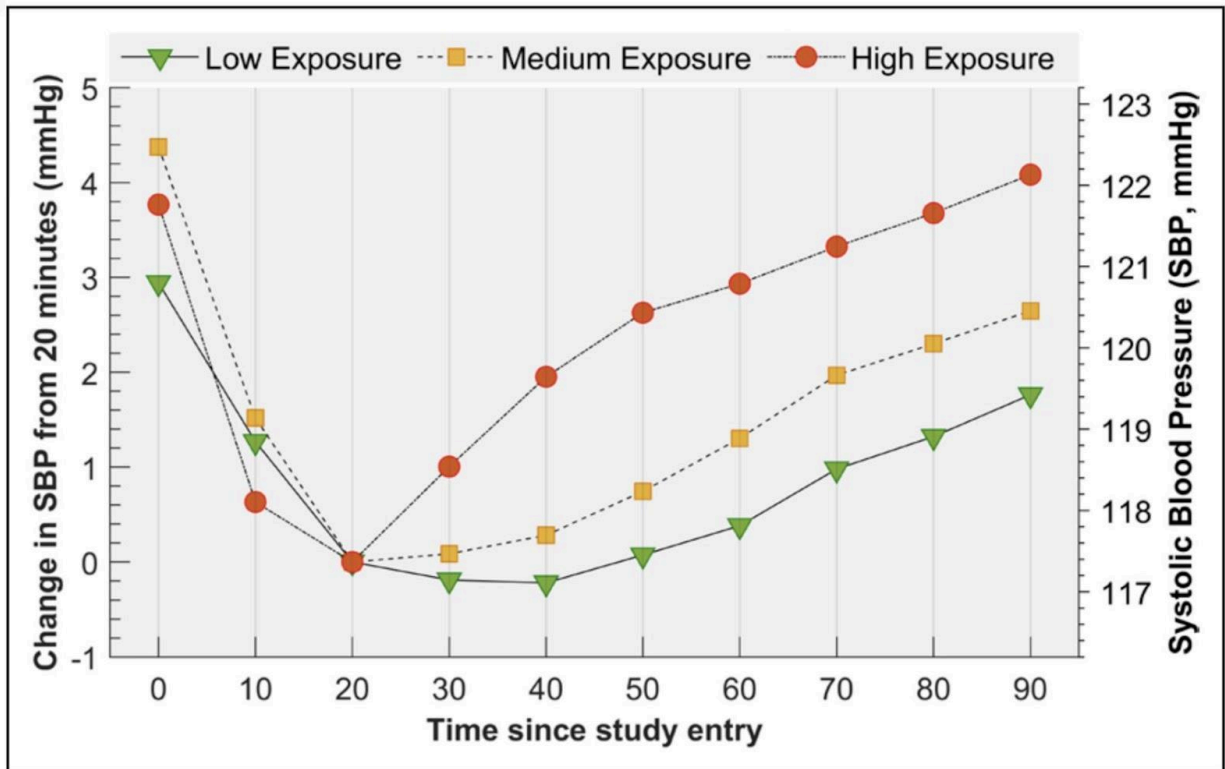
AIR, Inc. has on many occasions urged MEPA to demand that the Port Authority substantiate the claims, data and narratives it makes in these filings, or else cease to issue them. We should not be asked to educate MEPA, EEA and the public, expending community resources to fact check and correct misleading aviation industry public relations film flames recklessly reprinted in Massport in their attempts to distract attention for uncomfortable truths.

We ask that the Secretary consider Massport's motivation in promulgating this discussion. With the important and difficult challenges facing the Authority in balancing its transportation responsibilities with its moral and environmental challenges, the agency cannot afford to waste time convincing itself that it can prestidigitate its way out of a corner. The end game of this type of thinking is only to buy time. And with aviation's global climate impacts, regional traffic impacts, and local public health impacts, time is not on their side.

The Secretary should place the Port Authority into a probationary mode, and demand that they substantiate each of their postulations. When proposals such as the benefit of SAF are assessed to be of little significance, she should forbid those statements from being issued in future filings to avoid confusion and out of respect for the public's time. It is remarkable that we are forced to ask the Secretary to require Massport to only make truthful and relevant statements.

Underestimated carbon impacts

AIR, Inc. does not have the resources to tunnel deeply down every rabbit hole Massport has created in its 2022 ESPR, but we encourage MEPA analysts to review Massport's calculations of aircraft CO2 greenhouse gas emissions. Our impression is that while the Authority claims to abide by industry standards elsewhere in the ESPR, they make a convenient departure as it relates to GHG from aircraft at Logan. Whereas the global standard for carbon emissions in airports is to assign half of the total emissions between trip origin and destinations to each airport, we believe that Massport's calculations are based upon only those emissions occurring within the first 3,000 vertical feet. If this is true, then the GHG impacts of Logan are vastly under-reported. It seems that Massport is confusing the 3000 foot mixing height used in EPA criteria pollutant analysis under the Clean Air Act with the end to end total trip emissions used in the IPCC inventory of aviation's GHG emissions.



Emissions

At previous peak activity levels, Massport has reported that Logan emits over 35,000 lbs of EPA criteria air pollutants per day. These pollutants have disproportionate negative public health impacts on human populations living in in-close communities, as well as in communities under flight paths and downwind of high pollution zones, where exposure is elevated. Airport pollution is responsible for increases in chronic disease such as childhood asthma and COPD in high exposure zones. Exposure to ultrafine pollution has also been proven to cause low birth weight, learning disabilities, autism, cardiovascular disease, stroke, cancer, and obesity.

Modeling

The 2022 EDR uses AEDT version 3e emissions inventories (EI) to model emissions under 3,000 feet. This practice produces emissions estimates which provide a very vague description of air quality conditions, at best. A [scientific literature review in 2014](#) showed that use of standard LTO cycles in estimating typical aircraft emissions close to the ground is not always representative of operations at airports. This paper concluded that most pollutants emitted in exhaust plumes are strongly increased at decreased power settings. Significant increases in fuel consumption and increased emissions were reported to be associated with practices such as use of reduced thrust during take-off, idling and taxiing. The study reported that these factors can lead to underestimation of emissions at airports.

Other practices such as use of higher thrust levels in stop-and-go situations due to congestion on taxiways or when aircraft need to cross active runways or make sharp turns affect actual emissions but aren't reflected in standard LTO modeling, which use a single taxiing phase for emissions inventories. Still further questions arise as to whether emissions modeling accounts for use of high power reverse engine thrust to assist in slowing down landing aircraft to connect to convenient taxiways.

The crucial defect in the ICAO/EPA/Clean Air Act approach to pollution is its focus on regional air quality, estimating each contributor's contribution to the metropolitan-wide air quality basin. The new focus on EJ impacts recognizes that pollution disproportionately affects people living closer to the pollution source and that the average pollution estimated over the regional basin is not relevant to those impacts. Massport should supplement the Clean Air Act based regional pollutant analysis with an analysis focused on local impacts upon EJ communities as is required by contemporary federal and state guidance.

Adoption of a ground level air quality monitoring system using a high resolution network of sensors as discussed in the Possibilities section of these comments would provide actual pollution data which could be used to identify high airport pollution geographical zones, exposure levels, and exposure durations at multiple time scales. Having such data would support the ability to determine when and where EPA regional air quality standards, or potential supplemental standards are exceeded. Such determinations could inform air quality mitigation strategies and policies. The ESPR doesn't discuss any of this.

Reporting practices

In the ESPR, Massport reports that Logan's emissions are less than 1% of total statewide emissions, and elsewhere that VOC, NOX, PM expected to increase, and yet again that compared to 1990, emissions from airport sources are expected to decrease significantly. This amounts to an unfathomable statement that compared to a past level, increasing pollution will decrease.

The ESPR lists many activities which Massport characterizes as emissions reduction initiatives. Such narratives naturally prompt readers to anticipate that the report will provide information about reducing levels of emissions. It would be counterintuitive for Massport to establish its goals, then report its failure. However this has been and continues to be exactly the case in this ESPR, as in every EDR and ESPR before it. Massport has devolved from an agency once reformed and seeking net reductions in environmental impacts through serious mitigation and policy initiatives during the Sargent and Dukakis administrations, to an organization which gets behind and celebrates paper initiatives. No safe standards for exposure to pollution are set or discussed in the document. No net emissions reductions goals are provided. In fact for 3 out of 4 EPA criteria pollutants reported, as well as for noise, nighttime noise, and vehicular traffic, the report forecasts increases in impacts.

In each environmental impact category, the Port Authority states its commitment to leadership in, and initiatives designed to minimize negative environmental impacts, and every time, they

report increases. These disingenuous tactics are hurtful to AIR, Inc.'s members, to understanding of aviation impacts and to public confidence in Massport leadership. AIR, Inc. urges the Secretary to provide explicit instructions to the Port Authority that such contextual misdirection has no useful function for either EEA or the public, and that their attempts to invert logic are taken at face value, as unwelcome mistruths which erode public confidence and disqualify the document from being compliant with state law. It's important for the Port Authority to tell the truth.

Backsliding

In the ESPR, Massport lists efforts to reduce emissions such as electrifying ground service equipment (GSE), and building LEED certified facilities. However, as we have pointed out in our 2015 EDR, 2016 EDR, 2017 ESPR, 2018/2019 EDR, and 2020/2021 EDR comments, and as is the case with noise, these programs hold the potential to affect a small percent of total airport emissions sources, while growth in aviation source emissions (even accounting for engine technology improvements) continue to drive backsliding toward peak historic environmental damage levels -or it has already surpassed them -as is the case with daily traffic, NOX, VOC, PM2.5, and nighttime flights.

In its discussion of the Future Planning Horizon, Massport states that 'Analysis results showed future noise, air emissions, and vehicular traffic density at the Airport will increase in the future and likely exceed 2019 and 2022 conditions but will still remain well below historic highs and well below EPA NAAQS standards for criteria pollutants.' Traffic, NOX, VOC, night operations, and PM 2.5 are all at, and increasingly exceeding historic peak levels. EPA NAAQS standards for criteria pollutants have been roundly criticized and are accepted to be of little use in judging negative impacts of local aviation and airport activity. Thus, the Authority continues to report increasing impacts and environmental backsliding in this document while insisting that its focus is on reducing emissions.

Upgauging impacts

Massport introduces the public to the term 'upgauging' in the ESPR's discussion of trends in the aircraft fleet at Logan, stating that 'airlines are operating larger aircraft fleets, which contributes to upgauging'. This description is misleading. Upgauging is not a byproduct of use of larger aircraft which results in more passengers; it is the intentional use of larger aircraft to increase seat capacity.

The Airport Cooperative Research Program (ACRP) explains that "Upgauging" is an airline industry technique enabling air carriers to increase capacity by adding seats to existing jets and replacing smaller planes with larger ones." ACRP adds that the impacts of these programs are often experienced at the local level. Environmental Science Associates (ESA), states that upgauging has had 'a profound effect on the growth in passenger traffic at airports throughout the world.' And that Airlines use aircraft with higher seating capacity to carry more passengers on the same number of scheduled flights. As a result, over a short time, airports can experience a record number of passengers while aircraft operations have seen only modest growth. This

has several effects on the airports themselves, and the communities they serve.” They go on to say that ‘In some cases, airports must plan for new gates or concourses that can accommodate the larger aircraft, while terminals may need to be reconfigured or expanded to accommodate the record number of passengers. Often, this growth drives the need for state and/or federal environmental documentation to assess the potential impacts of these changes”.

The Authority confuses reviewers by stating that the added seat capacity per flight (upgauging) reduces the number of aircraft operations flown per day. Again, upgauging is replacing smaller planes with larger planes or adding more seats to existing planes. It results in more passengers per operation, not less operations. This statement misleads reviewers into the conclusion that aircraft operations and environmental impacts will decline. This is only true if airport passenger volumes remain fixed. In reality, as seen in the explanations above, upgauging is a profit driven tactic used by airlines to reduce costs and increase capacity. Upgauging also requires changes in airport gates and terminal accommodations. The ESPR provides no discussion of the effects upgauging will have.

Standards

In the 2022 ESPR, Massport reports that VOC in Dudley Square are below National Ambient Air Quality Standards (NAAQS). First of all AIR, Inc. objects to the continued use of the name Dudley Square in reference to the location of the EPA monitor in Roxbury. In September of 2019, the city of Boston’s Public Improvement Commission announced issuance of a public referendum vote later that year to place before the public the issue of a name change as community residents in the predominantly African American neighborhood alleged that, as the state’s second governor, Thomas Dudley allowed the passage of laws that permitted slavery, and that his family later enabled the slave trade. Residents of Roxbury voted heavily in favor of a change in name and Dudley Square was officially changed to Nubian Square. This new name pays tribute to the ancient Northeastern African region of Nubia. Massport should use the correct moniker in future references to the location of the EPA monitoring site. Secondly, the state’s NAAQS regional attainment status has no bearing on East Boston.

Fuel efficiency

An increase in operations combined with larger planes will drive impacts higher as it did during the 2011 - 2019 period of uninterrupted aviation growth. Even with an updated fleet which is marginally more fuel efficient and potentially fractionally quieter on a per seat noise basis, larger and heavier aircraft still require more thrust to lift off, causing greater fuel burn and producing more noise and increasing environmental impacts.

CATEGORY	AIRCRAFT	FUEL in gallons per hour
Helicopters	small piston engine	6-16 GPH
	large turbine engine	20-100 GPH
Gyroplanes	Commander Elite 447	3 GPH
Single Engine Turboprops	Piper M600; Cessna Denali	39-60 GPH
Twin Engine Turboprops	Beechcraft King Air 350; Saab 340; Beechcraft King Air 250	90-135 GPH
Light Jets	Cessna Citation CJ1+; Cessna Citation III	132-241 GPH
Mid-Size Jets	Learjet 60; Hawker 800XP	215-291 GPH
Super Midsize Jets	Dassault Falcon 50EX; Cessna Citation X	287-347 GPH
Heavy Jets	Dassault Falcon 900; Bombardier Challenger 603	303-329 GPH
Long Range Jets	Dassault Falcon 8X; Gulfstream G650	347-453 GPH
Cargo Planes	Boeing 747	3600 GPH
Taildraggers	Luscombe 8A	4 GPH
Light Sport Aircraft	Icon A5	5-10 GPH
Fighter Jets	McDonnell Douglas (Boeing) F-15 Eagle	385 GPH
Supersonic Aircraft	Concorde	25,750 GPH

Physics dictate that at any given engine efficiency, more work requires more energy. And whereas energy is derived from fossil fuels, greater energy

requirements require greater fuel consumption. Also at any given engine efficiency, greater fuel consumption produces more emissions. Massport should quantify the savings claimed.

Fuel efficiency of modern aircraft is a complicated matter. Airlines and aircraft manufacturers clearly aim to minimize fuel costs. To maximize profits, aircraft engines are designed to achieve top efficiency during cruising operational conditions, the flight mode in which aircraft travel the longest times and distances. AIR, Inc.'s evaluation of aircraft efficiency techniques concluded that most of the efficiency gains in modern aircraft engines are achieved through initiatives such as upgrading the aircraft's on-board computer Flight Management System to reduce the aircraft's engine braking on descent, known as Descent Profile Optimization. IDLE Factor Optimizer (IFO) is another computational efficiency program which reduces air braking and saves fuel. Another in-flight efficiency initiative is Air Management Function (AMF), which cuts down on air filtration demands when less filtered cabin air is needed in flights with lower passenger load factors. Sharklets are large wingtip devices that increase the lift of the wingtip while at the same time decreasing the drag along the wing caused by wingtip vortices, thus allowing for fuel savings and longer flights.

All of these efficiency measures save fuel during cruising conditions, and have little bearing on emissions in the Boston area. This begs the question whether the cleaner, quieter, larger jet effects will make any difference on the profound and dangerous ground level pollution at Logan.

Pollutant data

VOC

Massport reports that research has shown correlations between exposure to VOC's and respiratory illness in humans.

The 2022 ESPR reports that VOC emissions were 1145 kg/day. This indicates a 60% increase from 2021 reported levels. 2022 reported VOC was 12% less than 2019 levels. Compared to operations at Logan, which in 2022 were 85% of 2019 peak levels, VOC reported in the 2022 ESPR show a 3% increase in emissions. Massport attributes the increase in VOC largely to the increase in aircraft operations.

The ESPR reports an increasing trend in VOC emissions from 2010 to 2019, agreeing with AIR, Inc.'s comments that the data support a backsliding of this pollutant which correlates with undisturbed growth in passengers and flight activities.

NOX

Massport reports that research has shown correlations between exposure to NOX and respiratory effects in humans.

The 2022 ESPR reports NOX emissions in 2022 were 5866 kg/day, 9.8% less than 2019's 6440 kg/day. Relative to the 15% reduction in operations reported for 2022 in the ESPR, Massport's data indicate a 5.2% increase in NOX.

In the future planning horizon, Massport estimates that NOX expected to be 53% higher than 2022 and 39% more than 2019 peak levels. The fact that the FPH includes a 48% increase in passengers over 2022 levels and a 26% increase over 2019 peak travel levels indicates that NOX emissions are worsening exponentially. Massport couches this news by stating that the increase is almost completely due to the use of quieter aircraft -but also attributes an undisclosed amount of the increase to an increase in operations. Massport should not incorporate multiple source factors to changes in predicted levels of pollution impacts and instead should quantify the contributions in the situations when there are more than one contributing factors.

Massport struggles to report an increasing negative environmental NOX impact without attributing it to a positive technological advancement in fuel saving and quieter engines. Impacted communities are not interested in Massport's happytalk or apologies. If a fuel burn or noise benefit exists which can mitigate NOX emissions, Massport should quantify it and explain the mechanism by which it will affect NOX.

The ESPR presents average taxi time data in the NOX emissions data section. However the Authority does not explain whether there is a correlation between taxiing and NOX which is not present in other pollutants.

In 1990, total all airport sources of NOX were 6141 kg/day. By 2019, total all airport sources of NOX had reached 6440 (4.8% over 1990 peak NOX). If 2022's reported NOX emissions of 5866 kg/day at Logan's 85% passenger volume is applied to 2019 peak passenger volume, NOX would reach 6746 kg/day. Likewise, 1990 total aircraft related NOX was reported to be 4937 kg/day, while 2019 total aircraft NOX was 6123 kg/day. If 2022 total aircraft NOX reported at 5650 kg/day at 85% of peak traveler levels were extended out to 2019 peak traveler levels, aircraft only NOX would reach 6497 kg/day, a 6.1% increase over 2019 levels aircraft only levels, and more than previous peak all airport sources levels.

These analyses underscore the fact that NOX at Logan -which causes respiratory disease, is out of control and only increasing as flight operations increase.

The ESPR in section 8.3.1.3 discussion of NOX contradicts the statement that NOX is the one pollutant that has generally increased due to engine technology, when it states that "As aircraft engine manufacturers are continuously advancing combustion technology that is designed to mitigate and reverse the trade-offs between lower emissions, less noise, and increased NOX. When representative aircraft are compared, as aircraft engines become quieter, improving from stage three to stage five, and more efficient NOX and PM10/ PM 2.5 emissions increase. For comparison, emissions of CO decrease, and VOC fluctuate between noise stage equivalents."

Even with more than 60 years of technical airport experience, AIR, Inc. cannot understand the statement that 'combustion technology design advancement mitigate and reverse trade-offs'. It is equally difficult to understand whether Massport is claiming that one of the four EPA criteria pollutants (NOX) is generally rising in newer engines or whether they are claiming that two criteria pollutants (NOX and PM 2.5) are rising. Finally, 'fluctuating between noise stage

equivalents' is also confusing, and suggests that VOC may also be increasing over time, which would mean that three out of four pollutants (NOX, PM 2.5, and VOC) are rising. Massport and their aviation consultants seem to be struggling to produce a cogent report on emissions.

Next, in the ESPR, Massport launches into a lengthy explanation about the motivations of aircraft engine designers and airline fuel burn, and intimates that efficiency is improving. As pointed out earlier in these comments, wingtip design improvements, and many other engine technology and software fuel burn improvements do not improve local admissions. The improvements in fuel efficiency promoted in this document are largely realized at optimum flight conditions during the majority of aircraft trips. This paragraph seems to only imply that things are getting better, when in fact, the data in the ESPR demonstrate consistent worsening of the impacts of concern for stakeholders of this document.

In the second to last paragraph of the NOX pollutant report, Massport states that improving engine technologies will reduce admissions and moderate NOX emissions. Then, in the very next sentence at the top of the following paragraph the ESPR states that higher NOX emissions are likely to continue into the future. This fact is confirmed by Massport's future planning horizon forecast that total all airport sources of NOX will rise to 8,958 kg/day and aircraft sources will rise to 8,981 kg/day, a 52.7% increase over 2022 levels.

Particulate matter (PM)

Massport states that exposure to PM may affect the respiratory system in humans and that the EPA considers PM important because of respiratory system effects in humans at high exposure levels.

The ESPR again inappropriately points to NAAQS measurements on Harrison Ave, stating that PM 2.5 levels are within federal attainment levels.

Changes in emissions modeling year to year complicate analysis of emissions, growth, and reductions overtime. Whereas changes in modeling assumptions are out of community stakeholders control, the public interest lies in whether emissions conditions of dangerous pollutants are increasing or decreasing. In the past, when models have changed, Massport has published tables, providing previous model reports for comparison. Using this comparative data, AIR, Inc. has been able to extrapolate levels of pollutant emissions by creating model comparison factors. Application of this model comparison factor technique allows the public to evaluate the status of the growth or reduction of pollutants. If model A reported in year 'one' is 100 units of measure and that is 13% higher than model B reported also in year 'one', then the comparison factor becomes 13%. If model B reports a decrease of 5% at 95 units of measure of a pollutant, in the following year -year 'two', when the comparison factor is applied (95×1.13), the equivalent adjusted pollution emission level for that pollutant becomes 107.35. In this example, we see that a reduction of 5% in reported emissions is actually equivalent to an increase in actual emissions. Here, the pollutant is not 'under control' or decreasing, but in fact things are headed in the wrong direction, and emissions of the pollutant are increasing.

Since MOVES 2014b and AEDT3c modeling both refreshed over COVID in 2019 and 2020 respectively, and Massport does not provide a table of previous model data for comparison, AIR, Inc. has been unable to develop a model comparison factor to evaluate the relative change reported in PM. So, there is basically no way to make any sense of the PM data in the ESPR.

CO

Masport reports an impressive 63% decline in carbon monoxide emissions between 1990 and 2022. However, table 8.5 tells a much different story. Table 8.5 reports that in 1990, aircraft emissions of carbon monoxide were modeled at 8518 kg/day. Table 8.5 shows Logan's lowest reported carbon monoxide emissions year was in 1998, a year in which Massport models reported 4048 kg per day of carbon monoxide generated by aircraft sources. This data indicates that between 1990 and 1998, a period in which AIR, Inc.'s Logan Airport passenger tracking data indicates passenger volumes rose 18%, from 22.4 million annual passengers in 1990, to 26.5 million passengers in 1998, a 4470 kg/day -or 52% reduction in carbon monoxide emissions was achieved. This reduction can be attributed to aircraft engine design changes. After 1998, some fluctuation is seen in annual reported CO, possibly the result of changes in modeling, but the trend in the data provided is upward. By 2019, Masport had reported 7171 kg per day of carbon monoxide. This indicates that an additional 3123 kg/day of CO above the historic low emissions level for this pollutant was produced by aircraft sources over the span of those 21 years, a 77% backsliding from the gains made through engine technology improvements.

Table 8.5 also reports on vehicular sources of CO. The data show that in 1990, vehicular sources of CO totaled 2907 kg/day. By 2017, vehicular sources of modeled CO emissions, like aircraft sources, also declined to a reported 623, a 2284 kg/day or 79% reduction. Unlike aircraft sources, however, reported CO emissions from vehicular sources continued to decline, and by 2022 had reached an apparent historic low of 328 kg/day.

The most significant reduction in CO emissions seen on Table 8.5 is in GSE CO emissions which fell from 6001 kg/day reported in 1990, to 397 kg/day in 2019 a drop of 5604 kg/day. This reduction is attributable to the electrification of GSE equipment. With 2019 reported CO emissions 9190 kg/day less than 1990, we see that changes in the vehicular fleet in use at Logan have produced a 53% decrease in emissions of this pollution. The combined CO emissions savings of vehicular and GSE equipment is 7888 kg/day.

Concluding our analysis of overall carbon monoxide reporting data, AIR, Inc. suggests that what are essentially one-time reductions in carbon monoxide admissions in GSE and vehicular sources are attributable to engine technology improvements over the 1990 to 1998 and 1990 to 2017 time periods respectively. Combined, vehicular and GSE CO reductions equal 7888 kg/day, representing 86% of a quickly backsliding total CO reduction. Meanwhile aircraft sources, which were 49% of total CO emissions in 1990, now account for 86% of total airport CO, suggesting that CO emission will only be growing in coming years. This analysis draws into question the value of reporting a 63% reduction in CO.

Ultrafine particulate pollution

In Chapter 8, Massport confusingly uses the term 'particles' to refer to ultrafine particulate pollution (UFP). This is not helpful. Particulate pollution is subdivided by particle size, with PM 10, PM 2.5 and UFP occurring in decreasing order in diameter. UFPs are widely recognized as the primary pollutant of concern, and are the most intensely studied topic by environmental air quality and public health scientists today. Whereas Massport reports on PM 10 and PM 2.5 particulate size sub-categories, use of the subheading 'Particles' to describe a further sub-classification of the particulate pollution spectrum is unnecessarily confusing. UFP's are another subset of particles.

This isolation of UFP from larger classes creates potential comprehension gaps for readers who might conclude that research on ultrafine particulate pollution is discontinuous and theoretical, when in fact, scientific investigations into health effects of particulate pollution and advances in measurement and biological testing technology as a whole is an area of concern, with UFP leading the way due to its spatial distribution characteristics and its ability to be absorbed directly into the human bloodstream. AIR, Inc. suggests that it would be more appropriate and less confusing for Massport to report on Particulate Pollution under a single heading and further report on PM10, PM2.5, and UFP's in separate subheadings.

The statement 'outdoor concentrations within US EPA standards are considered safe for the public' is completely confusing. We know of no EPA standards which consider UFP's safe for humans.

Massport mentions their support and participation in research and regression models from 2017 and 2018 being developed to identify airport sources amongst all sources. However, the ESPR provides no data on these developments.

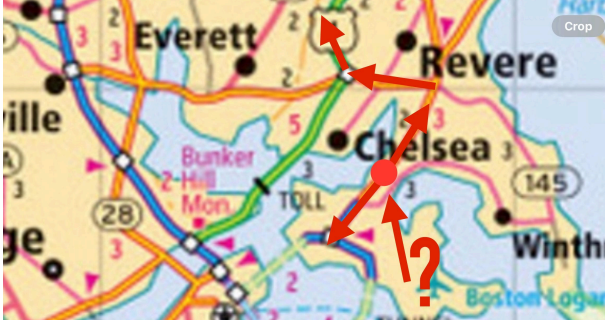

Under the UFP section, Massport lists efforts to measure UFP from aviation sources, the phase in of alternative fuel vehicles (presumably ground service vehicles which account for a small % of airport pollution), and GHG reduction efforts as the primary three initiatives underway to reduce airport related air emissions. These three initiatives do not specifically address UFP, nor will they reduce net UFP emissions.

Emissions from snow melting and fire training are based on 5 year averages (which incorporate Covid era activities... and introduce the prospect of bias if diminished levels of activity were present)



Ground Access

Massport counts among its sustainability goals “provide superior ground access to Logan through alternative and high occupancy vehicle travel modes.” Superior HOV would include secure to secure landline service with baggage check through as described in the [Possibilities](#) section of these comments.

	
<p><i>Limited access for Logan-based cargo and logistics to the interstate highway system</i></p>	<p><i>Improved connectivity via an I90 link to potential cargo and logistics facilities relocated to route 128</i></p>

In another inaccurate statement, Massport asserts that Logan has a well-connected roadway system which provides access to and from the airport. Logan is connected to the north indirectly, either by I90 west via the central artery, or by Route 1A. However, Route 1A does not provide any direct connection to any major highway, which is a serious flaw in Logan's connectivity. Passenger, cargo and package logistics create voluminous movements which cause serious and controversial environmental impacts.

Today, even as AIR, Inc. and its partners trudge through 1,152 pages of technical circumlocution, the Logan Community Clean Air Coalition –a group of East Boston area non-profit organizations is deeply engaged in an eight year battle to prevent airport cargo activities from being moved off Logan's campus, to an expanded cargo operation on community land along Chelsea Creek. The present cargo facilities, located on the Creek due to the availability of affordable disused industrial land, create severe trucking impacts in residential environmental justice communities. Since the Sumner tunnel's roof clearance is too short for modern tractor trailer trucks, truckers routinely reject the 8 mile detour which would be necessary to access Routes 95 and 93 without traveling through the Ted Williams tunnel and the Central Artery, in favor of taking neighborhood streets through Eagle Hill and other residential communities. This proposed cargo facility expansion would worsen the present negative airport related trucking impacts of the existing facility.

These problems eliminate the suitability of categorizing Logan as well-connected. Such overtures create a false sense of the appropriateness of Logan's location for present and future activities. If Massport were interested in promoting understanding of ground access impacts, it would delve into this topic in the ESPR and provide some form of assessment of the feasibility

of locating cargo and logistics warehousing along the 128 corridor. It does not. Massport essentially looks the other way.

Massport lists multiple roadway projects designed to reduce in-airport congestion Completed in 2023, but doesn't explain whether those projects have succeeded. The only conclusion community stakeholders can arrive at is that they have not, as traffic steadily spills out into East Boston streets more each year.

In Section 4-6, the Authority states that 2,000 parking spaces were 'lost due to HOV and ride app initiatives at terminals C and B'. This implies that those 2,000 spaces were commercial parking spaces which would have been available under the Logan Airport parking freeze if they were not being taken up by ride app 'and HOV' purposes. This deserves closer examination.

Ride app uses involve a fee imposed by the Authority which is presumably derived from the costs of managing vehicular movements and providing access to the airport terminal areas, and includes temporary parking amenities. If the Authority is charging a fee for them, then the 2,000 parking spots consumed by the ride app fleet using Logan are in fact commercial parking spaces. The fact that the Authority chooses to use a different payment mechanism and rate system, or calls it a fee, doesn't mean that it is not related to commerce; it is a fee for a service.

From the Parking Freeze perspective, the goal of limiting parking facilities at Logan is clearly to reduce vehicular trips into the airport. Ride app trips are trips. Whether parking for 5 minutes or 5 days, if they are parking and paying, they should be counted under the Parking Freeze.

Massport notifies ESPR reviewers that they are 'analyzing the feasibility and effectiveness' of 'potential services and improvements to HOV' access'. No specific plans are shared. No implementation timetables are provided. No target traffic reduction goals are presented. This amounts to nothing.

Likewise, the Authority alerts the public to its investigations into 'Possible pricing strategies for different modes', but doesn't provide any information about conclusions and strategies to adjust pricing to improve the positioning of lower impact HOV transit modes.

Massport mentions its ride app rematch and says it's effectively managing ride app service as a means of reducing impacts. No data about the effectiveness of this ride app rematch is presented. Ride app rematch is a passive effort -seeking to reduce the likelihood that ride app drivers will leave without a fare. This passivity is characteristic of the Port Authority's overall approach to ground access. In an era of rising congestion, with roadway capacity critically overburdened and the entire region inundated with the country's worst congestion, continued airport traffic increases will present increasingly serious economic, air quality, and public health risks.

Regional Transportation

The ESPR's reporting on trends and statistics for airports throughout New England is like a box score in the back of the sports section of the Globe, providing snapshot facts of little value to the

questions and suggestions posed by public commenters. AIR, Inc. is most concerned with reducing population exposure to airport impacts. In this regard, Logan's domination of the regional air travel market is a problem. Massport does not provide any content within the ESPR which addresses this problem.

Consider that the ESPR reports that nearly 50% of Logan travel initiates from locations which are outside of route 128. Many factors play into this, and shifting market share would be a timely and complicated process. But from both pollution exposure to pollution and airport congestion management perspectives, sharing regional flight loads across the region would have positive effects. As seen in our discussion of possible [Logan Transit Hubs and Remote Terminals](#), Massport has an opportunity to also improve its overall user satisfaction by supporting stress-free travel via improved ground access to Logan. The same system could have the same benefits for connections to Manchester / Boston, Worcester, TF Green and other airports. Massport hasn't evaluated these possibilities.

Regional economic impacts

The ESPR reports that the MassDOT Statewide Airport Economic Impact Study reported that visitor spending related to Logan Airport aviation activity contributed a 22% increase in economic activity from 2014 to 2019. This claim is not supported by any evidence. To summarize our previous comments to EEA through the MEPA EDR 2016, ESPR, and 2108/2019 EDR reviews: this study which was conducted for the MassDoT Aviation Division by global consulting firm CDM Smith appropriates every imaginable economic benefit of aviation activity which could be attributed to Logan Airport, but completely fails to evaluate the direct and indirect costs. The fact of the matter is that the economic activity of the metro Boston area is what drives demand for aviation services, it's not the other way around. The chicken came first, not the egg.

Not only must the costs of environmental damage and public health be factored, but also the outflow of spending from Massachusetts residents traveling abroad should be evaluated. Failing to provide this data, the MassDoT Statewide Airport Economic Impact Study is a one-sided aviation industry booster report created with the single purpose of being used to fortify the well worn industry narrative that airports are 'the engine of the economy'.

Rail

The ESPR discusses regional rail options, providing ridership numbers of passengers and describing service between Boston and major cities along the eastern Amtrak rail corridor. However, the ESPR doesn't provide context by providing the respective data on air service. This is particularly galling as the Governor's climate plans call for the long term reduction in air service to destinations less than 500 miles away, and because short haul air travel is the largest driver of poor environmental outcomes. The Port Authority makes absolutely no attempt to evaluate this complex issue.

If Massport found that pollution impacts from short haul flights create more environmental damage per operation, it could begin to evaluate opportunities to enhance ground access strategies which would support rail and other modes and discourage these flights.

Massport's failure to adequately mitigate and reduce ground access impacts creates serious environmental consequences in neighboring communities. When airport traffic exceeds airport and local roadway capacities, congestion spreads across the local area, endangering emergency mobility and causing costly delays. Despite repeated requests for calculation of the economic and socialized costs of Logan's traffic congestion, the ESPR does not recognize these impacts.

Ground access is also perhaps the most acute airport management crisis facing Massport today. While in the ESPR, Massport reports on numerous initiatives it is pursuing to reduce congestion, in fact the opposite is happening: traffic is backing up on airport roadways for hours each day. At extreme levels, this traffic can choke Logan's terminal curbs, potentially disrupting travelers access to their flights. Massport however seems to lack any sense of urgency in dealing with this.

The ESPR reports that weekday on-airport VMT in 2022 was 164,625 miles, which is 21.6% less than 2019's 209,900 miles. The Future Forecast calls for 212,022 by 2032 - 2037, an increase of over 47,000 miles per day. Factoring in the 50% uncertainty baked into the Authority's 10 - 15 year Future Planning Horizon, VMT could also rise by 71,000 miles per day to over 235,000 miles per day by the end of the future planning horizon.

Data gaps

In the Ground Access chapter, Massport describes seasonal adjustment factors which they say were necessary when significant gaps in their data occurred due to equipment failure or malfunction or to construction activity. The Authority explains that seasonal adjustment factors, are estimated from a combination of the monthly variation of counts from other ATMS stations, or from data collected from the same station in the previous year, at a similar time.

AWDT and VMT data in the ESPR show respective reductions in traffic and miles traveled relative to 2019. However Massport also reports that Covid hesitancy is driving up use of private vehicles at Logan, which would indicate that more travelers would have arrived via passenger vehicles, which would cause trips to Logan and miles traveled to rise.

Month	Passengers	Month	% Recovered
December 2020	804832	December 2021	26.01%
January 2021	740247	January 2021	27.32%
February 2021	731029	February 2021	26.91%
March 2021	1070171	March 2021	30.95%
April 2021	1427287	April 2021	39.13%
May 2021	1744185	May 2021	44.96%
June 2021	2121185	June 2021	53.75%
July 2021	2570680	July 2021	63.13%
August 2021	2587063	August 2021	62.78%
September 2021	2226035	September 2021	62.75%
October 2021	2579783	October 2021	68.41%
November 2021	2471462	November 2021	75.72%
December 2021	2409372	December 2021	71.09%

The Ground Access section does not indicate whether any seasonal adjustment factors were necessary in 2022, and if so, what the duration of the equipment failures or malfunctions which may have required them was, or what combination of the listed sources of replacement data was used, if necessary. It is very

concerning to think that the lower than expected miles and traffic counts could be the result of unspecified data editing -especially concerning is the possibility that potentially large amounts of data from 2021, when airport travel volumes were at 63% of peak levels, and particularly during the early portions of 2021, when airport volumes were below 30% of previous peak levels.

We ask the Secretary to require Massport to quantify the amount, timing, and nature of the data editing or seasonal adjustment factors applied to 2022 data.

Adding to the accumulation of doubt about the 2022 data, Massport reported that it ‘migrated away’ from the previous VISSIM3 microsimulation model, to a new spreadsheet-based volumetric model. In the ESPR, the Authority states that the spreadsheet based model was in place from 2018 - 2021 and took advantage of the data available through Massport’s various transportation and transaction-based data collection systems. However, while stating that the spreadsheet based system was in place during a period of time, the ESPR does not indicate whether the spreadsheet based system was used to produce the traffic volume modeling reported in the 2018/2019 and 2020/2021 EDRs. The Authority further explains that ‘the 2022 ESPR requires modeling and reporting in future forecast conditions, which the new spreadsheet-based volumetric model could not accomplish’ and that subsequently, ‘Massport has returned to the previous VISSIM model, appropriately updated to reflect the on-Airport ground transportation and infrastructure changes that have occurred since 2017, the last time the model was used for this purpose’.

YEAR	AWDT	Total Annual Weekday Trips TAWT	Annual Passengers	Ratio Passengers to Trips
2011	104,863	27,369,243	28,907,938	1.056
2017	130,601	34,086,861	38,412,419	1.127
2,018	137,105	35,784,405	40,941,925	1.144
2,019	143,189	37,372,329	42,522,411	1.138
2,020	57,210	14,931,810	12,618,128	0.845
2,021	90,185	23,538,285	22,678,499	0.963
2,022	114,690	29,934,090	36,090,716	1.206

Average weekday daily and total annual traffic to passengers

The Authority does not bother to explain the rationale behind its decision to change traffic modeling methodology to a system which is incompatible with the the traffic forecasting software technology. Given the uncertainty in the 10 - 15 year reporting structure, the possibility of biased editing using unrepresentative low proxy data, and the unexplained shifting of methodology, AIR, Inc. considers Massport’s traffic reporting in the ESPR to be 100% unreliable. This conclusion widens an already serious rift in public confidence in the Port Authority’s credibility.

Based upon the results of the 2022 Logan International Airport Air Passenger Ground-Access Survey, HOV mode share has reached 38.4%, exceeding the near term goal.

AWDT is AIR, Inc. and community stakeholders’ preferred metric, as it relates directly to the lived experience of residents whose daily lives are inundated by daily airport traffic overflow in traffic impacts areas. AWDT is an easily recognizable net impact metric which clearly indicates the success or failure of Massport’s traffic management and mitigation efforts. However, the AWDT data reported in ESPR 2022 is difficult to understand. With the ESPR reporting that

passenger volumes are 15.1% below peak 2019 levels, and Covid hesitancy presumably still a factor, the 2022 ESPR reports AWDT at 114,690 (19.9% below the peak 143,189 set in 2019).

Annualizing AWDT is necessary to produce a more useful Total Annual Weekday Traffic (TAWT) metric for comparison to annual passenger volumes. *Between 2011 and 2019, AWDT was increasingly trending for the most part toward more passengers per vehicle trip to Logan, with 1.056 passengers per trip in 2011, and a peak level of 1.144 passengers per trip in 2018.* The Covid effect appears to have been a reduction in passengers per trip, as Massport reported 57,210 AWDT in 2020 with a total annual passenger volume of 12.6 million travelers. This is logical. During the pandemic, Logan's trips to passengers trend predictably flipped, falling below 1 passenger per trip. In 2020, the annual weekday passengers to trips ratio dropped to 0.845 with 14.9 M trips for 12.6 M passengers. 2021 showed a slight improvement with 0.963 passengers to trips. However, in 2022, Massport reported an AWDT of 114,690 which would indicate 29.9 M vehicle trips annually, at an annual passenger volume of 36.1 million travelers. The resulting annual passenger to trips ratio of 1.206 is an apparent record high level of passengers to trips.

The drop in passenger vehicle trips is counterintuitive and not explained in the ESPR. Whereas the purpose of the ESPR is to describe environmental impacts and assess the Port Authority's performance in its efforts to mitigate and reduce pollution the Authority should attempt to explain obviously counterintuitive phenomena when they present themselves. No such effort is made.

Massport reports that a 'transaction-based versus volumetric model was used to estimate on-Airport VMT, and states that the explanation of this is provided in Appendix H. AIR, Inc. asks the Secretary to instruct Massport to embed any information which is relevant to reviewing the ESPRs and EDRs into the body of the documents, and in cases when information is not relevant, to omit it.

The ESPR does not provide any estimation of airport-related traffic congestion both off the airport. Logan's spillover traffic creates serious traffic congestion impacts across the local communities, overwhelming local roads and intersections routinely. By omitting calculations of the VMT impact of practices such as rerouting traffic down McClallan Highway when Massport closes the Rte 145, Bennington Street exit on 1A southbound, the ESPR fails to adequately and properly account for obvious environmental damage of airport traffic impacts.

We ask the Secretary to specifically require the Port Authority to develop a methodology for accurately determining and evaluating the local and regional effects of airport traffic congestion.

Logan Express

The 2022 ESPR reports that air travel volumes were down 15% from 2019 levels, but that Logan Express (LEX) ridership was down 23.2% from 2019. The Authority then states: "but now shows strong growth back toward pre-pandemic levels". This is a qualitative assessment of progress -which without quantitative support is essentially a statement of opinion. As is the case

for the the ESPR's VMT and AWDT reporting, an unexplained disparity exists in the reporting: if LEX is down, private vehicle use would be expected to increase. However no attempt is made to explain this. Readers wishing to review supporting documentation regarding ground access data reporting and claims made within the ESPR are referred to Massport's web site. This practice removes the supporting data from the document

The ESPR states that airport cell phone lots minimize idling. AIR, Inc.'s idling surveying project observed idling behaviors at Logan terminal curbs, cell lots and professional lots in March of 2022. 62% of vehicles using the cell lot were observed to be idling in this spot check. Again, the Authority uses qualitative descriptions of environmental impacts. Clearly, minimizing is not an objective term, but 62% is not it.

Year	Estimated Seats			
	Scheduled Buses	Scheduled Vans & Limousines	Courtesy Vehicles	Limousines (unscheduled)
2011	2,251,480	996,208	1,885,575	1,991,672
2017	2,969,395	385,221	3,057,645	2,528,057
2018	2,856,260	325,032	3,235,875	2,133,060
2019	2,752,970	297,631	3,125,865	1,953,236
2020	949,960	47,976	1,091,895	467,564
2021	2,094,730	34,648	1,418,745	705,904
2022	2,350,480	81,344	2,006,220	1,111,864
Percent Change (2019 - 2022)	-14.60%	-72.70%	-35.80%	-43.10%

Air traveler survey

The ESPR uses Massport's Logan Airport Air Traveler Ground Access Survey to determine mode share. This survey is conducted every three years. It asks passengers at Logan about their trip origin and mode of travel to the airport. It also asks respondents to project which mode they would use if their preferred mode were not available. As AIR, Inc. has pointed out in previous comments on this document series, by basing mode share data and planning on a survey which asks travelers to predict what their modal transport decisions would be given a choice among only present options, the Authority biases the results. Without asking travelers how their behavior might change if there were a \$10 airport roadway fee, or if Logan Express were free, or if they had the choice to use a remote airport terminal with secure to secure transportation, - all feasible alternatives, Massport limits the possibilities to only the options it currently offers.

We ask the Secretary to specifically instruct Massport to conduct such research as would be necessary to inform decisions and determine the potential effect of a wide ranging set of policy options including a) airport roadway access fees, b) reduced pricing on Logan Express, c) improved facilities and features at Logan Express locations including secure to secure TSA screening and baggage check through, d) upgraded buses, and e) reduced travel times.

Massport states that data for the passenger survey used to inform ESPR 2022 was collected during the college graduation season. AIR, Inc. expressed our concern over the potential for bias via the introduction of unrepresentative data which is possible by selection of a time period during which such unusual, specific and intense travel activities are occurring.

In order to properly and thoroughly understand the results of this foundational survey, we ask the Secretary to require Massport to release supplemental documentation of data on respondent demographics as well as Non-response rates and demographics.

To improve this surveying process Massport should be required to test its survey findings with quantitative data based on a program of actual observations.

Ride apps

The ESPR continues the accounting practice of categorizing an Uber passenger vehicle dropping off 2 passengers at the curb as an HOV trip. However, under this accounting system, a private passenger vehicle dropping off 2 passengers at the curb would be categorized as an SOV trip. The environmental impact of each scenario is identical. As the trend for rideshare service to cannibalize true transit based HOV service continues, this practice creates a condition where passenger vehicle counts can rise bringing increasing passenger vehicle impacts while driving up HOV numbers.

Stakeholders in traffic impacted communities are concerned with net traffic reduction.

Categorization of passenger vehicles as high occupancy through evaluation of passenger car occupancy levels rests upon the assumption that some forms of passenger vehicle modes are have environmental benefits. This is ludicrous. Consider that theoretically, using 2019 annual passenger totals of 42.5 million passengers, under Massport's HOV accounting method, 100% HOV mode could be achieved by use of about 21 million (21,250,000) Uber trips to and 21 million Uber trips out of Logan, as long as each trip served two passengers. In this scenario, 116,438 average daily trips would be generated just for passengers, and passenger-related AWDT would be (163,014). Since average annual daily trip (AADT) levels track about 4% below AWDT levels, AIR, Inc. estimated that AWDT levels of passenger cars only would reach 169,535 trips per day, 26,346 more passenger car trips to Logan each weekday. This potential increase would represent an 18.4% rise in passenger vehicle congestion at Logan Airport while at the same time achieving a 100% HOV mode of travel.

If Massport is going to persist in calling passenger vehicles HOV, they should be consistent, and they should develop a hierarchical classification system which would Massport should also

The language on page 6–32 pertaining to who Masport considers a resident in their survey states that “residency “is a matter of when a respondent considers Logan to be “home “airport. This means that reported resident statistics scanning include anyone who believes that Logan is their home Airport. Massport goes onto explain that the notion of a home airport is complicated because of pricing service availability, convenience, etc. Thus, if the person uses Logan because it is more affordable and has better direct flights, but they come from Maine, then they're considered to be a resident in the survey.

Table 6–11 contains a typographical mistake. Although it does not state that the table continues onto the following page, the presence of a subtotal indicates as much. In particular, the subtotal for automobiles printed is 63%. The number should be 83%.

Table 6–11 provides an interesting look at mode share over time, but shows that ride app Services are rapidly cannibalizing HOV. with the 2022 survey reporting only an 11% true HOV mode share.

In the Ground Access section of the ESPR, Massport states ‘the following analysis assumes these measures will be implemented by Massport over the next decade’ and that “Specifics of the measures themselves are currently under development and will be further documented in subsequent environmental filings and EDRs/ESPRs.” Therefore, the VMT and traffic analysis provided in the ESPR are predicated upon completion of a series of initiatives which Masport states are under consideration. This is not specific enough. Traffic impacts create severe negative environmental impacts in EJ communities. Estimating future traffic conditions in the 2022 ESPR based on a series of projects which have not been developed yet, or described in this disclosure are is unacceptable. The Port Authority should be held to a much higher standard.

The 2022 ESPR reports that VMT in the future planning horizon at 53.5 million passengers annually will reach one percent higher than VMT at the 42.5 million passenger level attained in 2019. This information, as poorly substantiated as it is, is subject to the 50% forecasting uncertainty. The predicted average weekday VMT (AWVMT) of 212,000 miles in the planning horizon indicates an increase in AWVMT of 47,375 additional daily miles traveled. If those miles are realized by 2037, 3,158 additional daily miles would be expected in each of the 15 years. Accordingly, in the 10th year, 31,580 additional miles would be expected. If the total gain in VMT is realized in the 10 year scenario, 4,737.5 additional miles would be added per year. Projecting this rate out to the 15th year, the total VMT within the outer limit of the horizon would be an increase of 71,062.5 miles. In these calculations, we see a potential low growth scenario providing a base level or floor with 31,580 more VMT and a high growth scenario creating a ceiling with as much as 71,062.5 VMT. The difference between the floor and ceiling projected levels (39,482.5) is more than 100% of the floor. The Port Authority’s report does not include information on this potential range of impacts, nor does it provide details of how the VMT estimate has been developed or what the rationale was for selecting the 212,000 number.

Public Health

Public Health is the most important emerging airport issue of our day. As mentioned earlier in these comments, airport health impacts have prompted a class action lawsuit against SEATAC in Seattle. AIR, Inc. held the world’s first Airport Impacts Health Forum in 2016, bringing ten of the world’s leading airport air quality and noise experts to Boston for a day long conference on public health. Even then it was clear that airports are going to need to aggressively address public health impacts. In these comments, AIR, Inc. promotes multiple means of protecting public health. In her scoping, the Secretary has required Massport to begin collaborating. Unfortunately, Massport persists in erecting blockades.

For example, the ESPR states that Massport cannot differentiate airport impact from those derived from other sources. This is misleading. As demonstrated in these comments regarding [AIR, Inc.’s Distributed Air Quality Sensor proposals](#), the technology currently exists for the

Authority to differentiate airport from other pollution. It's only a matter of Massport policy that the Authority chooses not to engage in an effort to evaluate the spatial and temporal whereabouts of Logan-related air pollution. Therefore, the ESPR intentionally misleads the public in regard to Massport's present capacity to assess airport driven air quality.

The 2022 ESPR also extends Massport's streak of nonresponsiveness to AIR, Inc. and community stakeholders' request for economic impact of socialized costs of airport related public health impacts.

Conclusion

AIR, Inc. has thoroughly reviewed the 2022 ESPR, and has found it to be thoroughly unhelpful and not useful. At 1,152 pages including appendices, the document is far too long. Throughout our review we have found that the document is supremely disorganized, providing data on the same topics in numerous chapters. This practice is disorienting for commenters and causes them to need to stitch multiple comments together, producing disjointed results. We conclude that this filing does not properly and adequately comply with MEPA regulations, it fails to provide comprehensive discussion of environmental impacts, it is loaded with unsupported claims, and it clearly fails to comply with the Secretary's many directives. We urge the Secretary to determine that the ESPR is not compliant with state regulations, and require Massport to resubmit this filing.

We urge the Secretary to ignore Massport's professions of good neighborliness and recognize that the well earned reputation as an environmental leader among airports has now long since faded and been replaced by environmental obstructionism and utter refusal to collaborate. Therefore we also urge the Secretary to be prescriptive in her direction to the Authority, instructing them to work with specific stakeholders in specific efforts within specific timeframes.

Given the segmentation of airport facilities projects and the fact that Massport's failure to provide facility specific environmental impact data has denied the public the opportunity to comment on the lifetime impacts of airport developments, AIR, Inc. asks that the Secretary require Massport to include calculations of these impacts in the supplemental ESPR. We also ask the Secretary to require Massport to file ENF's for every project they embark on going forward.

With noise, traffic, and air pollution impacts predicted in this ESPR to grow, and already clearly unacceptable to residents of metropolitan Boston, and causing acute public health impacts in environmental justice communities surrounding Logan, and with the forecast-based planning model introducing massive uncertainty which in turn exposes impacted environmental justice communities to unacceptable and growing disproportionate environmental burdens, we ask the Secretary to specifically require a thorough evaluation of revised mitigation and policy framework which is based upon actual realized impacts rather than forecasted impacts, aka impact triggered mitigation, as described in these comments. This evaluation should be conducted by a cross sector collaboration which is designed by community stakeholders with experience in communicating technical topics with EJ community residents. Regarding air

pollution impacts, we specifically ask that the Secretary require Massport to work through the above described cross sector collaboration to explore the design of an Airport Sponsored Community Air Pollution Mitigation Program, and a granular web-enabled real time pollution monitoring system capable of separating airport air pollution impacts from background impacts with the intention to develop an airport air pollution impact map which will define air filtration program areas.

We ask that the Secretary cap the supplemental ESPR at 200 pages, and that Massport be required to accept public input prior to its filing such that community stakeholders have input into the document's content.

We ask that Massport be required to produce data to substantiate any claims made in the ESPR.

We once again thank MEPA and EEA for the opportunity to provide comment on EEA #3247, and we look forward to participating in the much needed reforms we hope the Secretary will set in motion.

Airport Impact Relief, Incorporated (AIR Inc.)

From: [Alessio Burgio](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: BlueSkies Advocates - Comment on Logan's ESPR EAA #3247
Date: Friday, October 11, 2024 10:42:13 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

BlueSkies Advocates works both locally and nationally with aviation impacted communities. Thank you for allowing us to comment on the 2022 ESPR for Logan Airport, EEA# 3247.

Please see the following:

1. The ESPR should cover the impacts of RNAVs on all overflight communities.
2. Massport needs to improve its community outreach for its ESPRs. Public meetings and comment deadlines need to be better publicized.
3. SAF is not currently capable of reducing GHG, therefore it should not be a suggested solution in the ESPR. Only viable technologies and procedures for lowering GHG emissions should be suggested.
4. Lead pollution impacts are not adequately addressed in the ESPR. Massport did not discuss requiring FBOs to sell unleaded aviation fuel.
5. We support ESPR comments made by aviation impacted groups including Boston Fair Skies, Mothers Out Front and AIR, Inc.

<https://www.weareblueskies.com/>
<https://x.com/weAreBlueskies>



City of Boston
Environment



City of Boston
Mayor Michelle Wu

October 11, 2024

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
Attn: Jennifer Hughes, Deputy Director, MEPA Office

Re: 2022 Environmental Status and Planning Report,
Boston Logan International Airport, EEA# 3247

Dear Secretary Tepper:

The City of Boston Environment, Energy and Open Space Cabinet welcomes this opportunity to comment on the Logan International Airport 2022 Environmental Status and Planning Report (2022 ESPR). We thank MEPA Office Director Tori Kim for coordinating multiple meetings over the past year to facilitate discussions about how the stakeholders can take the best advantage of this process.

After a thorough review of the 2022 ESPR, the City of Boston respectfully submits the following comments in response to both what is contained in the report as filed and the data that we feel is missing or insufficiently specific. We recognize the economic value and other benefits of having an international airport within the city while also aspiring to ensure that the negative impacts are reduced or mitigated wherever possible in explicitly trackable ways. Our comments focus on the structure of the report, general air quality issues, differentiating and improving climate actions, and a range of transportation issues.

DOCUMENT TIMING, FORMAT AND CONTENT

Massport continues to reference its filing of annual documents and then, once again, asks to file a two-year Environmental Data Report (EDR) in 2025 rather than one for 2023. It also continues to intersperse in this 2022 ESPR references to 2023 accomplishments: four new gates opening in Terminal E, Piers Park II completed in December 2023, Bayswater Embankment Airport Edge Buffer EENF filed with MEPA in December 2023, etc. We believe annual EDR filings and timely ESPR filings are important, and should be limited to conforming data and references, by a date certain, so that year-to-year comparisons are meaningful.

ESPRs with unsupported expectations about the future and the extensive and repeated use of generalities are challenging to evaluate. Massport has standardized this framework with the use of the conceptual 10- to 15-year Future Planning Horizon. The phrase "in the Future Planning Horizon," is too general a reference that serves to obviate firm commitments. It is used 21 times in the text of the main document. For example, estimated Greenhouse Gas (GHG) Emissions are identified as "in the future planning horizon." Firmer time horizons are needed. The current format runs counter to a goal to tighten the link and process between future expectations, goals, and mitigation.

The Secretary has shown via the thorough and incisive Draft Environmental Impact Report (DEIR) Certificate for the L.G. Hanscom Field North Airfield Development (EEA#16654) [Certificate], her willingness to require that Massport substantiate, in some cases justify, assertions made in project-related documents. In a significant stipulation, the Certificate requires that the Supplemental DEIR propose mitigation measures that are commensurate with the level of impacts of the project by quantifying those impacts and by presenting a SC-C (social cost of carbon) analysis. These two requirements are noteworthy and, as standards, will serve environmental justice communities particularly well. The GHG benefits associated with mitigation measures already proposed are also to be included in the SDEIR. The Certificate specifically notes that credit should not be taken for any measures for which actual implementation is not yet definitive. We believe that this well-balanced perspective should also be applied to the planning, impact expectations, and mitigation base for EDR/ESPR discussions. That said, we recognize the differences between project review and the EDR/ESPR process.

ESPRs from Logan often read as a listing of Massport's accomplishments rather than as 1) detailed chronicles of sometimes opaque information valuable to the people affected by and evaluating the operation of Logan and 2) as a way to suggest what Massport may realistically expect to change or accomplish in the future in order to plan to appropriately mitigate, unforeseen circumstances and uncontrollable factors notwithstanding.

Representatives from the community have suggested that a mitigation framework with metrics based on threshold triggers such as passenger numbers and flight activity is preferable to the currently accepted format by which Massport generates forecasts in ESPRs that are not looked at again until the next ESPR. This suggestion is based on the recognition that there is a need for more timely attention to forecasts that are not accurate, to a broader range of impacts, to impacts that exceed expectations, and to the responses required to address them.

We agree that the current process does not result in accurate forecasts with mitigation plans that get to the heart of impacts and we appreciate the added certainty that the communities are seeking. But, we are not sure if, as described, impact-triggered mitigation

might actually work to provide that predictability. And, despite discussion, we are unclear about a reliable trigger-to-mitigation path. Our suggestion is that a reasonably sized, multi-party working group be convened to address what are seen as the multiple existing deficiencies in the ESPR planning, impact identification and mitigation process so that it be made more effective in preventing or addressing damage to health and the environment.

Some detailed information in the ESPR is historical with little current value. For example, Massport has indicated in numerous EDRs/ESPRs that it is committed to multi-modal regional transportation options and cites its participation in the New England Regional Aviation System Plan (NERASP) and other regional planning efforts. However, Massport's role in furthering multi-modal regional transportation is never discussed. What is the function of this section in these filings unless there is something that demonstrates concrete contributions to regional efforts and the potential effects on the environment, demand and/or capacity? In general, what is the function of decades of historical data without a relevant tie to the very recent past, the present and future?

Some information in the ESPR is relegated to the Technical Appendices and summarized rather than spelled out (see Dwell and Persistence - meaningful if you live under a flight path; see 2022 DNL Values at U.S. Census 202 Block Groups with no indication as to how to make the Block Group IDs meaningful). Setting parameters for when data is relegated to the appendices and how it should be made accessible is important, and presently missing.

Other information is repeated in various formats in the same section (see Air Quality and Greenhouse Gas Emissions) and/or discussed in multiple locations in the document making it time-consuming and difficult to grasp the full picture of an issue. As only one example, Environment Department staff found it necessary to take copious notes and go back and forth in the document, Appendices and prior documents, in order to seek a coherent and complete understanding of existing ground transportation conditions, mitigation history, planned mitigation going forward, and the claimed benefits of mitigation. Despite that, we do not consider the effort completely successful. Both the City and Massport lose under this scenario. We likely do not have a complete picture and, equally likely, are not able to credit Massport for all of its efforts.

We join with the Massport Community Advisory Committee (MCAC) in requesting that the data included in several of the technical appendices to the 2022 ESPR regarding operations and impacts be made available to the public in a format that is accessible, and which allows impacted community members to ask questions of the data. The charts and graphs in these appendices provide a wealth of useful operational information. If these data were presented in an electronic format which is searchable and allows interested users to query the data regarding area-specific impacts and compare them over time, this would allow for meaningful, data-driven conversations about impacts and mitigation. It would be a benefit

to both community members and Massport. In its current analog format, it is nearly impossible to answer basic operational questions that are important in ensuring a shared understanding of impacts.

We suggest a process designed to revamp the format of these documents to reduce the non-relevant information; condense information into smaller discrete subject sections; and make them more readable.

ADDITIONAL TRANSPARENCY

In the past, Massport was required to file with MEPA an Environmental Notification Form (ENF) to report all new routes proposed for Logan. The practice was eliminated, leaving the public, environmental agencies, and other interested parties uninformed about these additions. While both Massport and the FAA emphasize their lack of control over service entrants, Massport has an active marketing team that seeks new entrants and new routes. International routes, which seem to have dominated the increases over the past several years, have created new capacity at Logan by extending the departure and arrival hours of flights to meet the needs of arrival and origin locations in significantly different time zones. This capacity increase results in increased noise disturbance time-frames for those under flight paths. We strongly recommend that an ENF be required for all new or renewed routes so that very basic information, including mandatory identification of flight schedules and the aircraft to be flown, is provided to a full range of stakeholders.

AIR QUALITY AND EMISSIONS

Massport identifies itself as a national leader in studying, tracking, and reporting on the air quality environment of Logan Airport and in implementing measures to reduce emissions. It is clear that Massport has made strides on any number of fronts to address air quality—providing pre-conditioned air (PCA) and 400-Hertz (Hz) power at all aircraft contact gates to reduce emissions associated with aircraft idling and APU use, replacing older Massport fleet vehicles with alternative fuel vehicles (AFVs) or EVs, replacing diesel-powered GSE with eGSE where commercially available, installing charging stations for eGSE equipment, the use of CNG buses. The concerns we have are the extent of claims about activities not in Massport’s control and technologies such as alternative aviation fuel not proven to have an air quality benefit for the end user (so therefore not benefitting those harmed by Logan activities).

In general, Chapter 8, *Air Quality and Greenhouse Gas Emissions*, suggests Massport’s belief that it can continue to grow from 2022’s 22,678,000 annual air passengers to 53.3 million and from 266,034 aircraft operations to 495,000 “over the Future Planning Horizon of the next 10 to 15 years.” During the same time-frame, operations sources of VOCs, NO_x, PM₁₀/PM_{2.5}, and CO are expected to remain at “similar” (well below 1990 benchmark) levels due to:

- converting ground service equipment (GSE) to viable electric alternatives (not entirely under Massport's control);
- lower motor vehicle emissions due to greater efficiency and cleaner technologies (dependent on manufacturers and the purchasers of vehicles);
- changes in the aircraft fleet mix (also dependent on manufacturers and the purchasers of aircraft); and
- emission reduction due to the Net Zero by 2031 program efforts.

There follows a list of strategies that include:

- "facilitating" the replacement of gas and diesel GSE;
- "encouraging" single engine taxiing;
- installing EV charging stations available for public use (while the Massport Board is contemplating charging for their use);
- committing to LEED green building standards (which are dependent upon the credits chosen); and
- investing in renewable energy installations.

None of these actions are quantified, and there is a lack of detail about plans for 'facilitating' and 'encouraging.' It is clear, for example, in other areas of the document, that single engine taxiing is not pursued by Massport diligently as it is a practice that pilots do not choose to use at Logan for a variety of reasons. We suggest that more detail is necessary about how these goals are to be attained, particularly for strategies that are not under Massport's direct control. As written, we find them to be unsubstantiated.

We also note that the ESPR refers the reader for more information to Chapter 8, Section 8.6, which doesn't exist. There is a Table 8-12 which itemizes Air Quality Emissions Reduction Goals, but there are no actual performance goals. This would suggest that much of the reductions expected by individual contributors are not accurately quantifiable.

Transportation accounts for 37% of the total greenhouse gas emissions in Massachusetts. While off-airport parking with shuttle services for construction workers is identified as construction mitigation and employee parking in Chelsea with shuttles to Logan is identified as an employee transportation management measure, these strategies shift the air quality burden. They do nothing to address close-in issues in the case of Chelsea or Revere or regional emission issues that contribute to local burdens. Providing free or subsidized parking for employees who have other travel options encourages driving and has an impact on the roadways they use in addition to the areas in which they park. A creative and active mitigation plan would work with airport employers to incentivize local hires and promote strategies for getting as many employees as possible out of single-occupant vehicles and into high occupancy or no- or low-emission vehicles for commuting.

NOISE

When the FAA's TRACON software was updated it no longer worked with the software that Massport had used for the Preferential Runway Assignment System (PRAS). Massport continues to provide data it identifies as PRAS but there is no longer a functioning assignment system. We suggest that it be eliminated from future EDRs & ESPRs.

It is noted that reduced-engine taxiing is encouraged but little additional detail is provided. How often and by what means? How is success measured? If it's not presently successful, is there a better strategy? Do other windy airports have more successful strategies? This is identified as an air quality mitigation measure but it is not practiced regularly by airlines and no air quality benefit is quantified.

Answers to additional questions would be useful. How successful have the efforts to maximize late-night over water operations been? What percentage of eligible flights make use of the option? How could the number be improved? Has the ban on nighttime engine run-ups and use of APUs been successful? How is success measured?

BUILDING SOUND INSULATION

Massport identifies itself as having one of the longest-standing and most extensive Residential Sound Insulation Programs (RSIP) of any airport in the nation, having insulated 5,467 residences and 36 schools. We ask that the number of insulations be broken down by the years in which they were completed for both the residences and schools.

We note that soundproofing is proceeding in Revere and Winthrop and that new noise contours have been established for 2024 that will include East Boston.

CATEGORIZING AND REPORTING ON CLIMATE ACTION

Chapter 2 of the ESPR is titled *Sustainability, Outreach, and Environmental Justice* with a sub-section titled *Sustainability, Climate Adaption (sic), and Resiliency*. While sustainability and resilience actions are both appropriate responses to climate change, they are not the same. Given the importance of each, we would recommend distinct chapters on sustainability and climate resilience going forward.

The ESPR does not specifically provide the climate resilience measure information requested by the Secretary. Given the scale and nature of Massport's footprint, we would encourage a future chapter on resilience to focus explicitly on the plans and projects that actively address the risks of extreme heat, intense precipitation, and coastal flooding, including efforts focused on employees, guests, operations, assets and adjacent properties. On the BERDO Covered Buildings List alone, Massport is listed as the owner of 59 buildings, many of which are in the Logan vicinity, many in the floodplain. Numerous tenanted

buildings would benefit from guidance and a clear course of action detailed in future ESPRs.

The ESPR does mention that Massport published a 2020/2021 Massport Sustainability and Resiliency Report. No details are provided; it is not included in the 2020/2021 EDR; we did not find a report on the website; and, a link to Sustainability and Resiliency in that EDR lands at a page of Sustainability goals. That EDR also mentions an annual Sustainability and Resiliency Report but there are no links in the ESPR and mentions of it focus on the sustainability agenda.

We request that EDRs and ESPRS include the annual Sustainability and Resiliency Report and that it be prominently posted in the Environmental section of Massport's website. At present, only regulatory documents are posted.

COMMUNITY AND ENVIRONMENTAL JUSTICE OUTREACH

Massport indicates that its commitment to engaging with nearby communities and enhancing the quality of life of its neighbors is carried out by its Community Relations & Government Affairs Department and the Massport CAC [Community Advisory Committee]. We note that the Massport CAC is a legislatively created body and that it is funded by Massport. It does not, however, function as an agent of Massport and is not charged with responsibility for Massport's community and environmental justice activities. Section 2.3.2.2 should be edited to reflect that the Massport CAC was established by the Massachusetts General Court in 2014.

Consigning what is described as EJ supporting documentation to the Appendices seems inappropriate given the significance of these issues. It is of note, however, that the documentation does not actually provide detail on how Massport might be working specifically to address airport impacts in EJ communities. Providing census tract data without instructions for how to identify where those census tracts are located is not useful.

IMPROVING REPORTING ON EMPLOYEE TDM MEASURES

The Secretary's Certificate on the Boston Logan International Airport 2020/2021 EDR, dated January 2023, requires that the 2022 ESPR address, "Strategies for enhancing services and increasing employee membership in the Logan Airport TMA."

These are the references to the TMA in the main text of the ESPR:

1. West Garage, Table 10-1, Mitigation Measures - Massport will form a Transportation Management Association (Logan TMA) for Logan Airport employees in order to provide new opportunities for the development of targeted Transportation Demand Management (TDM) strategies for Massport and airport tenant employees.

Implemented. Massport continues to support the TDM strategies by funding the Logan Sunrise Shuttle at a cost in 2022 of approximately \$161,000. Massport continues to conduct outreach through new hire orientation materials and other communication methods to raise awareness of employee commute options with a focus on high-occupancy vehicle (HOV) modes of transportation.

We have the following questions: Is there a TMA? Has this been implemented? If so, how does the TMA operate? What does it do? How many members does it have? What percentage of employees does that represent? How does it measure success?

2. West Garage, Table 10-1, Mitigation Measures - Massport will develop, coordinate, and implement effective TDM strategies to reduce the number of single-occupant trips made by all Logan Airport employees, including outreach to employees about transportation options

Implemented. Massport supports TDM strategies by providing services to Logan Airport employees and by periodically conducting the Massport Employee Survey. Findings from the 2022 Logan International Airport Air Passenger Ground Access Survey are summarized in Chapter 6, Section 6.5.2. Massport surveys its employees as part of its Massachusetts Department of Environmental Protection (MassDEP) Rideshare reporting requirements.

We note that this response is not specific to the requirements of the mitigation measure. What is its status? Massport's Air Passenger Ground Access Survey is not relevant here. We have never seen the Mass DEP Rideshare survey results and there is no reason to expect that it would address the issues of an urban airport comprehensively. Detailed information about outreach strategies and their relative success should be provided in EDRs and ESPRs.

3. West Garage, Table 10-1, Mitigation Measures - Massport will report on the formation and activities of the Logan TMA in the next Generic Environmental Impact Report (GEIR). [Now ESPR].

Implemented. Massport continues to support TDM strategies by funding the Logan Sunrise Shuttle at a cost in 2022 of approximately \$161,000. Massport conducts outreach through new hire orientation materials and other communication and engagement methods to raise awareness of employee commute options with a focus on HOV modes of transportation.

In addition to the comments above, we have the following questions: What information do new hire materials provide to employees? Are they the same for all employers? How often are they updated and sent to employers? Does the TMA provide advice and assistance to employers? If so, what is that advice and assistance?

4. Replacement Terminal A, Table 10-4, Mitigation Measures - Delta Air Lines, Inc. to join Massport's Logan TMA and designate an Employee Transportation Advisor.

Implemented.

Additionally, Delta Air Lines will provide the following services as part of their Transportation Demand Management Program (DMP) through the Logan TMA: Transportation subsidy for full-time Delta Air Lines employees at Logan Airport; ride matching/carpooling; vanpooling; guaranteed ride home; preferential parking for high-occupancy vehicles (HOVs); shuttle to and from employee parking.

Implemented.

It would seem that these are not one-time measures, but should be ongoing. What is the current status? Do some employers provide parking for their employees off-site? How many employers offer parking as a benefit and how many employee spaces are occupied by these employees? How many shuttles are operated by entities other than Massport and what are their characteristics?

5. Table 10-5 Logan Airside Improvements Planning Project (EEA #10458) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022) Report on Progress of Logan Transportation Management Association (TMA).

Implemented.

We have been unable to find this report.

6. Table 10-6 Southwest Service Area (SWSA) Redevelopment Program- Requires rental car companies to participate in the Logan Transportation Management Association (TMA).

Implemented.

It would seem that this is not a one-time measure, but should be ongoing. What is the current status of rental car companies vis a vis the TMA?

7. EEA# 3247 2020/2021 EDR Certificate, January 30, 2023 - The 2022 ESPR should report on 2022 ground access conditions at the airport and provide a comparison to 2019, 2020, and 2021 for the following (includes):
 - Logan Airport Employee Transportation Management Association services

This does not appear to be included in the 2022 ESPR in a comprehensive way.

Massport identifies the following as TDM measures:

- Encourage employees to use alternative transportation to commute.

- Encourage employees to utilize public transit through a comprehensive employee transportation system that includes includes a 24/7 free shuttle bus service to the Terminals with off-Airport employee parking in Chelsea; shuttle buses connecting Airport Station to Southwest Service Area, South Cargo Area locations, and Terminals; early morning and late-night Logan Express bus trips that provide nearly 24 service to several locations with significant discounts for Airport-wide and Massport employees; the Sunrise Shuttle that offers early morning services from East Boston, Winthrop, and Revere before the commencement of MBTA operations.
- Subsidies for water transportation, transit use.
- Financial support for the Sunrise Shuttle.
- Discounted HOV and transit fare options.
- Bike racks or posts for securing bikes at all new facilities and at appropriate existing facilities to promote employees biking to work. Bicycle racks or posts for securing bikes are currently provided at the RCC, Terminal A, Terminal E, Logan Office Center, MBTA's Airport Station, Economy Parking Garage, Signature general aviation facility, and the Green Bus Depot (Bus Maintenance Facility, for authorized personnel).

We believe Massport should detail the current status of the TMA beginning with the following information:

- the number of employers on the airport;
- the number of employees who commute to a job at the airport;
- the number of employers that were members of the TMA in 2019, 2020, 2021 and 2022;
- the range of services offered/sponsored by the TMA in 2019, 2020, 2021 and 2022, utilizing a checklist, with at least the following categories;
 - subsidized transit pass,
 - subsidized fares for HOV use (enumerate - ex. Logan Express, commuter bus, ferry/water shuttles),
 - free shuttle services-identify all,
 - subsidized shuttle services (identify all and specify subsidy),
 - secure bicycle parking protected from the elements,
 - showers and changing rooms,
 - ride matching service (explain process),
 - number of three-person (or more) car/vanpools, and
 - guaranteed ride home for commuters who qualify as walkers, transit-, HOV-, or bicycle-users (we do not see Logan Express as a blanket guaranteed ride home).

In addition, Massport should provide information about TDM and Massport employees as outlined in the following questions:

- Does Massport provide free and/or subsidized parking to its employees? If there are charges to riders, please explain. If, for example, carpool or vanpool vehicles are offered incentives, please identify them.
 - How many parking spaces does Massport provide off of the airport for its employees and where are the off-airport spaces located? Is 2,448 the correct number of on-airport spaces available to Massport employees?
 - How do employees access the airport from those parking locations? If they are served by shuttles, please indicate the hours and frequency of operation. If this does not include Park N Ride locations, please identify the Park N Ride locations served by shuttles.
 - How many employee showers and employee changing areas serve employees on the airport, where are they located and how are employees made aware of them? Are they available 24-hours/day?
 - How often are free employee shuttles run from Airport Station to employment areas in SWSA and South Cargo Area?
 - What are the transit & water shuttle subsidy rates for Massport employees?
 - Is the 'new' employee Park N Ride in Quincy for employees who use the Braintree Logan Express? If so, how do they get to the Logan Express?
8. EEA# 3247 2020/2021 EDR Certificate, January 30, 2023 - The 2022 ESPR should address the following topics (includes):
- Strategies for enhancing services and increasing employee membership in the Logan Airport TMA.

We note that this does not appear to be in the 2022 ESPR.

We appreciate that as a 24-hour operation with many, many independent employers in the mix, implementing TDM is a challenge. That said, there are attractive TDM options available or potentially available to all employees, many created specifically by Massport, throughout most working hours of the day and night. This population can be influenced to give up the single-occupant vehicle (SOV) trip if there is a broad menu with incentives that incorporate various ways of commuting.

Each EDR and ESPR should provide some basic information about TDM measures that are available to employees with specific information from employees sought through a periodic (we suggest annual) survey. We believe that a commitment to doing a survey on a scheduled basis is necessary to ensure attention to this issue and are requesting that each EDR/ESPR provide detail about the most recent employee survey to include: date, a copy of the survey tool, method of administration, number of respondents, and a table of

answers. The survey should not be limited to asking about current transportation habits but should also be used to assess what additional methods might encourage employees not to drive, particularly in SOVs. To start, we suggest a check-list of existing amenities/measures and employees should be asked if they are aware of them and if they are made available to them so that the survey tool can also serve as an educational opportunity.

We ask that the following TDM measures be considered as part of a standard, comprehensive plan by all employers if they are not already offered:

- Free or subsidized transit pass
- Reduced-fee Logan Express-needs to indicate charges for employee parking and bus ticket
- Guaranteed Ride Home program - needs not to be Logan Express (see notes below)
- A ride-matching service for employees who may want/need to commute by car and are looking to carpool/vanpool
- Advantageous (on-airport) parking for carpoolers (3 or more employees)/vanpoolers
- Free shuttle from off-site car/vanpool parking locations in addition to Chelsea
- Bicycle amenities/programming (see notes below)
- Showers and changing rooms in various areas of the airport; some available 24-hours, with safe transportation to work locations

Guaranteed Ride Home (GRH): Logan Express will not get all employees home or close to home and should not be considered a GRH program in and of itself. GRH programs provide employees with an occasional free or partially subsidized ride home in cases such as unscheduled overtime or other unanticipated change in schedule, a family illness or emergency, the sudden illness of the employee or their family members. They address a common objection to the use of alternative modes of transportation. Employees who walk, bike, take transit, or carpool/vanpool to work are reimbursed for the cost of their ride home. Reimbursements from these programs typically cover taxis, transportation network companies (e.g. Lyft or Uber), transit costs, and rental cars. Employers may cap reimbursements for each employee at a mile or dollar amount (e.g., \$30 per month). The cost of offering this service tends to be low because it is rarely used.

Bicycle Program: The ESPR indicates that bicycle racks or posts are located throughout the airport with sheltered parking racks at the Rental Car Center (RCC) and covered bike parking at Terminal A. A comprehensive bicycle support program would include multiple bicycle storage rooms in various locations with at least one of them including a repair station that offers a tire pump, chain lube, a few allen keys and maybe the Big Blue Book of

Bicycle Repair. It is our experience that protection from the elements is a significant factor in the successful promotion of a bicycle-commuting program.

Ensuring and publicizing safe bicycle access and pathways is also essential. Describe the ways and provide graphics that show the routes into and out of the airport that are being made safe and obviously available to bike riders. Offering to sponsor or subsidize training in safe riding skills for cyclists can be a valuable and welcomed service for employees.

We suggest that a bicycle storage room (perhaps with a repair station), showers and changing rooms be part of the 4,300-space parking garage to be built in front of Terminal E. In addition, we suggest consideration of employee parking spaces for verified three- or more person carpools and vanpools in easy on- and off- locations in the new garage.

IMPROVING PASSENGER GROUND TRANSPORTATION

Logan Express

The ESPR indicates that bus customer facilities and secure parking are provided at the four Logan Express suburban locations with no customer parking provided for the urban Back Bay route. The cost of an adult bus trip is \$12 each way for a standard fare and \$9 each way with advanced online ticket purchases (identified on the Massport Logan Express Website as a time-limited price). Although a discount for Seniors is indicated, there is no way to take advantage of such a discount. Back Bay Logan Express tickets are \$3 to Logan, and free from Logan to Back Bay. Parking at suburban lots is \$7 per day.

A site in Danvers to be opened in 2024 has opened; however, it is identified as a new suburban location. As it is replacing the Peabody location, just under a mile away, it is a new facility but not one that expands the number of Logan Express offerings.

Limited parking disclaimers, though honest, deter the users of these services. This is always posted on LoganExpress.com: "Parking at all Logan Express locations is limited. We cannot guarantee parking and are strongly recommending getting picked up and dropped off at Logan Express. Please visit our website for alternative options for getting to and from Logan Airport." This is not reassuring and encourages four vehicle trips rather than two in local areas. It also means that an unexpected late arrival back at Logan resulting in a late arrival back at the Express parking lot, may result in pick-up problems. It is not unusual for there to be more specific alerts on the Website indicating that a Logan Express lot is full, particularly at Braintree and Framingham, or that it is making use of off-site overflow parking, potentially creating a timing problem. It would seem that there is value in the limited amount of self-control that Logan Express offers. It is important that the service function to maintain that level.

We note that there are plans to expand the garage in Framingham by about 1,000 spaces and to increase the frequency of service from every 30 minutes to every 20 minutes at an unidentified time in the future.

There is no easy way for passengers to compare Logan Express sites in terms of schedules and it appears that they do not operate on a universal time-table. If a passenger wanted to drive to one location and saw online that the lot was full, there should be a convenient way to see whether another location had a scheduled trip that they could get to readily. We suggest that the Website post a one-page Master Schedule that would allow for passengers to quickly assess potential options. It's also not clear if the very early and very late trips are exclusively for employees and serve limited sites or if they serve all sites and are open to anyone who has a ticket. Clarification on the nature of these trips would be helpful.

Potential new sites for Logan Express include North Station and somewhere in Metro West. We support Massport's proposal for a North Station location and suggestion of a Metro West-area site and we agree with Air Inc.'s recommendation for a total of three new locations. There have been suggestions to utilize one of the former I-90 toll plaza sites. Given the popularity of the Framingham Logan Express, a location west of that might well capture the greater-Worcester area population that doesn't want to use the Turnpike or deal with the Commuter Rail and then the MBTA. We would also suggest a site in the area of JFK/UMass.

While there are inherent benefits to taking a bus to the airport, the Airport Security Line Priority is an additional incentive. It is identified in some materials as a benefit of using Logan Express, but we would like clarity on the current status of the program.

In the longer term, we suggest planning for certain remote sites to become TSA security screening locations so that passengers can clear security and check baggage which will be transported separately and securely to Logan. Perhaps these locations can start with passengers who have cleared TSA pre-check or who are not checking bags. They will then use a dedicated Logan Express to take them as close to the gates as possible. The more convenient this makes the commute and accessing the terminals, the more likely families will be inclined to use the service. We suggest asking on the next air passenger survey if this level of convenience would entice passengers to use this kind of service.

The comfort and convenience of passengers is foremost at Logan but not at the Logan Express sites. We would like Massport to address the following questions about these sites. Are there safe, indoor waiting areas available for the earliest passengers and for those whose flights may arrive late and may, therefore, delay ultimate passenger pick up? How does Logan Express work for the suburban sites when flights are delayed and arrive after the last bus is scheduled to leave Logan? Given that passengers don't have reservations on Logan Express, are they then left on their own to get from Logan to Framingham at 2 am,

for example? Is this tracked somehow? Do we know why Peabody wasn't more popular? Does Danvers address deficiencies that were present in Peabody?

Other High Occupancy Vehicles

In most contexts, a High Occupancy Vehicle (HOV) refers to vehicles with two or more passengers, including the driver, but the high number of vehicles arriving and departing at Logan with a driver who is not an air passenger blurs the accuracy of the reporting. In the event that a taxi, black car limousine, and RideApp driver drops off and picks up passengers on the same trip, such service may be seen as reducing overall traffic volumes compared with a passenger who is being dropped off or picked up by someone who would not otherwise make the trip.

The 2020/2021 Environmental Data Report (EDR November 2022) indicates that, "Starting with the 2019 Logan International Airport Air Passenger Ground-Access Survey, Massport has used this updated definition of HOV that considers vehicle occupancy among taxi, black car limousine, and RideApp modes. Previously, Massport counted taxis and RideApp services as non-HOV and black car limousines as HOV, regardless of the number of passengers transported. Under the updated definition, taxis, black car limousines, and RideApp services that carry two or more air passengers per vehicle are defined as HOV. With this new definition, Massport has a goal of reaching 35.5 percent HOV by 2022, and 40 percent HOV by 2027." This seems reasonable to us so long as an accurate count of air passengers can be assured. What remains unclear is, how does Massport document the number of air passengers in any vehicle? We understand that they can count taxis that use the taxi pool to wait for a fare leaving Logan, for example, because the driver must buy a ticket to park in the taxi pool. Is there a way to count taxis that drop off but don't go to the taxi pool? How are the number of passengers in an arriving taxi counted? We have the same question for RideApp vehicles, identified as the predominant mode of travel to Logan. In general, how are RideApp operations tracked? Is someone in the parking garages counting the number of people who get out of RideApp vehicles that enter the drop-off parking garages? How do things work for black car limousines so that Massport has an accurate count?

There are numerous references in the EDR to the contributions of RideApp Management to congestion and emissions reduction but the actual strategies or how strategies are implemented are nebulous. These are our questions:

- What specific strategies have been identified to meet the goals of the RideApp Management Plan (2020/2021 EDR)? We have gleaned that the dedicated drop-off/pick-up in the Central Garage and reduced fees for shared rides are being relied upon to increase RideApp shared rides, reduce deadhead trips and reduce congestion. How are potential riders made aware that sharing a trip would

save them money? How does Massport quantify the improvement it makes in congestion and in a related drop in GHG emissions?

- Please identify other RideApp strategies and describe what success looks like, how is it quantified?

We are also curious to learn more about the following:

- What does exploring RideApp Last Mile connections mean?
- How many parking spaces are in the co-located RideApp Pool Lot/Cell Phone Waiting Lot on Porter Street? How is it monitored for idling and the five-minute idle law enforced?
- How does Ride Rematch work, how has it been advertised and facilitated and how has success been measured? What are the numbers?
- What percentage of RideApp drivers who drop off a passenger or passengers stay on-airport to wait for a passenger to leave Logan?
- How have passenger-shared rides been advertised and facilitated and how successful have the efforts been? How has success been measured?
- How are numbers obtained in order to calculate the 38.4% HOV mode share?

Congestion Pricing and Other Potential Pricing Strategies

Massport had agreed in 2017 to conduct a Congestion Pricing Study to determine if the strategy would reduce auto emissions at Logan. It was expected to be completed by July 2019. In April 2018, the Boston Globe reported that Massport had decided against congestion pricing but it did not reference the study. The then-CEO stated that many people who drive to Logan pay a toll at the harbor tunnels and that an added fee for the airport could seem unfair. We believe it could seem equally unfair to people living near Logan that they bear the associated air quality and health impacts, including those caused by airport traffic. The best way to determine if a strategy can help to minimize impacts is an unbiased, well-designed study (or perhaps a real-time test) to determine if a fee would result in a quantified level of traffic reduction.

Other strategies that might bear study are a combination of roadway access or curb access pricing and multiple pricing scales for Logan Express to determine potential effect on demand.

EVs/AFVs/APVs

In the discussion of Air Quality and Greenhouse Gas Emissions, the ESPR identifies encouraging the conversion to AFVs/APVs - Alternative Fuel Vehicles/Alternative Power Vehicles - as an air quality emission reduction goal. (Confusingly, the Acronyms section identifies "APV" as Approach Procedure with Vertical Guidance.)

Policies such as a 50 percent discount in ground access fees to limousines, vans, and buses; and preferred parking for hybrid and AFVs/APVs at Logan Airport parking facilities, and

free “high-speed” EV charging to RideApp companies and taxis serving Logan Airport are specified as strategies. We would like definitions for preferred parking and descriptions of how limousines, van services and buses are notified of the incentives and how qualified vehicles are recognized. A summary of the marketing and use of these incentives should be provided annually.

The ESPR indicates that by the end of 2022, there were over 70 EV charging ports across Logan Airport available for use by shared-ride companies (i.e., RideApp companies, rental cars, taxis, and limousine vehicles) and the general public, with additional ports owned and proposed by rental car companies at the Rental Car Center (RCC). We request that Massport identify the locations of all chargers and any limits, if any, on who may access and use them.

Massport identifies the installation of EV charging stations available for public use, including RideApp vehicles, black car limousines, and taxis as an air quality management strategy to reduce criteria air pollutant and GHG emissions. Massport currently provides free “high-speed” EV charging to RideApp companies and taxis serving the airport and is working with the Massachusetts Clean Energy Center (MassCEC) to study opportunities to enable the conversion of ride-for-hire fleets serving Logan Airport to EVs.

We understand that the Massport Board has recently discussed charging a fee for the use of EV charging portals. We understand that having a vehicle parked at a charging portal for an extended period of time may be part of the problem. If a passenger leaves a car in that spot during a three-day trip, the charger is not available to anyone else so Massport does not get the most out of their investment. At the same time, the goal to reduce GHG emissions is important enough to merit additional charging portals. We suggest that at least 15% of spaces in the new parking garage have a charging portal.

Air Passenger Ground Access Survey

The surveying methodologies and results were not fully described in the ESPR. What was the 2022 Air Passenger Ground Access Survey protocol? What was the sample target? How many passengers participated in the survey? For HOV users, ask about how many in their traveling party used and HOV to get to Logan.

The way in which respondents are asked about the number of people in a vehicle is phrased by asking about “occupants,” not about “passengers” or “air passengers.” This may well result in some respondents including the driver as an occupant when they are not also an air passenger. A distinction that indicates that the question is looking for the number of air passengers or does not want to count someone who is just a driver may result in different information.

In the past, community comments have noted that the surveys have not sought information about what might make Logan Express more attractive to passengers. Although the 2022 survey is not replicated in the ESPR, the results seem to suggest that it is very limited in scope. We suggest that Massport make the most of this one opportunity to get information from passengers and ask if their HOV trip was satisfactory and if there are improvements to HOV options in general that would make them more attractive. Focusing on Logan Express should be predominant.

There are also no questions about the use of EV chargers at Logan and the survey would be an opportunity to learn more about EV users. We suggest the following questions:

- Did you drive an electric vehicle (EV) to Logan and park it here during your trip?
- Did you park it and leave it at a charging station?
- How many kWh does your car need to charge?
- If you needed to charge your car when you left it, how much charging time did it need?
- If there had been a cost to charge your car and then move it to a preferred parking space without a charger for your pick-up, would you still drive your EV to Logan?

City of Boston staff is available to meet with you, your staff, or with Massport on any of the issues raised in this letter. We look forward to your Certificate and to Massport's response to our comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian Swett", is centered within a light gray rectangular box.

Chief Brian Swett
City of Boston, Environment, Energy & Open Space Cabinet
Office of Mayor Michelle Wu

Cc:
Roberto Gomez, Office of Neighborhood Services
Aaron Toffler, Executive Director, MCAC
John Nucci, MCAC, Massport Board of Directors
Chris Marchi, AIR, Inc
Gale Miller, AIR, Inc.



For a thriving New England

CLF Massachusetts 62 Summer Street
Boston, MA 02110
P: 617.350.0990
F: 617.350.4030
www.clf.org

October 11, 2024

Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs
EEA #3247
Attention: Jennifer Hughes
100 Cambridge Street, STE 900
Boston, Massachusetts 02114

Subject: Boston Logan International Airport 2022
Environmental Status and Planning Report, EEA #3247

Dear Secretary Tepper:

On behalf of Conservation Law Foundation (CLF) and its members,¹ we are providing our comments regarding the Massachusetts Port Authority's (Massport) Boston Logan International Airport 2022 Environmental Status and Planning Report (ESPR).

CLF urges the EEA Secretary to reject the ESPR as inadequate in its current form and require Massport to file a supplemental EIR in accordance with 301 CMR 11.07. Massport's new leadership should use the supplemental EIR as an opportunity to address the following deficiencies as well as those raised by other stakeholders:

- The utility of the ESPR has been undermined by the current look-back approach and laggard publication;
- Emissions analysis should examine emissions growth and opportunities for mitigation based on coordinated management of the

¹ CLF is a nonprofit, member-supported, regional environmental organization working to conserve natural resources, protect public health, and promote thriving communities for all in the New England region. CLF protects New England's environment for the benefit of all people. We use the law, science and the market to create solutions that preserve our natural resources, build healthy communities, and sustain a vibrant economy. We are working to cut pollution from our cars and trucks, create alternatives to driving, and push for more affordable and equitable public transit options across New England.

entire regional airport system Massport operates (Logan, Hanscom, and Worcester);

- Greenhouse gas impacts of Logan’s growth and operations are understated in the ESPR;
- The ESPR’s definition and accounting of emissions under Massport’s direct control are underinclusive, misleading, and are missing significant opportunities for mitigation; and
- Community engagement on the ESPR has been inadequate.

A. General Statements Regarding ESPR Comments

1. *Function of the ESPR*

The ESPR is essentially a report that operates as a “look-back”, produced *two years after* the start of ongoing impacts that have cumulative effects. It is a woefully inadequate decisional tool for Massport to be able to minimize and mitigate its impacts on overburdened populations in surrounding communities, offering little solace to residents whose health is being sacrificed due to the laggard pace of Massport’s analysis. While the following comments are aligned with the current ESPR framework, CLF strongly encourages MEPA to evolve its use of the ESPR to be a forward-looking emissions reduction planning tool, especially in light of statutory Global Warming Solutions Act² obligations and Massport’s net zero commitments.

2. *Segmentation*

The ESPR is also deficient in failing to address the synergies between and among regional airports, especially those airports that Massport controls (Hanscom and Worcester). This is reflected in the EEA Secretary’s recent decision on hangar expansion at Hanscom Airport, a decision in which the emissions impact of the proposed expansion was premised on numerous assumptions about the management of flights between Hanscom and Logan.³

In failing to assess how the three airports operate as a regional system, especially with respect to general aviation, Massport is missing opportunities to manage the

² M.G.L. ch. 21N.

³ Executive Office of Energy and Environmental Affairs, *Certificate of the Secretary of Energy and Environmental Affairs on the Draft Environmental Impact Report, L.G. Hanscom Field North Airfield Development*, EEA No. 16654 (June 21, 2024).

system as a whole to optimize for emissions reductions and is “segmenting” the analysis of impacts on a manner antithetical to the MEPA process.

3. *Amplification of Emissions Impact by a Warming Atmosphere*

One major omission in the ESPR is the failure to consider or even acknowledge the amplification of adverse health effects associated with Logan emissions due to the impact on levels of particulate matter and ground-level ozone (*i.e.*, soot and smog) that come with a warming atmosphere. Simply put, soot and smog increase due to atmospheric warming even if emission levels do not. And that effect is likely to be further amplified by the potential for “heat island effect”⁴ in several areas surrounding the airport campus – like East Boston, Chelsea, Winthrop, as well as the airport itself – where macadam and other impervious land cover predominate the landscape.

Why is this bit of atmospheric science important? It means that the health and wellness of the communities impacted by Logan’s operations will suffer even greater mortality and morbidity even if Logan’s emissions were static – which they are not and never have been absent a pandemic. Massport’s level of effort and commitment of resources to avoid, minimize, and mitigate its emissions must increase commensurately simply to prevent health in these communities from declining. Massport can no longer evade this obligation.

B. The ESPR Understates Logan’s Likely Passenger and Aircraft Operations Growth and Should Include an Analysis of More Realistic Passenger Growth Estimates

While the ESPR plays a critical role in forecasting airport growth and its associated environmental impacts, it significantly understates the airport's likely passenger and aircraft operations growth. In the ESPR, Massport employs a detailed methodology for forecasting future activity levels, considering factors such as economic conditions, cargo increases, aircraft fleet mix, future assumptions, and airline route plans.⁵ This forecasting accounts for local, regional, and national

⁴ U.S Environmental Protection Agency, *Heat Island Effect* (last accessed September 21, 2024), available at <https://www.epa.gov/heatislands>.

⁵ Massport, Boston Logan International Airport, 2022 Environmental Status and Planning Report (May 2024), available at 2022-Boston-Logan-Airport-ESPR.pdf <https://www.massport.com/sites/default/files/2024-05/2022-Boston-Logan-Airport-ESPR.pdf>(hereinafter “2022 Boston Logan ESPR”).

recovery trends, especially in light of the COVID-19 global pandemic. While the Future Planning Horizon spans 10 to 15 years, with projections estimating 53.5 million air passengers⁶ and 495,000 total annual aircraft operations,⁷ Massport's past forecasts have (except for pandemic years) consistently underestimated growth.⁸

Historically, annual passenger growth levels have continued to grow significantly faster than aircraft operations growth.⁹ For example, between 2011 and 2019, passenger volumes and aircraft operations at Logan increased significantly more than anticipated, with 9 million more passengers than planned.¹⁰ Despite COVID-19 impacts¹¹ on airport operations growth, this historical discrepancy highlights a pattern of underestimation in ESPR modeling, suggesting that current 2022 forecasts might also be too conservative.¹² Given the robust demand for air travel in Boston and New England, and the expected 3.8% annual increase in global commercial aviation over the next 20 years,¹³ it is likely that Logan will experience higher growth than forecasted. Factors contributing to this growth include economic growth, airline expansion, and population growth within the Boston metropolitan area, leading to higher air travel demand.

This underestimation of growth in the ESPR has significant implications for purposes of environmental planning.¹⁴ The current forecast-based system may fail to implement timely and adequate mitigation measures, leading to increased negative environmental and public health impacts. In fact, the increase in airport CO₂ emissions due to higher-than-expected flight activity illustrates the

⁶ 2022 Boston Logan ESPR, at 3-1 *et seq.*

⁷ 2022 Boston Logan ESPR, at 7-2 and 7-3.

⁸ See generally, Airport Impact Relief, Inc., *The Case for an Impact-Triggered Mitigation Planning Policy at Logan* (May 2022), (hereinafter "*Impact-Triggered*").

⁹ Massport, Boston Logan International Airport, 2017 Environmental Status and Planning Report (May 2019), available at <https://www.massport.com/sites/default/files/2023-10/2017-espr-part-1.pdf> (hereinafter "2017 Boston Logan ESPR") at 1-7, Figure 1-5.

¹⁰ *Impact-Triggered* at 2, Figure 2.

¹¹ See, generally, *Impact-Triggered* at 4 (while airport passenger volume has consistently correlated with national and global events such as 9/11 and the 2008 Great Recession, such events that disrupt passenger volume only temporarily affect the steady demand for air travel.)

¹² *Id.*

¹³ International Air Transport Association, *Global Outlook for Air Transport: Deep Change* (June 2024) at 10.

¹⁴ See *Impact-Triggered* at 2 (airport impacts increased 300% more than forecasted by MEPA in the 2011 ESPR, demonstrating historically under-reported growth between 2011 and 2034); "the most serious consequences of decades of 'growth first' MEPA system is the public health impact of aviation sources of noise and pollution in environmental justice communities").

insufficiency of Massport’s environmental policies in responding to actual growth levels.¹⁵ Adverse environmental impacts upon surrounding communities, including East Boston Revere, Winthrop, and Chelsea, will be underreported and/or will receive delayed mitigation actions.

Further, as overall airport operations have recovered as a result of the pandemic, communities near the Logan airport have been disproportionately affected by COVID-19¹⁶ and are uniquely vulnerable to its health risks. Similarly, public health studies document strong links between air pollution and COVID-19 health risks.¹⁷ Lastly and as previously noted, as the climate warms, historically marginalized communities are likely to suffer disproportionately due to worsening air quality.¹⁸ Given the significant risks to environmental justice communities surrounding the airport, and further, the additional environmental risks posed by potential airport expansion at Logan or Hanscom, it is critical that Massport address the inaccuracies in growth forecasts.

AIR Inc.’s impact-triggered environmental planning approach is highly recommended.¹⁹ This system links specific mitigation measures to actual passenger and flight activity levels rather than relying on historically inaccurate forecasts,²⁰ and should be designed to recognize and address the amplification of soot and smog levels caused by a warming climate even when passenger and flight activity levels are static. Benefits of this approach include timely mitigation (which ensures that mitigation strategies are implemented as soon as certain activity thresholds are reached, preventing environmental impacts from escalating); flexibility (which allows for adjustments based on real-time data, accommodating unforeseen changes in activity levels); and enhanced preparedness (pre-negotiated

¹⁵ See *Impact-Triggered* at 4 (But for the pandemic, all airport sources of CO₂ would have seen an increase over five years from the 2017 ESPR, based on an 8% increase in CO₂ calculated from 2018/2019 EDR data).

¹⁶ East Boston experienced some of the highest COVID-19 positivity rates relative to other Boston neighborhoods. See, City of Boston, Boston Public Health Commission, available at boston.gov.

¹⁷ X. Wu, R.C. Nethery, et al., *Air Pollution and COVID-19 Mortality in the United States: Strengths and Limitations of an Ecological Regression Analysis*, 6 *Science Advances* 45 (2020).

¹⁸ Chapter 14, Air Quality, *Fifth National Climate Assessment*, <https://nca2023.globalchange.gov/chapter/14/>.

¹⁹ See *Impact-Triggered* at 5-6 (analysis of growth dependency of airport impacts, demonstrating statistical significance of the relationship between airport impacts and both annual passenger volumes and flight operations).

²⁰ *Id.*

and scalable mitigation measures ensure that the airport is better prepared to handle increases in passenger and flight activity).²¹

C. Logan Aircraft Operations' Impact on Greenhouse Gas Emissions are Underestimated

The 2022 ESPR contains several statistical representations that can be deemed misleading with respect to the mitigation of greenhouse gas (GHG) emissions. These inaccuracies obscure the true environmental impact and progress made in reducing emissions in airport operations at Logan. Post-pandemic recovery data must not be taken out of the context of historical growth trends that have and will continue to occur at the airport. For example, while the ESPR's representation of recovery rates in 2022 show that operations and passenger levels were apparently down 15 percent and 11 percent compared to 2019, flight operations were at 88 percent and passenger levels at 85 percent of 2019 levels.²² By November 2022, passenger level metrics had reached between 92 and 94 percent of pre-pandemic levels.²³ This demonstrates a more accelerated recovery from the global pandemic than is represented.

The way in which the aforementioned statistics are posed suggests an understatement of actual recovery progress, which will in turn affect the perceived urgency of emissions mitigation across all airport operations. To address these shortcomings, it is crucial for future ESPRs to provide more granular, monthly data to reflect accurate post-pandemic recovery trends. This approach would ensure that GHG emission mitigation strategies are based on current and realistic operational data rather than historically unreliable business-as-usual ESPR projections that can obscure emissions reductions needs.

²¹ See, generally, *Impact-Triggered*.

²² 2022 Boston Logan ESPR, at Tables 3-2, 3-3.

²³ Certificate of the Secretary of Energy and Environmental Affairs on the 2020 & 2021 Logan Airport Environmental Data Report (January 30, 2023) at 4.



D. The ESPR's Definition and Accounting of Greenhouse Gas (GHG) Emissions Under Massport's Direct Control are Underinclusive and Misleading

In both the ESPR and in its earlier net zero plans, Massport has failed to recognize the full range of emissions within its operational control. In so doing, Massport both misses opportunities to reduce emissions and their concomitant local impact and understates the mitigation and offset obligations required for Logan to achieve Massport's publicly declared "net zero" commitment. The following four examples of emissions reduction opportunities that Massport erroneously assumes are beyond its control should be sufficient to demonstrate that the ESPR is inadequate. These examples also reveal the flawed assumptions about the scope of Massport's control that permeate Massport's 'net zero' plan and require its wholesale revision.

1. *Ground Service Equipment (GSE) Electrification*

Logan is behind other airports in GSE electrification²⁴ with continued reliance predominantly on dirty diesel GSE, resulting in increased GHG emissions as well as unhealthy soot and smog exposure for Logan's workers, passengers, and surrounding communities.

Contrary to Massport's position that these GSE emissions constitute "Scope 3" emissions beyond its direct control,²⁵ these emissions are demonstrably within Massport's control and should be addressed forthwith. Through the 2017 agreement between Massport and CLF concerning emissions, airport vehicle access, and parking infrastructure (hereinafter "the 2017 agreement"),²⁶ Massport has an enforceable agreement to electrify GSE at Logan if and when Massport undertakes construction of the new parking structures then at issue. Massport

²⁴ Significant deployment of new electric ground service equipment ("eGSE") technologies (including pushbacks, belt loaders, container loaders, luggage tugs, lavatory trucks, and water trucks) has occurred at SeaTac, Philadelphia, and Dallas Fort Worth Airports, where up to 430 eGSE is being used at each airport. National Renewable Energy Laboratory, *Electric Ground Support Equipment at Airports* (December 2017), available at https://afdc.energy.gov/files/u/publication/egse_airports.pdf.

²⁵ Massport, *Sustainability & Resiliency Report 2020-2021* (2022) at 12, available at <https://www.massport.com/sites/default/files/2024-01/2020-2021-Massport-Sustainability-Resiliency-Report.pdf>.

²⁶ Massport and Conservation Law Foundation, *Letter Agreement by and Between the Massachusetts Port Authority and the Conservation Law Foundation on Trip Reduction Strategy* (May 18, 2017).

could not have assumed this obligation if GSE electrification was not in its direct control.

According to Massport, the events triggering its GSE obligations under the 2017 Agreement (*i.e.*, start of parking structure construction) have not yet occurred. That may be, but Massport’s assumption of that obligation – no matter how conditional -- remains proof positive that GSE electrification is within its control and thus GSE emissions are Scope 1 emissions that Massport must consider and address in the ESPR and in any credible “net zero” plan.²⁷

2. *Electric Taxiing*

Taxiing to and from runways and between and among gates generates a significant portion of aircraft emissions at Logan and may be the most consequential emissions in terms of local health and environmental impact. Those emissions can be eliminated with GSE electrification and taxiing by electric tug, already a practice at many airports, and without any federal preemption constraints.²⁸ By assuming an obligation (albeit conditional) to adopt electric taxiing in the 2017 Agreement, Massport has recognized that these emissions also are another area of emissions reduction within Logan’s control upon GSE electrification, again within its control.

3. *Phase-Out of Short-Hop (“Ferry”) Flights*

As EEA must be aware, the Commonwealth’s Climate Chief, in her inaugural report,²⁹ highlighted the GHG emission reduction benefits associated with a phase-out of short-hop “ferry” flights (*i.e.*, 250 miles or less) at the region’s airports on routes where rail service is a reasonable alternative.³⁰ Short-hop flights are “much more energy inefficient than both longer flights and alternative forms of

²⁷ Scope 1 emissions are direct GHG emissions occurring from sources controlled or owned by an organization. U.S. Environmental Protection Agency, *EPA Center for Corporate Climate Leadership, Scope 1 and Scope 2 Inventory Guidance* (last accessed October 4, 2024), available at [https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance#:~:text=Scope%201%20emissions%20are%20direct,boilers%2C%20furnaces%2C%20vehicles\).](https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance#:~:text=Scope%201%20emissions%20are%20direct,boilers%2C%20furnaces%2C%20vehicles).)

²⁸ Mojdeh Soltani, *et al.*, *An Eco-Friendly Aircraft Taxiing Approach with Collision and Conflict Avoidance*, 121 Transportation Research Part C: Emerging Technologies 102872 (December 2020).

²⁹ Melissa Hoffer, Climate Chief, *Recommendations of the Climate Chief* (October 25, 2023) available at <https://www.mass.gov/files/documents/2023/10/24/CLIMATE%20REPORT.pdf>.

³⁰ “The Massachusetts Port Authority (Massport) and MassDOT should continue to develop a plan to reduce aviation emissions including consideration of alternative fuels **and reduced availability of certain short hop flights where rail exists as an alternative**” (emphasis added). *Id.*, at 47.

transportation.”³¹ As the challenges with reducing carbon emissions are complicated by the technological limitations of commercial electrified aircraft, Massport must use its control and discretion concerning gate allocation, gate priority, and pricing to decrease short-haul air travel in coordinated partnership with the MBTA and Amtrak. Climate planning to reduce unnecessary ferry flight carbon emissions³² must be a crucial component of the ESPR long-range planning process.³³ Alternatively, Massport should limit short-haul flights to the extent possible under current law.

4. *Electrification of Transportation Network Company-Owned or -Leased Vehicles*

In the 2017 agreement with CLF and in subsequent action³⁴ two years later by Massport’s board strictly limiting permissible Transportation Network Company (“TNC”) pick-up, drop-off, and circulation at Logan, Massport has recognized and forcefully exercised its plenary authority to condition and control TNC access to Logan Airport. That authority should be used to develop a plan and implement the same by a date certain for electrification of TNC-owned or -leased vehicles serving Logan.

5. *Making Logan More Electric Vehicle (“EV”) Friendly*

Although the 2017 Agreement has requirements that Massport maintain EV charging availability at 150 percent of utilization, Massport’s compliance with this requirement is highly doubtful. Frequent flyers claim that chargers are regularly unavailable or occupied by vehicles whose owners are traveling. To our knowledge, Massport does not provide updates on the state-of-repair to any phone applications available for EV drivers to know in advance which chargers are out of service. CLF will be raising these issues in the context of monitoring and enforcing the 2017 Agreement, but Massport must address and be transparent about the state of repair

³¹ Chuck Collins, et. al., *Hanscom High Flyers: Private Jet Excess Doesn’t Justify Airport Expansion* (October 2023) at 8, available at <https://ips-dc.org/wp-content/uploads/2024/01/HanscomHighFlyers-Jan2024.pdf>.

³² This is, of course, in addition to reduction or cessation of all other carbon emissions caused by the airport.

³³ See, generally, Katherine Lee Goyette, *Decarbonizing Air Travel: Airspace Rights and Aviation Climate Goals*, 39 Nat. Resources and Env’t, 1 (Summer 2024).

³⁴ Massport, *Massport Board Moves Forward with Ground Transportation Plan*, Press Release (April 25, 2019), available at <https://www.massport.com/massport-board-moves-forward-ground-transportation-plan>.

and availability rates of EV charging and make it a priority to identify and implement solutions to the current and any future challenges.

Further, Massport must take larger steps toward the promotion of sustainable transportation options to and from the airport campus. The development of infrastructure and policies supporting the use of public transportation, electric vehicles, and other low-emissions transport options is crucial to reducing transportation emissions from the airport. Logan Express should be entirely electrified by a certain date,³⁵ and comprehensive traffic management plans must be developed to effectively minimize congestion (and thus emissions) from idling internal combustion engine (“ICE”) vehicles. As Massport electrifies the Logan Express, it should also work with municipalities to expand the Logan Express service area. On site, Massport should strongly consider congestion pricing or imposition of low-emissions zones to discourage private ICE vehicle use during peak times, while balancing equity impacts.³⁶

6. Other Airport Campus Emissions Reduction Opportunities

To achieve net zero GHG emissions, other airport campus emissions reduction opportunities that Massport can implement include several strategies aimed at monitoring, reporting, and mitigating environmental impacts. One important measure includes mandating annual greenhouse gas inventories to allow regular tracking of the airport’s emissions by surrounding communities; this would enable the comparison of year-to-year data and provide a clear view of air pollution trends and the effectiveness of ongoing decarbonization strategies. Another necessary measure is the installation of air quality monitors in key locations around the airport campus. These air quality monitors can provide real-time data on pollution levels, which should be part of a larger air quality improvement plan that outlines specific targets for air quality improvement, which incorporates surrounding communities’ feedback after significant community engagement opportunities. Such plan would

³⁵ The Port Authority of NY/NJ touts the largest all-electric airport bus fleet on the east coast as of 2020 – 36 buses and 19 chargers that provide service to Newark Liberty, John F. Kennedy International, and LaGuardia airports. See, Port Authority NY/NJ, *Port Authority Doubles Electric Shuttle Bus Fleet at Airports, Becoming the Largest All-Electric Fleet on the East Coast*, Press Release No. 95-2020, (October 15, 2020), available at <https://www.panynj.gov/port-authority/en/press-room/press-release-archives/2020-press-releases/port-authority-doubles-electric-shuttle-bus-fleet-at-airports--b.html>.

³⁶ See, *i.e.*, Nicolas V. Serna, *Managing Traffic in Massachusetts: Assessing the Potential Income Equity Impacts of Congestion Pricing in Greater Boston* (May 2019), available at https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/AWP_129_final.pdf.

focus both on reducing the harmful pollutants caused by the airport and as well emphasize transparency and collaboration with local organizations and surrounding environmental justice communities directly impacted by the airport's emissions. Finally, an important step that Massport has yet to take in reducing the environmental footprint of the airport involves banning single-use plastic product sales. Such a prohibition on plastic and polystyrene containers, bottles, straws, cutlery, and disposable plastic bags within the airport would dramatically reduce unnecessary plastic waste.

D. Massport Must Improve Internal and External Engagement

1. *External Engagement, Generally*

Massport's engagement with the public on issues affecting surrounding communities, such as air quality, noise, and mitigation measures, is currently insufficient. Community-based organizations in communities that surround the airport (*i.e.*, East Boston, Chelsea, Revere, and Winthrop) must improve. These communities should not have difficulty accessing and communicating with Massport leadership and staff. State law and policies require enhanced engagement with residents of environmental justice communities, and Logan Airport is located near several state-designated environmental justice communities.

Massport should take its guidance from the recent Massachusetts Office of Attorney General, 2021 Stakeholder Working Group publication, *Overly Impacted & Rarely Heard: Incorporating Community Voices into Massachusetts Energy Regulatory Processes*, published May 2023.³⁷ While specifically applicable to the energy regulatory processes overseen by the Massachusetts Department of Public Utilities and Energy Facilities Siting Board, the recommendations of the Stakeholder Working Group can be applied in many contexts, as they center around advancing equity, improving transparency and accountability, and improving information and accessibility to knowledge by the public. For example, as a matter of course, when Massport seeks input from impacted communities, documents should be written in plain language and accessible on mobile devices.

³⁷ Stakeholder Working Group, Massachusetts Office of the Attorney General, *Overly Impacted & Rarely Heard: Incorporating Community Voices into Massachusetts Energy Regulatory Processes* (May 2023), available at <https://www.mass.gov/doc/overly-impacted-and-rarely-heard-incorporating-community-voices-into-massachusetts-energy-regulatory-processes-swg-report/download>.

2. Change Management Program

The change management program will face immediate challenges if Massport does not structure the program as a long-term program (instead of a pilot program). Quantitative impacts of the program will be difficult to measure if the program is not implemented on a long-term basis. Further, internal and external stakeholders for sustainability and logistical improvements with airport operations should be engaged to appropriately collect metrics on the overall success within the program. All relevant stakeholders should be engaged, including airport employees, airlines, passengers and surrounding communities through a variety of communication pathways, such as meetings, surveys, and feedback sessions to gather feedback and address concerns.

3. Language Interpretation Services

As part of Massport's ESPR public engagement strategy, language interpretation services are provided for languages spoken by at least 10 percent of the census tract's population who have "Limited English Proficiency" ("LEP").³⁸ This threshold of 10 percent differs from the threshold adopted by the Massachusetts Environmental Policy Act (MEPA) Public Involvement Protocol for Environmental Justice Populations, which uses a 5 percent threshold of residents who identify as not speaking English "very well" (*i.e.*, with LEP). CLF urges Massport to amend its ESPR public engagement strategy to provide language interpretation services for languages spoken by at least 5 percent of a census tract's population who have LEP.

³⁸ 2022 Boston Logan ESPR, MEPA Certificates and Responses to Comments at A-40, #A-16 (Response).



E. Conclusion

As embodied in the 2017 Agreement, CLF has had a collaborative and productive relationship with Massport for the past nine years in the effort to avoid, minimize, and mitigate Logan’s emissions and their adverse impacts; increase the percentage of high-occupancy vehicle making trips to the airport; and improve both access to and quality of mass transit.

It has become apparent, however, that Massport’s efforts to claim a mantle of climate and environmental leadership are woefully inadequate to the urgency of the challenge.

CLF respectfully asks the Secretary to reject the ESPR and require Massport to file a supplemental EIR in accordance with 301 CMR 11.07. We look forward to working with Massport to make Logan and other Commonwealth airports leaders rather than laggards in protecting the climate and safeguarding health in surrounding communities. Rejection of the ESPR is a necessary step to begin that collaboration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Katherine Lee Goyette', with a stylized flourish at the end.

Katherine Lee Goyette
Staff Attorney
Conservation Law Foundation

A handwritten signature in black ink, appearing to read 'Seth Gadbois', with a stylized flourish at the end.

Seth Gadbois
Clean Transportation Staff Attorney
Conservation Law Foundation



October 11, 2024

The Honorable Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Jennifer Hughes, MEPA Analyst, EEA #3247
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Boston Logan International Airport 2022 Environmental Status and Planning Report (ESPR)
– EEA #3247

Dear Secretary Tepper and Ms. Hughes,

Please accept this comment letter from the Massachusetts Port Authority Community Advisory Committee (MCAC) on the Boston Logan International Airport 2022 Environmental Status and Planning Report – EEA #3247 (ESPR) submitted on May 31, 2024. The MCAC is a legislatively created (See 2013 Mass. Acts Ch. 46, §§ 55, 82, as amended) committee comprised of representatives from thirty-five communities impacted by Massport’s operations. Our statutory purpose is to serve as the voice of these communities and to provide oversight to Massport in order to minimize and mitigate the impacts that Massport has on them. A representative from the MCAC attended the public information sessions sponsored by Massport on this ESPR, and we submit these comments based on the information presented at those sessions as well as the document referenced above.

Creation of the ESPR

Massport was directed to prepare the 2022 Logan ESPR pursuant to a scope established by the Secretary’s Certificate on the 2020/2021 Environmental Data Report dated January 30, 2023. Although the ESPR presents a wealth of information on the airport’s operations, we find it largely unresponsive to the scope outlined by Secretary Tepper. For example, in her detailed scoping document, the Secretary directed Massport to “establish a public engagement plan to govern the development of future ESPRs and EDRs. The plan should ensure that surrounding EJ populations and other community stakeholders have early and meaningful input in the development of the content of these filings, in addition to having the opportunity to provide formal comment once documents are finalized and filed with the MEPA Office. (p.3) In response to this directive, Massport held a series of public information sessions on Logan’s campus, the first of which occurred in January 2024. There was no opportunity for “early and meaningful input” in the development of the ESPR at those sessions, nor is there any evidence of a public engagement plan having been developed to gather such input.

Additionally, the scope indicated that Massport should “establish a public engagement plan to engage with the MCAC and other stakeholders as it develops a methodology for future growth projections. The 2022 ESPR should report on the results of this consultation and provide a clear, easily digestible description of methodology that will be understood by a broad sector of the

public. This methodology should be carried forth in annual EDRs during the next five-year ESPR reporting period. (p.8). The MCAC has not been involved in developing a methodology for future growth projections, nor has it been consulted to do so. We stand ready to consult with Massport on the development of such projections if asked. In addition to supporting the inclusion of the MCAC and other stakeholders in developing future growth projections, we further support the idea of convening a small group of interested parties to give direction to Massport on the type and format of information that would be most useful to include in these MEPA documents.

Content and Format of the ESPR

Massport's unique MEPA reporting requirements are designed to give the public information about its historical activity levels and to project future trends/usage to enable Massport to meet the demand for air travel and to plan for, and mitigate, impacts on the public. As the Secretary said in her scoping document, "[t]he ESPR provides a 'big picture' analysis of the environmental impacts associated with current and projected activity levels and presents a comprehensive strategy to avoid and minimize impacts." The 2022 ESPR is, inclusive of the appendices, 1,152 pages long. This is a huge amount of information for community members to digest and analyze under any circumstances. The situation is made far more difficult by not providing the data in an accessible manner.

Much valuable information is provided in the several hundred-page document and the additional several hundred pages of technical appendices. Unfortunately, the utility of the information presented to stakeholders interested in understanding the impacts of the airport on their community is limited by the format of the document, which has remained largely unchanged for decades. Although some minor changes have been made recently to include specific information on environmental justice and sustainability, and to provide a glossary of terms used in the document, this is not sufficient to render the document useful. What is needed is an overhaul of the document's format to bring it into the 21st century. Here, too, the MCAC stands ready to assist Massport in making this document as useful as possible to interested stakeholders.

As a first step, the MCAC respectfully requests that the information be presented in a way that is fully accessible to the public and allows constituents to ask questions of the data. For example, the data presented in several of the technical appendices to the 2022 ESPR regarding operations and impacts should be made available to the public in a format that is easily downloaded, and which allows impacted community members to ask questions of the data. The charts and graphs in these appendices provide a wealth of useful operational information. If these data were presented in an electronic format which is searchable and allows interested users to query the data regarding area-specific impacts and compare them over time, this would allow for meaningful, data-driven conversations about impacts and mitigation. This would be a benefit to both community members and Massport. In its current analog format, it is nearly impossible to answer basic operational questions that are important in ensuring a shared understanding of impacts and/or to give Massport credit for its efforts in this area.

In many cases, where information is provided, the document falls short of full explanations or is too vague to allow the reader to understand what Massport has done to address an issue. For example, Figures 7-5 through 7-11 show flight track data for arrivals and departures of jets, regional jets, and non-jet traffic. This is information that would be of tremendous value to the member communities of the MCAC if it were able to be translated into on-the-ground impacts. Unfortunately, one cannot look at these figures and determine with any accuracy which neighborhoods or census blocks are impacted by which runways and at what frequency or time of day/night. This information should be able to be connected to the runway usage data to allow community members to pinpoint the number of flights from each runway that impacts their lives at each time of day. At that point, we could have a fact-based discussion of impacts and potential mitigation.

In the case of air pollution research, the MCAC appreciates the support that Massport has provided to university researchers studying the impacts of air pollution on near-in communities as explained in Chapter 8 of the ESPR and in Appendix J. In her scope, the Secretary said, “[t]he 2020/2021 EDR indicates that Massport is cooperating with Boston University and Tufts University in identifying aircraft specific related UFPs (ultra-fine particulates) in an urban environment with non-airport related sources. This research is ongoing in the East Boston area and Massport continues to contribute by providing Logan Airport operational and other pertinent data. *The 2022 ESPR should provide a more detailed update on the study and how findings may relate to Massport operations and a potential framework for community mitigation.* (p.22). The 2022 ESPR seems to repeat its assertion that Massport is supporting research into UFPs without offering a potential framework for community mitigation. We respectfully request that similar data sharing be made available to the MCAC in furtherance of our data visualization tool which will broadcast the information to our constituent communities and allow people to more fully understand the air pollution impacts of airport operations on their lives and to develop such a mitigation framework.

It is also difficult to understand how projections in passenger growth over the “future planning horizon” are made. There is a huge margin of error in the projections which render the information almost meaningless. On page 3-49, the ESPR forecasts an increase in domestic air passengers from 29.5 million in 2022 to 41.8 million in the next 10-15 years (29% increase). International air passenger activity levels are forecast to increase from 6.45 million in 2022 to 11.6 million in 10-15 years (44% increase). Understanding that it is an inexact science to predict future growth, there is a significant difference between a 29% and 44% increase in passengers in 10 versus 15 years. It would be useful to discuss these projections and what they are based on with the communities so that they can understand and help plan for and mitigate increased impacts. Additionally, there does not seem to be a projection for average weekly/weekend daily trips to the airport associated with this future planning horizon. With almost one million (961,317) trips to the airport in 2019, it would make sense to disclose and plan for how many trips are anticipated in the future planning horizon under different growth assumptions.

Noise abatement is another area where progress could be made with more information sharing and dialogue to support partnership. The MCAC and Massport are aware that new survey data



suggests that people are highly annoyed at noise levels below the current regulatory standard. Massport collects a great deal of information from its noise monitoring system which, if shared with the community, could be useful in creating a shared understanding of people's experience under the various flight paths of Logan Airport. Sharing information with our members about specific flight paths and monitoring data would assist us in determining the optimal placement of these monitors as well as evaluating the data that they produce. We look forward to working with Massport to ensure that the public has access to this information.

Access to information, or at least the ability to work with the information provided, would be beneficial when discussing how people, including Massport employees, get to the airport. After reading the document, it remains unclear whether Massport has an active Transportation Management Association, and what efforts are being made to reduce the number of trips to the airport by employees. Results from the Ground Access Survey would help us understand what percentage of employees drive to work? What percentage of employees take advantage of shuttle services that are offered by Massport? Without this information, it is difficult to offer suggestions as to how to improve these programs.

Finally, we understand that Massport used to be required to file an Environmental Notification Form with each new route that was added at Logan. We respectfully request that this practice be re-initiated to better inform our communities as to the number and timing of flights originating or ending in Boston. In this way, Logan's growth can be known to the communities who are most directly impacted and, again, mitigation plans can be put in place.

Thank you for considering these comments. If you have any questions or concerns, please feel free to contact Aaron Toffler at atoffler@massportcac.org, or at (617) 906-8853.

Thank you.

A handwritten signature in blue ink, appearing to read 'Aaron Toffler', is written over a light blue circular stamp.

Aaron Toffler
Executive Director, Massport Community Advisory Committee

cc: Brad Washburn
Thomas Butler

From: [Chris Marchi](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: Supplemental AIR, Inc. comments
Date: Friday, October 11, 2024 6:31:24 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

RE PRAS:

Massport continues to report in the Preferential Runway Assignment System, a computer program written in the 1980's, which sought to balance impacts at runway ends by setting target annual arrival and departure percentages considering population density at runway ends and calculating population weighted impacts. This Runway Use Program (RUP) produced runway use recommendations for Air Traffic Controller.

PRAS was in informal RUP, meaning that acceptance of PRAS suggestions was voluntary. However PRAS was extremely sophisticated in its design. Not only did it set target runway use goals, and factor in population weighted impacts at runway ends, it also placed limits on Dwell and Persistence -which respectively limited the the time over any one runway end that overflights could dwell to under 6 hours in any 24 hour period and the duration of persistence of overflights over any one runway end to less than 23 hours in any 72 hour period. Not of these limits directly address traditional core complaints in noise impacted communities about getting pounded with noise for unbearable periods of time.

The city of Boston suggests that we should eliminate this reporting. We understand the city's frustration with reviewing data for a program which is not in use. Only in the absurdly elusive confines of an Massport environmental report could such a practice be explained. Instead, however, AIR, Inc. recommends not that we give in to the futility which is the result Massport's divisiveness -and eliminate PRAS reporting, but that we should double down on our convictions that we can and must do better, and require Massport to live up to its obligations to update and implement an effective Runway Use Program, which FAA gives them the authority and procedural power to create.

PRAS is an avenue to fair sharing of noise burdens which equates to the very important concept of minimizing overburden. Massport is legally bound to continue PRAS by the 2002 FAA Record of Decision which ordered Massport to update PRAS or continue to use it until it is replaced. The ROD specifically directed this, as well as a study of Boston Logan Airport noise known as BLANS, the Boston Logan Airport Noise Study to ensure that EJ communities under the 33L departure runway end in East Boston's Eagle Hill and Chelsea would not be adversely affected by runway use configuration changes as a result of construction of controversial runway 14/32.

The feared impact has in fact materialized, with EJ communities in East Boston and Chelsea at the 33L runway end getting between two and three times the target noise after 14/32.

Instead of updating PRAS as required, Massport suggested to the Logan Community Advisory

Committee that they should vote to abandon PRAS (over AIR, Inc.'s objections) and then launched into an underfunded effort to replace the well thought out PRAS with a a rotational runway use plan which would have potentially subjected the same communities to the worst (most burdensome) noise exposure on a daily basis. The LCAC could not agree on a replacement RUP. And so Massport has not satisfied the 'u til replaced' condition, leaving the Authority legally bound by the FAA ROD to co ti is use of PRAS.

Massport should not be let off the hook for its responsibilities. Instead, it should be required to update PRAS and seek its proper implementation.

Chris Marchi
AIR, Inc.

From: [Chris Marchi](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: Supplemental AIR, Inc. comment
Date: Friday, October 11, 2024 6:55:27 PM

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RE employee use of Logan Express:

AIR, Inc. believes that Logan Express must be reimagined as a high end transportation service. We understand that employee use of the service is sometimes as much as 50% of certain location's ridership. We believe that detailed investigations into the user experience and preferences of air travelers would reveal that commingling industrial employees is penny wise and pound foolish.

High volumes of airport employees could potentially compete and conflict with air travelers. Massport should commit to providing a level comfort and relative luxury commensurate with the requirements of modern air travel as well as to providing appropriate basic transportation options to its employees.

Sent from my iPhone

From: [Frederick P Salvucci](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: Comment on EEA# 3247: Boston Logan ESPR 2022: EEA No. 3247
Date: Monday, October 14, 2024 12:05:51 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Jennifer Hughes:

With apologies for being late, I am hoping that you will accept this comment as it will be received before the start of business on Tuesday, March 15.

The ESPR document contains a lot of useful information and has drawn many thoughtful comments, particularly from AIR INC, and CLF, but I believe there are significant gaps that should be filled before this is accepted as adequate .

1) The origin of the ESPR

In the late 1980s, once the Central Artery/ Tunnel I-90-I-93 Project federal funding had been reinforced by congressional action in 1987, and approval of an increase in the Mass. gasoline tax to ensure availability of local matching funds, it was clear that relief from severe roadway congestion would address a primary threat to access to Logan Airport. At that point, Massport proposed to deal with significant inadequacy in terminal facilities, by replacing and expanding terminal capacity, so that passengers would be able to be reasonably accommodated, both getting to , and getting through Logan.

There was considerable concern in nearby communities that relief of these two primary constraints at Logan would lead to significant growth in aircraft flights and passenger volumes, imposing significant increased adverse environmental impact upon the communities surrounding Logan, which already suffered from excessive levels of noise, air pollution, and congestion caused by the location of Logan airport. The location of Logan so close to the center of the city is a great advantage for many air passengers, and businesses which benefit from aviation accessibility, but a major disadvantage to the nearby communities who suffer from the combined impact of traffic destined for the downtown, in addition to traffic destined to Logan, and the nearby communities which are densely populated, and include significant low and moderate and minority populations. This was an Environmental Justice problem before the term became defined in federal regulations in the following decade.

Many active citizen groups proposed that there should be a cap on airport activity, to prevent the likelihood that once the major road and air terminal capacity constraints would be relieved, significant growth in aircraft and roadway activity would result in reaching and exceeding the new capacity constraints, and worsening adverse environmental impact would occur.

Massport and the transportation agencies proposed that a better approach would be to welcome rather than cap the economic benefits of increased air access, but cap and reduce the adverse environmental impacts, by careful measurement and predictions, accompanied by pre-emptive action to reduce adverse impact .

Because the traffic relief from the Central Artery/ Tunnel (I90/I93)Project, and the Massport terminal expansion project would not become real until a decade of construction was complete, Massport took a number of progressive measures, instituting Logan Express, and aggressive noise and air pollution mitigation measures, and supported increased use by Massachusetts air travellers of other regional airports such as Greene in RI, and Manchester airport , to manage for the next several years, and initiated a precursor to the ESPR, to identify problems, and propose mitigation measures, which it quickly implemented.

“if you don’t measure, you can’t manage” is a common mantra, and the ESPR before you today includes an important effort to measure, but fails to identify the preemptive actions needed to offset and reduce reasonably

predictable increased adverse impacts. In light of the significant lead times involved in initiatives to control and reduce adverse impacts associated with growth in transportation activities, it is very important to predict and anticipate adverse impact, and take preemptive action early, rather than wait until the impacts are upon us, and then react, with lagged actions which can at best offset worsening after the worsened effects have occurred. The purpose of the ESPR, as originally conceptualized, should be to predict the risk of increased adverse outcomes in the future AND identify initiatives to preempt those bad outcomes in timely fashion including recognition of the lead times required for initiatives to be effective.

2) As recognized in Environmental Justice theory, it is important to recognize that causality of impact is impossible to define in a complex urban environment, and that adverse impacts upon nearby population occurs from the totality of causes. It is the adverse existing and reasonably predicted impact as perceived by the population that matters, not the precise causality which is often impossible to define. To be specific,- it is fruitless to discuss whether increased aviation activity is caused by facility expansion or merely associated with the expansion, or whether air pollution is directly caused by aircraft emissions, or by emissions from trucks and cars accessing the airport, or the nearby downtown, or by the combination of all these factors. Avoiding the worsening of adverse impact, and improvement in outcomes for humans is the appropriate goal. But the proposed ESPR often argues lack of causality, which is impossible to define, to justify lack of action. More to the point, adverse impact, and mitigation for such impacts, and not causality should be the proper focus.

3) A further consistent flaw in the ESPR before you is the use of averages, to argue that there has been improvement in mode share of HOV access for example. But in dealing with congestion impacts, it is necessary to deal with total impact, not shares or averages. It is essential to restrain total usage below the thresholds which cause congestion, and escalation of adverse impact, so total volume of auto traffic is the relevant factor. Mode share may be a useful measure for some purposes, but can often give an illusion of progress, when total impacts are worsening.

4) WITHIN THE AIRPORT- It is clear from the congested conditions within the airport roadway system today that reasonable levels of usage have already been exceeded. Having failed to anticipate these conditions, and adopt preemptive measures, it is now essential to develop measures to reverse the existing unacceptable levels of congestion within the airport roadway system, with actions adequately robust to remedy existing problems, AND preempt problems from future growth.

5) IN THE REGIONAL TRANSPORTATION SYSTEM SERVING LOGAN AND DOWNTOWN- It is also clear that growth in auto traffic has exceeded the capacity of the regional roadway system, even in the face of the doubling of roadway capacity crossing Boston Harbor delivered by the Artery/ Tunnel (I90/I93) project. Identifying initiatives to reduce auto trips to Logan and downtown below current volumes which now clearly exceed reasonable capacity thresholds are needed. In some cases, these may be actions which are the responsibility of other agencies. For example, the extension of the Blue Line to reach Charles street/ MGH Station to facilitate both trips by transit rather than auto to Logan Airport, and to the growing MGH and to facilitate convenient transfers to the Red Line, was a requirement of the DEP approval of Massdot permits for the Artery/Tunnel I90/I93 project, and was supposed to be in service by 2010. This is clearly a responsibility of Massdot and MBTA. But Massport can identify its importance, and advocate for its implementation.

In other cases, improvements are well within the capacity and responsibility of Massport. For example, the bus link from the Blue Line Airport Station to the airline terminals was degraded by Massport action when the car rental facility was opened, by routing the bus link through the car rental facility, adding travel time and uncertainty to the previously efficient bus link.

Massport could and should immediately remedy this situation.

Studies of congestion in the seaport innovation district have suggested the need for an additional rail tunnel linking rail services from the west beyond South Station to Logan. This possibility was supposed to receive serious consideration under the CLF agreement agreed to by Massdot as part of the CA/T I 90/I93 environmental permitting approval, but it was not implemented.

Again, it is not likely to be a Massport responsibility to build or operate such a new rail access link, but it is certainly in MASSPORT's interest to do enough conceptualize work to identify the usefulness of such an initiative, and encourage its implementation.

6) BUILDING ON SUCCESS- THE LOGAN EXPRESS SYSTEM- This is a successful initiative of Massport, but it needs to be expanded by an order of magnitude to bring the number of autos attempting to reach Logan down to levels compatible with existing roadway capacity which is currently exceeded, and to do so in the near future. But

the level of expansion in Logan express required to not only improve non auto mode SHARE, but actually reduce auto VOLUMES below available roadway capacity , in order to ensure reasonable quality flow , need to be identified and developed. Early actions should include increasing the frequency and reducing the cost of the Logan Express bus link, to facilitate drop off at the suburban end of Logan Express, to supplement limited parking, and increasing parking supply. Opening new Logan Express locations , such as at the new expanded South Station Bus garage, which will be available soon, and at the Massdot owned former toll plaza at the intersection of routes 128 and the turnpike, which will require new construction are attractive options to pursue. This is an opportunity to build on success, but will require new energy and funding to be devoted to Logan Express by Massport.

7) BUILDING ON SUCCESS: THE LOCAL BUFFER PARKS. Massport has long been a leader in supporting enhanced parkland opportunities in nearby dense urban communities which bear significant adverse environmental impact from Logan activities.

-The donation by Massport of the Belle Isle Marsh to DCR in the late 1970s has been a significant success. But DCR could use technical support to identify emerging threats from nearby development, and increased tidal flooding, and methods to mitigate such problems.

- The Piers Park has converted a deteriorating and no longer functional seaport facility to a stunning waterfront park, which Massport maintains at a very high quality.

-The Bremen Street Buffer Park, provided and maintained by Massport on an abandoned rail yard that was being used for off airport parking, generating nuisance traffic in the neighborhood , has been transformed into a well designed and well maintained buffer park protecting the adjacent neighborhood from the harsh elevated roadway and airport activities to the east.

- a recent missed opportunity has been the location of an electric utility on land near Chelsea Creek that had been planned for neighborhood park use. This electric utility could have been located within the Airport , so that the Chelsea Creek adjacency could be developed as an ecological and park resource for the nearby community which bears so much noise impact from Logan aircraft operations.

The ESPR could identify the opportunity for a comprehensive and proactive effort to plan and implement green space mitigation for Massport activities, rather than reacting too late to issues like the electric utility near Chelsea Creek.

8)POSSIBLE PRICING OF ROADWAY ACCESS TO LOGAN BY AN AIRPORT EXIT FEE-

This has been suggested by prior Massdot Secretaries, but never seriously analyzed nor implemented. Like the stalled congestion pricing initiative in New York, this would include both a disincentive to use the private auto, and to provide revenue to fund initiatives like expanded Logan Express facilities. It could be instituted by Massport, and integrated into the parking garage charging, and even include camera enforced tolling on the excessively used internal Logan roadway system. It could even help provide some initial financial support to jump start the long delayed Blue to Red link. The ESPR should include at least conceptualize analysis of such an initiative.

9)NEWLY EMERGING CHALLENGES : PM-10 AIR QUALITY PROBLEMS RELATED TO BOTH AIRCRAFT AND AUTO AND TRUCK EMISSIONS.-

Dealing with this previously un researched problem would benefit from transparent measurement of air quality both in airport locations where passengers are exposed to air pollution, like the curbsides at terminals, and also in key locations in neighborhoods close to Logan. If careful monitoring shows no significant problem at some locations, this can provide emotional relief to passengers and neighbors who smell problematic odors. If monitoring shows significant problems, such monitoring can provide important information to design and consider adequate mitigation measures, such as use of electric tugs to replace airline engine taxi power to reposition aircraft from terminals to runways.

10) NEWLY EMERGING PROBLEMS: TIDAL FLOODING RISKS-

While the airfield is at a sufficiently high elevation to avoid such risks for the near term, critical transportation facilities which support regional access to Logan , such as the Sumner and Callahan tunnel portals, the Blue Line maintenance facilities at Orient Heights , and important community assets like the MaryEllen Welch Walkway, and the Belle isle Marsh are exposed to significant tidal risks. These tidal risks need a regional analysis approach across municipal and agency boundaries. While Massport is not the appropriate agency to implement solutions to such problems, it has a major stake in successful identification of such problems, and reasonable solutions for them. Competent conceptual planning by Massport can jumpstart the recognition of such problems, and help to motivate other agency actions for implementation

11) Compatibility with the Governor's climate action plan, which recognizes the high level of greenhouse gas emissions by aircraft, proposes a policy that trips of less than 200-250 miles should be on rail, and not by airplane. This is similar to the outcome actually achieved in Europe and Japan, but US rail services are not nearly at the level of speed or quality to provide adequate intercity access as existing there. The ESPR should be identifying feasible timelines and pathways to achieve the improvement in intercity rail services to achieve this desirable policy. This might logically imply no further action to increase airside aircraft capacity, recognizing that the airfield is at its practical capacity to process aircraft movements, use of congestion pricing of Landing fees to encourage use of the airfield to accommodate more passengers in fewer aircraft, along with support for consideration for long implementation time initiatives such as additional rail tunnel access to Logan, both from South station, and from North Station via Everett and Chelsea, as well as improved intercity rail conditions on inland route rail to New York via Worcester and Springfield.

SUMMARY

In short, I believe that significant further work by Massport is required to bring the ESPR to a level of quality more useful in advancing actual environmental compatibility with surrounding communities by including substantially more emphasis on identifying mitigation measures to reduce adverse environmental impact to levels below the excessive exposure experienced by airport neighbors. This statement identifies 11 areas of significant concern. Review of comments from other commenters will likely identify still more. I urge the MEPA office to require Massport to supplement the current ESPR with much more focus on adequate and timely mitigation measures.

Fred

Sent from my iPad

From: [Donna Reilly](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: Fwd: Massport ESPR report and efforts to treat pollution
Date: Tuesday, October 15, 2024 1:50:23 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

This is a test. Had some trouble with first email.
Donna Segreti Reilly

----- Original Message -----

From: Donna Reilly <donsegreilly@comcast.net>
To: "jennifer.hughes@massgov" <jennifer.hughes@massgov>
Cc: Donna Reilly <donsegreilly@comcast.net>
Date: 10/14/2024 4:43 PM EDT
Subject: Massport ESPR report and efforts to treat pollution

Dear Ms. Hughes:

Donna Segreti Reilly here from 30 Cottage Park Road, Winthrop, MA 02152. I was just alerted by community activist Chris Marchi that the ESPR report on Logan has been published. However, Mr. Marchi indicates that the report is somewhat lengthy and too detailed vs previous reports. He has, however, given his followers links to both summary and comments, as Chris is a very responsible gentleman.

I have my own comments having attended a session under a Mr. Leo (?) a few years back. I DO remember that the highlights of the report were given out in a brief summary form. Specifically, I recall that childhood asthma reports were high for our area (Winthrop-E. Boston) and some cancer statistics. The last, however, were deemed not directly related to Logan activity, as other variables influenced cancer susceptibility.

Specifically, I continue to be concerned about air, noise, water, and traffic pollution sent our way due to Massport activity. Frankly, I know the new term is something like "environmentally impacted community"; however, I still prefer "sacrifice zone," as that term more keenly describes what we are here on our small, but extremely dense peninsula of Winthrop, MA.

I continue my concern about the above listed pollutions. I personally use an air filter for "white noise" for the jets taking off now a bit BEFORE 6:00 a.m. However, the air pollution and rise in diseases like Parkinsons here in Winthrop are concerning to me. General cancer incidence is also high. I have 3 neighbors within a block of me with 3 different kinds of cancer. Any research I've done points to the direct influence of air and ground traffic pollution of air, noise, water, and road traffic.

I'm sending Dr. Astrid Weins' 12-06-2018 letter to the "Winthrop Sun Transcript" as the best impact summary. I'm having difficulty attaching it, but I will send it to you separately.

I would support Mr. Marchi's recommendation for asthma immunization if that is possible along with an airport luxury-type bus service to and from Logan. This may cut back on the childhood asthma and the general rise

in cancer. AS LONG AS LOGAN EXPANDS IN VOLUME, I HAVE
CONTINUED REASONS FOR PAST, CURRENT, AND FUTURE
CONCERNS.

Respectfully,

Donna Segreti Reilly

30 Cottage Park Road

Winthrop, MA 02152

donsegreilly@comcast.net

From: [Regina Marchi](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: Community comments on ESPR
Date: Tuesday, October 15, 2024 11:58:15 PM

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Dear Ms. Hughes,

Thank you for giving community members the opportunity to provide comments on the ESPR. If there were political will, Massport could be a national leader in working with residents to create effective mitigation strategies to decrease air and noise pollution now and in the future. To date, the agency has repeatedly stalled and provided inaccurate information in the ESPR and other public documents regarding airport environmental impacts, making meaningful progress impossible.

Air travel will not go away and abutting community residents will not go away, so honest efforts must be made to find workable solutions that mitigate and prevent the unacceptably high rates of asthma, COPD, sleep disruption and associated illnesses (like heart disease), while serving the travel needs of a bustling region.

Frustratingly, the ESPR uses outdated data and inaccurate air travel growth forecasts in attempts to minimize very REAL health impacts occurring in the communities surrounding Logan, and Massport has repeatedly downplayed, ignored and dismissed community concerns.

Please urge Massport to work with AIR Inc. - a group of neighborhood resident volunteers who are not highly paid consultants and bureaucrats. We are everyday residents representing parents, children, youth, the elderly and thousands of other local residents who are negatively affected by pollution and traffic caused by Logan Airport. As Massport's closest neighbors, we deserve to be treated respectfully.

Regina Marchi
173 Lexington Street, East Boston, Mass

From: [Gail Miller](#)
To: [Hughes, Jennifer \(EEA\)](#)
Subject: ESPR/2022/LOGAN AIRPORT
Date: Wednesday, October 16, 2024 12:45:27 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

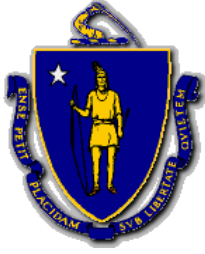
Jennifer, please accept my endorsement of AIR, INC's comments submitted by Chris Marchi.

My strongest comment that I would like to make in addition to them
Is that Logan Airport is THE largest polluter in the Commonwealth currently, next to the power plant in Saugus. Knowing that outright, it is incumbent on Massport to facilitate as a precautionary enhancement to provide the application of air filters in abutting in close communities. This is only a nominal outlay of funds in an attempt to offset the harm which we already acknowledge. Mitigation is just that, lessening impacts and not just submitting monies to in close foundations.

We are past due in providing same and it seems imperative as medical costs continue to rise in these neighborhoods which are not factored in, only the economic engine theory. Human costs are severely dismissed in the landscape of airport impacts.

Regards,

Gail Miller
232 Orient Avenue
East Boston
Sent from my iPhone



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENERGY RESOURCES
100 CAMBRIDGE ST., SUITE 1020
BOSTON, MA 02114
Telephone: 617-626-7300
Facsimile: 617-727-0030

Maura Healey
Governor

Kim Driscoll
Lt. Governor

Rebecca Tepper
Secretary

Elizabeth Mahony
Commissioner

17 October 2024

Rebecca Tepper, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: 2022 Environmental Status and Planning Report, Boston Logan International Airport,
Boston EEA #3247

cc: Jo Ann Bodemer, Director of Energy Efficiency, Department of Energy Resources
Elizabeth Mahony, Commissioner, Department of Energy Resources

Dear Secretary Tepper:

We've reviewed the Environmental Status and Planning Report (ESPR) for 2022 (published May 2024) for Boston Logan International Airport. Environmental Status and Planning Reports (ESPRs), filed periodically, complement Environmental Data Reports (EDRs), filed annually. Many of the recommendations presented below were also contained in our 31 January 2023 comments on the most recent EDR.

The scope of our review and recommendation is limited to decarbonization and emissions reduction of Logan's buildings and power plant.

Executive Summary

It's recommended that Logan upgrade its new building standards to mandate the Specialized Code with electrification. For existing building renovations, mandate low air infiltration and ventilation energy recovery when renovating. Finally, reassess central plant heating utilization based on fossil fuel elimination strategy described herein.

Recommendations

- New building design standards should be updated to mandate conformance with the all-electric pathway of the Massachusetts Specialized Opt-in Code. The ESPR states that both electrification and meeting the Opt-in are only “encouraged”. This is out of step with current decarbonization state of practice now routinely being delivered across the Commonwealth. Committing to this standard would greatly advance the building component of Massport’s stated goal of net zero. The Specialized Opt-in Code, which results in unprecedented building decarbonization, is **already mandatory in Boston and in more than 40 other communities**. In almost all cases, building projects choose the all-electric pathway of this code. New buildings are now routinely built to this standard across Massachusetts. Massport should elevate the all-electric pathway of the Opt-in from being just “encouraged” to mandatory.
- For existing building renovations, Massport should mandate the following as part of the renovation:
 - Air infiltration and ventilation energy recovery standards of the Massachusetts Stretch Code.
 - If the scope of the project includes replacement of punched windows, conformance to Stretch Code fenestration standards and thermal bridge mitigation of the fenestration/exterior wall intersection.
 - Or, alternatively to above two sub-bullets, meet the Enerphit standard.
- Commit to no new fossil fuel boilers (or furnaces) for space heating and create a decommissioning plan for existing fossil fuel boilers and furnaces, if any.
- Commit to no new fossil fuel water heating and create a decommissioning plan for existing fossil fuel water heating, if any.
- Develop and commit to a decarbonization plan for the central heating and power plant to transition off fossil fuels based on the following approach:
 - Minimize electric power production to lowest possible level (preferably eliminating power production) and reassess amount of recovered heat using the following process:
 - Assess whether ongoing power production is necessary;
 - Assess whether power equipment can be reduced to emergency backup only, with no regular production;
 - Reduce regular electric power production to zero, if possible;
 - If regular power production is necessary, assess the quantity of recoverable heat than can be captured based on the lowest possible level of power production (e.g. “*recovered heat*”);
 - Ideally, *recovered heat* will be zero based on being able to eliminate power production, and thus fossil fuels.

- Assess the maximum heating output feasible using new central heating plant based on electric heat pumps sourced from air, ground, and/or Boston Harbor (e.g. “*heat pump heat*”). This value will be based on available space and, in the case of Boston Harbor source, environmental and water access constraints.
 - Heat production should be from electric heat pumps and no electric resistance should be used.
- Estimate total available for building space heating as: *recovered heat + heat pump heat*
 - In the likely circumstance that this total is less than the heat currently recovered from the heating plant, quantify the difference and undertake a program to reduce central plant heating use to meet this total by swapping central plant heating with in-building heat pump retrofits.
 - In the circumstance that this total is more, downsize air- water- Boston Harbor- source heat pump plant to meet the need.
- Assess option of eliminating central plant heating by converting all building heating to in-building heat pumps.

Sincerely,



Paul F. Ormond, P.E.
Energy Efficiency Engineer
Massachusetts Department of Energy Resources