B. Comment Letters and Responses to Comments

The Secretary received comment letters on the *2022 ESPR* from the following agencies, organizations, and public commenters. Massport has provided responses to the comments raised, following each comment letter.

1. Massachusetts Department of Energy Resources B-2
2. City of Boston B-14
3. Town of Milton B-54
4. Airport Impact Relief, Inc. (AIR, Inc.) B-105
5. BlueSkies Advocates B-203
6. Conservation Law Foundation (CLF) B-207
7. Massport Community Advisory Committee B-231
8. Mothers Out Front B-240
9. Christopher Eliot, PhD B-243
10. Aubrey Harnett B-250
11. Regina Marchi B-253
12. Amy McCoy B-257
13. Gail Miller B-266
14. Donna Reilly B-269
15. Fred Salvucci B-274
16. Nancy Timmerman B-286

1. Massachusetts Department of Energy Resources

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. 1-1 1-2
- For existing building renovations, Massport should mandate the following as part of the renovation: 1-3
    - 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. 1-4
- Commit to no new fossil fuel water heating and create a decommissioning plan for existing fossil fuel water heating, if any. 1-5
- Develop and commit to a decarbonization plan for the central heating and power plant to transition off fossil fuels based on the following approach: 1-6
    - Minimize electric power production to lowest possible level (preferably eliminating power production) and reassess amount of recovered heat using the following process: 1-9
        - Assess whether ongoing power production is necessary;
        - Assess whether power equipment can be reduced to emergency backup only, with no regular production; 1-10
        - Reduce regular electric power production to zero, if possible; 1-11
        - 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*"); 1-12
        - 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. 1-7
    - 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. 1-8
    - 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. 1-13

Sincerely,



Paul F. Ormond, P.E.
Energy Efficiency Engineer
Massachusetts Department of Energy Resources

Massachusetts Department of Energy Resources Comment Responses

1-1: Air Quality/Emissions Reduction (GHG)

New building design standards should be updated to mandate conformance with the all-electric pathway of the Massachusetts Specialized Opt-in Code.

As discussed above and in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments*,** Massport has established a new benchmark for sustainable development as part of its *Roadmap Net Zero by 2031* program in response to Department of Energy Resources (DOER)'s comment letter. While the adoption of the Massachusetts Specialized Opt-in Code with the All-Electric Pathway is still optional for municipalities, Massport will meet the same standards and achieve the same outcomes as this will be integral to achieving the *Roadmap Net Zero by 2031* Program's goals.

Additionally, the recently updated Massport *Sustainable Design Guidelines* (SDGs) are based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts along with reputable third-party sustainability rating systems. Depending on the project type and construction cost, the *SDGs* also require projects to pursue or achieve Gold level certification under the U.S. Green Building Council™ Leadership in Energy and Environmental Design (LEED®) rating system, Green Business Certification Inc.™ ParkSmart® rating system, and the Institute for Sustainable Infrastructure™ Envision® rating system. Given Massport's internal directives and the mandated SDGs, projects built on Massport property are already required, when feasible, to meet more stringent standards than the state's baseline codes, including the Massachusetts Specialized Opt-in Code with the All-Electric Pathway option.

For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to **Chapter 11, *Sustainability and Climate Resilience***. The SDG requirements are summarized in **Section 11.1.2.1 of Chapter 11** and the full publication is available at https://www.massport.com/environment/sustainability/sustainable-design-and-construction.

1-2: Air Quality/Emissions Reduction (GHG)

Massport should elevate the all-electric pathway of the Opt-in from being just encouraged to mandatory.

As discussed above in Comment 1-1 and in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments*,** Massport has established a new benchmark for sustainable development as part of its *Roadmap Net Zero by 2031* program in response to DOER's comment letter. This standard is based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts, along with reputable third-party sustainability rating systems. Given Massport's internal directives and the mandated SDGs, projects built on Massport property are already required, when feasible, to meet more stringent standards than the state's baseline codes, including the Massachusetts Specialized Opt-

in Code with the All-Electric Pathway option. However, Massport will still encourage projects with vertical components to follow the current version of the Massachusetts Stretch Energy and Municipal Opt-In Specialized Building Code. Of the three compliance pathways available, projects are encouraged to follow the "All Electric" pathway.

For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to **Chapter 11, *Sustainability and Climate Resilience***. The SDG requirements are summarized in **Section 11.1.2.1 of Chapter 11** and the full publication is available at https://www.massport.com/environment/sustainability/sustainable-design-and-construction.

1-3: Air Quality/Emissions Reduction (GHG)

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.**

As discussed above in Comment 1-1, Massport has recently updated Massport *Sustainable Design Guidelines* (SDGs), which are based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts along with reputable third-party sustainability rating systems. *Section C: Technology and Structure Design Guidelines, Measure 4, Heating, Ventilation, And Air Conditioning (HVAC) Systems – Occupied* requires "one or more of the following energy-efficient mechanical systems has been installed in equipment serving the occupied spaces: geothermal heat pumps (GHP), air source heat pumps (ASHP), variable-frequency drive (VFD), variable refrigerant flow (VRF), heat recovery ventilation/energy recovery ventilation (HRV/ERV)."

The SDGs further stipulate that, "In alignment with the Massachusetts State Building Code and Stretch Energy Code, achieve enhanced insulation levels across all building components and include high-performance windows with low U-values and appropriate solar heat gain coefficient (SHGC) values to maximize energy efficiency and comfort. Mitigate thermal bridging by implementing a continuous thermal insulation barrier and by using thermal break materials at window and door frames, structural framing that crosses the thermal envelope, and slab edges. Apply air sealing to all joints, seams, and penetrations. Conduct building leakage testing to ensure results are less than 0.35 cfm/sf @75 Pa. Install reflective roofing materials to deflect heat and reduce cooling loads."

The SDG requirements are summarized in **Section 11.1.2.1 of Chapter 11** and the full publication is available at https://www.massport.com/environment/sustainability/sustainable-design-and-construction.

1-4: Air Quality/Emissions Reduction (GHG)

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.

Massport has recently updated the SDGs, as discussed above in Comment 1-1, which are based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts along with reputable third-party sustainability rating systems. The SDG requirements are summarized in **Section 11.1.2.1 of Chapter 11** and the full publication is available at https://www.massport.com/environment/sustainability/sustainable-design-and-construction.

In *Section 5.2, Additional Vertical Project Guidelines*, the SDGs state that, "On a project-by-project basis, Project Teams shall evaluate the available power capacity needed to provide new, fully electric systems and equipment. All existing systems and equipment running on fossil fuels should be evaluated to determine the end of their useful service life. If fossil fuel equipment is identified within the project boundary and has less than three years of service life remaining, this equipment should consider replacement with electric-powered or clean fuel alternatives."

In addition, the SDGs' *Attachment B, Sustainability Guidelines Compliance Checklist* provides direction on completing an inventory of such equipment and documenting remaining service life estimates, and stipulates that fossil fuel systems and equipment with less than three years remaining service life must be replaced with electric-powered alternatives.

1-5: Air Quality/Emissions Reduction (GHG)

Commit to no new fossil fuel water heating, and create a decommissioning plan for existing fossil fuel water heating, if any.

The recently updated SDGs, as discussed above in Comment 1-4, require project teams to evaluate the feasibility of installing new, fully electric systems and equipment in new buildings and renovations. Existing systems and equipment running on fossil fuels identified as having less than three years of service life remaining will be considered for replacement with electric-powered or clean fuel alternatives. This would include water heating equipment. In addition, the SDGs' *Attachment B, Sustainability Guidelines Compliance Checklist* provides direction on completing an inventory of such equipment and documenting remaining service life estimates. Attachment A in the SDGs further mandates that project design considerations must also include options for low-temperature hot water for building hydronic systems and hydronic heat recovery. For more information, refer to **Section 11.1.2.1 of Chapter 11,** and the full SDG publication available at: https://www.massport.com/environment/sustainability/sustainable-design-and-construction.

1-6: Air Quality/Emissions Reduction (GHG)

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 are 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 are 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.**

Massport appreciates the suggestion regarding a recommended approach for decarbonizing Logan Airport's Central Heating and Power (CHP) Plant. Massport will consider how to integrate this approach into its planning and assessments regarding the feasibility of possible CHP alternatives or retrofits as part of implementing the *Roadmap Net Zero by 203*1 Program.

Massport remains dedicated to achieving its Net Zero goals and will continue to explore innovative approaches to decarbonization. This includes assessing the feasibility of minimizing electric power production and transitioning to alternative energy sources. Additionally, Massport will evaluate the necessity of on-going power production and explore the potential to reduce operations to emergency backup only. However, these evaluations will also consider operational continuity, current aviation safety regulations, and facility energy requirements before making a final determination on the feasibility of this approach.

1-7: Air Quality/Emissions Reduction (GHG)

Develop and commit to a decarbonization plan for the central heating and power plant to transition off fossil fuels based on the following approach: 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 a Boston Harbor source, environmental and water access constraints. Heat production should be from electric heat pumps, and no electric resistance should be used.

Massport acknowledges the importance of transitioning to sustainable heating solutions as part of achieving its Net Zero goals and appreciates this suggestion regarding the use of electric heat pumps that employ diverse technologies and heat sources. Massport is committed to exploring innovative technologies and will consider the feasibility of implementing electric heat pumps sourced from air, ground, or Boston Harbor, taking into account available space, environmental constraints, operational continuity, current aviation safety regulations, and facility energy requirements.

1-8: Air Quality/Emissions Reduction (GHG)

Develop and commit to a decarbonization plan for the central heating and power plant to transition off fossil fuels based on the following approach: 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.

Massport acknowledges the importance of transitioning to sustainable heating solutions as part of achieving its Net Zero goals and appreciates this suggestion regarding the use of electric heat pumps employing diverse technologies and heat sources. Massport is committed to exploring innovative technologies and will consider the feasibility of implementing electric heat pumps sourced from air, ground, or Boston Harbor, taking into account available space, environmental constraints, operational continuity, current aviation safety regulations, and facility energy requirements.

Massport is governed by a Board of Directors, which periodically receives updates from the Office of the CEO regarding the *Roadmap to Net Zero by 2031* (Roadmap to Net Zero) and approves related funding allocations. As discussed in **Section 11.2.1 of Chapter 11**, ***Sustainability and Climate Resilience***, in 2023, the Board of Directors voted to approve $500 million in investments to Net Zero projects, laying the groundwork for future reductions. This funding supplements routine funding requests that incorporate the Roadmap to Net Zero. Massport has committed to achieving Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 and absolute Net Zero GHG emissions across these scopes, without relying on renewable energy credits (RECs) or carbon offsets, by 2040.

1-9: Air Quality/Emissions Reduction (GHG)

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.

As discussed above and in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments*,** Massport has established a new benchmark for sustainable development as part of its *Roadmap Net Zero by 203*1 program in response to DOER's comment letter. This standard is based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts, along with reputable third-party sustainability rating systems. For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to **Section 11.2 of Chapter 11, *Sustainability and Climate Resilience***.

1-10: Air Quality/Emissions Reduction (GHG)

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 power equipment are reduced to emergency backup only, with no regular production.

As discussed above and in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments*,** Massport has established a new benchmark for sustainable development as part of its *Roadmap Net Zero by 203*1 program in response to DOER's comment letter. This standard is based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts, along with reputable third-party sustainability rating systems. For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to **Section 11.2 of Chapter 11, *Sustainability and Climate Resilience***.

1-11: Air Quality/Emissions Reduction (GHG)

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: reduce regular electric power production to zero, if possible.

As discussed above and in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments*,** Massport has established a new benchmark for sustainable development as part of its *Roadmap Net Zero by 203*1 program in response to DOER's comment letter. This standard is based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts, along with reputable third-party sustainability rating systems. For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to **Section 11.2 of Chapter 11, *Sustainability and Climate Resilience***.

1-12: Air Quality/Emissions Reduction (GHG)

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: if regular power production is necessary, assess the quantity of recoverable heat than are captured based on the lowest possible level of power production (e.g. "recovered heat").

As discussed above and in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments*,** Massport has established a new benchmark for sustainable development as part of its *Roadmap Net Zero by 203*1 program in response to DOER's comment letter. This standard is based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts, along

with reputable third-party sustainability rating systems. For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to **Section 11.2 of Chapter 11, *Sustainability and Climate Resilience***.

1-13: Air Quality/Emissions Reduction (GHG)

Develop and commit to a decarbonization plan for the central heating and power plant to transition off fossil fuels based on the following approach: assess option of eliminating central plant heating by converting all building heating to in-building heat pumps.

As discussed above in Comment 1-8, Massport appreciates the suggestion to transition building heating systems to in-building heat pumps as part of its decarbonization efforts. The organization is committed to exploring all viable options to reduce reliance on fossil fuels and enhance energy efficiency. Massport will assess the feasibility of eliminating central plant heating and converting to in-building heat pumps, considering factors such as infrastructure requirements, energy efficiency, aviation operations and safety, and environmental impact. For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to the *2023/2024 EDR* **Section 11.2 of Chapter 11, *Sustainability and Climate Resilience.***

2. City of Boston

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.

2-1

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. 2-2

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? 2-3

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 2-4

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. 2-5

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. 2-6

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, NOx, PM10/PM2.5, 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. 2-7

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. 2-8

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. 2-9

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? 2-10

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. 2-11

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. 2-12

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 2-13

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. 2-14

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. 2-15

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. 2-16

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).

2-17

In addition, Massport should provide information about TDM and Massport employees as outlined in the following questions: 2-18

- 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? 2-19
- 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. 2-20
- 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? 2-21
- How often are free employee shuttles run from Airport Station to employment areas in SWSA and South Cargo Area? 2-22
- What are the transit & water shuttle subsidy rates for Massport employees? 2-23
- 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? 2-24

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 2-25

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. 2-25

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: 2-26

- 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. 2-27

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. 2-28

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. 2-29

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. 2-30

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. 2-31 2-31

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, 2-32

for example? Is this tracked somehow? Do we know why Peabody wasn't more popular? Does Danvers address deficiencies that were present in Peabody? 2-33

Other High Occupancy Vehicles

In most contexts, a High Occupancy Vehicle (HOV) refers to vehicles with two or 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? 2-34 2-35 2-36

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? 2-37
- Please identify other RideApp strategies and describe what success looks like, how is it quantified? 2-38

We are also curious to learn more about the following:

- What does exploring RideApp Last Mile connections mean? 2-39
- 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? 2-40
- How does Ride Rematch work, how has it been advertised and facilitated and how has success been measured? What are the numbers? 2-41
- What percentage of RideApp drivers who drop off a passenger or passengers stay on-airport to wait for a passenger to leave Logan? 2-42
- How have passenger-shared rides been advertised and facilitated and how successful have the efforts been? How has success been measured? 2-43
- How are numbers obtained in order to calculate the 38.4% HOV mode share? 2-44

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. 2-45

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. 2-46

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. 2-47

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. 2-48

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. 2-49

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: 2-50

- 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,

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
Gail Miller, AIR, Inc.

City of Boston Comment Response

2-1: Logan Airport Environmental Review and Planning

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.

As discussed in Comments A-3 and A-4 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport has employed multiple strategies to improve the timing of document and annual data publication. These strategies include an in-depth review of prior report development procedures, creating a new User's Guide reference document, limiting data reported in EDRs and ESPRs to applicable reporting years, and developing an EDR and ESPR website. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** also has an overview of document changes in the *2023/2024 Environmental Data Report (2023/2024 EDR)*. Before filing the *2023/2024 EDR*, Massport developed a new webpage specifically for EDR and ESPR filings (https://www.massport.com/environment/boston-logan-edr-espr-data-portal). For more on the EDR and ESPR website, refer to **Section 1.2.2.2 of Chapter 1**.

2-2: Logan Airport Environmental Review and Planning

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 can be made more effective in preventing or addressing damage to health and the environment.

As discussed in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to active participation in the Work Group established in collaboration with the Massachusetts Environmental Policy Act (MEPA) Office and the Office of Environmental Justice & Equity (OEJE). MEPA's Logan Airport Work Group, launched in February 2025, includes representatives from state agencies, local officials, and community stakeholders and is co-moderated by MEPA and OEJE to promote an inclusive and transparent process.

The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations among environmental justice (EJ) communities in East Boston, Winthrop, and Chelsea. The Work Group may also serve as the proper forum to discuss the ESPR planning process as suggested.

2-3: Regional Transportation

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.

The *New England Regional Airport System Plan* (NERASP), completed in 2006, assessed long-term aviation demand across the six New England states and explored how the regional airport network could help manage growth at Logan Airport. The study concluded that existing regional airports, such as Rhode Island's T. F. Green International Airport (PVD), Manchester-Boston Regional Airport (MHT), and Worcester Regional Airport (ORH), could accommodate projected passenger demand through 2020 without the need for a new airport. NERASP identified Logan as the primary hub, drawing passengers from surrounding markets, which resulted in high rates of passenger leakage from nearby airports. To address this imbalance, the plan recommended improving airline service at regional airports and encouraged coordination across the system to better distribute demand. Massport integrated NERASP forecasts into Logan's ESPR and delayed the *2004 ESPR* publication to ensure consistency with regional planning data.

2-4: Logan Airport Environmental Review and Planning

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.

As discussed in Comments A-1, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport remains committed to enhancing data transparency and accessibility. On-going engagement with the MEPA Office, the OEJE, and other stakeholders will continue so that data requests are addressed and relevant information is presented in a clear and accessible manner. Massport will collaborate with MEPA and stakeholders to refine the structure and presentation of EDRs and ESPRs, enhancing readability and public comprehension by improving summaries, visuals, and key findings. These efforts build upon recent improvements, including those discussed elsewhere in **Appendix A**, **Appendix B,** and **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary***.

2-5: Logan Airport Environmental Review and Planning

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.

As discussed above, as well as Comments, A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport remains committed to enhancing data transparency, accessibility, and the clarity of ESPRs and EDRs. Massport improved the usability and reduced the length of the *2023/2024 EDR* by focusing the main chapters solely on annual data updates and introducing a User's Guide that outlines regulatory frameworks and methodologies, enhancing document transparency and efficiency. In addition, the *2023/2024 EDR* narrowed the focus of data analysis on reporting and benchmark years, supported by the newly developed EDR and ESPR webpage. This webpage includes historical EDRs and ESPRs with extensive data to be posted in a

searchable format in the near future. In addition to the historical data, the webpage will also include links to data sources referenced within EDRs and ESPRs that provide data in the interim before the availability of the EDR and ESPR. These data sources are often hosted by other state agencies, federal databases, and other reputable sources. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** also has an overview of document changes in the *2023/2024 EDR* and further information on the EDR and ESPR website.

2-6: Logan Airport Environmental Review and Planning

We strongly recommend that an ENF be required for all new or renewed [scheduled flight] 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.

The approval of new routes falls within the federal purview of the Federal Aviation Administration (FAA), and Massport will comply with FAA reporting requirements associated with new or renewed routes to the extent that these requirements apply to Massport.

In the early 2010s, airlines began consolidating flights to primary hubs such as Logan Airport, while reducing service at secondary airports like PVD, MHT, and ORH. This shift accelerated after the 2008 financial crisis as airlines restructured networks to improve profitability and operational efficiency. As a result, today's airline carriers prioritize high-demand markets and streamline routes to focus on hub-and-spoke models that concentrate traffic at major airports, such as Logan Airport.

As discussed in Comment 6-13, **Chapter 5, *Regional Transportation*** of the EDR and ESPR, continues to track new developments and the relationships between Logan Airport and other regional airports, in addition to transportation alternatives such as rail transport modes.

2-7: Air Quality/Emissions Reduction (GHG)

We suggest that more detail is necessary about how [air quality and GHG emission] goals are to be attained, particularly for strategies that are not under Massport's direct control.

As discussed in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport aims to reach absolute Net Zero GHG emissions across all scopes, without relying on renewable energy credits (RECs) or carbon offsets, by 2040. For more information on these efforts, see **Chapter 11, *Sustainability and Climate Resilience.*** As discussed in **Section 11.2.1 of Chapter 11**, in 2023, the Board of Directors voted to approve $500 million in investments to Net Zero projects, laying the groundwork for future reductions over the next five years. This funding supplements routine funding requests that incorporate the R*oadmap to Net Zero by 2031* Program. For instance, at its January 14, 2025, meeting, the Board approved the purchase of up to 50 electric shuttle buses for Logan Airport, in collaboration with the Massachusetts Bay Transportation Authority (MBTA). Massport has committed to achieving Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031.

Additionally, Massport aims to reach absolute Net Zero GHG emissions, without relying on renewable energy credits (RECs) or carbon offsets, by 2040, as discussed in **Section 11.2 of Chapter 11.**

2-8: Noise

Massport continues to provide data it identifies as PRAS, but there is no longer a functioning assignment system. We suggest this be eliminated from future EDRs & ESPRs.

Although the Preferential Runway Advisory System (PRAS) program has been discontinued, Massport continues to report key PRAS statistics for public information purposes, as part of its commitment to transparency regarding the effects of Logan Airport operations on surrounding communities. However, background information on the PRAS program and goals have been relocated to the **User's Guide, Section U7.5.1.2** to enhance the EDR and ESPR Noise chapter's overall readability, while **Table I-16 in Appendix I, Section I.1.2** compares the effective runway use for the current reporting years to the prior reporting year and the benchmark year.

2-9: Noise

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?

Reduced-engine taxiing procedures at Logan Airport are encouraged as a voluntary measure to reduce noise impacts, particularly by minimizing engine use on the side of the aircraft closest to the community. However, its implementation is subject to airline procedures, taxiway routings, and safety considerations. The success of reduced-engine taxiing is measured through on-going coordination with airlines and feedback from pilots. A survey conducted by Massachusetts Institute of Technology (MIT) in cooperation with Massport and the FAA found that single-engine taxiing was widely used on arrivals, but less frequently on departures due to safety and feasibility concerns, such as short taxi times. Massport continues to explore strategies to enhance the effectiveness of noise reduction measures, including reduced-engine taxiing, and stays informed about practices at other airports. The FAA and Massport are involved in on-going research to address aviation noise, which includes exploring alternative metrics and strategies. For further details, please refer to the *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5.6**.

2-10: Noise

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?

Massport has continued its efforts to maximize late-night over-water operations, aiming to minimize noise impacts on surrounding communities. The preferential use of Runway 15R for departures and Runway 33L for arrivals has been maintained through 2023 and 2024, to keep flights over Boston

Harbor and away from noise-sensitive areas. While specific percentages of eligible flights utilizing this option are not detailed in the current documents, Massport is committed to on-going collaboration with the FAA and airlines to enhance the effectiveness of these operations. This includes exploring new technologies and procedures that could further increase the number of flights utilizing over-water routes.

Regarding the ban on nighttime engine run-ups and the use of Auxiliary Power Units (APUs), Massport has continued these restrictions through 2023 and 2024 as part of its efforts to minimize nighttime noise. Success is measured through the Noise and Operations Monitoring System (NOMS), which tracks compliance and noise levels at various community noise monitor locations around Logan Airport. For more detailed information, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5**.

2-11: Noise

We ask that the number of insulations be broken down by the years in which they were completed for both the residences and schools.

As discussed in Comment A-64 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2023/2024 EDR* summarizes the RSIP's implementation timeline and progress status from 2023 through the end of 2024. The *2023/2024 EDR*, **Section 7.4.2 Chapter 7, *Noise*** and the **User's Guide, Section U7.5.2,** discuss the RSIP's goals and objectives in greater detail, progress data and years, and also provide key project milestones with achievement status updates. See **Table U7-4** the **User's Guide, Section U7.5.2** for a list of schools treated under Massport's RSIP between 1982 and 2004.

2-12: Climate Change

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.

As discussed in Comments A-8 and A-67 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2023/2024 EDR* includes a new **Chapter 11, *Sustainability and Climate Resilience*** which is dedicated to Massport's climate resiliency reporting and initiatives with linking to other Massport sustainability and resiliency resources. While these two distinct topics are collocated in the same chapter, the chapter separates these discussions into two distinct sections, with sustainability discussed in **Section 11.1**, **Section 11.3** focused on climate resilience, and a third section, **Section 11.2**, devoted to Massport's Net Zero programs and initiatives. The chapter also introduces the new Office of Climate Innovation and Resilience (OCIR), led by the Chief Climate and Resilience Officer, which works in close partnership with senior staff from Capital Programs, Strategic Planning, Real Estate Asset Management, and Aviation, and leads environmental and climate action at Massport, serving stakeholders with innovative solutions that build climate resilience and cut emissions.

2-13: Climate Change

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.

As discussed in Comments A-8 and A-67 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2023/2024 EDR* includes a new section in **Section 11.3 of Chapter 11, *Sustainability and Climate Resilience*,** dedicated to Massport's climate resiliency measures. Since 2013, Massport has maintained and continuously enhanced a comprehensive set of climate resiliency measures to protect critical infrastructure and surrounding communities from climate change impacts, including extreme heat, intense precipitation, and coastal flooding and sea level rise. Climate resiliency is an embedded practice in Massport's planning, design, construction, and daily operations. In addition, Massport has prioritized awareness, education, and training on climate resiliency for both internal staff and external stakeholders, reinforcing its commitment to long-term sustainability and preparedness. Massport collaborates with regional organizations, including the Massachusetts EEA, the ResilientMass program, U.S. Army Corps of Engineers (U.S. ACE), and the City of Boston to share knowledge, align goals, and advance initiatives to protect the community.

Chapter 11 reports the initiatives Massport has taken, and continues to take, to protect critical infrastructure, maintain operational continuity, and safeguard employees and surrounding communities from these evolving risks. Massport commits to providing updates on these initiatives in future EDR and ESPR filings and via the Net Zero website.

2-14: Climate Change

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.

As discussed above in Comments 2-12 and 2-13 and in Comments A-8 and A-67 in **Appendix A, *MEPA Certificate and Responses to Comments*,** the *2023/2024 EDR* includes a new section in **Chapter 11, *Sustainability and Climate Resilience,*** dedicated to Massport's climate resiliency measures, with information on the initiatives Massport has taken and continues to take. Massport commits to providing updates on these initiatives in future EDR and ESPR filings and will continue reporting on sustainability initiatives and progress through the recently launched [WEBSITE NAME / HYPERLINK] website.

2-15: Environmental Justice

Section 2.3.2.2 should be edited to reflect that the Massport CAC was established by the Massachusetts General Court in 2014.

Massport will review the referenced section in *the 2022 ESPR and revise as appropriate,* as well as confirm this information is presented correctly in the *2023/2024 EDR* and the User's Guide.

2-16: Ground Access to and From Logan Airport

We have never seen the MassDEP 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.

Detailed information on Massport's outreach efforts and strategies to promote HOV and Shared Ride use are provided in **Sections 6.1 and 6.4 of Chapter 6, *Ground Access*,** and the efficacy of these programs are also provided in the *Logan Air Passenger Ground Access Survey* reports for 2022 and 2024, summarized in **Section 6.5 of Chapter 6,** and available online for the public here: https://www.massport.com/logan-airport/about-logan/air-passenger-survey.

Below are some highlights of the outreach strategies and their relative success for air passengers. Updates on employee outreach initiatives are provided in response to Comment 2-17.

Massport has fully implemented Ride App shared ride incentives in partnership with Uber™ and Lyft™ to reduce Ride App vehicles through gateways by increasing vehicle occupancies. The Rematch Program matches drivers dropping off passengers with passengers seeking pick-up, thereby increasing the number of drivers leaving the Airport with a passenger customer. Massport implements a $3.25 per-trip fee for the Ride App. In March 2025, Massport signed an agreement with Lyft™ and Uber™ to increase the per trip fee to $5.50, while shared rides will be subject to a lower fee of $1.50 per trip. Ride App pick-up and drop-off transaction counts are provided in **Section 6.1.4 of Chapter 6**, and these have continued to increase each year, while the number of rental car and taxi dispatch transactions continues to decrease each year.

Massport is currently constructing approximately 1,000 additional parking spaces at the Framingham Logan Express garage site. The Peabody Logan Express was relocated to Danvers in 2023, and a new Danvers Logan Express facility will be completed by 2028, providing more parking for both passengers and employees and encouraging Logan Express use.

HOV ridership data demonstrating usage trends is provided in **Section 6.1.2 and Section 6.1.3 of Chapter 6.** HOV use among Logan Express Bus, MBTA Transit, and Water Transportation increased in 2023 and 2024, except for private water taxi use, which has substantially decreased over time, and the MBTA Silver Line, which increased ridership in 2023 but remained close to the same ridership in 2024.

2-17: Ground Access to and From Logan Airport

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).

Section 6.4 of Chapter 6, *Ground Access* presents current employee ground transportation initiatives and parking programs and initiatives. Massport continues to adopt comprehensive ground transportation initiatives for employees traveling to and from Logan Airport. The ground transportation strategy is designed to offer a choice of HOV, transit, and shared-ride options that are convenient and reliable, and that reduce environmental and community impacts.

Massport designates preferred parking for hybrid and electric vehicle (EV) charging stations. The Economy Garage is not directly connected to the terminals; therefore, Massport offers a free, 24-hour shuttle bus service between the garage and the terminals.

Massport offers employee parking in Chelsea, along with free shuttle bus transportation to the Airport. The shuttle bus to the Terminals (Route 77) operates 24 hours a day, seven days a week. Massport also provides an employee parking lot at Wonderland, the Blue Line terminus in Revere, with shuttles to the Airport. In 2023, Massport opened a new employee park-and-ride lot in Quincy, offering shuttle service to the Airport. Logan Express sites operate early-morning and late-night bus service to encourage use and better serve Logan Airport employees. Massport offers reduced employee rates to promote the use of Logan Express facilities. Massport also supports the Sunrise Shuttle, which provides early-morning bus service for employees from East Boston and parts of Winthrop and Revere before the start of MBTA service.

In addition to providing a $300 per month subsidy to Massport employees for MBTA, Commuter Rail, Logan Express bus service, and water taxis, Massport also operates free shuttle buses between Airport Station and employment areas in the Southwest Service Area and the South Cargo Area locations (Routes 44, 66, and Logan Office Center). Free shuttle buses operate between the MBTA Airport Station and the Terminals (Routes 22, 33, 55, and 88).

Massport maintains a comprehensive sidewalk and walkway system at Logan Airport to facilitate pedestrian access and circulation. Bicycle racks are available at Terminal A, Terminal E, the Logan Office Center, the Signature General Aviation Terminal, the Economy Parking Garage, the Green Bus Depot, and the Airport MBTA Blue Line Station. Covered (sheltered) bike parking is provided at Terminal A, the Rental Car Center, and the Economy Parking Garage. Covered shelter bike parking is provided at Terminal A, the Rental Car Center, and the Economy Parking Garage. Massport also provides showers and changing facilities at the Logan Office Center for its employees.

Massport advises Airport employers on transit benefits, including transit subsidies, and provides information on available commuting alternatives, ride-matching services, and reduced-rate HOV and transit fare options. Massport also provides its employees with subsidies for water transportation and transit use. Consistent with Logan Airport transportation management goals, Massport offers financial support for the Sunrise Shuttle and other benefits as noted above.

2-18: Ground Access to and From Logan Airport

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.

As discussed above in Comments 2-16 and 2-17, and in Comment A-61 in **Appendix A, *MEPA Certificate and Responses to Comments***, **Section 6.4.4 of Chapter 6, *Ground Access***, and the **User's Guide, Sections U6.5.4**, Massport has implemented several employee ground transportation and parking programs and initiatives.

Massport provides a free, 24-hour shuttle bus service between the Economy Garage and terminals; employee parking in Chelsea with free shuttle bus transportation to the Airport; and free shuttle buses between Airport Station and employment areas in the Southwest Service Area and the South Cargo Area locations (Routes 44, 66, and Logan Office Center). Massport also advises Airport employers on transit subsidies and reduced-rate HOV and transit fare options, in addition to providing Massport employees with subsidies for water transportation and transit use.

Massport continues to adopt comprehensive ground transportation initiatives for employees traveling to and from Logan Airport. The ground transportation strategy is designed to offer a choice of HOV, transit, and shared-ride options that are convenient and reliable, and reduce environmental and community impacts. An update and comparison of recent ground access conditions are presented in **Sections 6.1 of Chapter 6**.

2-19: Ground Access to and From Logan Airport

Massport should provide information about TDM and Massport employees as outlined in the following questions: 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?

Incentives for Massport employees are discussed above in Comments 2-17, 2-18, and A-61 in **Appendix A, *MEPA Certificate and Responses to Comments***, and **Section 6.4.4 of Chapter 6, *Ground Access***, presents the current employee parking spaces inventory, and 2,448 is the correct number of allowed on-Airport spaces for employees. Of the 2,448 spaces allowed, 2,360 spaces were in service in 2023, and 2,304 spaces were in service in 2024.

2-20: Ground Access to and From Logan Airport

Massport should provide information about TDM and Massport employees as outlined in the following questions: 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.

As noted in **Table 6-11 of Chapter 6, *Ground Access***, Massport provides employee parking in Chelsea with free shuttle bus transportation to the Airport. 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 promote use and better serve the schedules of Logan Airport employees. Massport supports the Sunrise Shuttle, which provides early morning bus service for employees from East Boston and parts of Winthrop and Revere before the start of MBTA service.

2-21: Ground Access to and From Logan Airport

Massport should provide information about TDM and Massport employees as outlined in the following questions: 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?

Massport also provides showers and changing facilities for its employees within the Logan Office Center at 1 Harborside Drive, which are part of the building's fitness center. This information is included on Massport's careers website here: https://www.massport.com/working-here/benefits. Other showers and changing facilities are available for tenants and other employees, interspersed among Airport and Massport facilities and close to employee work areas.

2-22: Ground Access to and From Logan Airport

Massport should provide information about TDM and Massport employees as outlined in the following questions: How often are free employee shuttles run from Airport Station to employment areas in SWSA and South Cargo Area?

Massport operates On-Airport Shuttle Routes 22, 33, and 55 between the MBTA Airport Station (Blue Line) and the Rental Car Center (RCC), located in the Southwest Service Area (SWSA). Routes 22 and 33 run daily from 9:00 AM to 10:00 PM, while Route 55 provides service during early morning and late

evening off-peak hours. Route 66 connects the MBTA Airport Station (Blue Line) to the Water Transportation Dock, near the South Cargo Area. This route operates daily from 5:00 AM to 11:00 PM. On-Airport Shuttle information and route details are found at: www.massport.com/logan-airport/getting-to-logan/on-airport-shuttle.

2-23: Ground Access to and From Logan Airport

Massport should provide information about TDM and Massport employees as outlined in the following questions: What are the transit & water shuttle subsidy rates for Massport employees?

Comment A-61 in **Appendix A, *MEPA Certificate and Responses to Comments***, **Chapter 6, *Ground Access*, Section 6.4.4**, and the **User's Guide, Sections U6.5.4**, Massport has implemented several employee ground transportation and parking programs and initiatives. Massport offers reduced employee rates to encourage the use of transit and water shuttle facilities, and provides a $300 per month subsidy to employees for transit. More information is provided here: https://www.massport.com/working-here/benefits

2-24: Ground Access to and From Logan Airport

Massport should provide information about TDM and Massport employees as outlined in the following questions: 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?

In 2023, Massport opened a new employee park-and-ride lot in Quincy, offering shuttle service to the Airport. The Braintree Logan Express service capacity for air passengers was increased in the short term by relocating employees to a new, dedicated park-and-ride lot in Quincy. Employees are picked up by a Logan Express bus directly from this lot, but they must show their employee identification before boarding the vehicle.

2-25: Ground Access to and From Logan Airport

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

Massport appreciates the thoughtful suggestions provided regarding TDM measures and employee surveys. Massport recognizes the importance of soliciting employee input and continually improving

transportation options and amenities. These recommendations will be considered as part of on-going planning efforts to enhance access, encourage sustainable commuting, and better serve Logan Airport employees in the future.

2-26: Ground Access to and From Logan Airport

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**

As discussed above, in particular the response to Comment 2-17, as well as in Comment A-61 in **Appendix A, *MEPA Certificate and Responses to Comments***, **Chapter 6, *Ground Access*, Section 6.4.4**, and the **User's Guide, Sections U6.5.4**, Massport has implemented several employee ground transportation and parking programs and initiatives. Those listed here have been discussed in the comment responses immediately preceding this response.

2-27: Ground Access to and From Logan Airport

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.

Massport appreciates these suggestions and will evaluate the feasibility of incorporating these recommendations into future planning discussions for other on-airport facilities. As for the Terminal E Garage's 4,300 spaces, the preliminary design process considered current on-Airport parking conditions and reconfirmed the need for additional commercial parking spaces to encourage passenger long-term parking at the Airport, rather than drop-off and pick-up trips. Logan Airport is primarily an Origin and Destination (O&D) market, and the majority of passengers look for transportation modes that can accommodate luggage. As such, these recommendations for improvements focused on commuting employees would likely be more effective at other on-Airport

facilities, which Massport will take into consideration during the planning and development process for future onsite facilities.

2-28: Ground Access to and From Logan Airport

We suggest that the Website post a one-page Master Schedule that would allow for [Logan Express] 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.

Massport has a single-page schedule that covers all five Logan Express locations on the Massport website (https://www.massport.com/logan-airport/getting-to-logan/logan-express). As of this filing, the current schedule for the five service offerings is available at LEX Schedules 1Aug2024. The schedule is updated as service changes occur. Passengers can find real-time information and updates on bus locations and arrival times on the website https://www.massport.com/logan-airport/getting-to-logan/bus-locator. Alternatively, they can download the FlyLogan app and use the bus locator feature to track when buses are due to arrive.

2-29: Ground Access to and From Logan Airport

We would also suggest a [Logan Express] site in the area of JFK/UMass.

The MBTA Red Line stops at the JFK / UMass Station and is an approximately six-minute ride to South Station, where the Silver Line's SL1 service provides direct access to each Logan Airport terminal. SL1 service frequency is every 9 to 13 minutes, depending on the time of day. Silver Line buses are articulated, 60-foot vehicles with on-board storage areas for luggage. Silver Line (SL1) service from Logan Airport is free, as are transfers to the Red Line subway service at South Station. Massport offers free Silver Line boardings at the Airport, and the free-fare program is expected to continue indefinitely.

In addition to surveys from prior years, the *2024 Logan Air Passenger Ground Access Survey* informs Massport's evaluation of Logan Express sites. It supports a data-driven planning process for changing or expanding service options. As discussed above and in other comments, recent Massport initiatives have successfully encouraged Logan Express' use and improved its overall capacity. Information on these projects is found in **Sections 4.1.3 through 4.1.5 of Chapter 4**, ***Airport Planning***. Additional Logan Express service details are found in **Section 6.1.2.1 of Chapter 6, *Ground Access***.

2-30: Ground Access to and From Logan Airport

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.

Back Bay Logan Express piloted priority airport passenger security line status for riders when operations at Back Bay restarted in October 2022. The priority program, Ticket to Skip, continues to be available to

Back Bay Logan Express and water transportation riders. **Section 6.1.2 of Chapter 6, *Ground Access*,** provides information regarding Logan Express and water transportation initiatives.

2-31: Ground Access to and From Logan Airport

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…We suggest asking on the next air passenger survey if this level of convenience would entice passengers to use this kind of service.

The Transportation Security Administration (TSA) holds the responsibility and authority to conduct security screening of travelers and baggage, and the TSA manages secure facilities with specialized equipment within Logan Airport for this purpose. In summer 2026, Massport will initiate a reservation-based pilot program of a remote access terminal at the Logan Express facility in Framingham. Should the pilot program be successful, and with the cooperation of TSA, Massport's next step would be evaluating the feasibility of rolling out the remote terminal model to other Logan Express facilities.

2-32: Ground Access to and From Logan Airport

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?

The Logan Airport terminals, prior to TSA security checkpoints, remain open 24 hours a day, seven days a week, and offer safe, indoor waiting areas for early morning and late-night passenger arrivals.

The latest scheduled arrivals for flights to Logan Airport generally occur before 12 am, and the last Logan Express bus service for Braintree, Framingham, Danvers, and Woburn destinations is 1:15 am for Terminal A and a few minutes after 1:15 am for the other terminals. The last SL1 bus departs Logan at 1:18 am on weekdays and 2:15 am on Fridays and Saturdays. The previous Back Bay bus leaves at 10 pm.

Tickets can be purchased online for future travel and do not expire or restrict travel times as long as the buses are still running for a given day, so reservations are not necessary, and passengers can still board the bus to return to their original Logan Express station if flights are delayed. While safe, indoor waiting areas are provided at each Logan Express location, these may not remain open late at night or very early in the morning.

Should passengers miss the last bus departure, traditional ground transportation services, such as taxis and ride-sharing app services, remain available. The number of passengers who miss the previous

departing bus and are unable to use Logan Express services due to delayed flights is not currently tracked.

2-33: Ground Access to and From Logan Airport

Do we know why Peabody wasn't more popular? Does Danvers address deficiencies that were present in Peabody?

Massport relocated the Logan Express facility from Peabody to Danvers to improve service reliability and address operational limitations. The Peabody site experienced low ridership, constrained parking capacity, and reduced service frequency, which limited its effectiveness. The Danvers facility, which opened in August 2024, offers expanded parking, enhanced regional access via Route 128 and I-95, and permanent infrastructure designed to support long-term operations. This relocation strengthens Massport's commitment to providing efficient and accessible Logan Express service to North Shore communities.

2-34: Ground Access to and From Logan Airport

What remains unclear is, how does Massport document the number of air passengers in any vehicle?

The *Logan Airport Air Passenger Ground Access Survey* has been Massport's primary tool for understanding the changes in air passenger travel behavior, including ground access mode choices, travel patterns, and market characteristics. The survey data help determine how many air passengers are traveling together in the same ground-access vehicle among the various automobile modes. In 2024, the survey asked respondents how they arrived at Logan Airport and how many people were in the vehicle. These responses for passengers per vehicle were weighted according to the methodology outlined in Section 2.4, Sample Weighting, of the *2024 Logan Air Passenger Ground Access Survey*.

2-35: Ground Access to and From Logan Airport

In general, how are RideApp operations tracked?

The *Logan Air Passenger Ground Access Survey* has been Massport's primary tool for determining how many air passengers are traveling together in the exact ground-access vehicle among the automobile modes, including Ride App vehicles. Details on the survey and its methodology are provided in the **User's Guide, Section U6.4**, and the results for the *2024 Logan Air Passenger Ground Access Survey* are included in the *2023/2024 EDR*, **Section 6.5 of Chapter 6, *Ground Access*.**

In addition to the survey, Ride App trip data is also provided to Massport by transportation network companies Uber™ and Lyft™. Massport maintains an internal dashboard tracking monthly Ride App statistics and trends, including the number of deadhead trips. The internal dashboard aids Massport in planning future Ride App operations policy. Counts of automobile transportation modes for 2023 and 2024 are included in **Section 6.1.4 of Chapter 6**, and information on the Ride App Management is presented in the *2023/2024 EDR*, **Section 6.4.1 of Chapter 6.**

Massport also plans to conduct a study to collect dwell-time data from Ride App operations, which make up approximately 27 percent of Logan Airport's ground transportation vehicle counts, in designated pick-up areas within Logan Airport's parking garages. The study's data and results will augment the data provided by the Ride App companies and help refine operations tracking procedures in the future.

2-36: Ground Access to and From Logan Airport

How do things work for black car limousines so that Massport has an accurate count?

Since the late 1970s, the *Logan Air Passenger Ground Access Survey* has been Massport's primary tool for understanding the changes in air passenger travel behavior, including ground access mode choices, travel patterns, and market characteristics. The survey data help determine how many air passengers are traveling together in the exact ground-access vehicle among the various automobile modes. This helps with understanding travel characteristics for arriving via private vehicles, rental vehicles, taxis, Ride App services, and other car services, such as limousines. Details on the survey and its methodology are provided in the **User's Guide, Section U6.4**, and the results for the *2024 Logan Air Passenger Ground Access Survey* are included in the *2023/2024 EDR*, **Section 6.5 of Chapter 6, *Ground Access***.

2-37: Ground Access to and From Logan Airport

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?

As discussed in Comment A-52, Massport has implemented a Ride App Management Plan since 2017 to facilitate the sustainable use of ride app services at Logan Airport. The strategy has implemented programs, including Ride App rematch, introducing rideshare, and developing a Ride App fee structure to support HOV. Roadway and garage projects have also included plans for centralization for Ride App pick-up and drop-off to help support shared rides, reduce deadhead trips, and reduce curbside congestion. Refer to *2023/2024 EDR*, **Section 6.4.1 of Chapter 6, *Ground Access*,** for more information on the Ride App Management Program, and see **Table 6-8** for a summary of the Ride App initiatives implemented and their overall efficacy.

2-38: Ground Access to and From Logan Airport

Please identify other RideApp strategies and describe what success looks like, how is it quantified?

As mentioned in Comment 2-37, details on the Ride App Management Program and its progress are found in the *2023/2024 EDR*, **Section 6.4.1 of Chapter 6, *Ground Access***, and the strategies

implemented are summarized in **Table 6-8**. As the program continues to develop and improve, more background information on the program will be included in the **User's Guide, Section U6.5.1**.

2-39: Ground Access to and From Logan Airport

What does exploring RideApp Last Mile connections mean?

Ride App last-mile connections at Logan Airport refer to initiatives designed to integrate ride apps (Uber™ and Lyft™) with other transportation modes, particularly Logan Express and other high-occupancy vehicle (HOV) options to complete the final leg of a passenger's journey to or from the Airport. This initiative advances Massport's goals of promoting sustainability, enhancing the passenger experience, and reducing environmental impacts.

Ride App last mile connections aim to:

- Encourage shared rides, including rapid transit, to reduce congestion and vehicle volume.
- Promote Logan Express usage by integrating Ride Apps, allowing passengers to connect from suburban transit hubs to the Airport.
- Support urban shuttle services to streamline connections and reduce single-occupancy (SOV) trips.

2-40: Ground Access to and From Logan Airport

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?

The Cell Phone Waiting Lot was relocated in 2023 to a site across from Terminal E, as noted in **Table 6-9 of Chapter 6, *Ground Access***. The Cell Phone Waiting lot contains 94 parking spaces. Massachusetts General Law (MGL) requires vehicles to shut off engines when vehicles are stationary for more than five minutes. Massport has enforcement mechanisms in place at the taxi, cell phone, Ride App, bus, and limousine pool areas.

2-41: Ground Access to and From Logan Airport

How does Ride Rematch work, how has it been advertised and facilitated and how has success been measured? What are the numbers?

Massport has implemented the Ride App Rematch Program as part of its Ride App management strategy. The program allows drivers who have just dropped off a passenger to quickly pick-up another passenger as part of the software app's features for drivers. This initiative is fully implemented and has been supported by infrastructure improvements, such as the creation of dedicated pick-up and drop-off areas in the Central Garage and Terminal E Garage, which means Ride App drivers no longer have to drive to the Cell Phone Waiting Lot, where they may sit with their cars idling, or drive around the Airport while waiting for their next customer. Although recently implemented, Massport now maintains an internal dashboard tracking monthly Ride App statistics and trends, including the number of

deadhead trips. The internal dashboard aids Massport in planning future Ride App operations policy, and this data will inform future EDR and ESPR reporting.

Massport has actively advertised shared ride services through partnerships with transportation network companies like Uber™ and Lyft™. The success of these efforts is measured through the *Logan Air Passenger Ground Access Survey*, which tracks changes in air passenger travel behavior, including ground access mode choices and vehicle occupancies. The survey data, along with transaction counts for Ride App pick-ups and drop-offs and curbside dwell time studies, are used to assess the effectiveness of shared ride initiatives. In 2024, Ride App activity surpassed the 2019 benchmark year's activity by about 15 percent for pick-up transactions and 4 percent for drop-off transactions. Refer to **Section 6.4.1 of Chapter 6, *Ground Access***, Comment A-52 in **Appendix A, *MEPA Certificate and Responses to Comments***, and **User's Guide, Section U6.5.1** for further information on Ride App management.

2-42: Ground Access to and From Logan Airport

What percentage of RideApp drivers who drop off a passenger or passengers stay on-airport to wait for a passenger to leave Logan?

As discussed in Comment 2-41 above, although recently implemented, Massport now maintains an internal dashboard tracking monthly Ride App statistics and trends, including the number of deadhead trips. The internal dashboard aids Massport in planning future Ride App operations policy and this data will inform future EDR and ESPR reporting.

The ability for a Ride App driver to immediately "rematch" or be dispatched from the Ride App pool varies greatly by time of day and is most successful during the times when arriving and departing aircraft are in balance. Overall, in 2023 and 2024 about 52 percent of drivers either rematched directly at the curb or waited in the Ride App lot after dropping off a departing passenger.

2-43: Ground Access to and From Logan Airport

How have passenger-shared rides been advertised and facilitated and how successful have the efforts been? How has success been measured?

Massport has actively promoted passenger-shared rides through partnerships with transportation network companies like Uber™ and Lyft™. These efforts include implementing shared ride incentives to increase vehicle occupancies and reduce congestion at Logan Airport. The Ride App management strategy, detailed in **Section 6.4.1 of Chapter 6, *Ground Access*** in the *2023/2024 EDR,* includes initiatives such as the Ride App Rematch Program and centralized pick-up and drop-off locations to facilitate shared rides.

Success is measured through the *Logan Air Passenger Ground Access Survey*, which tracks changes in air passenger travel behavior, including ground access mode choices and vehicle occupancies. The survey data help quantify improvements in congestion and reductions in greenhouse gas emissions.

Additionally, transaction counts for Ride App pick-ups and drop-offs are provided in **Section 6.1.4 of Chapter 6,** showing an increase in shared ride usage over time.

2-44: Ground Access to and From Logan Airport

How are numbers obtained in order to calculate the 38.4% HOV mode share?

HOV mode share data is obtained through the *Logan Air Passenger Ground Access Survey*. The complete *2022 Logan Air Passenger Ground Access Survey* Section 2.0 presents the Study Methodology. A total of 4,224 passengers across 437 flights participated in the survey. After reviewing and validating the data, a total of 4,093 surveys were used. Detailed results of the 2022 survey are presented in Section 4.0 of the report. The results of the *2024 Logan Air Passenger Ground Access Survey* are published on Massport's website at: https://www.massport.com/logan-airport/about-logan/air-passenger-survey and summarized in **Section 6.5 of Chapter 6, *Ground Access***.

2-45: Ground Access to and From Logan Airport

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.

Massport defines preferred parking as designated spaces for hybrid and electric vehicles (EVs) equipped with charging stations. Limousines, van services, and buses are notified of incentives through direct communication channels, including email and industry meetings. Qualified vehicles are recognized through a registration process that ensures compliance with Massport's environmental and operational standards. Massport provides annual summaries of the marketing and use of these incentives, which are detailed in **Section 6.4 of Chapter 6, *Ground Access***.

2-46: Ground Access to and From Logan Airport

We request that Massport identify the locations of all chargers and any limits, if any, on who may access and use them.

In January 2025, Massport updated the *Sustainability Design Guidelines (SDGs)* to align with the *Roadmap to Net Zero by 2031*. The electric vehicle (EV) charging services and capacity to be provided will correspond to the needs of airport users, with considerations incorporated into the planning process, including vehicle duration of stay on Airport property, parking space availability, and site limitations such as available electrical capacity. Massport will continue to update plans for accommodating EVs and the SDGs to meet increasing local and regional adoption of EV use.

Currently, more than 100 charging ports have been installed at Logan Airport and its Logan Express sites. Of these, 60 were available for public use in 2024, with four located at Framingham Logan Express, 46 located within the terminal area garages, and ten located in Economy Garage. See the

2023/2024 EDR, **Section 6.4.2 of Chapter 6, *Ground Access*,** and **Section 11.2.3.3 of Chapter 11, *Sustainability and Climate Resilience*** for more information.

2-47: Ground Access to and From Logan Airport

We suggest that at least 15% of spaces in the new parking garage have a charging portal.

In January 2025, Massport updated the *SDGs* to align with the *Roadmap to Net Zero by 2031*. The electric vehicle (EV) charging services and capacity to be provided will correspond to the needs of airport users, with considerations incorporated into the planning process, including vehicle duration of stay on Airport property, parking space availability, and site limitations such as available electrical capacity. Massport will continue to update plans for accommodating EVs and the SDGs to meet increasing local and regional adoption of EV use. Of these, 60 were available for public use in 2024, with 46 located within the terminal area garages and ten located in Economy Garage. See the *2023/2024 EDR*, **Section 6.4.2 of Chapter 6, *Ground Access*,** and **Section 11.2.3.3 of Chapter 11, *Sustainability and Climate Resilience,*** for more information.

2-48: Ground Access to and From Logan Airport

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 complete *2022 Logan Air Passenger Ground Access Survey* Section 2.0 presents the Study Methodology. A total of 4,224 passengers across 437 flights participated in the survey. After reviewing and validating the data, a total of 4,093 surveys were used. Detailed results of the 2022 survey are presented in Section 4.0 of the report. The results of the *2024 Logan Air Passenger Ground Access Survey* are published on Massport's website at: https://www.massport.com/logan-airport/about-logan/air-passenger-survey and summarized in **Section 6.5 of Chapter 6, *Ground Access***.

As discussed in 4D-36 and 4D-37 and in Comments A-56 and A-57, recent Massport initiatives have successfully encouraged Logan Express' use and improved its overall capacity. Information on these projects is found in **Sections 4.1.3 through 4.1.5 of Chapter 4**, ***Airport Planning.*** Additional Logan Express service details are found in **Section 6.1.2.1 of Chapter 6, *Ground Access***.

In addition to surveys from prior years, the *2024 Logan Air Passenger Ground Access Survey* informs Massport's evaluation of Logan Express sites. It supports a data-driven planning process for changing or expanding service options. These studies surveyed passengers on how they would respond to various policy options and initiatives and evaluated how these policies would change passenger decisions regarding Airport access modes. These results are published on Massport's website at: https://www.massport.com/logan-airport/about-logan/air-passenger-survey and summarized in **Section 6.5 of Chapter 6, *Ground Access***.

2-49: Ground Access to and From Logan Airport

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.

As discussed in Comment A-56 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2024 Logan Air Passenger Ground Access Survey* informs future service adjustments and demand for increased and expanded Logan Express facilities. Recent Massport initiatives have successfully encouraged the use of Logan Express and improved overall capacity. The Braintree Logan Express service capacity for air passengers was increased in the short term by relocating employees to a new, dedicated park-and-ride lot in Quincy. The Braintree, Framingham, Woburn, and Back Bay Logan Express service frequencies have been improved, and construction has begun for approximately 1,000 additional parking spaces at Framingham. Massport enhanced marketing efforts to increase ridership and invested in a new, larger facility in Danvers to temporarily relocate the Peabody Logan Express. Information on these projects is found in **Sections 4.1.3 through 4.1.5 of Chapter 4**, ***Airport Planning***. Additional Logan Express service details are found in **Section 6.1.2.1 of Chapter 6, *Ground Access*.**

2-50: Ground Access to and From Logan Airport

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?**

As discussed in Comment A-56 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2024 Logan Air Passenger Ground Access Survey* informs future service adjustments and demand for increased and expanded facilities. Massport appreciates this suggestion and will consider incorporating this element into future survey efforts. Massport endeavors to ensure the EV charging services and capacity provided corresponds to the needs of airport users, with considerations incorporated into the planning process for vehicle duration of stay on Airport property, parking space availability, and site limitations, such as available electrical capacity. Massport will continue to update plans for accommodating EVs and the SDGs to meet increasing local and regional adoption of EV use.

3. Town of Milton

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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 communities[1] 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, 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. 3-1

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. 3-2
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. 3-3
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. 3-4
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). 3-5
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. 3-6
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. 3-7
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. 3-8
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. 3-9
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. 3-10

[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.

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.

3-11

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

[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.

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.

3-12

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. 3-13

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. 3-14 3-15

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. 3-16

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.

3-17

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 overflown 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.

3-18

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 overflown 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).

3-19

3-20

3-21

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 Logan[4]. 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]

3-22

3-23

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

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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 overflown 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 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. 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.

[1] https://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 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 4,991were 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 overflown 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

[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.

[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 overflown 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 Logan[4]. 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 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 –

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

[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 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. Not to certify the 2017 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. 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 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.
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.

3-24

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,

MILTON SELECT BOARD

Michael F. Zullas, Chair

Melinda A. Collins, Vice Chair

Anthony J. Farrington, Secretary

Kathleen M. Conlon

Richard G. Wells, Jr.

cc: U.S. Senator Edward J. Markey
U.S. Senator Elizabeth Warren
Representative Stephen F. Lynch
Representative Ayanna Pressley
Attorney General Maura Healey
State Senator Walter F. Timilty
State Representative William Driscoll, Jr.
State Representative Daniel R. Cullinane
Milton Airplane Noise Advisory Committee
Milton Community Advisory Committee Representative
Milton Town Counsel

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

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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.

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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 overflown 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 Lmax[2]), 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 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.

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 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.

[1] https://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.

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 4,991were 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 overflown 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 overflown 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.

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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 Logan[3]. 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.

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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 20590-00001

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 noise[1] 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 Karlamamgla, "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."

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.

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

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.

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

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 NA[13] 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 overflown 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.

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

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 refugees, 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.

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

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.

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

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/.

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. Zullas, 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

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

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MEMBER
RICHARD G. WELLS, JR.
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 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 91.918(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.

[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.

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,

MILTON SELECT BOARD

Michael F. Zullas, Chair

Melinda A. Collins, Vice Chair

Anthony J. Farrington, Secretary

Kathleen M. Conlon

Richard G. Wells, Jr.

cc: U.S. Senator Edward J. Markey
U.S. Senator Elizabeth Warren
Representative Stephen F. Lynch
Representative Ayanna Pressley
Attorney General Maura Healey
State Senator Walter F. Timilty
State Representative William Driscoll, Jr.
State Representative Daniel R. Cullinane
Milton Airplane Noise Advisory Committee
Milton Community Advisory Committee Representative
Milton Town Counsel

Town of Milton Responses to Comments

3-1: Logan Airport Environmental Review and Planning

We urge the EEA 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.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials to address environmental concerns associated with Logan Airport operations. To that end, Massport is an active participant in the MEPA's Logan Airport Work Group (Work Group) established in collaboration with the Massachusetts Environmental Policy Act (MEPA) Office and the Office of Environmental Justice & Equity (OEJE) in February 2025. The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations among environmental justice (EJ) communities.

Section 7.4.1 of Chapter 7, *Noise*, summarizes how Massport, the Federal Aviation Administration (FAA), the Massport Community Advisory Committee (Massport CAC), and Massachusetts Institute of Technology (MIT) have continued to collaborate on how to successfully design and implement Area Navigation (RNAV) procedures that comply with the 2016 memorandum of understanding (MOU) between Massport and the FAA. Implementing the Block 1 and 2 procedures requested by the Massport CAC and affected communities, which confines flight tracks to within a defined noise abatement corridor area of more compatible land use.

In 2025, Massport won the 2025 Jay Hollingsworth Speas Airport Award for Logan Airport for "excellent collaborative work by MIT and Massport to reduce aircraft noise for residents under Boston Logan International Airport approach paths while simultaneously reducing fuel burn and distance traveled. The award recognizes the collaborative effort between the FAA, Massport, and MIT to identify potential modifications to RNAV procedures, conduct outreach with community groups and operational stakeholders, and implement the procedures following FAA review.

3-2: Logan Airport Environmental Review and Planning

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.

Massport remains dedicated to identifying and pursuing opportunities to improve forecasting and environmental conditions reporting practices; however, Massport's current methodologies exceed prevailing FAA and current industry standards in both rigor and transparency. Massport recognizes the importance of reporting accurate, comprehensive data and will continue to refine approaches to better serve both stakeholders and impacted communities.

3-3: Noise

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.

As discussed in Comment A-63, A-65, and A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport, the FAA, the Massport CAC, and MIT have continued to collaborate on how to successfully design and implement Non-Area Navigation (RNAV) procedures that comply with the 2016 MOU between Massport and the FAA. As discussed in **Appendix I**, ***Noise Supporting Documentation,* Section I.8**, implementing the Block 1 and 2 procedures requested by the Massport CAC and affected communities has resulted in the recent *2023 Runway 27 Standard Instrument Departure (SID)* update, which confines flight tracks to within a defined noise abatement corridor area of more compatible land use and reduces the impacts from aircraft overflight noise.

The FAA completed a *Noise Screening Analysis Report* for Logan Airport's proposed RNAV SID in May 2024, concluding that there were no reportable or significant noise impacts, and that the update meets NEPA compliance. In a presentation to the Massport CAC in August 2024, the FAA also confirmed the Runway 9/27 SID update and implementation of Block 1 and 2 procedures has achieved the MOU goal to confine at least 68 percent of flight tracks to within a defined noise abatement corridor area of more compatible land use. Block 2 departure procedures were published on November 30, 2023 and modified the RNAV departures to include a speed restriction, which enables aircraft to turn to the east earlier in their departures and shifts aircraft tracks to the north and away from Hull. For more detailed information, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5**.

3-4: Noise

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.

Massport appreciates the Town of Milton and its residents' concerns regarding late-night aircraft overflight restrictions and noise. Massport is committed to working collaboratively with the FAA and local communities to explore feasible noise abatement strategies that align with safety and operational requirements. Currently, Massport implements several noise abatement measures, including nighttime runway use restrictions and prioritization of late-night over-water operations to minimize noise impacts on surrounding communities. The use of Runways 4R and 4L is subject to operational constraints, including wind and weather conditions, which are critical for safe aircraft operations.

Massport continues to engage with the FAA and the Massport CAC to evaluate and implement noise mitigation strategies, including the potential for additional restrictions or procedural adjustments. For more detailed information on noise abatement strategies and runway use, please refer to the *2023/2024 EDR*, **Section 7.4** of **Chapter 7, *Noise*** and the **User's Guide, Section U7.5**.

3-5: Noise

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).

Massport, in collaboration with the FAA and the Massport CAC, is committed to exploring feasible solutions to address overflight noise concerns while also maintaining air safety and operational efficiency, and Massport continues to engage with the Massport CAC and other stakeholders to evaluate and implement noise mitigation strategies, including potential procedural adjustments to more equitably distribute overflights. As discussed in Comment 3-3 and **Section 7.4.1 of Chapter 7, *Noise*** in the *2023/2024 EDR* and **Section I.4.5 of Appendix I**, ***Noise Supporting Documentation***, the FAA and Massport have implemented several RNAV procedures, including RNAV SIDs and approaches for various runways, such as Runway 22L/R and Runway 33L, which are designed to keep traffic over water and away from densely populated areas. The RNAV Pilot Project also includes developing RNAV procedures to confine flight tracks to defined noise-abatement corridors, thereby reducing the concentration of noise over specific areas. For more detailed information, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5**

3-6: Logan Airport Environmental Review and Planning

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.

EDRs and ESPRs provide areawide noise and emissions environmental data that focus on areas within the arrival and departure paths. For more information, refer to **Section 2.4 of Chapter 2, *Outreach and Environmental Justice,*** which presents a new section: "Public Health Existing Conditions Review".

As discussed above in Comment 3-1, and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials to address environmental concerns. Massport is an active participant in the MEPA's Logan Airport Work Group (Work Group) whose primary objective is to assess and discuss feasible supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations among EJ communities.

Chapter 7, *Noise*, Section 7.4.1, RNAV Procedures summarizes how Massport, the FAA, the Massport CAC, and Massachusetts Institute of Technology (MIT) have continued to collaborate on how to design and implement RNAV procedures successfully, implementing the Block 1 and 2 procedures requested by the Massport CAC and affected communities, which confines flight tracks to within a defined noise abatement corridor area of more compatible land use.

3-7: Logan Airport Environmental Review and Planning

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.

The Executive Office of Energy and Environmental Affairs (EEA) Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. The FAA is responsible for developing and implementing RNAV procedures and has prepared a Federal Environmental Assessment (EA) under the National Environmental Policy Act (NEPA) to consider the environmental and operational effects of RNAV procedures. The FAA continues to support the evaluation of those procedures. As directed by the Secretary, the EDR presents "any data used to measure the effectiveness of these improvements, including the number of noise complaints from the previously impacted areas."

EDRs and ESPRs provide areawide noise and emissions environmental data that focus on areas within the arrival and departure paths. For more information, refer to **Section 2.4 of Chapter 2, *Outreach and Environmental Justice,*** which presents a new section: "Public Health Existing Conditions Review".

3-8: Logan Airport Environmental Review and Planning

Direct Massport to include all of the points made above in the scope of the 2022 ESPR…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.

As discussed in Comment 3-7 above, the EEA Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. The FAA is responsible for developing and implementing RNAV procedures and prepared a federal EA under NEPA to consider the environmental and operational effects of RNAV procedures, and continues to support the evaluation of those procedures. As directed by the Secretary, the EDR presents "any data used to measure the effectiveness of these improvements, including the number of noise complaints from the previously impacted areas."

EDRs and ESPRs provide areawide noise and emissions environmental data that focus on areas within the arrival and departure paths. For more information, refer to **Section 2.4 of Chapter 2, *Outreach and Environmental Justice*,** which presents a new section: "Public Health Existing Conditions Review".

3-9: Noise

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.

Currently, the Day-Night Average Sound Level (DNL) metric, which is the primary means for evaluating the annual noise environment around Logan Airport, already accounts for nighttime noise by applying a 10 dB penalty to noise events occurring between 10:00 PM and 7:00 AM. This adjustment reflects the increased sensitivity to noise during nighttime hours. However, Massport's noise abatement strategies consider adopting possibly better analysis tools, noise research findings, and improved modeling techniques, as well as enhancements to the noise analysis method, after evaluating the feasibility and potential benefits of incorporating additional metrics or adjustments to existing calculations. For more information, please refer to the *2023/2024 EDR*, **Chapter 7, *Noise*, Section 7.1.2** and the **User's Guide, Section U7.1**.

3-10: Environmental Justice

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.

As discussed in Comment A-39 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2023/2024 EDR* revised the content organization to dedicate **Chapter 2, *Outreach and Environmental* Justice,** exclusively to EJ, outreach, and community conditions and Massport's beneficial measures. The *2023/2024 EDR*, at the direction of MEPA, utilized Massachusetts Department of Environmental Protection (MassDEP)'s Cumulative Impact Analysis (CIA) framework to assess existing public health conditions within 1 mile of Logan Airport. These findings are presented in **Chapter 2, Section 2.4,** and the detailed data is included in **Appendix E, *Environmental Justice Supporting Documentation***. The **User's Guide, Section U2.3.1** provides the study's methodology and assumptions. For future ESPRs and EDRs, Massport will consider appropriate and scientifically supported methods to expand the scope of the existing conditions assessment, thereby more accurately capturing potential environmental impacts.

3-11: Activity Levels

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.

Advanced air mobility (AAM) operations near airports can offer significant benefits to communities, including enhanced connectivity, reduced ground vehicle congestion, and faster transportation options. These benefits can positively impact local economies, potentially leading to innovative transportation solutions and job creation in new sectors. However, potential noise impacts, increased air traffic, new emissions sources, and airspace safety and management could be issues for neighboring communities. Therefore, when AAM becomes a more tangible transportation service option at Logan Airport, Massport will address this new technology and its possible effects on surrounding communities with the same diligence and concern as other transportation modes operating within Massport facilities.

3-12: Environmental Justice

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.

Massport is committed to working with MEPA to advance EJ and public health analysis within the EDRs. In addition to the existing public health conditions assessment discussed above in Comments 3-8 and 3-10, as well as in Comment A-39 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport will consider appropriate and scientifically backed methods to expand the scope of the existing conditions assessment to more accurately capture environmental impacts that may be associated with Airport operations. For more information, refer to the *2023/2024 EDR* **Chapter 2, *Outreach and Environmental* Justice Section 2.3 and Section 2.4** and **Appendix E, *Environmental Justice Supporting Documentation***. The **User's Guide, Section U2.3.1** provides the study's methodology and assumptions.

3-13: Noise

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.

Evaluation of aviation noise is guided by FAA policies and regulations. Notwithstanding the referenced report, the FAA has yet to revise its federal noise policy. Massport will adjust its noise impact analyses in accordance with updates provided by the FAA. Massport continues to present a range of supplemental noise metrics in an effort to broaden the assessment of noise impacts beyond the DNL 65 dB metric. For more detailed information, please refer to the *2023/2024 EDR*, **Chapter 7, *Noise*, Section 7.1,** and the **User's Guide, Section U7.2**.

3-14: Noise

We continue to urge real and substantive collaboration between Massport, the Secretary, the FAA, and the communities impacted by Logan overflights.

As discussed in Comment A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport continues to coordinate with FAA and the Massport CAC on matters related to noise. For more detailed information on the Massport *Noise Abatement Management Plan* and associated measures to reduce airport-related noise effects, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5**.

3-15: Noise

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.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is an active participant in the MEPA's Logan Airport Work Group established in collaboration with the MEPA Office and the OEJE in February 2025. The Work Group includes representatives from state agencies, local officials, and community stakeholders and has a primary objective to assess and discuss potential supplemental mitigation measures that may address concerns among nearby communities.

Appendix A, *MEPA Certificate and Responses to Comments*, Comment A-66, summarizes how Massport continues to coordinate with FAA and the Massport CAC on matters related to noise. For more on Massport's *Noise Abatement Management Plan*, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5**.

3-16: Activity Levels

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.

Massport follows industry best practices in preparing activity level estimates and future forecasts for passenger activity levels and operations, considering several key factors, including economic conditions, airplane manufacturers' plans, future aircraft in the fleet mix, social factors, and anticipated airline route plans. The assumptions, data sources, and enhanced methodologies Massport currently uses for these forecasts are documented in the **User's Guide, Section U3.4**. While Massport is committed to refining its forecasting methodologies to reflect realistic growth estimates and actual impacts more accurately, Massport's current methodologies exceed prevailing FAA and current industry standards in both rigor and transparency.

3-17: Activity Levels

Future ESPRs and EDRs must take into account AAM as it moves from the design stage to the testing and implementation stages.

Massport actively participates in AAM planning through its partnership with the MassDOT Aeronautics Division and a coalition of stakeholders selected by NASA. Massport contributes to infrastructure planning, operational use case development, and regulatory integration to support the safe and efficient deployment of AAM technologies across the state. Massport will continue to provide updates on AAM engagement in future EDR and ESPR filings. When AAM becomes a more tangible transportation service option at Logan Airport, Massport will address this new technology and its possible effects on surrounding communities with the same diligence and concern as other transportation modes operating within Massport facilities.

3-18: Noise

Like the 2017 ESPR, the 2022 ESPR does not discuss the importance of noise annoyance as a factor of environmental impact and harm.

As discussed in Comment 3-13, evaluation of aviation noise metrics is guided by FAA policies and regulations. In EDR and ESPR filings, Massport continues to present a range of supplemental noise metrics in an effort to broaden the assessment of noise impacts. For more on Massport's *Noise Abatement Management Plan*, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5**. Expanded discussion on annoyance factors was developed for the new User's Guide as well in **User's Guide, Section U7.1.2**.

3-19: Noise

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.

As discussed above in Comment 3-5, 3-4, and 3-14, and in Comment A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport continues to coordinate with FAA and the Massport CAC on the Logan Airport noise mitigation program and to evaluate and implement noise mitigation strategies, including the potential for additional restrictions or procedural adjustments. Currently, Massport implements several noise abatement measures, including nighttime runway use restrictions and prioritization of late-night over-water operations to minimize noise impacts on surrounding communities. Information on noise abatement strategies and runway use is provided in the *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise*** and the **User's Guide, Section U7.5.1**.

3-20: Noise

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.

As discussed above in 3-3, 3-5, and 3-13, and in Comments A-63, A-65, and A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport continues to coordinate with FAA and the Massport CAC on Logan Airport noise mitigation initiatives. The *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise***, and the **User's Guide, Section U7.5.5**, include information on the Massport *Noise Abatement Management Plan* and RNAV procedures.

3-21: Noise

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.

As discussed above in 3-3, 3-5, and 3-13, as well as in Comment A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport continues to coordinate with FAA and the Massport CAC on the matters related to runway use and the on-going RNAV Pilot project. The *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise***, and the **User's Guide, Section U7.5.5**, include information on the Massport *Noise Abatement Management Plan* and RNAV procedures.

3-22: Logan Airport Environmental Review and Planning

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.

Massport acknowledges the concerns regarding noise and air pollution in Milton and other overflight communities. Massport has a history of collaborating with the Massachusetts Department of Public Health (MassDPH) and other agencies to assess environmental impacts related to Logan Airport operations. For instance, Massport supported the MassDPH study, which focused on the noise and air quality impacts within a five-mile radius of Logan Airport. For more information, refer to **Section 2.4 of Chapter 2, *Outreach and Environmental Justice,*** which presents a new section: "Public Health Existing Conditions Review".

As discussed above in Comment 3-1, and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is an active participant in the MEPA's Logan Airport Work Group (Work Group) whose primary objective is to assess and discuss feasible supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations.

Section 7.4.1 of Chapter 7, *Noise*, RNAV Procedures summarizes how Massport, the FAA, the Massport CAC, and Massachusetts Institute of Technology (MIT) have continued to collaborate on how to design and implement RNAV procedures successfully, implementing the Block 1 and 2 procedures requested by the Massport CAC and affected communities, which confines flight tracks to within a defined noise abatement corridor area of more compatible land use.

Massport remains committed to addressing environmental concerns and continues to engage in studies and initiatives aimed at understanding and mitigating the impacts of aviation emissions. Recent collaborations include studies conducted by Tufts University and Olin College, which focus on air quality monitoring in communities near Logan Airport. Additionally, Massport is involved in on-going research efforts with institutions such as Boston University and the FAA's ASCENT project, which assesses the contributions of aviation emissions to ultrafine particle concentrations.

Massport will continue to collaborate with relevant stakeholders, including the Department of Environmental Protection (DEP) and other community partners, to explore additional studies and initiatives that align with the evolving scientific understanding and aim to protect the health and well-being of residents in affected communities.

3-23: Logan Airport Environmental Review and Planning

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.

As discussed above in Comment 3-8, the EEA Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. The FAA is responsible for developing and implementing RNAV procedures and prepared a federal EA under NEPA to consider the environmental and operational effects of RNAV procedures, and continues to support the evaluation of those procedures. As directed by the Secretary, the EDR presents "any data used to measure the effectiveness of these improvements, including the number of noise complaints from the previously impacted areas."

EDRs and ESPRs are environmental data that focus on areas within the arrival and departure paths. For more information, refer to **Chapter 2, Section 2.4,** which presents a new section: "Public Health Existing Conditions Review". **Chapter 7, *Noise*, Section 7.4.1**, RNAV Procedures summarizes how Massport, the FAA, the Massport CAC, and Massachusetts Institute of Technology (MIT) have continued to collaborate on how to successfully design and implement RNAV procedures, which confine flight tracks to within a defined noise abatement corridor area of more compatible land use.

3-24: Noise

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 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.

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.

Massport has responded to similar commentary in responses to the Town of Milton's Comments within this section and within the **Appendix A, *Logan Airport Environmental Review and Planning*** section above, and in Comments A-63, A-65, and A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***. The EEA Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. The FAA is responsible for developing and implementing RNAV procedures and prepared a federal EA under NEPA to consider the environmental and operational effects of RNAV procedures and continues to support evaluation of those procedures.

As directed by the Secretary, the EDR presents "any data used to measure the effectiveness of these improvements, including the number of noise complaints from the previously impacted areas." EDRs and ESPRs are wide-area noise and emissions environmental data analyses that focus on areas within the arrival and departure paths. **Section 2.4 of Chapter 2, *Outreach and Environmental Justice*** of this *2023/2024 EDR* also presents a new section: "Public Health Existing Conditions Review". **Chapter 7, *Noise*, Sections 7.1**, **7.2**, and **7.4,** and the **User's Guide, Sections U7.2**, **U7.3**, and **U7.5** include information on these topics.

4. Airport Impact Relief, Inc. (AIR, Inc.)

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 statue. 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." 4A-1

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. 4A-2 4A-3

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 4A-4

2. Review, evaluate, and determine environmental impacts in real time by yoking policy and mitigation planning to actual present and future impacts 4A-5

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 4A-6

4 Require the Authority to report all mitigation efforts along a continuum of formal measures required to minimize or avoid environmental damage 4A-7

5 Require the Authority to release its next report closer to the end of the reporting period, and then it's next again closer 4A-8

6 Require the Authority to release a final draft report with a complete comment cycle | 4A-9

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 ld that opportunity, we believe that our concerns would be better addressed in discussion with EEA exclusively.

Sincerely,



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

From: Chris Marchi
To: Hughes, Jennifer (EEA)
Subject: Supplemental AIR, Inc. comment
Date: Friday, October 11, 2024 6:55:26 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 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. 4B-1

Sent from my iPhone

From: Chris Marchi
To: Hughes, Jennifer (EEA)
Subject: Supplemental AIR, Inc. comments
Date: Friday, October 11, 2024 6:31:23 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.

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. 4C-1

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. 4C-2

Chris Marchi
AIR, Inc.

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
  - Nightime 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." 4D-1

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? 4D-2

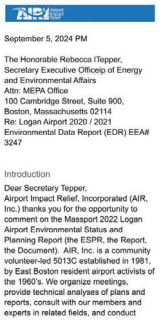
AIR, Inc. field tests its MEPA comments for comprehension, clarity and cultural appropriateness by pre-releasing them within a cross-section of environmental justice audiences and accepting feedback. We perform readability testing such as Flesch Reading Ease Scaling to identify areas where writing can 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. 4D-3

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. 4D-4



September 5, 2024 PM

The Honorable Rebecca ITepper,
Secretary Executive Officeip 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.** 4D-5

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 passsengers 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. 4D-6

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. 4D-7

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. 4D-8

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 attemptimg 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. 4D-9

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.**. 4D-10

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 facilies' 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.

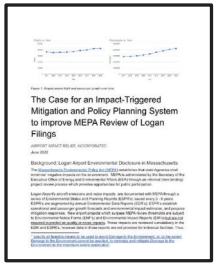
Year	65 DNL		65 DNL		Traffic (AWDT)		NOX		PM kg/ day		VOC		CO		Year	Year	Passengers	Flights
2000	17745		17745		101446		5707				1777		13112		2000	2000	27726833	
2001	14246		14246		91588		5168						12056		2001	2001	24474930	
2002	8309		8309		89731		4103						10952		2002	2002	22696141	
2003	7183		7183		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		*111500*		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.

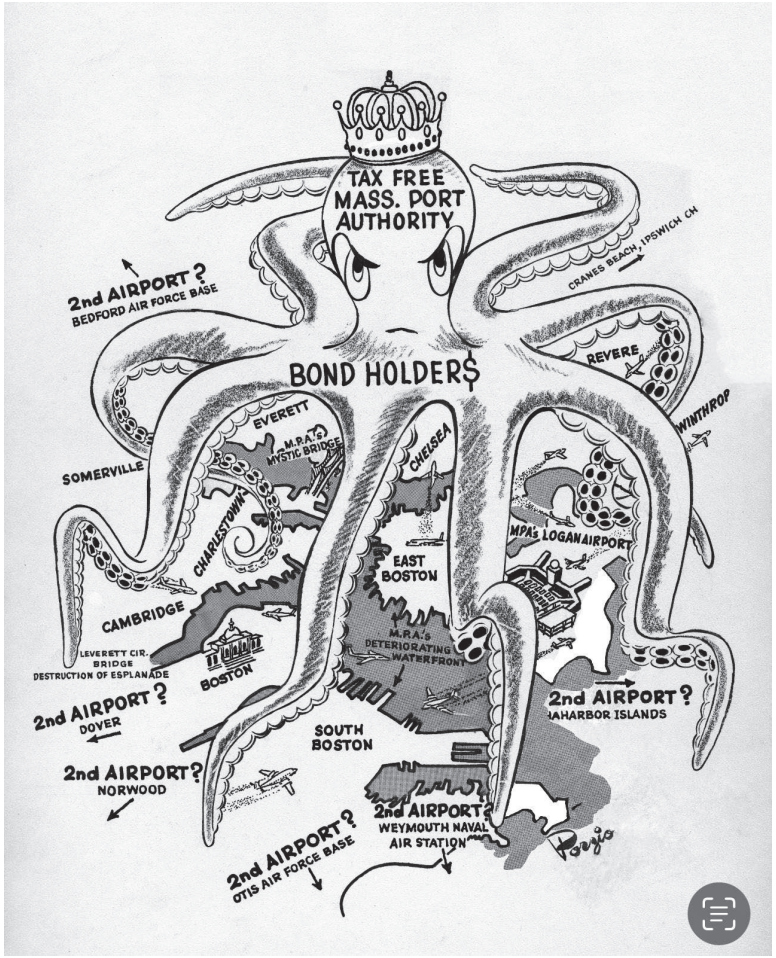
4D-11



The Case for an Impact-Triggered Mitigation and Policy Planning System to Improve MEPA Review of Logan Filings

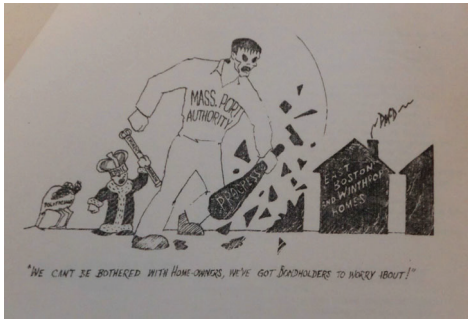
Specifically, because the 2022 ESPR lacks the environmental impact data reporting for each of Logan's facilities normally included in EIR-level reviews but deferred into this document series. This, in turn, denies the public the relevant information needed to assess the environmental burdens associated 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 hachet-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 fundng 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 Dvision, "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 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.

4D-12

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.**

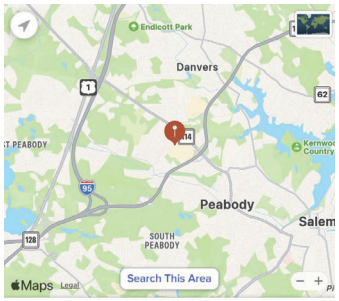
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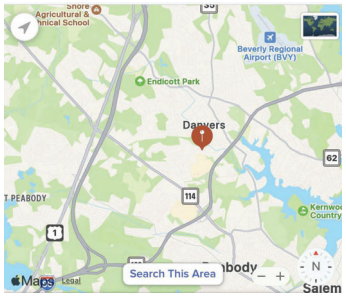
In her January 30, 2023 Certificate on the 2020 & 2021 Logan Airport Environmental Data Report (EDR), Secretary Tepper determined that the EDR for EEA project #3247 (Logan Airport) adequately and properly complied with MEPA regulations during the reporting period. The certificate also provided the scope 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.

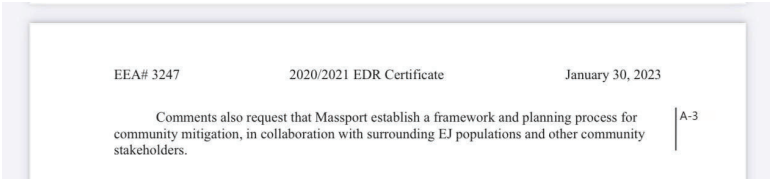
Commitment and timetables

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.

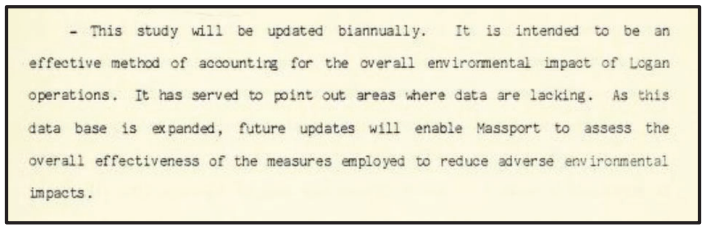
Massport responds to this key requirement with what can only be described as insulting wayfinding information explaining in a 277 word jumbled reply as to in which chapters of the ESPR can various pieces of information be found, assuring that Massport uses industry best practices, and that their comparisons 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.

4D-13

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 necessariy 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.

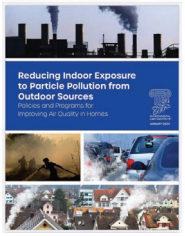
By failing to establish the true current context of concern and neglecting to provide an accurate assessment of the state of the airport air quality action environment, the ESPR fails to adequately and properly inform the public. The social, political and technical landscape around airport air quality 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.

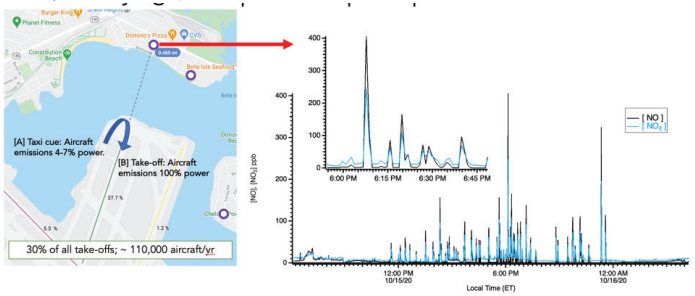
4D-14



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 NOx 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 recources for asthma treatment.

4D-15



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 shouldld 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, Pennsylvania



Baggage check-through

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. 4D-16

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.

4D-17

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 AWDT to 115,000 trips per day, and removing over 27,000 trips per day.

4D-18

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. 4D-19 4D-20

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. 4D-21

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.

Nightime noise

Nightime 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.

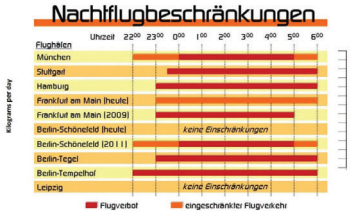
Noise Mitigation

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. 4D-22

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. 4D-23

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 4D-24 4D-25 4D-26



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 that 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.

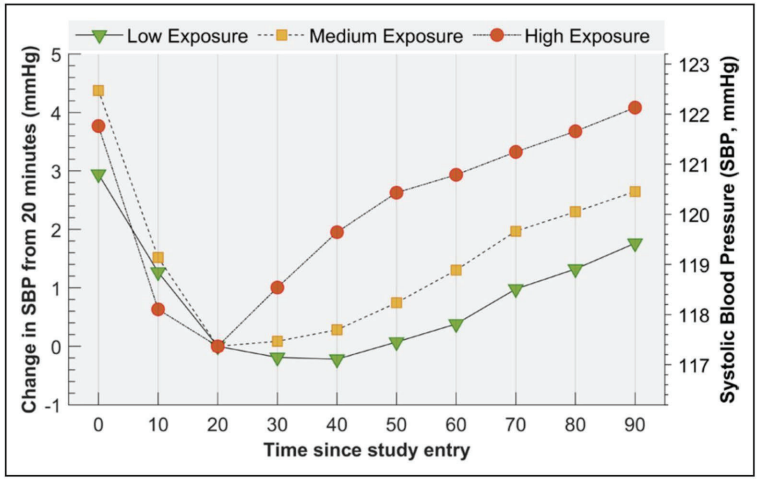
AIR, Inc. has on many occasions urged MEPA to demand that the Port Authority substantiate the claims, data and narratives it makes in these filings, or else cease to issue them. We should not be asked to educate MEPA, EEA and the public, expending community resources to fact check and correct misleading aviation industry public relations film flams 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 disproportionally 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.

4D-27

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 Airliners	Concorde	25,750 GPH

Fuel burn by aircraft size

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. 4D-29

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 decent, known as Decent 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 vortexes, 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. 4D-30

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. 4D-31

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, Masport 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 x 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 to1998 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.

4D-32

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.

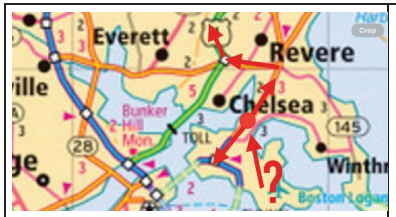
Under the UFP section, Massport lists efforts to measure UPF from aviation sources, the phase in of alternative fuel vehicles (presumably ground service vehicles which account for a small % of airport pollution), and GHG reduction efforts as the primary three initiatives underway to reduce airport related 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.



Limited access for Logan-based cargo and logistics to the interstate highway system



Improved connectivity via an I90 link to potential cargo and logistics facilities relocated to route 128

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.

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.

Month	Passengers	Month	% Recovered
December 2020	804832	December 20	26.01%
January 2021	740247	January 2021	27.32%
February 2021	731029	February 202	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 20	62.75%
October 2021	2579783	October 2021	68.41%
November 2021	2471462	November 20	75.72%
December 2021	2409372	December 20	71.09%

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.

4D-33

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.

4D-34

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 McClellan 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. 4D-35

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. 4D-36

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. 4D-37

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

4D-38

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.

4D-39

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.

4D-40

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. 4D-41 4D-42

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. 4D-43 4D-44

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. 4D-45

We ask that Massport be required to produce data to substantiate any claims made in the ESPR. 4D-46

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.)

Airport Impact Relief, Inc. (AIR, Inc.) Responses to Comments

4A-1: Environmental Justice

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…"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."

Throughout the development of the *2023/2024 EDR*, Massport enhanced public involvement and outreach by continuing practices initiated within the *2022 ESPR* and through participation in MEPA's Logan Airport Work Group, as discussed in Comments A-8, A-11, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***. Additionally, Massport's Community Relations & Government Affairs Department provides oral updates on on-going projects and programs at Logan Airport, including ESPRs and EDRs, through its participation in neighborhood meetings. The Community Relations & Government Affairs Department also conducts outreach activities regarding Logan Airport activities, which often extend to areas beyond the environmental justice (EJ) populations and the surrounding communities nearest to the Airport. Further information on Massport outreach policies and other forms of engagement is described in **Chapter 2, Outreach and Environmental Justice, Section 2.2**, and in the User's Guide, **Section U2.4**.

4A-2: Logan Airport Environmental Review and Planning

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.

Massport appreciates the feedback regarding the comment period for Massachusetts Environmental Policy Act (MEPA) filings. The EDRs and ESPRs are designed to provide comprehensive insights into Logan Airport's environmental conditions and planning initiatives. However, Massport has taken action to address this concern, and recent updates to the EDR and ESPR formats have been implemented to enhance accessibility and ease of review. Massport believes these updates will enable the public to review these documents and develop comments within the standard comment period prescribed by MEPA.

These include the use of consistent iconography and navigation aids, such as color-coded chapters and hyperlinked tables of contents, which facilitate quicker access to relevant sections. Additionally, callout boxes have been introduced to highlight key information, making it easier for readers to identify

important findings. The new User's Guide also helps to streamline these documents by reducing their overall length and enhancing readability. It achieves this by consolidating background information, definitions, and methodologies into a separate, easily accessible guide. This allows report chapters to focus more directly on key findings. Additionally, hyperlinks within the chapters direct readers to relevant sections of the User's Guide, facilitating quicker access to detailed explanations and supporting data. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** also has an overview of document changes in the *2023/2024 EDR* and further information on the User's Guide.

4A-3: Logan Airport Environmental Review and Planning

Suggest that these environmental reporting documents be released in final draft form prior to their release formal submission for MEPA review.

As discussed in Comment 4A-2 above, Massport has made significant changes to the EDR and ESPR document formats to facilitate easier and quicker reviews, developed the new User's Guide as a supporting resource to aid in comprehension, and developed an EDR and ESPR webpage to enable navigation through the document on several types of electronic devices, for example, mobile devices and smartphones. Given that this *2023/2024 EDR* is the first year in which these new approaches are being implemented, Massport believes this request is not appropriate at this time, but will follow direction and guidance provided by MEPA and the Secretary regarding future EDRs and ESPRs should these efforts prove insufficient to resolve these prior issues with review timing.

4A-4: Logan Airport Environmental Review and Planning

Require the Port Authority to provide data and respond to comment on the environmental impacts of all projects individually over time.

Massport is committed to providing comprehensive data and responding to comments on the environmental impacts of its projects over time. Each project at Logan Airport undergoes a project-specific environmental review process when state environmental review thresholds are met. This includes the submission of ENFs and Environmental Impact Reports (EIRs) as required by MEPA.

Massport's EDRs and ESPRs serve as annual and periodic reporting mechanisms that document the cumulative environmental effects of Logan Airport's operations and activities. These reports provide historical context and compare current results with previous years, ensuring transparency and accountability. Furthermore, Massport tracks and reports on mitigation commitments made through the MEPA process in ***Chapter 10, Project Mitigation,*** the EDRs and ESPRs. These commitments remain active until they are fully implemented, and progress toward meeting these commitments is reported annually. Massport's approach to environmental stewardship includes a wide range of strategies to avoid, minimize, or offset potential impacts, and Massport will continue to adhere to regulatory frameworks and engage in community outreach to keep stakeholders informed and involved in the environmental decision-making process.

4A-5: Logan Airport Environmental Review and Planning

Review, evaluate, and determine environmental impacts in real time by yoking policy and mitigation planning to actual present and future impacts.

As discussed above in Comment 4A-4 and in Comments A-26 and A-33 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport acknowledges the importance of real-time evaluation of environmental impacts and the integration of policy and mitigation planning to address both current and future effects. Massport is committed to enhancing transparency and responsiveness through the development of innovative solutions, including the provision of relevant data sources to the public via a dedicated web portal.

Massport actively evaluates new methodologies and technologies to improve the monitoring of air emissions, noise, and traffic impacts. This includes collaboration with the Massport CAC to develop access to available data. The EDRs and ESPRs also provide annual updates on environmental conditions and beneficial measures implemented to offset impacts, focusing on relevant metrics and trends.

Massport's approach includes on-going tracking and verification of compliance with environmental mitigation commitments, ensuring that each project's mitigation plan is implemented effectively. Massport also remains dedicated to advancing EJ and public health improvements through collaboration with MEPA and other stakeholders. Massport will continue to explore ways to improve the reporting and quantification of planned, on-going, and implemented mitigation measures in future filings.

4A-6: Mitigation

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.

As discussed in Comment A-6 in **Appendix A, *MEPA Certificate and Responses to Comments*** since conception, the purpose of the EDR and ESPR has been to disclose the impact of recent growth at Logan Airport as well as impact of long-term growth through ESPRs. Through these reports, Logan Airport is subject to comprehensive and regular MEPA review, including opportunities for public comment on the cumulative impacts. This regular updating and reporting on planning and cumulative impacts is unique among state agencies. Consistent with past ESPRs and EDRs, the *2023/2024 EDR* describes the cumulative effects associated with overall Logan Airport operations and compares these effects to previous conditions in the last reporting year as well as to a benchmark reporting year's conditions for each topic covered. Based on findings from EDRs and ESPRs, Massport continuously assesses on-going and proposed programs and policies for efficacy to reduce Logan Airport's impact. The current status of these programs and policies is discussed within **Section 2.2 of Chapter 2, *Outreach and Environmental Justice*; Section 6.4 of Chapter 6, *Ground Access*; Section 7.4 of Chapter 7, *Noise*;** and **Section 8.5 of Chapter 8, *Air Quality and GHG Emissions***. Where data is

available, Massport has quantified these beneficial measures and intends to find better methods to quantify the effects of these programs in future EDRs and ESPRs.

EDRs and ESPRs are also used to inform the projects subject to MEPA and the NEPA and serve as a baseline condition against which to assess project-specific impacts. Projects subject to MEPA review are reported on within **Chapter 4, *Airport Planning*,** with the status of associated Section 61 mitigation measures reported in **Chapter 10, *Project Mitigation*.**

Introduced in the *2022 ESPR*, Massport began reporting on public health existing conditions within the communities neighboring the Airport. This assessment was conducted using tools published by the state and the U.S. Environmental Protection Agency (U.S.EPA) to identify existing environmental burdens and public health consequences; however, the tools used are unable to differentiate Logan Airport-related activities from other surrounding activities and site uses. Building upon the assessment conducted in the *2022 ESPR*, the *2023/2024 EDR* utilized the newly released Massachusetts Department of Environmental Protection (MassDEP) Cumulative Impact Analysis (CIA) framework to assess existing community conditions. The MassDEP CIA tool provides data similar to what was presented within the *2022 ESPR*, but with higher granularity. The results from this assessment were similar to what was presented in the *2022 ESPR* as described in **Section 2.4.2 of Chapter 2, *Outreach and Environmental Justice*.**

4A-7: Mitigation

Require the Authority to report all mitigation efforts along a continuum of formal measures required to minimize or avoid environmental damage.

As discussed above and in Comment A-6 in **Appendix A**, ***MEPA Certificate and Responses to Comments*,** since conception, the purpose of the EDR and ESPR has been to disclose the impact of recent growth at Logan Airport, as well as the impact of long-term growth through ESPRs. Through these reports, Logan Airport is subject to comprehensive and regular MEPA review, including opportunities for public comment on the cumulative impacts. Consistent with past ESPRs and EDRs, the *2023/2024 EDR* describes the cumulative effects associated with overall Logan Airport operations and compares these effects to previous conditions in the last reporting year as well as to a benchmark reporting year's conditions for each topic covered.

4A-8: Logan Airport Environmental Review and Planning

Require the Authority to release its next report closer to the end of the reporting period, and then its next report closer again.

As discussed in Comments 4A-2 and 4A-3 above, and in Comments A-3 and A-4 in Appendix A, MEPA Certificate and Responses to Comments, Massport has employed multiple strategies to improve document timing and the publishing of annual data. These strategies include an in-depth review of existing reporting, the development of the new User's Guide, limiting data reported in the *2023/2024*

EDR to applicable years, and the development of the EDR and ESPR website. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary*** provides an overview of these improvements in the *2023/2024 EDR*.

4A-9: Logan Airport Environmental Review and Planning

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

As discussed in Comments 4A-2 and 4A-3 above, and in Comments A-3 and A-4 in Appendix A, MEPA Certificate and Responses to Comments, Massport has employed multiple strategies to improve document timing and the publishing of annual data. These strategies include an in-depth review of existing reporting, the development of the new User's Guide, limiting data reported in the *2023/2024 EDR* to applicable years, and the development of the EDR and ESPR website. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary*** provides an overview of these improvements in the *2023/2024 EDR*.

Massport has taken action to address this concern. Recent updates to the EDR and ESPR formats have been implemented to enhance accessibility and ease of review, which Massport believes will enable the production process for these filings to return to a consistent, annual schedule while also facilitating the public's ability to review these documents and develop comments within the standard comment period prescribed by MEPA.

4B-1: Ground Access to and From Logan Airport

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.

Massport is committed to providing a level of comfort and relative luxury commensurate with the requirements of modern air travel, as well as appropriate basic transportation options for its employees. Massport has implemented several employee ground transportation initiatives, including free shuttle bus services between various locations and the Airport, subsidized transit passes, and reduced-rate options for Logan Express and other transit services. Massport also provides amenities such as showers and changing facilities at the Logan Office Center. These efforts are part of Massport's broader strategy to offer convenient and reliable transportation options that reduce environmental and community impacts. Employee ground transportation Initiatives are detailed in **Section 6.4.4 of *Chapter 6, Ground Access***.

4C-1: Noise

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.

As discussed in Comment A-63, A-65, and A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport, the Federal Aviation Administration (FAA), the Massport CAC, and Massachusetts Institute of Technology (MIT) have continued to collaborate on how to design and implement Area Navigation (RNAV) procedures successfully. Massport continues to coordinate with FAA and the Massport CAC on matters related to runway use and the on-going RNAV Pilot project. Additional information on the Logan Airport noise mitigation and preferential runway use procedures is provided in the *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5.1**.

4C-2: Noise

[Massport] should be required to update PRAS and seek its proper implementation.

As discussed in comment 2-8, Massport developed the Preferential Runway Advisory System (PRAS) in 1982, but the PRAS system was suspended in February 2004, due to an upgrade of the FAA radar system during the consolidation of the Boston Terminal Control Center at the new facility in Merrimack, New Hampshire. During Phase 2 of the Boston Logan Airport Noise Study (BLANS), the Massport CAC voted to abandon PRAS because it had not achieved the intended noise abatement. Phase 3 of the BLANS focused on updating the Runway Use Program; however, the project concluded in 2016 without the Massport CAC reaching an agreement on a new Runway Use Program.

Although PRAS is not in effect at Logan Airport, Massport continues to report on key PRAS statistics for public information purposes. The **User's Guide, Section U7.5.1** provides the original PRAS goals and **Table I-16** in **Appendix I, Section I.1.2** compares the effective runway use for the current reporting years to the prior reporting year and the benchmark year.

4D-1: Environmental Justice

EJ engagement measures 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.

As discussed in Comment 4A-1, Massport enhanced public involvement and outreach through continuing practices initiated within the *2022 ESPR* and through participation in MEPA's Logan Airport Work Group. Massport emphasizes the importance of community outreach in the planning and environmental review process. Public review and comment periods are initiated following the filing of an ESPR or EDR under MEPA, where Massport engages with communities through various methods to gather input that informs planning initiatives and project-specific mitigation measures. This is discussed further in Comments A-8, A-11, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***. Further information on Massport outreach policies and other forms of engagement is described in **Chapter 2, Outreach and Environmental Justice, Section 2.2, and in the User's Guide, Section U2.4**.

4D-2: Logan Airport Environmental Review and Planning

Introduction of unfamiliar technical terminology must be limited to only necessary concepts, and when done must be carefully explained, as audiences may include readers with known low numeracy and literacy levels.

As discussed above as well as Comments, A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport remains committed to enhancing data transparency, accessibility, and the clarity of ESPRs and EDRs. Massport improved the usability and reduced the length of the *2023/2024 EDR* by focusing the main chapters solely on annual data updates and introducing a User's Guide that outlines key concepts, regulatory frameworks, and methodologies, enhancing document transparency and efficiency. Additionally, key terms are denoted in each chapter and defined in a centralized, upfront glossary of Key Terminology. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** also has an overview of document changes in the *2023/2024 EDR* and further information on the EDR and ESPR website.

4D-3: Logan Airport Environmental Review and Planning

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.

As discussed above and in Comments, A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport improved the usability and reduced the length of the *2023/2024 EDR*. The chapters begin with a bulleted summary of Key Findings, and throughout the chapters, hyperlinks are provided to the relevant sections of the User's Guide that outline the key concepts, regulatory frameworks, technical background information, and methodologies discussed in each chapter section. These hyperlinks are easily recognizable through bolded color font with a distinct icon shown in the page margin. Additionally, key terms are denoted in each chapter and defined in a centralized, upfront Key Terminology glossary. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** also has an overview of document changes in the *2023/2024 EDR* and further information on the EDR and ESPR website.

4D-4: Logan Airport Environmental Review and Planning

Today we renew this request and ask the Secretary place a 200 page limit on future filings, inclusive of all relevant data and information.

As discussed above and in Comments, A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport improved the usability and reduced the length of the *2023/2024 EDR* by focusing main chapters solely on annual data updates and introducing a User's Guide that outlines key concepts, regulatory frameworks, and methodologies, enhancing document transparency and efficiency. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** has an overview of document changes in the *2023/2024 EDR*.

Massport is committed to providing comprehensive data and responding to comments on the environmental effects of Logan Airport's operations and projects over time. This level of transparency requires sufficient narrative text to provide adequate information. However, Massport has endeavored to keep the *2023/2024 EDR* page count for the main document under 250 pages and will seek opportunities in future filings to further streamline these documents.

4D-5: Logan Airport Environmental Review and Planning

To further improve Massport's MEPA filings, we ask the Secretary to prescribe that the Authority provide filings in multiple formats, including Google docs.

As discussed above and in Comments, A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport has employed multiple strategies to improve the accessibility and usability of the *2023/2024 EDR*. Massport standardized headings and subheadings in the *2023/2024 EDR*, limiting data to reporting year, previous year, and chapter-specific benchmark years. Before filing the *2023/2024 EDR*, Massport developed a new webpage specifically for EDR and ESPR filings (https://www.massport.com/environment/boston-logan-edr-espr-data-portal). The website provides links for each chapter of the most recent filings to facilitate navigation through the document on several types of electronic devices, for example, mobile devices and smartphones, as well as notices for upcoming meetings, materials from prior meetings, prior filings, and links to regularly updated data sources used for EDRs and ESPRs analyses. Massport also continues to make historical data accessible on its environmental filings website. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** provides an overview of document changes in the *2023/2024 EDR*, as well as additional information on the EDR and ESPR website.

4D-6: Ground Access to and From Logan Airport

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

Massport acknowledges the potential effects of changes in operations on ground access and congestion. Massport actively monitors these dynamics through the *Logan Air Passenger Ground Access Survey*, which informs adjustments to ground access strategies and service options. Massport promotes HOV ridership, including transit and shared-ride modes, to mitigate congestion and maintain efficient transportation access. For more information on ground access initiatives, see **Section 6.4 of Chapter 6, *Ground Access***.

4D-7: Activity Levels

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.

Massport will review the referenced section in *the 2022 ESPR* and revise as appropriate, as well as confirm this information is presented correctly in the *2023/2024 EDR* and the User's Guide, where applicable. **Section 3.1.2 of Chapter 3, *Activity Levels*** presents load factor and average seats per operation for 2023 and 2024.

4D-8: Activity Levels

The Secretary should require Massport to specifically compare the TAF forecast to the Massport forecasts for the same forecasting periods.

The FAA issues a Terminal Area Forecast (TAF) each year, which the FAA uses for regional planning, budgeting, and managing staffing levels. The TAF forecasts are prepared at the individual airport level and based on local and national trends, but are not reconciled directly to the FAA's national Aerospace Forecast. As a result, the TAF does not contain the local nuances and market-specific conditions that the ESPR site-specific forecasts provide. While the TAF is used as point of reference during the ESPR forecasting, the forecast methodology is consistent with the industry best practices published in the FAA's Forecasting Aviation Activity by Airport. This forecast guidance document identifies reliable data sources and accepted statistical analysis techniques, such as econometric analyses of the relationship between airport passengers and socioeconomic demand drivers. The assumptions, data sources, and enhanced methodologies Massport currently uses for these forecasts are documented in the **User's Guide, Section U3.4**.

4D-9: Activity Levels

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.

As discussed above, the EEA Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Consistent with past ESPRs and EDRs, the *2023/2024 EDR* describes the cumulative effects associated with overall Logan Airport activity levels and compares these effects to previous conditions in the last reporting year, as well as to a benchmark reporting year's conditions for each topic covered. The EDRs and ESPRs inform the projects subject to MEPA and NEPA and serve as a baseline condition against which to assess project-specific impacts. The *2023/2024 EDR* compares 2023 technical chapter data to 2022 and 2024 reporting year data, and 2023 and 2024 data are also compared to topic-specific benchmark year(s) to provide a standard frame of reference for comparisons. The rationale behind each benchmark year's selection for a given topic is provided in each topic's respective chapter.

Separate from the EDR and ESPR, each airport project subject to MEPA review follows these frameworks in assessing potential impacts and developing mitigation strategies, as required. The status of mitigation measures associated with project-specific Section 61 Findings are documented in **Chapter 10, *Project Mitigation***.

4D-10: Logan Airport Environmental Review and Planning

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.

As discussed above and in Comments A-1, A-5, 4A-4, and 4A-5, as well as in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to active participation in the MEPA's Logan Airport Work Group established in collaboration with the MEPA Office and the Office of Environmental Justice & Equity (OEJE). The Work Group's primary objective is to assess and discuss feasible supplemental mitigation measures that could address environmental concerns.

Massport acknowledges the importance of real-time evaluation of environmental impacts and the integration of policy and mitigation planning to address both current and future impacts. Massport actively evaluates new methodologies and technologies to improve the monitoring of air emissions, noise, and vehicle congestion. The EDRs and ESPRs also provide annual updates on environmental conditions and beneficial measures implemented to offset impacts, focusing on relevant metrics and trends.

Massport's approach includes on-going tracking and verification of compliance with environmental mitigation commitments, ensuring that each project's mitigation plan is implemented effectively. Massport also remains dedicated to advancing EJ and public health improvements through collaboration with MEPA and other stakeholders. Massport will continue to explore ways to improve the reporting and quantification of planned, on-going, and implemented mitigation measures in future filings.

4D-11: Mitigation

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.

As a part of the MEPA review process, as described in **User's Guide, Section U10**, Section 61 mitigation commitments are established for project-specific impacts. Through the EDR and ESPR process, the status of implementing these mitigation commitments are discussed and quantified when possible. See **Chapter 10, *Project Mitigation*** for projects with on-going mitigation commitments. Massport will consider ways to further quantify project mitigation and community benefits as well as discuss opportunities to present further estimates for GHG emissions and energy consumption for planned projects.

4D-12: Logan Airport Environmental Review and Planning

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.

As discussed above in A4-3 and in Comments, A-1 to A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, while chapters begin with a bulleted summary of Key Findings, throughout the chapters are hyperlinks to the relevant sections of the User's Guide that outline the key concepts, regulatory frameworks, technical background information, and methodologies discussed in a given chapter section. These hyperlinks are easily recognizable through bolded color font with a distinct icon shown in the page margin. Additionally, key terms are denoted in each chapter and defined in a centralized, upfront Key Terminology glossary. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** also has an overview of document changes in the *2023/2024 EDR* and further information on the EDR and ESPR website.

4D-13, AIR: Logan Airport Environmental Review and Planning

Massport should be accountable for improving. It should seek collaboration and innovation to drive improvement in both its environmental and user experience performance.

As discussed above and in Comments in **Appendix A, *MEPA Certificate and Responses to Comments*** Massport is committed to active participation in the MEPA's Logan Airport Work Group (the Work Group) established in collaboration with the MEPA and OEJE. This Work Group includes representatives from state agencies, local officials, and community stakeholders and is co-moderated by MEPA, OEJE, and an independent third-party moderator to promote an inclusive and transparent process. Massport will contribute technical expertise, data, and resources to support this collaborative effort. An update on the status of the MEPA's Logan Airport Work Group up to the time of this document filing is provided in **Section 2.2.4.2 of Chapter 2, *Outreach and Environmental Justice***. The *2025 EDR* will provide updates on the MEPA's Logan Airport Work Group's progress and process outcomes.

Massport also collaborates with various stakeholders, including industry leaders and academic institutions, to advance the development and implementation of Sustainable Aviation Fuel (SAF). Massport is dedicated to enhancing transparency and public engagement through initiatives such as the creation of a new web page for the EDRs and ESPRs, which provides access to supporting data and historical information. These efforts are complemented by on-going improvements in reporting and quantification of environmental impacts and mitigation measures. Massport will also continue to strengthen relations with surrounding communities, particularly those representing EJ populations, through expanded outreach and engagement efforts and including a public health assessment in the *2023/2024 EDR*.

4D-14: Air Quality/Emissions Reduction (GHG)

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.

Massport collaborates with air quality consultants to evaluate and mitigate air pollution impacts. This includes the use of advanced modeling tools and evaluating the effectiveness of emissions reduction strategies. As discussed above and in Comments A-1, A-2, A-3, and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to active participation in MEPA's Logan Airport Work Group established in collaboration with the MEPA Office and the OEJE. The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures associated with Logan Airport operations among EJ communities. Massport will contribute technical expertise, data, and resources to support this collaborative effort. An update on the status of the MEPA's Logan Airport Work Group up to the time of this document filing is provided in **Section 2.2.4.2 of Chapter 2, *Outreach and Environmental Justice***. The *2025 Environmental Data Report (EDR)* will provide updates on the MEPA's Logan Airport Work Group's progress and process outcomes.

The *2023/2024 EDR* also utilized Massachusetts Department of Environmental Protection (MassDEP)'s Cumulative Impact Analysis (CIA) framework to assess existing public health conditions within 1 mile of Logan Airport. These findings are presented in **Chapter 2, Section 2.4,** and the detailed data is included in **Appendix E, *Environmental Justice Supporting Documentation***. The **User's Guide, Section U2.3.1,** provides the study's methodology and assumptions.

Regarding air filtration, Massport has renewed an agreement to provide funding to the East Boston Neighborhood Health Center (EBNHC) to help expand the efforts of their Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program in East Boston and Winthrop that provides services including screenings for children, distribution of asthma kits, and home visits.

4D-15: Air Quality/Emissions Reduction (GHG)

Massport should collaborate with groups like AIR, Inc. in the development of an air purification program.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials to address environmental concerns associated with Logan Airport operations. To that end, Massport is an active participant in the MEPA's Logan Airport Work Group (Work Group) established in collaboration with the MEPA Office and the OEJE in February 2025. The Work Group's primary objective

is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations among EJ communities. Scientific expertise from regulatory state agencies and researchers who have studied the impacts of air quality around Logan Airport will assist in informing these discussions.

Massport will contribute technical expertise, data, and resources to support this collaborative effort. An update on the status of the MEPA's Logan Airport Work Group up to the time of this document filing is provided in **Section 2.2.4.2 of Chapter 2, *Outreach and Environmental Justice***. The *2025 Environmental Data Report (EDR)* will provide updates on the MEPA's Logan Airport Work Group's progress and process outcomes.

4D-16: Ground Access to and From Logan Airport

Development of 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.

As discussed in Comment 2-31 and Comment A-57 in **Appendix A, *MEPA Certificate and Responses to Comments***, the Back Bay Logan Express piloted priority airport passenger security line status for riders when operations at Back Bay restarted in October 2022. The priority program remains available to Back Bay Logan Express riders. In summer 2026, Massport will initiate a reservation-based pilot program of a remote access terminal at the Logan Express facility in Framingham. Should the pilot program be successful, and with the cooperation of TSA, Massport's next step would be evaluating the feasibility of rolling out the remote terminal model to other Logan Express facilities.

4D-17: Regional Transportation

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 EDR and ESPR **Chapter 5, *Regional Transportation*** continues to track alternatives to air transport. For many years, rail passengers between Boston and New York City have surpassed air travel. The State of Massachusetts continues to evaluate opportunities to enhance its role in the regional and U.S. rail network. Development of "feasible timelines and pathways to achieve the improvement in intercity rail services" remains the state's responsibility. Massport's support of the MBTA's Silver Line is a prime example of its role in supporting rail connections.

4D-18: Ground Access to and From Logan Airport

Massport could adjust its HOV goals upward, aiming for a 60% HOV mode share.

Massport has a goal of reaching 35.5 percent HOV by 2022, and 40 percent HOV by 2027. Massport appreciates the suggestion to adjust its HOV goals, since Massport's goal is to achieve a 40 percent HOV mode share by 2027, and as of the 2024 Logan International Airport Air Passenger Ground-Access Survey, the HOV mode share has already reached 43.0 percent. Based on the results of the *2022 Logan International Airport Air Passenger Ground-Access Survey*, HOV mode share in 2022 reached 38.4 percent. Massport remains committed to promoting sustainable transportation options and will consider adjusting current goals after evaluating feasible opportunities to further enhance HOV mode share through various initiatives, including expanding Logan Express services and improving shared-ride options.

4D-19: Logan Airport Environmental Review and Planning

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.

As discussed above in 4D-13 and in Comments in **Appendix A, *MEPA Certificate and Responses to Comments*** Massport is committed to active participation in the MEPA's Logan Airport Work Group (the Work Group) established in collaboration with the MEPA and OEJE. This Work Group includes representatives from state agencies, local officials, and community stakeholders and is co-moderated by MEPA, OEJE, and an independent third-party moderator to promote an inclusive and transparent process.

The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport. Over the course of the next year, the group will potential supplemental community mitigation measures for EJ neighborhoods within proximity of the Airport with the goal of forming recommendations for specific actions. Scientific expertise from regulatory state agencies and researchers who have studied air quality impacts around Logan Airport will assist in informing these discussions. The current status of the MEPA's Logan Airport Work Group is provided in **Section 2.2.4.2 of Chapter 2, *Outreach and Environmental Justice***.

4D-20: Air Quality/Emissions Reduction (GHG)

In the case of air quality impacts for instance, it would evaluate the possibility of air filtration strategies.

Regarding air filtration, Massport has renewed an agreement to provide funding to the East Boston Neighborhood Health Center (EBNHC) to help expand the efforts of their Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program in East Boston and Winthrop that provides services including screenings for children, distribution of asthma kits, and home visits.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials as an active participant in the MEPA's Logan Airport Work Group (Work Group) established in collaboration with the MEPA Office and the OEJE. Massport will contribute technical expertise, data, and resources to support this collaborative effort. In addition, the *2023/2024 EDR* has expanded content in **Section 8.6 of Chapter 8, *Air Quality and GHG Emissions*** and **Section U8.6 of the User's Guide to include more information,** to include more information on air quality-related studies that have taken place in the vicinity of Logan Airport and other air quality related topics. These topics include research presented on in MEPA's Logan Airport Working Group, as discussed in **Chapter 2, *Outreach and Environmental Justice,* Section 2.2.4.2**.

4D-21: Noise

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.

As discussed in Comment 3-13, evaluation of aviation noise is guided by FAA policies and regulations. As of this filing, the FAA has yet to revise its federal noise policy. Massport will adjust its noise impact analyses when updated by the FAA. Massport continues to present a range of supplemental noise metrics in an effort to broaden the assessment of noise impacts beyond the DNL 65 dB metric. For more on Massport's *Noise Abatement Management Plan*, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5**. Expanded discussion on annoyance factors was developed for the new User's Guide as well in **User's Guide, Section U7.1.2**.

4D-22: Noise

If the Authority finds that [a nighttime noise] 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.

Massport acknowledges the importance of providing a clear and reasonable explanation when a program is deemed infeasible, like a nighttime noise program. The decision on whether or not Massport will develop such a program would be made after Massport had verified that the decision was supported by evidence detailing the physical, legal, geographical, or other feasibility concerns, as well as the program's anticipated efficacy at achieving desired outcomes. This approach aligns with Massport's commitment to transparency and accountability in addressing community concerns.

As discussed above in Comment 3-5, 3-4, and 3-14, and in Comment A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport continues to coordinate with FAA and the Massport CAC on the Logan Airport noise mitigation program and to evaluate and implement noise mitigation strategies, including the potential for additional restrictions or procedural adjustments. For

more on Massport's current noise program and initiatives, please refer to the *2023/2024 EDR*, **Table 7-4** in **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5.**

4D-23: Noise

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.

As discussed above in Comment 3-5, 3-4, and 3-14, and in Comment A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport continues to coordinate with FAA and the Massport CAC on the Logan Airport noise mitigation program and to evaluate and implement noise mitigation strategies, including the potential for additional restrictions or procedural adjustments. Currently, Massport implements several noise abatement measures, including nighttime runway use restrictions and prioritization of late-night over-water operations to minimize noise impacts on surrounding communities. Information on noise abatement strategies and runway use is provided in the *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise,*** and the **User's Guide, Section U7.5.1**.

4D-24: 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.

As discussed in comments 2-8 and 4C-2, PRAS was suspended in 2004; Massport continues to report on key PRAS statistics for public information purposes. The **User's Guide, Section U7.5.1** provides the original PRAS goals and **Table I-16** in **Appendix I, Section I.1.2** compares the effective runway use for the current reporting years to the prior reporting year and the benchmark year.

4D-25: Noise

Massport has failed to incorporate discussion of 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.

As discussed above in Comment 3-5, 3-4, and 3-14, and in Comment A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport continues to coordinate with FAA and the Massport CAC on the Logan Airport noise mitigation program and to evaluate and implement noise mitigation strategies, including the potential for additional restrictions or procedural adjustments. Currently, several Massport noise abatement measures, including nighttime runway use restrictions and prioritization of late-night over-water operations to minimize noise impacts on surrounding communities. Information on noise abatement strategies and runway use is provided in the *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise,*** and the **User's Guide, Section U7.5.1.**

4D-26: Noise

Massport has failed to incorporate discussion of 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 previous response to Comment 2-3 discusses the NERASP study, which identified Logan as New England's primary hub, drawing passengers from surrounding markets, resulting in high rates of passenger leakage from nearby airports, and recommended improving airline service at regional airports as a solution. However, legacy airlines began consolidating flights to primary hubs, such as Logan Airport, while reducing service offerings at secondary airports, as they have restructured their networks to improve profitability and operational efficiency. As a result, many airline carriers prioritize high-demand markets and streamlined routes, focusing on hub-and-spoke models that concentrate traffic at major airports, such as Logan Airport.

Although this trend among airlines impedes shifts in market share, multiple airports in New England have recently begun major infrastructure projects and have expanded terminals to enhance passenger services and experience, demonstrating the Region's substantial investment in capacity and service enhancements. **Table 5-1 of Chapter 5, *Regional Transportation***, shows a 4.3 percent increase in passenger activity from 2019 to 2024, which may be due, in part to these improvements. In addition, Massport's support of the MBTA's Silver Line is a prime example of its role in supporting rail connections to accommodate increasing passenger activity further, and the *2023/2024 EDR* has a new section addressing rail service in **Section 5.4.4 of Chapter 5**.

4D-27: Environmental Justice

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.

As discussed above and in Comments A-1, A-2, A-3, and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to active participation in MEPA's Logan Airport Work Group established in collaboration with the MEPA Office and the OEJE. The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures associated with Logan Airport operations among EJ communities.

Massport acknowledges the importance of supplementing regional pollutant analysis with local impact assessments on EJ communities. The Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs (2021 EJ Policy) incorporates definitions from the Climate Roadmap Act and emphasizes the importance of inclusive community involvement in environmental decision-making. The *2023/2024 EDR*, at the direction of MEPA, utilized MassDEP's CIA framework to assess existing public health conditions within 1 mile of Logan Airport. These findings are presented in **Chapter 2, Section 2.4,** and the detailed data is included in **Appendix E, *Environmental Justice Supporting***

Documentation. The **User's Guide, Section U2.3.1,** provides the study's methodology and assumptions.

4D-28, AIR: Environmental Justice

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.

Massport appreciates this feedback and understands the importance of respecting the unique identity of this community and its preferences for a more appropriate name to be associated with this neighborhood landmark. However, for the purposes of reporting continuity and clarity with respect to the data sourced from the U.S.EPA, Massport will continue to use the naming conventions prescribed by the U.S.EPA for the monitoring site at this time.

4D-29: Air Quality/Emissions Reduction (GHG)

Massport should quantify the savings claimed [from engine efficiencies].

Massport's emissions reduction initiatives include transitioning fleet vehicles to electric and alternative fuels, which contribute to improved engine efficiencies and reduced emissions. The EDRs and ESPRs provide detailed analyses of emissions reduction strategies and their impacts, including the use of advanced modeling tools like the FAA's Aviation Environmental Design Tool (AEDT) and the U.S.EPA's MOtor Vehicle Emission Simulator (MOVES) to quantify emissions. These findings are presented in **Section 8.3 of Chapter 8, *Air Quality and GHG Emissions***. The **User's Guide, Section U8.3** provides more information on analysis methodologies and assumptions.

4D-30: Air Quality/Emissions Reduction (GHG)

If a fuel burn or noise benefit exists which can mitigate NO_X emissions, Massport should quantify it and explain the mechanism by which it will affect NO_X.

NO_X is generally emitted as NO, which is oxidized to NO_2. The principal man-made source of NO_X is fuel combustion in motor vehicles and power plants, but aircraft engines are also a source. The use of Sustainable Aviation Fuel (SAF) is a key strategy in reducing lifecycle emissions, including NO_X, by improving fuel efficiency and reducing the overall environmental impact. Massport continues to keep up-to-date on SAF usage and availability in the northeastern U.S. Massport also has a comprehensive air and GHG emissions reduction program in place. While Massport does not have control over aircraft and aircraft-related emissions, Massport is working closely with its airline partners to reduce emissions.

In 2025, Massport won the 2025 Jay Hollingsworth Speas Airport Award for Logan Airport for "excellent collaborative work by MIT and Massport to reduce aircraft noise for residents under Boston Logan International Airport approach paths while simultaneously reducing fuel burn and distance traveled."

The award recognizes the collaborative effort between the FAA, Massport, and MIT to identify potential modifications to RNAV procedures, conduct outreach with community groups and operational stakeholders, and implement the procedures following FAA review.

Massport will continue to seek opportunities to further quantify and explain the mechanisms by which fuel burn could affect NO_X emissions in future EDRs and ESPRs. For more information on sources of airport emissions and pollutant types, see **User's Guide, Section U8.1.2.**

4D-31: Air Quality/Emissions Reduction (GHG)

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

NO_X is generally emitted as NO, which is oxidized to NO_2. The principal man-made source of NO_X is fuel combustion in motor vehicles and power plants, but aircraft engines are also a source. Reduced-engine taxiing procedures at Logan Airport are encouraged as a voluntary measure to reduce noise impacts, particularly by minimizing engine use on the side of the aircraft closest to the community. However, its implementation is subject to airline procedures, taxiway routings, and safety considerations. The success of reduced-engine taxiing is measured through on-going coordination with airlines and feedback from pilots.

The *2023/2024 EDR* has expanded content in **Section 8.6 of Chapter 8, *Air Quality and GHG Emissions*,** and **Section U8.6 of the User's Guide** to include more information on air quality-related studies that have taken place in the vicinity of Logan Airport and other air quality related topics. Massport continues to explore strategies to reduce aircraft emissions, support reduced-engine taxiing, where possible, and stays informed about practices at other airports. Refer to **Sections U8.6.2 and U8.5.3 of the User's Guide** for a discussion of related studies on NOx and single-engine taxiing, respectively.

4D-32: Air Quality/Emissions Reduction (GHG)

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 PM_{10}, $PM_{2.5}$, and UFP's in separate subheadings.

Chapter 8, *Air Quality and Greenhouse Gas Emissions*, Section 8.1 includes subheadings for 2023/2024 Logan Airport emissions inventories for the criteria air pollutants and precursor pollutants (VOC, NO_X, CO, and PM_{10}/$PM_{2.5}$). Separate subheadings are used in the *2023/2024 EDR* as follows: **Section 8.3.4 of Chapter 8** discusses PM, while recent studies on UFPs are discussed in **Section 8.6.1 of Chapter 8** and the **User's Guide, Section U8.6.2.2**.

4D-33: Ground Access to and From Logan Airport

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 [ground access] data.

Massport employs a comprehensive approach to data collection and analysis, which includes adjustments for seasonal variations and other factors to ensure accuracy and reliability in reporting. The methodologies and adjustments applied to the data are documented in the Ground Access chapters and appendices of the EDRs and ESPRs. For detailed information on the data collection and adjustment methodologies, please refer to the **User's Guide, Section U6.1**.

4D-34: Logan Airport Environmental Review and Planning

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.

As discussed above in A4-3 and in Comments, A-1 to A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, while chapters begin with a bulleted summary of Key Findings, throughout the chapters are hyperlinks to the relevant sections of the User's Guide that outline the key concepts, regulatory frameworks, technical background information, and methodologies discussed in a given chapter section. These hyperlinks are easily recognizable through bolded color font with a distinct icon shown in the page margin. Additionally, key terms are denoted in each chapter and defined in a centralized, upfront Key Terminology glossary. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** also has an overview of document changes in the *2023/2024 EDR* and further information on the EDR and ESPR website.

4D-35: Ground Access to and From Logan Airport

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.

Massport employs a comprehensive approach to ground access and transportation management, which includes monitoring vehicle miles traveled (VMT) and gateway vehicle volumes at Logan Airport. These metrics are crucial for understanding the impact of airport operations on local and regional vehicle congestion. Massport's Automated Traffic Monitoring System (ATMS) provides data on annual average daily traffic (AADT), annual average weekday daily traffic (AWDT), and annual average weekend daily traffic (AWEDT) at key access points to the Airport. This data, along with VMT estimates derived from the VISSIM microsimulation model, helps Massport assess the effects of airport traffic on surrounding roadways.

Massport remains committed to refining its methodologies and collaborating with regional transportation agencies to enhance the evaluation of vehicle congestion impacts. These efforts are part of Massport's broader strategy to promote sustainable transportation options and reduce congestion

at Logan Airport. For detailed information on the data collection and analysis methodologies, please refer to the **User's Guide, Section U6.1**.

4D-36: Ground Access to and From Logan Airport

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.

As discussed above and in Comments A-56 and A-57, recent Massport initiatives have successfully encouraged Logan Express' use and improved its overall capacity. Information on these projects is found in **Sections 4.1.3 through 4.1.5 of Chapter 4**, ***Airport Planning***. Additional Logan Express service details are found in **Section 6.1.2.1 of Chapter 6, *Ground Access***.

In addition to surveys from prior years, the *2024 Logan Air Passenger Ground Access Survey* informs Massport's evaluation of Logan Express sites. It supports a data-driven planning process for changing or expanding service options. These studies surveyed passengers on how they would respond to various policy options and initiatives and evaluated how these policies would change passenger decisions regarding Airport access modes. These results are published on Massport's website at: https://www.massport.com/logan-airport/about-logan/air-passenger-survey and summarized in **Section 6.5 of Chapter 6, *Ground Access***.

4D-37: Ground Access to and From Logan Airport

In order to properly and thoroughly understand the results of this foundational [ground access] 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.

As discussed in Comment 2-48, the complete *2022 Logan Air Passenger Ground Access Survey* and *2024 Logan Air Passenger Ground Access Survey* are published on Massport's website at: https://www.massport.com/logan-airport/about-logan/air-passenger-survey.

Section 2.0 in both reports presents the methodology of each study, as well as how the results were weighted and responses validated. In the 2022 study, 4,224 surveys were collected from passengers across 437 flights. After reviewing and validating the data, a total of 4,093 surveys were used in the 2022 report. The 2024 study collected a total of 6,214 surveys from passengers on over 600 flights, of which 6,000 were usable after data validation. Although passengers were surveyed across 345 flights while at Logan, several passengers later completed the survey using a survey weblink, postcard, or QR code, bringing the total number of flights surveyed to over 600. Flight seating capacity and load factor information for surveyed flights are provided, which can be used to determine non-response rates;

however, demographic data on non-respondents was not collected as part of the scope of these studies.

Survey respondent demographics are presented in Section 4.0, Detailed Results, within each year's report. Although response counts by demographic characteristic are not included within each report, the percent distribution within the total sample set for several demographics is provided. These include gender, age, income, employment status, and disability status, among others.

4D-38: Ground Access to and From Logan Airport

If Massport is going to persist in calling passenger vehicles HOV, they should be consistent, and they should develop a hierarchical classification system.

HOV includes Logan Express, MBTA Rapid Transit, water transportation, scheduled vans, black car limousines, courtesy vehicles, privately-operated scheduled buses, charter buses, and other passenger bus or van shuttles. In the *2023/2024 EDR*, ground access modes are defined in **Section 6.1 of Chapter 6, *Ground Access***, with a hierarchy of HOV and non-HOV modes illustrated in **Figure 6-1** in **Chapter 6.** The **User's Guide, Section U6.2**, provides additional context on ground transportation options, including HOV modes.

4D-39: Ground Access to and From Logan Airport

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, is unacceptable. Massport should be held to a much higher standard.

Massport acknowledges the concern regarding future traffic conditions forecasting methodologies in the *2022 ESPR*. Massport employs a comprehensive approach to planning and forecasting, which includes the use of established methodologies and models to project future conditions based on current data and trends. This approach is detailed in the **User's Guide, Section U6.1** and the ESPRs, which provide transparency about the assumptions and methodologies used.

Massport remains committed to refining its forecasting methodologies and verifying projections are based on accurate and up-to-date information available. This includes on-going collaboration with regional transportation agencies and stakeholders to enhance the evaluation of vehicle congestion impacts and confirming future projects are developed with a clear understanding of the potential effects.

4D-40: Logan Airport Environmental Review and Planning

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.

As discussed above in Comment 4D-13 and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to active participation in the MEPA's

Logan Airport Work Group established in collaboration with the MEPA Office and the OEJE. The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations among EJ communities in East Boston, Winthrop, and Chelsea.

Massport also collaborates with various stakeholders, including industry leaders and academic institutions, to advance the development and implementation of Sustainable Aviation Fuel (SAF). Massport is dedicated to enhancing transparency and public engagement through initiatives such as creating the EDR and ESPR webpage, which provides access to supporting data and historical information. On-going improvements also include reporting methods and quantification of environmental impacts and mitigation measures. Massport will also continue to strengthen relations with surrounding communities, particularly those representing EJ populations, through expanded outreach and engagement efforts and including a public health assessment in the *2023/2024 EDR*.

4D-41: Logan Airport Environmental Review and Planning

Require Massport to include calculations of [specific environmental] impacts in the supplemental ESPR.

Consistent with past ESPRs and EDRs, the *2023/2024 EDR* describes the cumulative effects associated with overall Logan Airport operations and compares these effects to previous conditions in the last reporting year, as well as to a benchmark reporting year's conditions for each topic covered. Based on findings from EDRs and ESPRs, Massport continuously assesses on-going and proposed programs and policies for efficacy to reduce Logan Airport's impact. The current status of these programs and policy initiatives is discussed within their respective, topic-specific chapters, including **Section 2.2 of Chapter 2, *Outreach and Environmental Justice*; Section 6.4 of Chapter 6, *Ground Access*; Section 7.4 of Chapter 7, *Noise*;** and **Section 8.5 of Chapter 8, *Air Quality and GHG Emissions;*** and the new **Chapter 11, *Sustainability and Climate Resilience***. Where data is available, Massport has quantified these beneficial measures and intends to find better methods to quantify the effects of these programs in future EDRs and ESPRs.

4D-42: Logan Airport Environmental Review and Planning

We also ask the Secretary to require Massport to file ENF's for every project they embark on going forward.

As discussed in Comment 4A-4 above, Massport is committed to providing comprehensive data and addressing the environmental impacts of its projects over time. Each project at Logan Airport undergoes a project-specific environmental review process when state environmental review thresholds are met. This includes the submission of ENFs and EIRs as required by MEPA.

Massport's EDRs and ESPRs serve as annual and periodic reporting mechanisms for the cumulative environmental effects of Logan Airport's operations and activities. Furthermore, Massport tracks and

annually reports on mitigation commitments made through the MEPA process in ***Chapter 10, Project Mitigation*** in the EDRs and ESPRs. Massport's approach to environmental stewardship includes a wide range of strategies to avoid, minimize, or offset potential impacts, and Massport will continue to adhere to regulatory frameworks and engage in community outreach to keep stakeholders informed and involved in the environmental decision-making process.

4D-43: Logan Airport Environmental Review and Planning

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.

Consistent with the MEPA process, mitigation presented in the EDRs and ESPRs is largely project-based. However, as outlined in **Chapter 2, *Outreach and Environmental Justice*** and **Chapter 11, *Sustainability and Climate Change***, Massport implements a range of measures directly aimed at reducing community operational and environmental impacts. In February 2025, Massport began participating in MEPA's Logan Airport Work Group, a Work Group co-led by MEPA and the EEA EJ Office. The purpose of the Work Group is to identify potential supplemental beneficial measures for public health concerns in communities neighboring the Airport.

4D-44: Air Quality/Emissions Reduction (GHG)

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.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials to address environmental concerns associated with Logan Airport operations. To that end, Massport is an active participant in the MEPA's Logan Airport Work Group (Work Group) established in collaboration with the MEPA Office and the OEJE in February 2025. The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations. This comment may be discussed among the group as a possible option.

4D-45: Logan Airport Environmental Review and Planning

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.

As discussed above in Comment 4D-4 and in Comments A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport improved the usability and reduced the length of the *2023/2024 EDR*. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary,*** has an overview of document changes in the *2023/2024 EDR*.

Massport is committed to providing comprehensive data and responding to comments on the environmental effects of Logan Airport's operations and projects over time, and this level of transparency does require sufficient narrative text to provide adequate information. However, Massport has endeavored to make the *2023/2024 EDR* page count for the main document less than 250 pages and will look for opportunities in future filings to further streamline these documents.

4D-46: Logan Airport Environmental Review and Planning

We ask that Massport be required to produce data to substantiate any claims made in the ESPR.

As discussed in Comment A-3, A-28, and A-31 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport remains committed to enhancing data transparency. The *2023/2024 EDR* includes extensive linking to the User's Guide, providing information on applicable regulatory frameworks, methodologies, models, model inputs, programs, and analyses. Massport is also launching a webpage that includes historical EDRs and ESPRs with extensive data to be posted in a searchable format in the near future. In addition to the historical data, the webpage will also include links to data sources referenced within EDRs and ESPRs to provide interim data before the availability of the EDR and ESPR. Massport is working with the Massport CAC on ways to host additional supporting data. These data sources are often hosted by other state agencies, federal databases, and other reputable sources. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary*** also has an overview of document changes in the *2023/2024 EDR* and further information on the EDR and ESPR website.

5. BlueSkies Advocates

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. 5-1
2. Massport needs to improve its community outreach for its ESPRs. Public meetings and comment deadlines need to be better publicized. 5-2
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. 5-3
4. Lead pollution impacts are not adequately addressed in the ESPR. Massport did not discuss requiring FBOs to sell unleaded aviation fuel. 5-4
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

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BlueSkies Advocates Responses to Comments

5-1: Noise

The ESPR should cover the impacts of RNAVs on all overflight communities.

As discussed above and in Comment A-66 of **Appendix A, *MEPA Certificate and Responses to Comm, which is dedicated to Massport's climate resiliency reporting and initiatives,*** ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. The Federal Aviation Administration (FAA) is responsible for developing and implementing Area Navigation (RNAV) procedures and prepared a federal EA under NEPA to consider the environmental and operational effects of RNAV procedures and continues to support evaluation of those procedures. As directed by the Secretary, the EDR presents "any data used to measure the effectiveness of these improvements, including the number of noise complaints from the previously impacted areas." While EDRs and ESPRs report areawide noise and emissions environmental data, focused on areas within the arrival and departure paths. **Chapter 2, *Outreach and Environmental Justice,* Section 2.4** of the *2023/2024 EDR* also presents a new section: "Public Health Existing Conditions Review".

5-2, Environmental Justice

Massport needs to improve its community outreach for its ESPRs. Public meetings and comment deadlines need to be better publicized.

Massport ensures public awareness of EDR and ESPR filings, public meetings, and comment deadlines by publishing notices in both English and non-English languages through multiple channels. These include the Massport website with a dedicated EDR and ESPR webpage, email communications to previous and newly identified stakeholders, social media platforms, notifications at neighborhood association and other community meetings, and a variety of local and regional print media outlets. Massport also publishes notices in non-English and community-specific publications such as the East Boston Times, Winthrop Transcript, and El Mundo. Further information on Massport outreach policies and other forms of engagement is described in **Chapter 2, *Outreach and Environmental Justice,* Section 2.2**, and in the User's Guide, **Section U2.4**.

5-3: Air Quality/Emissions Reduction (GHG)

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.

SAF is a carbon neutral fuel source alternative. As discussed in Comment A-8, A-9, A-67, and A-69 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to expanding relationships and support on-going research in the area of Sustainable Aviation Fuel (SAF) as well as advancing initiatives to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031.

As a founding member of the Massachusetts Institute of Technology (MIT)-led Zero Impact Aviation Alliance (ZIAA), Massport is advancing the development and implementation of SAF through collaboration with industry leaders and academic institutions. In 2023, Massport conducted SAF feasibility research and participated in ZIAA workshops focused on decarbonizing air transportation through innovative, research-driven solutions, including SAF production, logistics, and adoption strategies. For more information on Massport's progress in the area of SAF as well as its on-going initiatives and investments to achieve Net Zero GHG emissions refer to **Section 11.2.3 of Chapter 11, *Sustainability and Climate Resilience***.

5-4: Air Quality/Emissions Reduction (GHG)

Lead pollution impacts are not adequately addressed in the ESPR. Massport did not discuss requiring FBOs to sell unleaded aviation fuel.

At Logan Airport, the emissions of Pb and SO_2 related to aviation-leaded fuel are not computed, as Airport emission sources are very small generators of these two U.S.EPA criteria air pollutants. This is because very few aircraft use leaded fuel, and SO_2 is primarily generated by fuel combustion at power plants and other industrial facilities not affiliated with Logan Airport.

The FAA published *Questions and Answers on Grant Assurance 40, Access to Leaded Aviation Gasoline* in May 2025 to clarify airport sponsor obligations for selling 100-octane low lead aviation gasoline (100LL). The FAA states that airports that sold 100LL at any point in 2022 must continue offering it unless an alternative fuel is fully approved and authorized for all affected aircraft types. The FAA explains that restricting the sale of an FAA-approved fuel at a federally obligated airport may violate Grant Assurances, even if the restriction was in place before 2022. As of April 2025, the FAA also confirms it has not yet authorized an unleaded alternative fuel capable of replacing 100LL for all aircraft. For more details, see the FAA's Q&A here: https://www.faa.gov/airports/airport_compliance/compliance_guidance/Grant-Assurance-40-Leaded-Aviation-Gas-QA.pdf

6. Conservation Law Foundation (CLF)

clf Conservation Law Foundation

For a thriving New England

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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; 6-1
- Emissions analysis should examine emissions growth and opportunities for mitigation based on coordinated management of the entire regional airport system Massport operates (Logan, Hanscom, and Worcester); 6-2
- Greenhouse gas impacts of Logan's growth and operations are understated in the ESPR; 6-3
- The ESPR's definition and accounting of emissions under Massport's direct control are underinclusive, misleading, and are missing significant opportunities for mitigation; and 6-4
- Community engagement on the ESPR has been inadequate.

[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.

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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 Act[2] obligations and Massport's net zero commitments. 6-5

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 6-6

[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 hole to optimize for emissions reductions and is "segmenting" the analysis of impacts on a manner antithetical to the MEPA process. 6-6

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. 6-7

B. <u>The ESPR Understates Logan's Likely Passenger and Aircraft Operations Growth and Should Include an Analysis of More Realistic Passenger Growth Estimates</u> 6-8

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 passengers[6] 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 impacts[11] 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 CO_2 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-19[16] 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 disproportionally 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.

6-9

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 CO_2 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 positively 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*.

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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.

6-10

[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 electrification[24] 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

6-11

[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]

6-12

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 emisisons 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).

[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 emissions[32] 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. 6-13

4. *Electrification of Transportation Network Company-Owned or -Leased Vehicles*

In the 2017 agreement with CLF and in subsequent action[34] 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 6-14

[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.

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and availability rates of EV charging and make it a priority to identify and implement solutions to the current and any future challenges. 6-14

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] 6-15 6-16 6-17 6-18

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 6-19 6-20

[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. 6-21

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. 6-22 6-23

[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.

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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. 6-24

[38] 2022 Boston Logan ESPR, MEPA Certificates and Responses to Comments at A-40, #A-16 (Response).

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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,

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Conservation Law Foundation

Seth Gadbois
Clean Transportation Staff Attorney
Conservation Law Foundation

Conservation Law Foundation (CLF) Responses to Comments

6-1: Logan Airport Environmental Review and Planning

The utility of the ESPR has been undermined by the current look-back approach and laggard publication.

As discussed above in Comment 4D-46 and in Comments A-3 and A-4 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport aims to improve the usability of the EDR and ESPR and return to annual schedule by adapting the EDR and ESPR content format and development process to enable more frequent updates. These strategies included revising main body chapters to focus solely on annual data updates; producing a User's Guide to provide detailed overviews of the regulatory framework, methodologies, models, model inputs, programs, and analyses; and releasing a new web page specifically for EDR and ESPR filing. For more information, refer to **Section 1.2.2.2 of Chapter 1, *Introduction and Executive Summary***.

Massport has taken action to address this concern, and recent updates to the EDR and ESPR formats have been implemented to enhance accessibility and ease of review, which Massport believes will enable the production process for these filings to return to a consistent, annual schedule while also facilitating the public's ability to review these documents and develop comments within the standard 45 day comment period prescribed by MEPA.

6-2: Air Quality/Emissions Reduction (GHG)

Emissions analysis should examine emissions growth and opportunities for mitigation based on coordinated management of the entire regional airport system Massport operates (Logan, Hanscom, and Worcester).

Massport recognizes the importance of assessing the operations of Logan Airport, Hanscom Field, and Worcester Regional Airport as a regional system to optimize emissions reductions and ensure comprehensive environmental impact analysis. Massport is committed to advancing its environmental stewardship through collaboration and innovation, aligning with the principles and requirements of MEPA. Massport remains committed to refining its approach to environmental justice and public health analysis, working closely with MEPA and other stakeholders to improve the assessment of impacts across the regional airport system. Massport will continue to explore innovative solutions and partnerships to enhance its environmental performance and optimize emissions reductions across its operations.

6-3: Air Quality/Emissions Reduction (GHG)

Greenhouse gas impacts of Logan's growth and operations are understated in the ESPR.

As discussed in other comments, the **User's Guide, Section U3.4,** describes the methodology for future forecasting. The section describes the use of 1) historical trends, 2) recent developments, and 3)

outlook for future demand drivers such as local and national economic growth. **Chapter 3, *Activity Levels***, presents multiple tables that provide data and a narrative explanation of the forecasted growth in passenger levels and aircraft operations at the Airport. A comprehensive list of data sources that were referenced in the forecasting process is listed in the ***2022 ESPR,* Appendix F, *Activity Levels Supporting Documentation*,** and the **User's Guide, Section U3.4**. Massport follows industry best practices in preparing activity level estimates and future forecasts, considering several key factors, including economic conditions, airplane manufacturers' plans, future aircraft in the fleet mix, social factors, anticipated airline route plans, and many others. The assumptions and sources of data are documented in the **User's Guide, Section U3.4**.

The EDRs and ESPRs provide detailed analyses of emissions reduction strategies and their impacts, including the use of advanced modeling tools like the Federal Aviation Administration (FAA)'s Aviation Environmental Design Tool (AEDT) and the U.S. Environmental Protection Agency (U.S.EPA)'s MOtor Vehicle Emission Simulator (MOVES) to quantify emissions. These findings are presented in **Section 8.4 of Chapter 8, *Air Quality and GHG Emissions***. The **User's Guide, Section U8.4** provides more information on analysis methodologies and assumptions.

6-4: Air Quality/Emissions Reduction (GHG)

The ESPR's definition and accounting of emissions under Massport's direct control are underinclusive, misleading, and are missing significant opportunities for mitigation.

As discussed in other comments, the **User's Guide, Section U3.4** describes the methodology for future forecasting. The section describes the use of 1) historical trends, 2) recent developments, and 3) outlook for future demand drivers such as local and national economic growth. A comprehensive list of data sources referenced in the forecasting process is provided in the ***2022 ESPR,* Appendix F, *Activity Levels Supporting Documentation,*** and the **User's Guide, Section U3.4**. Massport follows industry best practices in preparing activity level estimates and future forecasts, considering several factors: economic conditions, airplane manufacturers' plans, future aircraft in the fleet mix, social factors, anticipated airline route plans, and many others. The assumptions and sources of data are documented in the **User's Guide, Section U3.4**.

The EDRs and ESPRs provide detailed analyses of emissions reduction strategies and their impacts, including the use of advanced modeling tools like the FAA's Aviation Environmental Design Tool (AEDT) and the U.S.EPA's MOtor Vehicle Emission Simulator (MOVES) to quantify emissions. These findings are presented in **Section 8.4 of Chapter 8, *Air Quality and GHG Emissions***. The **User's Guide, Section U8.4** provides more information on analysis methodologies and assumptions.

6-5: Air Quality/Emissions Reduction (GHG)

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.

As discussed in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport aims to reach absolute Net Zero GHG emissions without relying on renewable energy credits (RECs) or carbon offsets, by 2040. For more information on these efforts, see **Chapter 11, *Sustainability and Climate Resilience.*** As discussed in **Section 11.2.1 of Chapter 11**, in 2023, the Board of Directors voted to approve $500 million in investments to Net Zero projects, laying the groundwork for future reductions over the next five years. This funding supplements routine funding requests that incorporate the R*oadmap to Net Zero by 2031* Program. For instance, at its January 14, 2025 meeting, the Board approved the purchase of up to 50 electric shuttle buses for Logan Airport, in collaboration with the Massachusetts Bay Transportation Authority (MBTA). Massport has committed to achieving Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031. Additionally, Massport aims to reach absolute Net Zero GHG emissions without relying on renewable energy credits (RECs) or carbon offsets, by 2040, as discussed in **Section 11.2 of Chapter 11.**

6-6: Logan Airport Environmental Review and Planning

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 system as a whole to optimize for emissions reductions and is "segmenting" the analysis of impacts in a manner antithetical to the MEPA process.

Massport recognizes the importance of assessing the operations of Logan Airport, Hanscom Field, and Worcester Regional Airport as a regional system to optimize emissions reductions and ensure comprehensive environmental impact analysis. Massport is committed to advancing its environmental stewardship through collaboration and innovation, aligning with MEPA's principles and requirements. Massport remains committed to refining its approach to environmental justice and public health analysis, working closely with MEPA and other stakeholders to improve the assessment of impacts across the regional airport system. Massport will continue to explore innovative solutions and partnerships to enhance its environmental performance and optimize emissions reductions across its operations.

6-7: Logan Airport Environmental Review and Planning

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.

As discussed above in Comment 4D-13 and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to active participation in the MEPA's Logan Airport Work Group established in collaboration with the MEPA Office and the Office of Environmental Justice & Equity (OEJE). The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations.

Massport also collaborates with various stakeholders, including industry leaders and academic institutions, to advance the development and implementation of Sustainable Aviation Fuel (SAF). Massport is dedicated to enhancing transparency and public engagement through initiatives such as creating the EDR and ESPR webpage, which provides access to supporting data and historical information. On-going improvements also include reporting methods and quantification of environmental impacts and mitigation measures. Massport will also continue to strengthen relations with surrounding communities, particularly those representing environmental justice (EJ) populations, through expanded outreach and engagement efforts and including a public health assessment in the *2023/2024 EDR*.

6-8: Activity Levels

The ESPR Understates Logan's Likely Passenger and Aircraft Operations Growth and Should Include an Analysis of More Realistic Passenger Growth Estimates

As discussed in other comments, the **User's Guide, Section U3.4,** describes the methodology for future forecasting. The section describes the use of 1) historical trends, 2) recent developments, and 3) outlook for future demand drivers such as local and national economic growth. **Chapter 3, *Activity Levels***, also presents multiple tables providing data and a narrative explanation of the forecast growth in levels of passengers and aircraft operations at the Airport. A comprehensive list of data sources that were referenced in the forecasting process is listed in the ***2022 ESPR,*** **Appendix F, *Activity Levels Supporting Documentation*,** and the **User's Guide, Section U3.4**.

6-9: Environmental Justice

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.

Massport follows industry best practices in preparing activity level estimates and future forecasts for passenger activity levels and operations, considering several key factors, including economic conditions, airplane manufacturers' plans, future aircraft in the fleet mix, social factors, and anticipated airline route plans. Massport is committed to refining its forecasting methodologies to reflect realistic growth estimates and actual impacts more accurately. The assumptions, data sources, and enhanced methodologies Massport currently uses for these forecasts are documented in the **User's Guide, Section U3.4**. This section also describes the use of 1) historical trends, 2) recent developments, and 3) future demand drivers such as local and national economic growth.

Chapter 3, *Activity Levels* in the *2023/2024 EDR* also presents multiple tables providing data, and a narrative explanation of the growth in passenger activity and aircraft operations at the Airport over the current reporting years and prior reporting year, as well as a comparison to a historic benchmark year. A comprehensive list of the data sources referenced in the analysis is listed in **Appendix F, *Activity Levels Supporting Documentation***.

6-10: Activity Levels

To address these shortcomings, it is crucial for future ESPRs to provide more granular, monthly data to reflect accurate post-pandemic recovery trends.

Massport follows industry best practices in preparing activity level estimates and future forecasts, considering several factors: economic conditions, airplane manufacturers' plans, future aircraft in the fleet mix, social factors, anticipated airline route plans, and many others. The assumptions and sources of data are documented in the **User's Guide, Section U3.4**.

6-11: Air Quality/Emissions Reduction (GHG)

Contrary to Massport's position that these GSE emissions constitute "Scope 3" emissions beyond its direct control these emissions are demonstrably within Massport's control and should be addressed forthwith.

As discussed in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport aims to reach absolute Net Zero GHG emissions across all scopes, without relying on renewable energy credits (RECs) or carbon offsets, by 2040. For more information on these efforts, see **Section 11.2 of Chapter 11, *Sustainability and Climate Resilience*.** Massport also has a comprehensive program in place for reducing air and GHG emissions. While Massport does not have control over aircraft and aircraft-related emissions, Massport is working closely with its airline partners to reduce emissions.

6-12: Air Quality/Emissions Reduction (GHG)

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.

Massport continues to promote the transition to electric ground service equipment (eGSE) among aviation tenants and has expanded its airside fleet with the purchase of electric vehicles. In 2024, Massport acquired two e.COBUS 3000 fully electric buses for transporting passengers between Logan Airport terminals and aircraft. This zero-emissions bus boasts a high capacity, long lifespan, and fast, flexible charging capabilities.[1]

In addition to expanding eGSE tugs, tractors, and baggage handling systems, aviation tenants have introduced the first electric catering truck at Massport. The electric catering truck, developed by Mallaghan and International Motors, LLC, will be operated by DO & CO out of Cargo Venture's Logan

[1] COBUS Industries GmbH. https://www.cobus-industries.com/produkte/e-cobus-3000/

Cargo Park to support Delta Air Lines' onboard dining services at Logan Airport.[2] For more information on these efforts, see **Section 11.2.3.3 of Chapter 11, *Sustainability and Climate Resilience***.

6-13: Planning

Climate planning to reduce unnecessary ferry flight carbon emissions must be a crucial component of the ESPR long-range planning process. Alternatively, Massport should limit short-haul flights to the extent possible under current law.

The EDR and ESPR **Chapter 5, *Regional Transportation,*** continues to track alternatives to air transportation. For many years, rail passengers between Boston and New York City have surpassed air travel. The State of Massachusetts continues to evaluate opportunities to enhance its role in the regional and U.S. rail network. Development of "feasible timelines and pathways to achieve the improvement in intercity rail services" remains the state's responsibility. Massport's support of the MBTA's Silver Line is a prime example of its role in supporting rail connections.

6-14: Air Quality/Emissions Reduction (GHG)

Massport must address and be transparent about the state of repair and availability rates of EV charging and make it a priority to identify and implement solutions to the current and any future challenges.

In January 2025, Massport updated the *Sustainability Design Guidelines (SDGs)* to align with the *Roadmap to Net Zero by 2031*. The electric vehicle (EV) charging services and capacity to be provided will correspond to the needs of airport users, with considerations incorporated into the planning process for vehicle duration of stay on Airport property, parking space availability, and site limitations, such as available electrical capacity. Massport will continue to update plans for accommodating EVs and the SDGs to meet increasing local and regional adoption of EV use.

Massport provides EV charging infrastructure at Logan Airport to support tenants and ground transportation providers who choose to operate EVs. As of 2024, Logan Airport offers a total of 372 airside charging ports for tenant-owned eGSEs and 115 landside charging ports, including 67 publicly available Level 2 chargers and eight direct current (DC) fast chargers for ride-for-hire services. In 2023, EV chargers at Logan Airport helped avoid over 900 metric tons (MT) of carbon dioxide equivalent (CO_2e) emissions, with the majority of these savings attributed to rideshare operators. For more information on Massport's electric charging infrastructure, see **Section 11.2.3.3 of Chapter 11, *Sustainability and Climate Resilience***.

[2] EastBoston.com. https://eastboston.com/massachusetts-leaders-launch-first-ev-catering-truck-in-north-america-to-serve-logan-international-airport/

6-15: Ground Access to and From Logan Airport

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.

Massport promotes ridership on HOV, including transit and shared-ride modes, and maintains efficient transportation access and parking options in and around Logan Airport to reduce the reliance on single-passenger occupancy automobile modes. Implemented measures include a blend of strategies related to pricing, including incentives and disincentives, service availability, service quality, marketing, and traveler information. However, no single measure alone will accomplish the goal as Logan Airport passengers include various demographic groups in diverse locations. For more information on ground access initiatives, see **Section 6.4 of Chapter 6, *Ground Access***. This is also discussed further in Comments A-19, A-20, and A-21 in **Appendix A, *MEPA Certificate and Responses to Comments***.

6-16: Ground Access to and From Logan Airport

Logan Express should be entirely electrified by a certain date, and comprehensive traffic management plans must be developed to effectively minimize congestion (and thus emissions) from idling internal combustion engine ("ICE") vehicles.

Massport will continue to explore the viability of electrifying equipment, including Logan Express buses. Massport also promotes ridership on HOV, including transit and shared-ride modes, and maintains efficient transportation access and parking options in and around Logan Airport to reduce the reliance on single-passenger occupancy automobile modes. Implemented measures include a blend of strategies related to pricing, including incentives and disincentives, service availability, service quality, marketing, and traveler information. However, no single measure alone will accomplish the goal as Logan Airport passengers include various demographic groups in diverse locations. For more information on ground access initiatives, see **User's Guide, Section U6.5 and Section 6.4 of Chapter 6, *Ground Access*.**

6-17: Ground Access to and From Logan Airport

As Massport electrifies the Logan Express, it should also work with municipalities to expand the Logan Express service area.

The *2024 Logan Air Passenger Ground Access Survey* informs Massport's evaluation of Logan Express sites and expanded service options. As discussed above and in other comments, recent Massport initiatives have successfully encouraged Logan Express use and improved its overall capacity. Information on these projects is found in **Sections 4.1.3 through 4.1.5 of Chapter 4**, ***Airport Planning***. Further details on Logan Express service are found in **Section 6.1.2.1 of Chapter 6, *Ground Access***. For more information on ground access initiatives, see **User's Guide, Section U6.5.**

6-18: Ground Access to and From Logan Airport

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.

As discussed in Comment 6-17, recent Massport initiatives have successfully encouraged Logan Express use while also discouraging ICE vehicle use and idling. Massport promotes ridership on HOV, including transit and shared-ride modes, and maintains efficient transportation access and parking options in and around Logan Airport to reduce the reliance on single-passenger occupancy automobile modes. Implemented measures include a blend of strategies related to pricing, including incentives and disincentives, service availability, service quality, marketing, and traveler information. For more information on ground access initiatives, refer to the **User's Guide, Section U6.5** and **Section 6.4 of Chapter 6, *Ground Access***.

6-19: Air Quality/Emissions Reduction (GHG)

One important measure includes mandating annual greenhouse gas inventories to allow regular tracking of the airport's emissions by surrounding communities.

As discussed above and in Comment A-69 in **Appendix A, *MEPA Certificate and Responses to Comments*,** Massport has established a new benchmark for sustainable development as part of its *Roadmap Net Zero by 203*1 program in response to Department of Energy Resources (DOER)'s comment letter. This standard is based on the latest and most stringent building energy codes in the Commonwealth of Massachusetts, along with reputable third-party sustainability rating systems. As a part of the EDR and ESPR process, an annual GHG inventory is completed. For the *2023/2024 EDR*, this inventory was developed to be consistent with the inventory prepared for the ACA accreditation. The results from the 2023 and 2024 inventory are discussed in **Section 8.4 of Chapter 8, *Air Quality and GHG Emissions***. Massport recently launched a website dedicated to Roadmap Net Zero by 2031 reporting. As a part of this website, GHG inventories are updated for each facility of Massport's as they are completed. The inventories for Logan Airport represent findings completed for the EDR and may be posted before EDR or ESPR filings. See **Section 8.5 of Chapter 8,** for more on GHG inventories and other initiatives. For more information on Massport's on-going initiatives and investments to achieve Net Zero GHG emissions for its Scope 1 and Scope 2 sources by 2031 refer to **Chapter 11, *Sustainability and Climate Resilience***.

6-20: Air Quality/Emissions Reduction (GHG)

Another necessary measure is the installation of air quality monitors in key locations around the airport campus.

As discussed in Appendix A, Responses to Comments, A-1 Massport is committed to active participation in the MEPA's Logan Airport Work Group (the Work Group), established in collaboration with the MEPA and OEJE. This Work Group, launched in February 2025, includes representatives from

state agencies, local officials, and community stakeholders and is co-moderated by MEPA, OEJE, and an independent third-party moderator to promote an inclusive and transparent process.

The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations among environmental justice (EJ) communities in East Boston, Winthrop, and Chelsea. Over the course of the following year, the group will consider supplemental community mitigation measures for EJ neighborhoods in proximity to the Airport, with the goal of forming recommendations for specific actions. Scientific expertise from state agencies and researchers who have studied air quality impacts will assist in informing these discussions. **See Section 2.2.4.2 of Chapter 2** for more on the Work Group. As a part of these presentations from scientific experts studying Ultrafine Particulates (UFPs)s, a low number of monitors and advancements in the UFP monitoring technology have been discussed. The 2025 EDR will report on outcomes of the Work Group.

6-21: Climate Change

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.

Massport is committed to reducing waste consumption and finding creative ways to reuse and recycle waste that would otherwise be sent to a landfill or incineration facility, as outlined in **Section 11.1.2.3 of Chapter 11, *Sustainability and Climate Resilience***. In early 2025, three Oscar-AI units were deployed in high-traffic areas across Logan Airport's terminals. These smart sorting stations support Massport by increasing waste diversion, enhancing data collection on material flows, and showcasing a commitment to sustainability through innovative, data-driven solutions.

6-22: Environmental Justice

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.

As discussed in Comment 5-2, Massport ensures public awareness of EDR and ESPR filings, public meetings, and comment deadlines by publishing notices in both English and non-English languages through multiple channels. These include the Massport website with a dedicated EDR and ESPR webpage, email communications to previous and newly identified stakeholders, social media platforms, notifications at neighborhood association and other community meetings, and a variety of local and regional print media outlets. Massport also publishes notices in non-English and community-specific publications such as the East Boston Times, Winthrop Transcript, and El Mundo. Further information on Massport outreach policies and other forms of engagement is described in **Section 2.2 of Chapter 2, *Outreach and Environmental Justice*, and in the User's Guide, Section U2.4.**

6-23: Environmental Justice

When Massport seeks input from impacted communities, documents should be written in plain language and accessible on mobile devices.

Massport enhanced the usability of the *2023/2024 EDR* and reduced its length through several innovative strategies. Before drafting, Massport reviewed the main body chapters to keep content focused solely on annual data updates, discussing relevant metrics and trends. The approach reduced chapter size but also enabled more timely document development in future years. Additionally, Massport standardized headings and subheadings in the *2023/2024 EDR*, limiting the data to the essential years of 2022, 2023, and 2024, along with a chapter-specific benchmark year. This approach aligns with the EDR and ESPR process's goal of providing annual updates, concentrating findings, figures, and tables on relevant reporting years.

Complimenting the EDRs and ESPRs, Massport developed a new User's Guide, which provides more detailed background and technical information. As discussed above in A4-3 and in Comments, A-1 to A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, while chapters begin with a bulleted summary of Key Findings, throughout the chapters are hyperlinks to the relevant sections of the User's Guide that outline the key concepts, regulatory frameworks, technical background information, and methodologies discussed in a given chapter section. These hyperlinks are easily recognizable through bolded color font with a distinct icon shown in the page margin. Additionally, key terms are denoted in each chapter and defined in a centralized, upfront Key Terminology glossary.

Before filing the *2023/2024 EDR*, Massport developed a new webpage specifically for EDR and ESPR filings (https://www.massport.com/environment/boston-logan-edr-espr-data-portal), which includes links for each chapter of the most recent filings, notices for upcoming meetings, materials from prior meetings, prior filings, and weblinks to regularly updated data sources. This webpage is designed to facilitate navigation through the documents on several types of electronic devices, including mobile devices and smartphones. For more details on the User's Guide, the EDR and ESPR webpage, and the revised document format, see **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary***.

6-24: Environmental Justice

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.

For *2023/2024 EDR* and future EDRs and ESPRs, Massport has expanded its EJ outreach to provide translation services in languages spoken by at least 5 percent of the given population located within a 5-mile radius of Logan Airport or within Massport CAC communities. For this EDR, this includes 8 languages, as detailed in **Chapter 2, Outreach and *Environmental Justice***, **Section 2.2.4.1**.

7. Massport Community Advisory Committee

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.

7-1

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 2020/2021EDR 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. 7-2

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. 7-3 7-4

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. 7-5

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.



Aaron Toffler
Executive Director, Massport Community Advisory Committee

cc: Brad Washburn
Thomas Butler

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Massport Community Advisory Committee

7-1: Logan Airport Environmental Review and Planning

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.

As discussed above as well as in Comments A-12 and A-33 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport has launched a webpage for hosting historical EDRs and ESPRs with extensive data to be posted in a searchable formats in the near future. In addition to the historical data, the webpage will also include links to data sources referenced within EDRs and ESPRs to provide data in the interim before EDRs and ESPRs are filed, and Massport has been working with, and will continue to support, the Massport CAC on ways to host additional supporting data. Data sources on Massport's webpage will be from Massport as well as from other state agencies, federal databases, and other reputable sources. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary*** has an overview of document changes in the *2023/2024 EDR* and further information on the EDR and ESPR website.

7-2: Logan Airport Environmental Review and Planning

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.

As discussed above and in Comments A-12 and A-33 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport remains committed to enhancing data transparency and accessibility. Massport has been working with, and will continue to support, the Massport CAC on ways to host additional supporting data, including Massport CAC's data visualization tool.

7-3: Ground Access to and From Logan Airport

It remains unclear whether Massport has an active Transportation Management Association [TMA], 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.

Massport confirms the existence of an active Transportation Management Association (TMA) and is committed to reducing the number of trips to the Airport by employees. As discussed in Comments A-22 and A-23 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport has implemented several initiatives to enhance commuter options and reduce vehicle congestion and parking demands at Logan Airport. These initiatives include providing off-airport employee parking

with shuttle services, supporting the Sunrise Shuttle for early morning bus service, and offering reduced employee rates for Logan Express facilities.

According to a 2023 survey conducted among Massport employees, the percentage of commuters driving alone declined by 5 percentage points from the previous survey in 2021, with 69 percent of employees still driving alone. The most common alternative transit mode was public transit, used by 13.6 percent of employees. These efforts are part of Massport's broader strategy to promote sustainable transportation options and reduce the environmental impact of airport operations.

7-4: Ground Access to and From Logan Airport

What percentage of employees take advantage of shuttle services that are offered by Massport?

Massport provides several shuttle services to facilitate employee transportation to Logan Airport. These services include free shuttle buses from off-airport parking locations in Chelsea and Wonderland, as well as a new park-and-ride lot in Quincy. The percentage of employees utilizing these shuttle services is detailed in the *2023/2024 EDR*, specifically in **Table 6-1 of Chapter 6, *Ground Access***, which outlines the employee ground transportation mode share. As discussed above as well as in Comment A-61 in **Appendix A, *MEPA Certificate and Responses to Comments***. Additionally, **Section 6.4.4 of Chapter 6** presents current employee ground transportation initiatives and parking programs.

7-5: Logan Airport Environmental Review and Planning

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.

Approval of new routes is the federal purview of the Federal Aviation Administration (FAA), and Massport will comply with FAA reporting requirements associated with new or renewed routes to the extent these requirements are applicable to Massport.

8. Mothers Out Front

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

MOTHERS OUT FRONT
EAST BOSTON, MA

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 8-1
- 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 8-2
- Disclose any data corrections they may have made 8-3
- Stop inaccurately forecasting growth, and measure real impacts as they happen 8-4
- Make the ESPR transparent to the community in a way that is accessible 8-5

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	

Mothers Out Front Responses to Comments

8-1: Logan Airport Environmental Review and Planning

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.

As discussed above and in Comments A-1, A-5, A-12 and A-33 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport has been working with, and will continue to support, the Massport CAC on ways to host additional supporting data. Massport is also committed to active participation in the MEPA's Logan Airport Work Group, which will assess and discuss current research and emerging technological approaches to addressing noise and pollution related to aviation operations.

Massport has also launched a webpage for hosting historical EDRs and ESPRs with extensive data to be posted in a searchable formats in the near future. The webpage will also include links to data sources referenced within EDRs and ESPRs to provide data in the interim before EDRs and ESPRs are filed, and data sources on Massport's webpage will be from Massport as well as from state agencies, federal databases, and other reputable sources. **Section 1.2.2.2 of Chapter 1, *Introduction and Executive Summary*** has more information on the EDR and ESPR website.

8-2: Logan Airport Environmental Review and Planning

We request that the state requires Massport: include measures they plan to mitigate against their impacts, and mitigation that benefits the health of our Commonwealth such as an air filtration program.

Consistent with the Massachusetts Environmental Policy Act (MEPA) process, mitigation presented in the EDRs and ESPRs are largely project based. However, as referenced above in Comment 4D-43 and discussed in **Chapter 2, *Outreach and Environmental Justice*** and **Chapter 11, *Sustainability and Climate Change***, Massport implements a range of measures directly aimed at reducing community operational and environmental impacts. In February 2025, Massport began participating in MEPA's Logan Airport Work Group, a Work Group co-lead by MEPA and the EEA's Office of Environmental Justice & Equity (OEJE). The purpose of the Work Group is to identify potential supplemental beneficial measures for public health concerns in communities neighboring the Airport.

8-3: Logan Airport Environmental Review and Planning

We request that the state requires Massport: Disclose any data corrections they may have made.

Massport acknowledges the importance of transparency and accuracy in its environmental reporting. Massport has consistently incorporated updated data and corrections into subsequent EDRs and ESPRs when appropriate. Massport remains committed to this practice in the future to ensure stakeholders have access to accurate and reliable information.

8-4: Logan Airport Environmental Review and Planning

We request that the state requires Massport: Stop inaccurately forecasting growth, and measure real impacts as they happen.

Massport follows industry best practices in preparing activity level estimates and future forecasts for passenger activity levels and operations, considering several factors such as economic conditions, airplane manufacturers' plans, future aircraft in the fleet mix, social factors, and anticipated airline route plans. Massport is committed to refining its forecasting methodologies to more accurately reflect realistic growth estimates and actual impacts, and the assumptions, data sources, and enhanced methodologies Massport currently uses for these forecasts are documented in the **User's Guide, Section U3.4**.

8-5: Logan Airport Environmental Review and Planning

We request that the state requires Massport: Make the ESPR transparent to the community in a way that is accessible.

Massport has taken steps to improve the accessibility of the ESPRs and EDRs to reach a wider audience, including providing document translations for communities who do not speak English as a first language and in compatible electronic formats for viewing information on various types of mobile devices for people who may have different ways of accessing information online. Massport also improved the transparency and usability and reduced the length of the *2023/2024 EDR* by focusing main chapters solely on annual data updates and introducing a User's Guide that outlines key concepts, terminologies, regulatory frameworks, and methodologies.

Additionally, Massport has developed a new webpage specifically for EDR and ESPR filings, which includes links for each chapter of the most recent filings, notices for upcoming meetings, materials from prior meetings, prior filings, and weblinks to regularly updated data sources. This webpage is designed to facilitate navigation through the documents on several types of electronic devices, including mobile devices and smartphones. Massport continues to make historical data accessible on its environmental filings website and will introduce a searchable format for subsequent filings. These efforts are similar to those discussed in comments A-1, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments*** and **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary*** has an overview of these changes as well as information on the EDR and ESPR website.

9. Christopher Eliot, PhD

CHRISTOPHER ELIOT PHD

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office

October 2, 2024

Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114

Re: 2022 Boston Logan International Airport ESPR (EEA #3247)

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to submit public comments on the 2022 Logan Airport Environmental Status and Planning Report (ESPR).

The 2022 Logan ESPR is an excellent source of factual information but due to its length and technical nature it may not be very accessible to some members of the public. I do not suggest reducing the important technical content to make it more accessible, but perhaps a self-contained supplemental summary version could be developed with more content than the executive summary, less than the full report and simplified language to reach all members of the public. The full document could be trimmed somewhat by reducing some of the repetitive statements. 9-1 9-2

While Massport rightly deserves credit for efforts to make its facilities climate friendly on a faster timescale than many other organizations, there is a noticeable lack of clarity around the actual effects of its efforts. The terms Scope 1, Scope 2 and Scope 3 are used consistently throughout the document but there could be more clarity about the fact that actual flight activities are Scope 3 and constitute at least 85% of the GHG problem relating to Logan Airport. The amount of text devoted to Massport efforts to reduce scope 1 and 2 efforts can easily be seen by some readers as if this would affect a large portion of the problem, when less than one sixth of the problem is within Massport's direct or indirect control. 9-3

There is a green sidebar on page 2-5 that makes this point, but the significance of this sidebar is diluted by the 12 following pages regarding Scope 1 and 2 sources. Even this sidebar somewhat masks the true nature of the problem because it refers to Scope 3 Emissions; the definition of Scope 3 is found elsewhere; and the definition of Scope 3 only vaguely connects the reader with the fact that it is aviation itself that is the primary source of greenhouse emissions. The paragraph on page 2-5 defining Scope 3 uses the word aircraft only once, buried in a long list of examples and ends with discussion of HOV lanes. Even the disclosure that 87% of Logan Emissions are Scope 3 is low because aircraft emissions are only counted while aircraft are below 3,000 feet. This fact is not properly highlighted but is buried in footnote 5 of table 8-8 on page 8-27. If emissions from the entire flight are counted, then Scope 3 might account for almost all of the airport emissions indicating that all of the efforts of Massport to reduce emissions, while real and positive, are an inconsequential portion of the problem.

124 Bedford Road • Lincoln, Massachusetts 01773 (413) 687-5774 cre@chriseliot.com

I urge Massport (and the FAA) to count the entire flight of all arrivals as part of the greenhouse gas emissions for each airport. Counting arrivals would allow calculations using the actual flight path used, and would avoid double counting at the arrival and departure airport. For most people, airports are the logical entity to assign responsibility for aircraft emissions. While I am highly informed about this issue, I do not know where the mid-flight emissions are assigned. 9-4

Finally, on page 8-2 Massport supports the aviation industry plan to transition to SAF fuel. While the use of SAF is the official policy of the FAA, it is a controversial solution. I, for one, do not believe it is possible to scale up production of SAF to the levels required because all known production paths require too much, land, water or energy, or depend on finite sources (such as used cooking oil (UCO)) that do not exist in the required quantity. I ask that Massport take note of these dissenting experts and recognize that there is serious uncertainly about the viability of the plan to decarbonize aviation by transitioning to SAF. 9-5

I respectfully request your support in updating the ESPR to address these concerns.

Sincerely yours,



Christopher Eliot, PhD.

Lincoln, Massachusetts

Christopher Eliot, PhD Responses to Comments

9-1: Logan Airport Environmental Review and Planning

I do not suggest reducing the important technical content to make it more accessible, but perhaps a self-contained supplemental summary version could be developed with more content than the executive summary, less than the full report and simplified language to reach all members of the public.

As discussed above as well as Comments, A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport has accommodated this request by developing the new User's Guide that provides detailed overviews of regulatory frameworks, methodologies, models, model inputs, programs, and analyses. The User's Guide contains supporting information and contextual background which was previously included in EDR and ESPR chapters and technical appendices, which contributed to the length and issues with overly technical language. The User's Guide has enabled the main documents to be streamlined by consolidating background information, definitions, and methodologies into a separate, easily accessible guide, allowing report chapters to focus more directly on key findings. Additionally, hyperlinks within the chapters direct readers to relevant sections of the User's Guide, facilitating quicker access to detailed explanations and supporting data. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary*** also has an overview of document changes in the *2023/2024 EDR* and further information on the User's Guide.

9-2: Logan Airport Environmental Review and Planning

The full document could be trimmed somewhat by reducing some of the repetitive statements.

As discussed above as well as Comments, A-1, A-3, A-4, A-5, and A-16 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport improved the usability and reduced the length of the *2023/2024 EDR* by focusing main chapters solely on annual data updates and introducing a User's Guide that outlines key concepts, terminologies, regulatory frameworks, and methodologies. **Section 1.2.2 of Chapter 1, *Introduction and Executive Summary*** of the *2023/2024 EDR* provides an overview of changes intended to improve the overall accessibility of these filings.

9-3: Air Quality/Emissions Reduction (GHG)

The terms Scope 1, Scope 2 and Scope 3 are used consistently throughout the document but there could be more clarity about the fact that actual flight activities are Scope 3 and constitute at least 85% of the GHG problem relating to Logan Airport.

As discussed in the **User's Guide, Section U8.2.6**, Scope 1 and Scope 2 GHG emissions constitute emissions that are directly within Massport's control, while Scope 3 represents emissions from tenant-owned facilities and activities. Massport encourages the reduction of Scope 3 emissions through

engagement and initiatives with tenants operating from Logan Airport. Some of these initiatives include the Zero Impact Aviation Alliance,

9-4: Air Quality/Emissions Reduction (GHG)

I urge Massport (and the FAA) to count the entire flight of all arrivals as part of the greenhouse gas emissions for each airport. Counting arrivals would allow calculations using the actual flight path used, and would avoid double counting at the arrival and departure airport.

As discussed in Comment 3-7 above, the EEA Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. As discussed in **User's Guide, Section U8.4,** the GHG inventory is prepared in alignment with industry standards including departing and arriving aircraft up to 3,000 feet. The GHG inventory is discussed in **Section 8.2 of Chapter 8**, with the results presented in **Section 8.4 of Chapter 8.**

9-5: Air Quality/Emissions Reduction (GHG)

I ask that Massport take note of these dissenting experts and recognize that there is serious uncertainly about the viability of the plan to decarbonize aviation by transitioning to SAF.

As discussed in Comment A-9 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to expanding relationships in the area of Sustainable Aviation Fuel (SAF). Massport has been a strong advocate for SAF as one measure to reduce aviation environmental impacts. In early June 2025, the Massachusetts SAF Working Group, which includes a number of state agencies and Massport, held a Regional SAF Workshop aimed at evaluating the feasibility and technologies behind SAF. The Working Group presented a set of short-term and long-term recommendations, including: (1) initiating a Regional SAF Planning Study; (2) establishing a Massachusetts/New England SAF Hub; (3) leverage Existing Programs and Federal Support; (4) pursuing SAF Tax Credit Legislation; and (4) forming a Regional SAF Alliance. SAF is discussed in **Section 11.2.3.2 of Chapter 11**.

10. Aubrey Harnett

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

10-1

Aubrey Harnett Responses to Comments

10-1: Air Quality/Emissions Reduction (GHG)

There need to be additional [air quality] protections for residents of East Boston, particularly the most vulnerable young children and elderly residents.

Massport continues to coordinate with Massachusetts Environmental Policy Act (MEPA) independently and through the Work Group process on refining the environmental justice (EJ) and public health analysis throughout the development of the *2023/2024 EDR*. MEPA's Logan Airport Work Group includes representatives from state agencies, local officials, and community stakeholders and is co-moderated by MEPA and Office of Environmental Justice & Equity (OEJE) to promote an inclusive and transparent process. Massport will contribute technical expertise, data, and resources to support this collaborative effort.

As discussed in Comments A-7 and A-39 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2023/2024 EDR*, at the direction of MEPA, utilized Massachusetts Department of Environmental Protection (MassDEP)'s Cumulative Impact Analysis (CIA) framework to assess existing public health conditions within 1-mile of Logan Airport these findings are presented in **Chapter 2, *Outreach and Environmental* Justice, Section 2.4** and the detailed data is included in **Appendix E, *Environmental Justice Supporting Documentation***. The **User's Guide, Section U2.3.1** provides the study's methodology and assumptions. For future ESPRs and EDRs, Massport will consider appropriate and scientifically supported methods to expand the scope of the existing conditions assessment, thereby more accurately capturing potential environmental impacts. Massport also provides annual funding to the East Boston Neighborhood Health Center to expand efforts in its Pediatric Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program. This program offers services that include screenings for children, distribution of asthma kits, and home visits.

11. Regina Marchi

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. 11-1

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. 11-2

Regina Marchi
173 Lexington Street, East Boston, Mass

Regina Marchi Responses to Comments

11-1: Environmental Justice

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.

Massport continues to coordinate with Massachusetts Environmental Policy Act (MEPA) independently and through the Work Group process on refining the environmental justice (EJ) and public health analysis throughout the development of the *2023/2024 EDR*. MEPA's Logan Airport Work Group includes representatives from state agencies, local officials, and community stakeholders and is co-moderated by MEPA and Office of Environmental Justice & Equity (OEJE) to promote an inclusive and transparent process. Massport will contribute technical expertise, data, and resources to support this collaborative effort.

As discussed in Comments A-7 and A-39 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2023/2024 EDR*, at the direction of MEPA, utilized Massachusetts Department of Environmental Protection (MassDEP)'s Cumulative Impact Analysis (CIA) framework to assess existing public health conditions within 1-mile of Logan Airport these findings are presented in **Section 2.4 of Chapter 2, *Outreach and Environmental* Justice,** and the detailed data is included in **Appendix E, *Environmental Justice Supporting Documentation***. The **User's Guide, Section U2.3.1** provides the study's methodology and assumptions. For future ESPRs and EDRs, Massport will consider appropriate and scientifically supported methods to expand the scope of the existing conditions assessment, thereby more accurately capturing potential environmental impacts. Massport also provides annual funding to the East Boston Neighborhood Health Center to expand efforts in its Pediatric Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program. This program provides services including screenings for children, distribution of asthma kits, and home visits.

11-2: Logan Airport Environmental Review and Planning

Please urge Massport to work with AIR Inc.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials to address environmental concerns associated with Logan Airport operations. To that end, Massport is an active participant in the MEPA's Logan Airport Work Group established in collaboration with the MEPA Office and the OEJE, and AIR, Inc. is an active participant of this Work Group.

12. Amy McCoy

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

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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. 12-1

"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. 12-2

"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. 12-3

- 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 Adivsory 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. 12-4

- Ultrafine particle pollution and lead pollution impacts are not adequately addressed in the ESPR. 12-5

- 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. 12-6

- Impacts of short hop jet travel, especially between Hanscom and Logan, should be reported in the ESPR. 12-7

- Directing readers to Massport's *Floodproofing Design Guide* is not adequate. Flood impacts should be fully discussed in this ESPR. 12-8

- I support AIR, Inc.'s comment.

- Thank you for reviewing my comments.

Amy McCoy

Amy McCoy Responses to Comments

12-1: Noise

The ESPR should include impacts of the RNAVs on overflight communities.

As discussed above and in Comment A-66 of **Appendix A, *MEPA Certificate and Responses to Comments***, the EEA Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. The Federal Aviation Administration (FAA) is responsible for developing and implementing Area Navigation (RNAV) procedures and prepared a federal EA under NEPA to consider the environmental and operational effects of RNAV procedures and continues to support evaluation of those procedures. As directed by the Secretary, the EDR presents "any data used to measure the effectiveness of these improvements, including the number of noise complaints from the previously impacted areas." While EDRs and ESPRs report areawide noise and emissions environmental data, focused on areas within the arrival and departure paths, **Chapter 2, *Outreach and Environmental Justice, Section 2.4*** of the *2023/2024 EDR* also presents a new section: "Public Health Existing Conditions Review".

12-2: Activity Levels

The future planning information should match the 5 year timeline of the ESPR, not extend further into the future.

As discussed in other comments, the **User's Guide, Section U3.4,** describes the methodology for future forecasting. The section describes the use of 1) historical trends, 2) recent developments, and 3) outlook for future demand drivers such as local and national economic growth. **Chapter 3, *Activity Levels***, presents multiple tables that provide data and a narrative explanation of the forecasted growth in passenger levels and aircraft operations at the Airport. A comprehensive list of data sources referenced in the forecasting process is listed in **Appendix F, *Activity Levels Supporting Documentation***.

Massport follows industry best practices in preparing the Future Planning Horizon, considering several key factors, including economic conditions, airplane manufacturers' plans, future aircraft in the fleet mix, social factors, anticipated airline route plans, and many others. The assumptions and sources of data are documented in the **User's Guide, Section U3.4**.

12-3: Air Quality/Emissions Reduction (GHG)

The viability of SAF has yet to be demonstrated, therefore Massport should not include SAF as a strategy to reduce GHG emissions.

While SAF use would not reduce GHG emissions, SAF is a carbon-neutral fuel source alternative. As discussed in Comment 9-5 and 10-1 above, Massport has been a strong advocate for SAF as one

measure to reduce aviation environmental impacts. In early June 2025, the Massachusetts SAF Working Group, which includes a number of state agencies and Massport, held a Regional SAF Workshop aimed at evaluating the feasibility and technologies behind SAF. The Working Group presented a set of short-term and long-term recommendations, including: (1) initiating a Regional SAF Planning Study; (2) establishing a Massachusetts/New England SAF Hub; (3) leverage Existing Programs and Federal Support; (4) pursuing SAF Tax Credit Legislation; and (4) forming a Regional SAF Alliance.

12-4: Environmental Justice

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.

As discussed in Comments 5-2 and 6-2, Massport ensures public awareness of EDR and ESPR filings, public meetings, and comment deadlines by publishing notices in both English and non-English languages through multiple channels. These include the Massport website, emails to previous and newly identified stakeholders, social media platforms, notifications at neighborhood association and other community meetings, and a variety of local and regional print media outlets. Massport also publishes notices in non-English and community-specific publications such as the East Boston Times, Winthrop Transcript, and El Mundo. Details on Project-Specific Massport Public Involvement Practices are found in the **User's Guide in Section U2.4.3**.Further information on Massport outreach policies and other forms of engagement is described in **Chapter 2, Outreach and Environmental Justice, Section 2.2.**

12-5: Air Quality/Emissions Reduction (GHG)

Ultrafine particle pollution and lead pollution impacts are not adequately addressed in the ESPR.

Chapter 8, *Air Quality and Greenhouse Gas Emissions*, Section 8.1 includes subheadings for 2023/2024 Logan Airport emissions inventories for the criteria air pollutants and precursor pollutants (VOC, NO_X, CO, and $PM_{10}/PM_{2.5}$). Separate subheadings are used in the *2023/2024 EDR* as follows: Separate subheadings are used in the *2023/2024 EDR* as follows: **Section 8.3.4 of Chapter 8** discusses PM, while recent studies on UFPs are discussed in **Section 8.6.1 of Chapter 8** and the **User's Guide, Section U8.6.2.2**. In addition, the *2023/2024 EDR* has expanded content in **Chapter 8, *Air Quality and GHG Emissions*, Section 8.6** and **Section U8.6 of the User's Guide** to include more information on air quality-related studies that have taken place in the vicinity of Logan Airport and other air quality-related topics. These topics include research presented on in MEPA's Logan Airport Working Group, as discussed in **Chapter 2, *Outreach and Environmental Justice,* Section 2.2.4.2**.

12-6: Noise

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.

As discussed above, the EEA Secretary's Certificate guides Massport's preparation of each EDR and ESPR. Each EDR and ESPR includes a detailed analysis of noise and emissions impacts of aircraft arrivals and departures. As discussed in Comments A-63, A-65, and A-66 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport, the FAA, the Massport CAC, and Massachusetts Institute of Technology (MIT) have continued to collaborate on how to successfully design and implement RNAV procedures. Massport continues to coordinate with the FAA and the Massport CAC on matters related to runway use and the on-going RNAV Pilot project. Additional information on the Logan Airport noise mitigation and RNAV procedures is provided in the *2023/2024 EDR*, **Section 7.4 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.5.1.**

In addition, Massport has launched a newly developed EDR and ESPR webpage, which will host extensive datasets used to develop EDRs and ESPRs in a searchable format in the near future. In addition to these datasets, the webpage will also include links to data sources referenced within EDRs and ESPRs that will provide data in the interim. Other state agencies, federal databases, and other reputable sources often host these data sources. **Section 1.2.2.2 of Chapter 1, *Introduction and Executive Summary,*** has more information on the EDR and ESPR website.

12-7: Logan Airport Environmental Review and Planning

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

Massport reports on aircraft operations, flight origins, and destinations, as well as the impacts associated with air operations, through detailed analyses in EDRs and ESPRs. The EDRs and ESPRs include analyses of noise and emissions impacts of aircraft arrivals and departures, focusing on areas within the arrival and departure paths. Within ESPRs, the ***Activity Levels*** chapter provides comprehensive data and narrative explanations of forecast growth in passenger and aircraft operations at Logan Airport. Supporting data used in these analyses is provided in the *2022 ESPR* and *2023/2024 EDR* in **Appendix F, *Activity Levels Supporting Documentation***, and the **User's Guide, Section U3.4** discusses the data and analysis methodologies used. As discussed in Comment 6-13, EDR and ESPR **Chapter 5, *Regional Transportation*** continues to track new developments and the relationships between Logan Airport and other regional airports, including Laurence G. Hanscom Field (Hanscom), in addition to transportation alternatives to air transport.

12-8: Climate Change

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

As discussed above in Comments 2-12 and 2-13 and in Comments A-8 and A-67 in **Appendix A, *MEPA Certificate and Responses to Comments*,** the *2023/2024 EDR* includes a new section in **Chapter 11, *Sustainability and Climate Resilience,*** dedicated to Massport's climate resiliency measures, with information on the initiatives Massport has taken, and continues to take. Massport

collaborates with regional organizations, including the Massachusetts EEA, the ResilientMass program, U.S. Army Corps of Engineers (U.S. ACE), and the City of Boston to share knowledge, align goals, and advance initiatives to protect the community. In addition to the *Floodproofing Design Guide*, initiatives discussed in **Chapter 11** include the Logan International Airport Stormwater and Flood Risk Modeling Study and Logan International Airport Coastal Flood Operations.

13. Gail Miller

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. 13-1

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

Gail Miller Responses to Comments

13-1: Air Quality/Emissions Reduction (GHG)

It is incumbent on Massport to facilitate as a precautionary enhancement to provide the application of air filters in abutting in close communities.

Regarding air filtration, Massport has renewed an agreement to provide funding to the East Boston Neighborhood Health Center (EBNHC) to help expand the efforts of their Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program in East Boston and Winthrop that provides services including screenings for children, distribution of asthma kits, and home visits.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials as an active participant in the MEPA's Logan Airport Work Group (Work Group) established in collaboration with the Massachusetts Environmental Policy Act (MEPA) Office and the Office of Environmental Justice & Equity (OEJE). Massport will contribute technical expertise, data, and resources to support this collaborative effort. In addition, the *2023/2024 EDR* has expanded content in **Section 8.6 of Chapter 8, *Air Quality and GHG Emissions*,** and **Section U8.6 of the User's Guide** to include more information on air quality-related studies that have taken place in the vicinity of Logan Airport and other air quality related topics. These topics include research presented on in MEPA's Logan Airport Working Group, as discussed in **Chapter 2, *Outreach and Environmental Justice,* Section 2.2.4.2**.

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14. Donna Reilly

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

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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.

14-1

14-2

Respectfully,
Donna Segreti Reilly
30 Cottage Park Road
Winthrop, MA 02152
donsegreilly@comcast.net

Donny Reilly Responses to Comments

14-1: Environmental Justice

Recommendation for asthma immunization.

Massport continues to coordinate with Massachusetts Environmental Policy Act (MEPA) independently and through the Work Group process on refining the environmental justice (EJ) and public health analysis throughout the development of the *2023/2024 EDR*. Massport is an active participant in MEPA's Logan Airport Work Group, which includes representatives from state agencies, local officials, and community stakeholders, and is co-moderated by MEPA and Office of Environmental Justice & Equity (OEJE) to promote an inclusive and transparent process. Massport will contribute technical expertise, data, and resources to support this collaborative effort.

As discussed in Comment A-7 and A-39 in **Appendix A, *MEPA Certificate and Responses to Comments***, the *2023/2024 EDR*, at the direction of MEPA, utilized Massachusetts Department of Environmental Protection (MassDEP)'s Cumulative Impact Analysis (CIA) framework to assess existing public health conditions within 1-mile of Logan Airport. These findings are presented in **Chapter 2, Section 2.4,** and the detailed data is included in **Appendix E, *Environmental Justice Supporting Documentation***. The **User's Guide, Section U2.3.1** provides the study's methodology and assumptions. For future ESPRs and EDRs, Massport will consider appropriate and scientifically supported methods to expand the scope of the existing conditions assessment, thereby more accurately capturing potential environmental impacts. Massport also provides annual funding to the East Boston Neighborhood Health Center to expand efforts in its Pediatric Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program. This program provides services including screenings for children, distribution of asthma kits, and home visits.

14-2: Ground Access to and From Logan Airport

[Recommend] An airport luxury-type bus service to and from Logan.

Massport acknowledges the suggestion to introduce a luxury-type bus service to and from Logan Airport. Currently, Massport operates the Logan Express bus service, a successful HOV mode that serves both air passengers and employees. Logan Express provides frequent and nearly 24-hour service from several suburban park-and-ride locations, offering a convenient and cost-effective option for travelers to avoid driving to the Airport. However, Massport will continue to explore opportunities to enhance transportation services, including potential additional Logan Express locations and improvements to existing facilities. While the current focus is on expanding and improving Logan Express service, Massport remains open to evaluating new transportation options that align with its goals of reducing vehicle congestion and promoting sustainable travel to Logan Airport. Logan Express projects are discussed in **Sections 4.1.3 through 4.1.5 of Chapter 4, *Airport Planning*.**

15. Fred Salvucci

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

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Jennifer Hughes:

With apologies for being late, I am hoping that you will accept this comment as it will be recieved 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 likelyhood 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 occured. 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. 15-1

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 percieved 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. 15-2

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. 15-3

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 unacceptible levels of congestion within the airport roadway system, with actions adequately robust to remedy existing problems, AND preempt problems from future growth. 15-4

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. 15-5
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. 15-6
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 recieve serious consideration under the CLF agreement agreed to by Massdot as part of the ÇA/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. 15-7

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 15-8

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 identjfied 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. 15-9 15-10

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. 15-11

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. 15-12

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. 15-3

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 15-14

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. 15-15

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. 15-16

Fred

Sent from my iPad

Fred Salvucci Responses to Comments

15-1: Logan Airport Environmental Review and Planning

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.

Massport acknowledges the ESPRs' importance in predicting potential adverse outcomes and identifying proactive initiatives to avoid or reduce the impact of those outcomes. As discussed in Comment A-6 in **Appendix A, *MEPA Certificate and Responses to Comments*** since conception, the purpose of the EDR and ESPR has been to disclose the impact of recent growth at Logan Airport, as well as the impact of long-term growth through ESPRs. Through these reports, Logan Airport is subject to comprehensive and regular Massachusetts Environmental Policy Act (MEPA) review, including opportunities for public comment on the cumulative impacts.

Findings from EDRs and ESPRs are used to evaluate the efficacy of on-going and proposed programs and policies intended to reduce Airport impacts, and the current status of these are discussed within the *2023/2024 EDR* in **Section 2.2 of Chapter 2, *Outreach and Environmental Justice*; Sections 6.1 and 6.4 of Chapter 6, *Ground Access*; Section 7.4 of Chapter 7, *Noise*; Section 8.5 of Chapter 8, *Air Quality and GHG Emissions***; and the new **Chapter 11, *Sustainability and Climate Resilience***. Where data is available, Massport has quantified these beneficial measures and intends to find better methods to quantify the effects of these programs in future EDRs and ESPRs. The *2023/2024 EDR* utilized the newly released Massachusetts Department of Environmental Protection (MassDEP) Cumulative Impact Analysis (CIA) framework for community conditions assessments, and results are described in **Chapter 2.**

15-2: Logan Airport Environmental Review and Planning

Adverse impact, and mitigation for such impacts, and not causality, should be the proper focus.

Consistent with the MEPA process, mitigation presented in the EDRs and ESPRs are largely project based. However, as discussed in Comment 15-1 and outlined in **Chapter 2, *Outreach and Environmental Justice*** and **Chapter 11, *Sustainability and Climate Resilience***, Massport implements a range of measures directly aimed at reducing operational and environmental impacts on communities. Massport is participating in MEPA's Logan Airport Work Group, which is co-led by MEPA and the Office of Environmental Justice & Equity (OEJE). The purpose of the Work Group is to identify potential supplemental beneficial measures for public health concerns in communities neighboring the Airport.

15-3: Ground Access to and From Logan Airport

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.

Massport appreciates the importance of addressing total vehicle volume to manage congestion impacts effectively. Massport employs a comprehensive approach to ground access and transportation management, focusing on reducing VMT and gateway vehicle volumes at Logan Airport, including promoting HOV modes, to decrease the number of vehicles accessing the Airport. Massport's Automated Traffic Monitoring System (ATMS) provides data on AADT, annual average weekday daily traffic (AWDT), and annual average weekend daily traffic (AWEDT) at key Airport access points. These metrics are effective for managing the total volume of auto traffic and its impact on congestion. However, Massport remains committed to refining its methodologies and collaborating with regional transportation agencies to enhance the evaluation of vehicle congestion impacts. For more information on ground access modeling methodologies, see **User's Guide, Section U6.1** and **Section 6.2 of Chapter 6, *Ground Access***.

15-4: Ground Access to and From Logan Airport

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.

Massport promotes ridership on HOV, including transit and shared-ride modes, and maintains efficient transportation access and parking options in and around Logan Airport to reduce the reliance on single-passenger occupancy automobile modes. Implemented measures include a blend of strategies related to pricing, including incentives and disincentives, service availability, service quality, marketing, and traveler information. For more information on ground access initiatives, see **Section 6.4 of Chapter 6, *Ground Access***.

15-5: Ground Access to and From Logan Airport

Identifying initiatives to reduce auto trips to Logan and downtown below current volumes, which now clearly exceed reasonable capacity thresholds are needed.

Massport promotes ridership on HOV, including transit and shared-ride modes, and maintains efficient transportation access and parking options in and around Logan Airport to reduce the reliance on single passenger occupancy automobile modes. Implemented measures include a blend of strategies related to pricing, including incentives and disincentives, service availability, service quality, marketing, and traveler information. As discussed above as well as in Comments 14-2 and 15-3, Massport remains committed to refining its methodologies and collaborating with regional transportation agencies to enhance the evaluation of vehicle congestion impacts. For more information on ground access initiatives, see **User's Guide, Section U6.5** and **Sections 6.1 and 6.4 of Chapter 6, *Ground Access***.

15-6: Ground Access to and From Logan Airport

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.

Massport acknowledges the concerns regarding the routing of the bus link from the Blue Line Airport Station through the car rental facility, which may have impacted the service. The current routing was implemented to integrate the car rental facility into the Airport's transportation network, ensuring that passengers have access to rental services directly from the Airport. Massport continuously evaluates its transportation services and is open to exploring improvements, including assessing current bus routing and considering potential adjustments to optimize the service for passengers traveling between the Blue Line Airport Station and the Airport. For more information, see **User's Guide, Section U6.2.2** and **Section 6.1.2.2 of Chapter 6, *Ground Access***.

15-7: Ground Access to and From Logan Airport

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.

The EDR and ESPR **Chapter 5, *Regional Transportation*** continues to track alternatives to air transport. For many years, rail passengers between Boston and New York City have surpassed air travel. The Commonwealth continues to evaluate opportunities to enhance its role in the regional and U.S. rail network. Development of "feasible timelines and pathways to achieve the improvement in intercity rail services" remains a Commonwealth responsibility. Massport's support of the MBTA's Silver Line is a prime example of its role in supporting rail connections. The *2023/2024 EDR* also has a new section addressing rail service in **Section 5.4.4 of Chapter 5, *Regional Transportation*.**

15-8: Ground Access to and From Logan Airport

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.

The *2024 Logan Air Passenger Ground Access Survey* informs Massport's evaluation of Logan Express sites and supports a data-driven planning process for changing or expanding service options. As discussed above and in other comments, recent Massport initiatives have successfully encouraged Logan Express' use and improved its overall capacity. Information on these projects are found in **Sections 4.1.3 through 4.1.5 of Chapter 4**, ***Airport Planning***. Additional Logan Express service details are found in **User's Guide, Section U6.2.1** and **Section 6.1.2.1 of Chapter 6, *Ground Access***.

15-9: Ground Access to and From Logan Airport

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.

As discussed above and in Comments A-56, A-57, 4D-36, 6-17, and 15-8, recent Massport initiatives have successfully encouraged Logan Express' use and improved overall capacity. Massport promotes ridership on HOV, including transit and shared-ride modes, and maintains efficient transportation access and parking options in and around Logan Airport. Implemented measures include a blend of strategies related to pricing, including incentives and disincentives, service availability, service quality, marketing, and traveler information. As discussed above as well as in Comments 14-2 and 15-3, Massport remains committed to refining its methodologies and collaborating with regional transportation agencies to enhance the evaluation of vehicle congestion impacts. For more information on ground access initiatives, see **User's Guide, Section U6.5** and **Sections 6.1 and 6.4 of Chapter 6, *Ground Access***. Information on these projects are found in **Sections 4.1.3 through 4.1.5 of Chapter 4**, ***Airport Planning***. Additional Logan Express service details are found in **User's Guide, Section U6.2.1** and **Chapter 6, *Ground Access*, Section 6.1.2.1**.

15-10: Ground Access to and From Logan Airport

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.

The *2024 Logan Air Passenger Ground Access Survey* informs Massport's evaluation of Logan Express sites and supports a data-driven planning process for changing or expanding service options. As discussed above and in other comments, recent Massport initiatives have successfully encouraged Logan Express' use and improved its overall capacity. As discussed above as well as in Comments 14-2 and 15-3, Massport remains committed to refining its methodologies and collaborating with regional transportation agencies to enhance the evaluation of vehicle congestion impacts. For more information on ground access initiatives, see **User's Guide, Section U6.5** and **Sections 6.1 and 6.4 of Chapter 6, *Ground Access***. Information on these projects are found in **Section 4.1 of Chapter 4**, ***Airport Planning***. Additional Logan Express service details are found in **User's Guide, Section U6.2.1** and **Chapter 6, Section 6.1.2.1**.

15-11: Mitigation

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.

In response to project specific impacts, mitigation activities are determined alongside coordination with the MEPA office, state agencies, and municipalities. An examples of recently completed green space

mitigation is Piers Park II, discussed in **Section 11.1.2.2 of Chapter 11, *Sustainability and Climate Resilience*.** Massport is additionally planning for the remediation a site at Saratoga Springs as green space mitigation for anticipated impacts associated with the Runway 27 End RSA Project, also discussed in **Section 11.1.2.2 of Chapter 11.**

15-12: Ground Access to and From Logan Airport

The ESPR should include at least a conceptualized analysis of such an initiative [Possible pricing of roadway access to Logan by an airport exit fee].

Massport acknowledges the suggestion to include a conceptualized analysis of implementing an airport exit fee as a potential strategy for managing roadway access to Logan Airport. While the concept of an airport exit fee is not currently part of Massport's implemented strategies, Massport remains open to exploring innovative solutions that align with its goals of reducing congestion and promoting sustainable transportation options. Any consideration of such an initiative would involve thorough analysis and stakeholder engagement to assess its feasibility and potential impacts.

15-13: Air Quality/Emissions Reduction (GHG)

PM-10 Air Quality Problems Related to both Aircraft and Auto and Truck Emissions – Dealing with this previously unresearched 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.

As discussed above and in Comments A-1 and A-5 in **Appendix A, *MEPA Certificate and Responses to Comments***, Massport is committed to collaborating with communities, state agencies, and local officials to address environmental concerns associated with Logan Airport operations. To that end, Massport is an active participant in the MEPA's Logan Airport Work Group (Work Group) established in collaboration with the MEPA Office and the OEJE in February 2025. The Work Group's primary objective is to assess and discuss potential supplemental mitigation measures that could address environmental concerns associated with Logan Airport operations. This comment may be discussed among the group as a possible option.

15-14: Climate Change

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.

Since 2013, Massport has maintained and continuously enhanced a comprehensive set of climate resiliency measures to protect critical infrastructure and surrounding communities from climate change impacts, including extreme heat, intense precipitation, and coastal flooding and sea level rise. Climate resiliency is an integral part of Massport's planning, design, construction, and daily operations. In addition, Massport has prioritized awareness, education, and training on climate resiliency for both internal staff and external stakeholders, reinforcing its commitment to long-term sustainability and preparedness. Massport collaborates with regional organizations, including the Massachusetts EEA, the ResilientMass program, U.S. Army Corps of Engineers (U.S. ACE), and the City of Boston to share knowledge, align goals, and advance initiatives to protect the community. As discussed above in Comments 2-12 and 2-13 and in Comments A-8 and A-67 in **Appendix A, *MEPA Certificate and Responses to Comments*,** the *2023/2024 EDR* includes a new section in **Chapter 11, *Sustainability and Climate Resilience*** dedicated to Massport's climate resiliency measures, with information on the initiatives Massport has taken, and continues to take.

15-15: Regional Transportation

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.

As discussed above, the EDR and ESPR **Chapter 5, *Regional Transportation*** continues to track alternatives to air transport. For many years, rail passengers between Boston and New York City have surpassed air travel. The State of Massachusetts continues to evaluate opportunities to enhance its role in the regional and U.S. rail network. Development of "feasible timelines and pathways to achieve the improvement in intercity rail services" remains the state's responsibility. Massport's support of the MBTA's Silver Line is a prime example of its role in supporting rail connections.

15-16: Logan Airport Environmental Review and Planning

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.

Consistent with the MEPA process, mitigation presented in the EDRs and ESPRs are largely project based. However, as outlined in **Chapter 2, *Outreach and Environmental Justice*** and **Chapter 11, *Sustainability and Climate Resilience***, Massport implements a range of measures directly aimed at

reducing community operational and environmental impacts. Massport is also actively participating in MEPA's Logan Airport Work Group, which is co-led by MEPA and the OEJE and is discussing appropriate supplemental beneficial measures to address public health concerns in communities neighboring the Airport.

16. Nancy Timmerman

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August 5, 2024

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

Subject: EOEA No. 3247 – Boston-Logan Airport 2022 Environmental Status Report

Dear Secretary Tepper and Director Kim:

These comments are being transmitted by email. I have reviewed the 2022 Environmental Data Status Report (ESPR), EOEA #3247 and offer the following comments and questions.

It appears that Site 1 in the South End is now at the Union Park Street Playground. I have reviewed that location and it appears to be adequate. Is the monitor shielded from Albany Street? 16-1

Are the new noise monitors (all having been replaced) adequate? 16-2

Thank you for the opportunity to comment on this report.

Sincerely,

Nancy S. Timmerman, P.E.

env.internet@mass.gov
Cc: B. Washburn, MPA

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Nancy Timmerman Responses to Comments

16-1: Noise

It appears that Site 1 in the South End is now at the Union Park Street Playground. I have reviewed that location and it appears to be adequate. Is the monitor shielded from Albany Street?

The *Federal Aviation Administration (FAA) Reauthorization Act of 2024*, Section 786, Part 150 Noise Standards Update directs the FAA to update the Airport Noise Compatibility Program regulations (14 CFR Part 150 or FAA Part 150), which prescribe the systems for measuring noise at airports and surrounding areas. The FAA regulates permanent noise monitoring equipment and its installation under 14 CFR Part 150. Massport's noise monitoring equipment meets these Part 150 standards, ensuring compliance with FAA regulations. The *2023/2024 EDR*, **Section 7.3.3 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.3.1**, provide more information. Massport's Noise Abatement Office staff can provide more information on specific noise monitoring stations by submitting an inquiry through an online form found here: https://www.massport.com/environment/noise-abatement/logan-airport/complaints. Staff are also available by phone at 617-561-3333 from 6:00 AM to 6:00 PM on business days.

16-2: Noise

Are the new noise monitors (all having been replaced) adequate?

The *2023/2024 EDR* reports that all 30 permanent noise monitors have been replaced. FAA Part 150 outlines the process and guidance for voluntary FAA-sponsored noise assessment and abatement programs at airports, and prescribes the systems for measuring noise at airports and surrounding areas. The FAA regulates permanent noise monitoring equipment and their installation under 14 CFR Part 150. Massport's noise monitoring equipment meets these Part 150 standards, ensuring compliance with FAA regulations. The *2023/2024 EDR*, **Section 7.3.3 of Chapter 7, *Noise*,** and the **User's Guide, Section U7.3.1** provide more information.

Massport's Noise Abatement Office staff can provide more information on specific noise monitoring stations by submitting an inquiry through an online form found here: https://www.massport.com/environment/noise-abatement/logan-airport/complaints. Staff are also available by phone at 617-561-3333 from 6:00 AM to 6:00 PM on business days.

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