

## B. Comment Letters and Responses to Comments

The following state agencies and organizations provided comments on the *2020/2021 Environmental Data Report*. Following these comment letters, Massport has provided responses to comment raised.

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1. **Massachusetts Department of Energy Resources;  
Paul F. Ormond**

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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  
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**Maura Healey**  
Governor

**Kim Driscoll**  
Lt. Governor

**Rebecca Tepper**  
Secretary

**Patrick Woodcock**  
Commissioner

31 January 2023

Rebecca Tepper, Secretary  
Executive Office of Energy & Environmental Affairs  
100 Cambridge Street  
Boston, Massachusetts 02114  
Attn: MEPA Unit

RE: 2020/2021 Environmental Data Report, Boston Logan International Airport, Boston EEA  
#3247

cc: Maggie McCarey, Director of Energy Efficiency, Department of Energy Resource  
Patrick Woodcock, Commissioner, Department of Energy Resources

Dear Secretary Tepper:

We've reviewed the Environmental Data Report (EDR) for 2020/2021 (published November 2022) for Boston Logan International Airport. EDRs are produced annually to identify environmental impacts based on measured passenger activity and operations. EDRs complement Environmental Status and Planning Reports (ESPRs), filed periodically, which provide both a data lookback, like an EDR, and a planning perspective looking forward.

The objective of this review is to highlight strategies which reduce building emissions. Based on our review of the EDR, our recommendations are as follows:

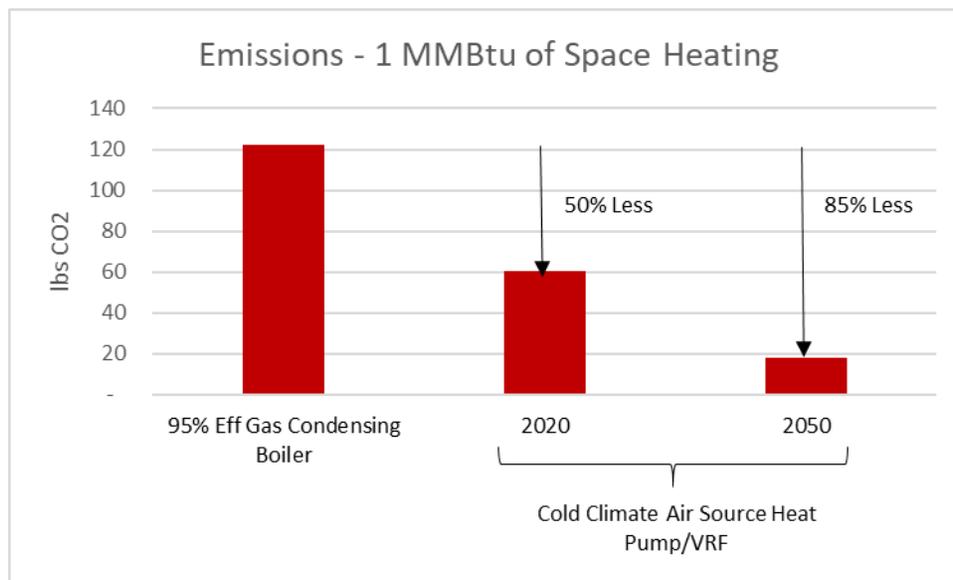
### **Electrification**

We recommend new construction and renovations use 100% efficient electric space and water heating. Efficient electrification entails the swapping of fossil fuels (natural gas, oil, propane) and fossil-fuel generated heat energy from the combined heat and power plant (CHP) with cold-climate rated air source heat pumps.

Electrification of space and water heating is a key mitigation strategy with significant short- and long-term implications on GHG emissions. Massachusetts grid emissions rates continue to decline

with the implementation of clean energy policies that increase renewable electricity sources. The implication is that efficient electric space and water heating with cold climate air source heat pump equipment has lower emissions than other fossil-fuel based heating options, including best-in-class (95% efficient) condensing natural gas equipment and fossil-fuel generated combined heat and power (CHP).

For example, efficient electric space heating has approximately **50% lower emissions** in Massachusetts than condensing natural gas heating. By 2050, efficient electric heating is expected to have approximately **85% lower emissions** in Massachusetts than condensing natural gas heating. See illustration below.



### Building Energy and Emissions Tracking

We are pleased to see that, in response to DOER’s recommendation, these reports are continuing to track the following:

- GHG emissions in buildings, normalized by square foot (lbs CO2/sf-yr), and
- Energy use in buildings, normalized by square foot (kBtu/sf-yr)

The addition of these metrics will help provide important insights into the performance of Logan’s buildings and help plan for the future.

We note, however, that the energy and emissions reported appear to take into effect on-site renewable energy production. We recommend that building energy and emissions use be tracked with and without effect of on-site renewable energy production to assess building efficiency measures themselves.

### **Estimating Building Emissions in Context of CHP**

Estimating building emissions from buildings which use only utility provided electric and gas is relatively straightforward. However, we understand that, in addition to utility provided electric and gas, Logan also uses central plant combined heat and power (CHP) to heat, cool, and power buildings. When CHP is used, the building emissions picture is more complex.

To assess this, EDRs and ESPRs should also report the following:

- Space and water heating end use consumption, estimated and broken down by heating which is provided by central plant steam versus heating provided by fossil-fuel fired (or other) equipment;
- Space cooling end use consumption, estimated and broken down by cooling from central plant produced chilled water versus cooling provided by other non-CHP means;
- Estimated CHP heating, power, and cooling production efficiency

Once the above is estimated, the emissions of building space heating, space cooling, and service water heating can then be estimated. This analysis should be done using electric grid emissions of 633 lbs/MWhr (for year 2022) and 200 lbs/MWhr (for year 2050) to provide a picture of current and future emissions footprints.

### **New Construction, Additions, Alterations, and Change of Use**

For new buildings, new building additions, and building which undergo alterations and/or change of use, we recommend the following:

- Prioritize building design and construction practices that result in low heating and cooling thermal energy demand intensity (heating and cooling “TEDI”) with:
  - Built-up, framed, insulated walls with continuous insulation;
  - Thermally-broken windows and other components to eliminate thermal bridges;
  - Minimizing glass curtain wall assemblies and excessive windows;
  - Low air-infiltration, confirmed with in-building air-infiltration testing;
  - High levels of energy recovery;
  - Management of solar heat gains;
- If new or renovated residential or hotel space is planned, pursue Passivehouse (either PHIUS or PHI certifications.)
- Use air source heat pump space and water heating.
- Avoid use of natural gas CHP and on-site gas combustion for space and water heating.
- Set aside as much rooftop space for solar as possible, including for projects in which solar may not be built as part of initial project.

- Prepare for ubiquitous electric vehicles with as much EV and EV ready parking spaces

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul F. Ormond', with a stylized flourish at the end.

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

## 2. Massport Community Advisory Committee; Aaron Toffler

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Massport Community Advisory Committee  
P.O. Box 470614  
Brookline, MA 02447

January 23, 2023

The Honorable Bethany A. Card, 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 2020/2021 Environmental Data Report – EEA #3247

Dear Secretary Card and Ms. Hughes,

Please accept this comment letter from the Massachusetts Port Authority Community Advisory Committee (MCAC) on the Boston Logan International Airport 2020/2021 Environmental Data Report – EEA #3247 (EDR) submitted on November 23, 2022. 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 provide oversight to Massport in order to minimize and mitigate the impacts that Massport has on our member communities. A representative from the MCAC attended the public consultation session on December 15, 2022, and we submit these comments based on the information presented at that hearing as well as the document referenced above.

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. It is clear from the great deal of information presented in the 2020/2021 EDR that Massport devotes significant resources to collecting operational data and forecasting future growth. However, in reviewing the growth forecasts for the past several years, it is difficult to understand the methodology used to produce the growth forecasts. What is clear is that the estimates for passenger levels have been grossly underestimated for the past decade. In the 2011 ESPR, Massport estimated an annual growth rate in passengers of 1.7% annually through 2030, despite averaging much higher annual growth rates in most years prior. That would have meant reaching 39.8 million passengers in 2030. This estimate was made even though the same ESPR reported an increase in passengers from 2010 to 2011 of 5.4% (from 27.4 million to 28.9 million). In reality, Logan served almost 42.5 million passengers in 2019, eclipsing by about 10% their own projections for 2030 (still 11 years in the future).

We are not the first organization to point out this discrepancy and to request more detailed information on how the forecasting is done. In the Certificate of the Secretary of Energy and Environmental Affairs on the 2018/2019 Logan Airport Environmental Data Report (March 19, 2021), the Secretary said that “the next EDR should describe the methodology for the forthcoming future forecast which should be provided in the 2022 ESPR.” The MCAC would



Massport Community Advisory Committee

P.O. Box 470614

Brookline, MA 02447

repeat this request to understand more fully how much growth is expected at the airport in the future and what mitigation will be necessary to protect our member communities.

Forecasting passenger growth is not the only area where more transparency and more robust information sharing would be helpful. The EDR discusses efforts to evaluate new Logan Express sites without going into detail about what factors are considered or how each line of the service is currently performing. As ground access and increasing the share of HOV users to the airport are important issues, more information would allow the MCAC to partner with Massport and make recommendations for minimizing impact to our communities, particularly those that are near to the airport itself. More detailed information on parking usage and how rates are set would serve the same purpose.

Noise abatement and pollution prevention are two other areas where progress could be made with more information and dialogue to support partnership. The MCAC is aware that the Federal Aviation Administration is currently undertaking a review of their noise policy. Massport collects a great deal of information from its noise monitoring system which could be useful in supporting our participation in this effort. Sharing this information with our members would assist us in determining the optimal placement of these monitors as well as evaluating the data that they produce. To fully support the research efforts of local universities in air quality, access to detailed monitoring data of all emissions sources under Massport's control is also critical. We look forward to working with Massport to ensure that the public has access to this information.

Thank you for considering these comments. If you have any questions or concerns, please feel free to contact Aaron Toffler at [atoffler@massportcac.org](mailto:atoffler@massportcac.org), or at (617) 906-8853.

Thank you.

A handwritten signature in blue ink, appearing to read "Aaron Toffler".

Aaron Toffler

Executive Director, Massport Community Advisory Committee

cc: Stewart Dalzell  
Brad Washburn  
Thomas Butler

### 3. Air, Inc

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January 23, 2023

The Honorable Bethany Card,  
Secretary Executive Office of Energy and Environmental Affairs  
Attn: MEPA Office  
100 Cambridge Street, Suite 900,  
Boston, Massachusetts 02114

Re: Logan Airport 2020 / 2021 Environmental Data Report (EDR) EEA# 3247

Dear Secretary Card,

AIR, Inc. is a volunteer-led 5013C established in 1981, by East Boston airport activists of the 1960's and 1970's. Through three generations, we have organized meetings, analyzed reports, conducted community education and engagement and prepared community comments to present the perspectives of residents impacted by Logan airport's adverse environmental impacts. We serve environmental justice (EJ) communities in East Boston, Chelsea, Winthrop, and Revere, but collaborate and support communities across the metropolitan area.

## Introduction

Locating Logan in Boston's urban core was a mistake. Had we known the trajectory of traffic, noise, and exhaust, we would not have planned an airport in the middle of Boston's urban core, or destroyed three harbor islands, 2,000 acres of harbor, 2 neighborhoods, and an Olmsted Park to grow it. But the 1950's was a time of rapid social and racial segregation; dominant planning theory held that urban neighborhoods were blighted, dangerous and expendable. So despite community opposition, the state pushed Logan plans forward.

Today, we have no excuses. Logan has choked our region in traffic, choked our families, and spread dangerous noise across the region. Yet despite these known impacts and the consequences they have on human health in environmental justice communities surrounding Logan, our airport authority and state regulatory agencies continue to push Logan forward.

Massport's Logan Airport Environmental Data Report for reporting years 2020 and 2021 follows previous EDR's and Environmental Status and Planning Reports (ESPR's) in documenting Logan Airport activity levels and environmental impacts for Massachusetts Environmental Policy Act (MEPA) compliance review. By reviewing these documents, MEPA considers airport activity forecasts, passenger and flight levels, cumulative impacts, and policy and mitigation responses

as proposed by the Massachusetts Port Authority (Massport, the MPA, or the Authority), and determines whether Logan Airport, in its entirety, is compliant with Massachusetts' environmental protection laws. MEPA's analyses support the Executive Office of Energy and Environmental Affairs' (EOEEA, or EEA) determinations of compliance of Massport's project proposals and disclosures with the state's environmental laws.

For community stakeholders, MEPA project reviews represent an opportunity for meaningful involvement in state-level project environmental policy and compliance determinations for Logan Airport. AIR, Inc. has participated in the MEPA process through submission of detailed, data-driven and essential community perspectives since MEPA's inception.

The 2020 / 2021 EDR, like the previous seven iterations of the Logan Airport project disclosure series (EEA #3247), challenges MEPA analysts to distill a massive tangle of confounding facts, statistics, and imposing economic pontifications, and answer the question of whether Massport, the state's most powerful lobbyist and government authority, which manages Logan Airport, an economic engine which fuels a nearly \$1 billion dollar annual transportation hub and provides countless jobs, including many high paying political patronage positions, and which is also inconveniently, the #1 polluter in the Commonwealth, is complying with state environmental regulations. In theory, MEPA analysts could acknowledge and prioritize environmental justice for the low income and minority communities which are adversely impacted by well documented and severe noise, traffic and air pollution impacts. MEPA could analyze Massport's filings themselves or refer to AIR, Inc. and other stakeholders comments to find any number of incongruities and adverse environmental trends. Despite the vast power imbalances, it is nevertheless MEPA's job and challenge to exercise its power to recognize unnecessary environmental damage, adverse impacts, and disparate outcomes. This is a challenge which MEPA has by all indications completely and consistently failed to meet.

It is however possible that MEPA analysts have written scathing critiques of Massport's project filings, and that EEA, led by politically appointed Secretaries have ignored them. The result however is the same: MEPA and EEA have never certified a Logan EIR, EDR or ESPR as non-compliant.

1. MEPA must release its project analyses to provide transparency

As seen in the example above, community stakeholders are not offered transparency in this review process. Stakeholders providing comment on Massport submissions receive only the final determination of a political appointee at EEA, but cannot see the state-funded professional environmental analyses underpinning them. This leaves open very serious concerns regarding the bases, factual grounding, and influencers at play in this critical environmental, public health, and social justice-bearing decision making. In fact, the spectacular continued failure of the state to impose any limitations on Massport's freewheeling growth ambitions for Logan provides community stakeholders with strong evidence that political influence unduly affects Logan airport environmental determinations.

In fact, in the only instance on record in which the state's regulatory tandem has imposed any requirement however modest on the MPA, we see a clear example of this political corruption. When Secretary of EEA Kathleen Theoharides required Massport to produce further mitigation subsequent to continued over-forecasted growth which was confirmed in the 2018 / 2019 EDR, Massport simply refused to comply, claiming financial hardship due to Covid. AIR, Inc. and community stakeholders were disheartened, but not necessarily surprised to see the Port Authority so brazenly slap the face of EEA and shrug off its supposed regulators. This instance exposes the true nature of our state's commitment to environmental justice. It was incumbent upon EEA to find the 2018 / 2019 EDR non-compliant. But it didn't. EEA walked away from their conditions and certified the 2018 / 2019 EDR as fully compliant with state law, which in Massport's failure to satisfy the conditions of the ESPR, it was not. Secretary Theoharides resigned shortly thereafter, only stating that she was leaving for a new professional career opportunity.

In October 2022, a second and more spectacular example occurred. AIR, Inc. had submitted comments on the Runway 27 Runway Safety Area Improvement Project Draft Environmental Impact Report (the DEIR, EEA #16433), providing in-depth analyses of the viability of zero environmental impact alternatives which had been dismissed by the Authority without quantitative analyses or proper documentation. We outlined the opportunity to avoid unnecessary destruction of the harbor, disruption of navigation channels, and stress on Belle Isle Marsh through feasible, environmentally beneficial project alternatives. We requested that EEA acknowledge these omissions, and require the Authority to resubmit the document with a proper alternatives analysis.

About a week after the DEIR was certified as compliant, MEPA wrote to AIR, Inc. stating that there was 'an issue', and the groups' comments -although submitted on time, had not been considered in the review. AIR, Inc. requested that EEA revoke, and reissue the certificate after proper review of public comment. MEPA declined, stating that they looked at our comments and determined that they would have had no impact on MEPA's scoping for the Final EIR. State law requires MEPA to accept and consider comment; EEA to consider environmental justice, involve EJ communities, and require EIR's to properly evaluate alternatives. In EEA #16433, the state has simply refused to perform these duties.

2. MEPA must reform its Logan Airport environmental disclosure documentation and review procedures. Specifically:
  - a. Extended review periods of even 60 days are insufficient, especially if timed over the holidays. In fact, given the iterative nature of the reporting system uniquely catered to Logan Airport, comment review and response procedures should also be iterative and responsive to community stakeholders' needs. MEPA cannot expect community stakeholders to wait years for Massport to update forecasts, or satisfy conditions of EEA certifications. AIR, Inc. has repeatedly requested that a rolling review process be developed
  - b. AIR, Inc. has repeatedly commented that early public input in selection of project design alternatives and document scoping compliance is necessary to avoid

submission of insufficient filings which handcuff reviewers and MEPA with inaccurate and omitted data. We have repeatedly requested that a Special Review Procedure be crafted to address Massport's Logan submissions. We renew this request today

Longstanding frustration with lack of accountability, transparency and failure to address adverse environmental and health impacts has now become acceptance that the state's promise of environmental equity in Massachusetts is hollow, and one which none of the responsible agencies has any intention of keeping. AIR, Inc. now believes that the MEPA system in place for Logan project reviews is in need of reform.

AIR, Inc. has respectfully played our part in Massachusetts' environmental review process, investing hundreds of volunteer hours shaping public comment in efforts to realize our community's environmental justice goals. We participated in MEPA's recent regulatory review process -a process which included twice as many Massport staff and consultants as community stakeholders, with representatives of Stantec, Harris Miller Miller & Hanson (HMMH), the American Council of Engineering Companies of MA, Vanasse Hangen Brustlin (VHB, the consultant which has written the past half dozen of Massport's disclosure documents), 2 representatives of NAIOP (of which Massport is a board member), and Wimbledon Bond Dickinson weighing in on the effectiveness of the MEPA process. The time commitment, slow pace, and lack of applicability to the specialized Logan reporting system forced AIR, Inc. to step away from this process. We objected on many occasions to the lack of relevance of the discussions to our topics and were assured by MEPA that airport issues would be addressed later. We have had no further contact from MEPA.

## Further Comments

With the EDR's release the week before Thanksgiving, and the extended comment period ending on 1/23/2023, just three weeks after the holidays, AIR, Inc. has not had sufficient time to prepare complete comments. There are however certain underlying factors or themes we wish to convey at the top:

- The Massachusetts Port Authority was created with too much power and not enough direction
- Massachusetts' environmental laws have been created with too many promises and not enough power
- The state's commitment to environmental justice and environmental policy is corrupted by politics

The problems community stakeholders face in attaining meaningful involvement in decision making on Logan Airport project filings stem largely from combinations of these factors.

Below are the comments we have prepared in the few weeks remaining after the holidays:

3. MEPA, EEA and Massport inaction is inexcusable. AIR, Inc. and many other community stakeholders have participated in MEPA reviews, amassing many dozens of suggestions and requests. These comments are answered without engagement; smugly acknowledged, assigned a topical reference numbers, then dumped into what is essentially a mass grave -a matrix table which provides statements and quotes of text either from the filings or regulations, that serve as blank retorts to thoughtful comments.

We ask that EEA finally address each of our past comments from the 2015, 2016, and 2018 / 2019 EDRs, the Terminal E Modernization Project, the Logan Parking Project, and the 2017 ESPR

4. MEPA, and EEA must require that the Authority limit the length of all environmental compliance documents

At 1162 pages, the length of the 2020 / 2021 EDR is a massive obstacle for citizen participation. The length of this document is unnecessary. For example, the precursor to Logan's EDR and ESPR series, the 1979 Draft General Environmental Impact Report, provided insights into Logan's planning, impacts, and mitigation, in just 218 pages. The fact that Massport's annual disclosure documents have reached over 1,000 pages each year since the 2015 EDR is evidence of heinous indifference to East Boston's EJ challenges.

<b>Flesch Reading Ease</b>			
<b>Score</b>	<b>Grade</b>	<b>Avg. Words Per Sentence</b>	<b>Syllables Per 100 words</b>
90 - 100	5	8	123
80 - 90	6	11	131
70 - 80	7	14	139
60 - 70	8 - 9	17	147
50 - 60	10 - 12	21	155
30 - 50	College	25	167
0 - 30	College Grad	29	192



## Flesch Reading Ease Guide

- MEPA and EEA must require that Massport’s MEPA submissions are succinct and readable

AIR, Inc. used the Online-Utility.org’s Readability Calculator to test the readability of the EDR’s introduction and Executive Summary. The utility reported a Flesch Reading Ease Score of 25.14, and indicated that a reader would need 16.16 years of formal education (per the Gunning Fox index) in order to easily understand the text on the first reading.

- MEPA and EEA must require the Authority to calculate and report the socialized costs of Logan Airport operations

While the EDR mentions the word economy, or it’s derivative words 51 times in the document’s Executive Summary, 38 times in the Activity Levels section, 22 times in the Airport Planning section, and 64 times in the Regional Planning section, nowhere does the document provide economic data on the cost of lost productivity due to airport related traffic, the cost of lost wages due to sick time, or the cost of human life and suffering caused by illness. The message sent by these 185 economic references is that *Logan is an economic engine with which our state cannot afford to interfere.*

It is important to recognize that the implied reverse correlation -that Logan is in some way responsible for the strength of the economy is not supported by data. The economy might just as well be even stronger if growth and regional traffic and other environmental impacts were spread more evenly across the New England region in areas in which congestion's were less prevalent and mitigation would be far less costly. Rather than consuming the time and energy of EDR reviewers with descriptions of the biopharma industry, Massport should report the environmental impacts of their outfit in their MEPA filings.

The plain fact is that airports are not the economic engines of their regions, nor is proximity to airports in any way driving economic success. What has been proven is that proximity to airports to drives diseases such as childhood asthma, cancer, COPD, and heart disease.

More false economic narratives propose that multiplier effects cause the economic benefits of aviation to be accelerated through recirculation of money in the local economy after initially being spent by Airport tenants and their customers. This narrative carelessly fails to account for the money that leaves our economy as local dollars are spent on travel by New England residents at the Manny destinations to which Logan has service. The statewide economic impact assessment irresponsibly doesn't calculate the net impact. It only looks at the inputs. And MEPA and EEA are apparently uninterested.

7. MEPA and EEA must require Massport to develop a schedule of proactive policy and mitigation responses to future impact levels.

Massport bases it's mitigation planning on impact modeling based on passenger volume forecasts. When these forecasts are too low, impacts are under projected and actual passenger and flight levels rise. Impacts rise in direct correlation, but mitigation and environmental policy lag behind. Previous forecasting errors have Resulted in a 10 million passenger mitigation lag.

A pre-negotiated mitigation approach which establishes appropriate policy and programming responses to increasing levels of impact across the major impact centers of noise, air pollution, and traffic can be established to trigger advancing responses as attainment of or approach toward progressive passenger volumes, flight levels, and traffic volumes are achieved. This solution eliminates the possibility of disagreement over the accuracy of forecasts, and ensures that EJ populations surrounding Logan are not burdened by unmitigated pollution, but instead that environmental justice burdens are mitigated in real time.

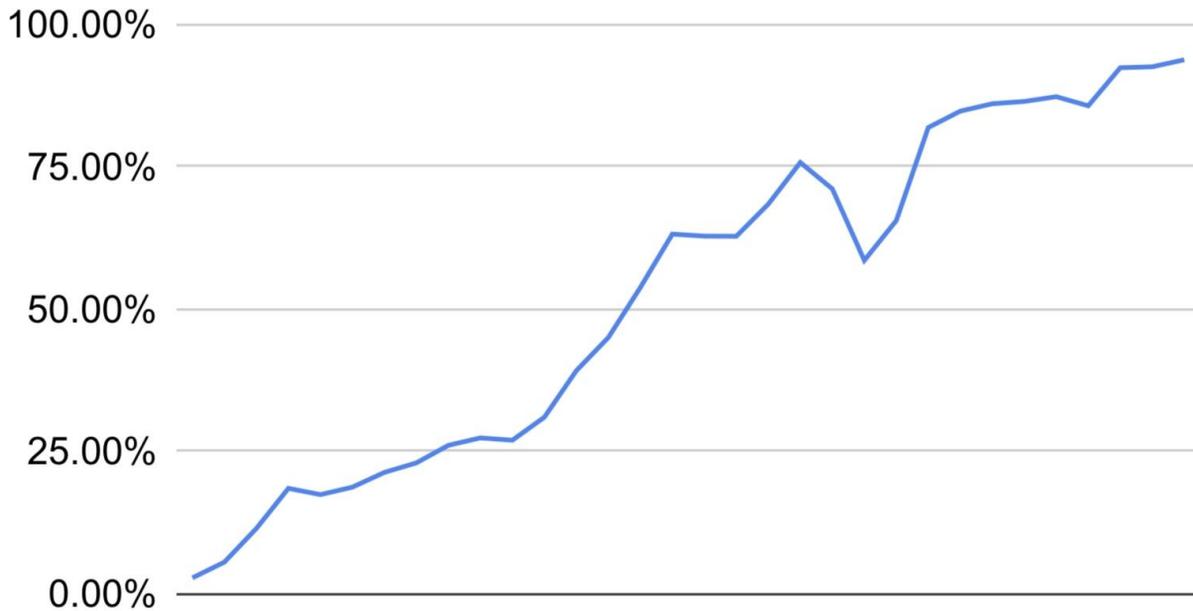
## More Inaccuracies

Of great importance in the present EDR is the urgency or lack thereof with which the Authority is addressing previous mitigation backlogs, as impacts -especially ground access impacts of traffic and engine idling pollution are rising more sharply now than ever due to the effects of the Covid 19 pandemic.

8. MEPA and EEA must require the Authority to provide comprehensive data.

Massport has a long-standing habit of statistical shenanigans. For example, in the EDR, the Authority has elected to report 2020 and 2021 passenger activity levels as an annual percentage of 2019 peak volumes.

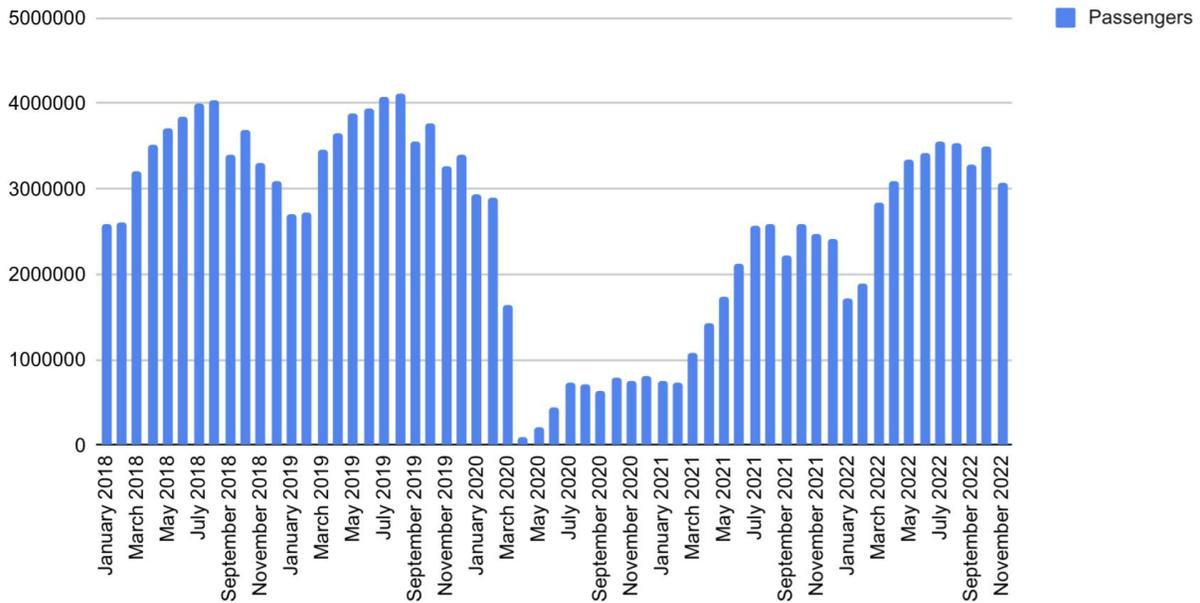
### % Passenger Recovery April 2020 - November 2022



The use of annual reporting periods obscures the true nature and progress of Logan’s recovery. For example, in the EDR, Massport reports that “*total flight operations and passenger levels recovered to approximately 62 percent and 53 percent, respectively, of 2019 levels*”. In this report, released on the 3rd week of November, in 2022, at a time by which the Authority had already released multiple monthly airport statistics postings showing that passenger and flight volumes had risen above the 90% recovery level, the Authority surmised that these total flight and passenger levels showed “*a gradual return towards 2019 levels*”. This misleads readers by creating the impression that over the reporting period, Logan operations had climbed halfway back to prior levels.

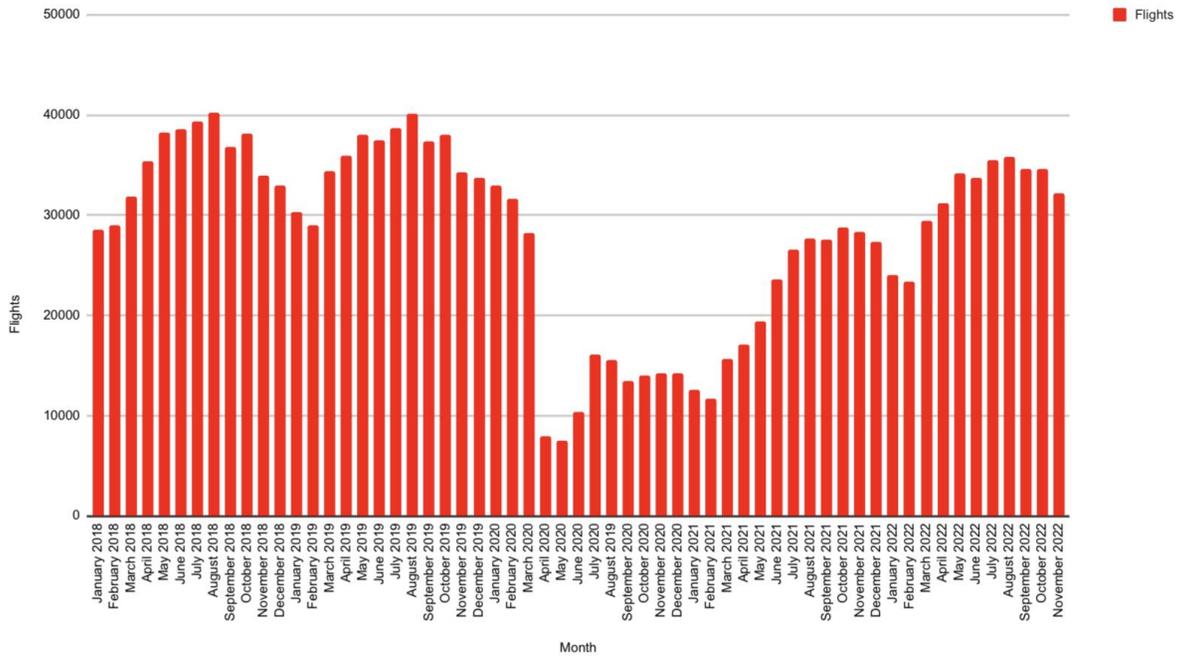
A more granular analysis of monthly Logan Airport statistics shows that in January of 2021, flight and passenger activity were at 38% and 27% of 2019 peak levels, and that; over the year, despite multiple virus variants and ongoing international travel bans, flights and passenger levels exceeded 83% and 76% (both were achieved during November 2021).

### Monthly Passengers January 2020 - November 2022



Passengers (source Massport monthly airport statistics)

### Logan Monthly Flight Operations 2018 to Present



The 30% disparity between what Massport reported in its EDR and the degree of passenger volume recovery actually attained by the end of 2021 represents an passenger monthly density of not an airport serving 22 million passengers, but one instead which is serving 35.2 million. Therefore, through the EDR’s misleading statistics, Massport obscures a 13 million

passenger annual recovery rate, and downplays the urgency with which and degree to which Massport must prepare mitigation strategies.

Elsewhere in the EDR, Massport repeats this tactic, providing an update covering up to the first 8 months of 2022 and suggesting that operations and passenger levels to that point were down 13% and 18% respectively. However, by July 2022, flights were at 92% of 2019 levels and passengers were at 87% for an aggregate of 90%. By the time of the EDR's release, in November 2022, both flights and passengers had reached 94% of pre-pandemic peak levels. AIR, Inc. predicted such a rapid recovery in our 2018 / 2019 EDR comments. Barring any global economic or pandemic related downturns Logan, is likely to eclipse its previous high monthly passenger volumesthe within the next 6 months.

In perhaps the most important example, while in 2019, Massport reported an average weekday daily traffic (AWDT) total of 143,189 vehicular trips per day to Logan, and a total of 42,522,411 passengers, producing a ratio of 0.003368 AWDT to annual passenger volume, in 2021, the Authority reported 90,185 AWDT and 22,678,499 passengers. The 2021 AWDT to annual passenger level ratio was therefore 0.00398. With monthly passenger volumes having returned to 83% of 2019 levels by the end of 2021 (an annualized rate of 35,293,601) we can calculate that Logan was attracting a monthly AWDT of 140,351 by the end of the year. Massport however leaves us with the impression that AWDT was at 90,185 in 2021, or just 63% of 2019. Furthermore, Massport has reported that passenger levels have returned to 94% of 2019 levels as of this November (2022). This, considering the 2021 AWDT to annual passenger volume ratio, allows us to calculate that airport vehicular traffic has already eclipsed 2019's all time high levels with a monthly AWDT of 158,952 in November. Mitigation planning which is based on actual passenger levels attained would eliminate the risk of these sort of errors.

<b>Pollutant</b>	<b>Units</b>	<b>LDGV</b>	<b>LDGT</b>
VOC	g/hr	2.683	4.043
	g/min	0.045	0.067
THC	g/hr	3.163	4.838
	g/min	0.053	0.081
CO	g/hr	71.225	72.725
	g/min	1.187	1.212
NO <sub>x</sub>	g/hr	3.515	4.065
	g/min	0.059	0.068

*Idling emissions factors (Source EPA 2008)*

- MEPA and EEA must demand that Massport provide an accurate and detailed reporting of on-airport vehicle idling data, and a plan to control this avoidable form of pollution

The EDR provides emissions estimates for Parking / Curbside. In the example of carbon monoxide (CO), the Authority reported 4 kg/day for 2021. At this level, idling and parking vehicles at Logan airport would produce 0.1667 kg (or 166.7 gm) of CO per hour. Using the [EPA idling emissions factors](#) for CO emissions from gasoline powered light duty vehicles of 72 gm/hr, the data in the Report proposes that 2.3 vehicles would be idling at Logan at any given time. This is not realistic. AIR, Inc. observed idling behavior at Logan's terminal curbs, cell phone lots and professional lots and found an aggregate idling rate of 50% and an average idle time of 12.5 minutes. Applying our idling rate and duration factors to the 2021 EDR's reported average weekday daily traffic (AWDT) level of 90,185 vehicles, 45,092 vehicles idled at Logan for a total period of 9,300 hours per day. The EPA's 72 gm/hr emission factor places Logan's daily CO emission at over 636 kilograms (1491 lbs) per day, over 150 times the EDR estimate.

10. MEPA and EEA must require Massport to commence planning for aircraft emissions reduction programs at Logan by:

- Initiating a groundbreaking tri-state regional airport master planning process
- Developing an airport Emissions Rule
- Making single engine taxiing mandatory
- Development of a proposed electric aircraft airports plan
- Developing a Beta testing plan for electric aircraft which assures that electric aircraft distribution will benefit EJ communities
- Develop electric aircraft infrastructure and evaluate alternate technologies to generate power such as installation of microgrids and airfield solar farms
- Immediately designing and fully funding a community air filtration program for classroom and residential applications

11. MEPA and EEA must require Massport to consider the costs and benefits of all viable ground access policy and mitigation alternatives, including use of an airport roadway fee, and all reasonable monetary and non-monetary pricing adjustments under Massport's control in a transparent manner within the EDR / ESPR series. MEPA and EEA must get serious about protecting public health by insisting that Massport consider eliminating Logan's 'free ride' policy

Massport's ground access strategy is failing badly. The 30 month self-prescribed period of inactivity in HOV program advancement is a generational environmental policy and transportation planning blunder. We note that in the noise section, Massport states that they accelerated a runway rehabilitation project to avoid operational disruptions, illustrating the fact the the Authority recognizes the opportunity to accelerate beneficial programs during the Covid pause.

While modern planners and community stakeholders around the world embrace all manner of innovation in mode shifts away from motorized modes as a means of improving local air quality, Massport has remained entrenched in its mid-twentieth century autocentric mindset. The Authority's long lists of HOV services, and recent much publicized goals set with Conservation Law Foundation merely pay lip service to environmental policy while the Authority indulges every possible form of single occupancy travel to Logan.

According to Massport's 2019 Air Traveler Survey:

- 21.2% of passengers at Logan arrived by way of Massport's most popular ground access program: their unofficial Free Ride traveler curbside pick-up and drop-off option
- 16.7% of airport passengers arrive in ride apps, taxis or limousines
- 20.8% of passengers arrive via passenger cars in Ride app, taxi, or limousines, but through the magic of CLF and Massport's low-standard formula, since these trips have at least one additional passenger, they are considered high occupancy trips
- 10.7% of Logan customers rent a vehicle, and
- 9.3% of travelers drive to Logan and rent parking
- 1.5% park off airport

Therefore, 78.7% of Logan travelers arrive via passenger car.

In the example of on-airport parking, Massport claims that pricing has been set to ensure that the cheapest on-airport option, parking at the economy garage (normally \$29 but now inexplicably discounted to \$25/day), is more expensive than Logan Express (LEX) (normally \$11 but now discounted to \$9/ride). As the table below indicates, this HOV cost benefit assertion is factually incorrect for the majority 17 out of 35, or 51% of traveler scenarios (shown in bold typeface).

Length of stay (days)	Cost Logan Express Parking	Cost: economy on Airport parking	Cost: Logan Express 1 rider plus parking	Cost: Logan Express 2 riders plus parking	Cost: Logan Express 3 riders plus parking	Cost: Logan Express 4 riders plus parking	Cost: Logan Express 5 riders plus parking
1	\$7	\$25	\$25	\$43	\$61	\$79	\$97
2	\$14	\$50	<b>\$32</b>	\$50	\$68	\$86	\$104
3	\$21	\$75	<b>\$39</b>	<b>\$47</b>	\$75	\$93	\$111
4	\$28	\$100	<b>\$46</b>	<b>\$64</b>	\$82	\$100	\$118
5	\$35	\$125	<b>\$53</b>	<b>\$71</b>	<b>\$89</b>	\$107	\$125
6	\$42	\$150	<b>\$60</b>	<b>\$78</b>	<b>\$96</b>	<b>\$114</b>	<b>\$132</b>
7	\$49	\$175	<b>\$67</b>	<b>\$85</b>	<b>\$103</b>	<b>\$121</b>	<b>\$139</b>

For a single passenger driving and parking at an LEX facility at their daily parking rate of \$7, this HOV mode is equal to or the more affordable choice. However, given that on-airport parking rates are fixed daily costs per vehicle, while Logan Express fares are \$9 per trip, per individual, this cost advantage is not clear and consistent. The table above demonstrates that the current pricing strategy provides only regressive benefits. HOV mode monetary cost benefit is illustrated above by use of bold black typeface.

Other considerations play a role in traveler airport ground access mode decision making, including travel time, trip purpose, travel cost, parking fee, comfort, and convenience. From a travel time, comfort and convenience perspective, there can be little doubt that drive and park options carry significant benefits. Applying a \$50 penalty to LEX services assuming a 20 - 30 minute increase in travel time, and a major downgrade in convenience and comfort, cost benefits of LEX (shown in dark red bold typeface) reduce to only 11 (31%) out of a possible 35 scenarios. For a two passenger group, cost benefit begins with a four day trip, for a three passenger group- on the 5th day, a four passenger group- on the seventh day, and for a party of five, there is no cost benefit. If Covid-driven HOV hesitancy adds another \$50 penalty, bringing the total HOV trip mode convenient cost penalty up to \$100, there is almost never any total cost benefit to use of LEX HOV airport travel mode, with a benefit showing up in just a single scenario (2.8%). This benefit is indicated by use of bright red bolded typeface. All said, given Massport's current ground access pricing strategies, there is almost no incentive to use Logan Express.

12. MEPA and EEA must specifically acknowledge the disparities of scale factoring into Massport's emissions reporting

The MPA has released fanciful announcements of its dreams to produce a Roadmap to Net Zero plan at some point in the future. This plan would redirect \$1 billion of Massport's billion dollar per year budget toward a splashy, high-level, global corporate citizenship goal of reducing Logan's carbon footprint. This plan includes 30% - 40% use of offsets, to cut the sources of CO2 which the MOA considers "under their control". However, the Authority has reported that aircraft exhaust emissions which they say are not under their control, comprise 95% of Logan emissions. Thus, the emissions over which Massport has sway are around 5% of a raging and ever-growing airport cumulative CO2 impact.

13. MEPA and EEA must require Massport to take action immediately to reduce nighttime aircraft noise

Massport's forecasting of nighttime noise has been even less accurate than their passenger growth forecasting. With nighttime flights climbing a remarkable 16% over the previous reporting period, then totaling 17% of Logan operations, unspeakable disturbances of EH communities evening hours reached an unbelievable 195 operations per night (or a flight every 2 minutes on average). Current flight operations are near, at, or potentially even above 2019 peak levels. Therefore, this health-shattering adverse airport impact is now likely to have fully recovered from the pandemic. MEPA and EEA must demand that the Authority produce a plan to reduce Logan's nighttime noise footprint which is equal to their ambitions in reducing Logan's carbon impacts.

Pursuant to that goal, AIR, Inc. renews its demand (from multiple EDR / ESPR comments) that Massport update the Preferential Runway Advisory System (PRAS), providing target percentages for runway use to control noise impacts, including nighttime noise. We reiterate that updating PRAS was a condition of the FAA Record of Decision of 2002, and that while Massport has reported that the Logan CAC voted to abandon PRAS, MEPA must recognize that the FAA RoD created a legal obligation that PRAS be updated or replaced as part of Massport's Airport Improvement plan and did not offer Massport, or the Logan CAC authority to abandon PRAS without replacement. The RoD specifically states that PRAS shall remain in place until replaced or updated. This is the reason that Massport continues to report on PRAS; as a hedge against legal reprisal.

Given that MEPA and EEA are bound by law to ensure that all feasible alternatives to environmental damage be explored, these agencies are required to insist that Massport use PRAS to reduce noise, including nighttime noise.

14. MEPA and EEA must immediately demand that Massport commence an actual emissions measurement and reporting system

The EDR reports on 13 different modeling systems over the past 21 years. This equates to a change in method every 1.6 years. The result has been a nearly incomprehensible rollercoaster ride of reported emissions levels, confounding attempts to interpret and manage air pollution.

This should prompt MEPA and EEA to demand change as part of its powers to require that all feasible efforts be made to avoid environmental damage. Under this authority, MEPA and EEA can require Massport to provide a history of actual measured air quality (AQ) levels for all EPA criteria pollutants, and ultrafine particulate matter counts, as best as can be produced until a full and complete measurement and reporting system can be implemented, using a variety of qualified data sets produced in the past, by a variety of partners, and; to install a network of high grade AQ sensor devices across the region to collect subsequent readings of the same. When such a database of pollution levels is completed, data can be analyzed as needed, providing MEPA, EEA, and community stakeholders with clear comparisons.

15. MEPA and EEA must require Massport to substantiate any claimed improvement in air quality due to changes in the fleet (retirement of old, polluting aircraft) in quantitative terms

16. MEPA and EEA must either require Massport to provide narrative context describing the relative effects on impact levels for metrics they report, or prevent the Authority from wasting reviewers time with meaningless dialogues.

In one example, the Authority in two consecutive EDR's claims a forthcoming improvement in air quality which they say will be achieved due to changes in the fleet (retirement of old, polluting aircraft), but have not provided quantitative data on the anticipated effect. This is important, as use of 10% cleaner aircraft by 25% of aircraft would create a significant 2.5% benefit. But this one-time fleet improvement benefit would be outpaced by one year's worth of flight operations growth at previous 10 year rates. Without context, community stakeholder reviewers and MEPA analysts might be misled into assuming that pollution levels will be decreasing, when instead they are simply not temporarily increasing by as much for one year:

The EDR occupies dozens of pages entertaining busy readers -local low income families and state regulators alike -with irrelevant lists of facts and accomplishments explaining all the good things they do in the margins, or on the sidelines. Nobody is asking the Port Authority to participate in toy drives and such largess has no relevance to Airport environmental planning. Enough good deeds cannot be done to offset the premeditated destruction of community health. MEPA and EEA should require that Massport put forth a serious effort to analyze and improve environmental outcomes.

17. MEPA and EEA must stop approving incremental airport capacity-building projects

The EDR states "*Several projects aimed at providing on-Airport roadway congestion relief are ongoing and are expected to be complete by summer 2023. ...Recent and ongoing terminal area projects are providing seamless post-security connectivity and flexibility among the terminals along with enhancements to passenger processing through consolidated security checking areas.*"

MEPA has approved the illegal segmentation of airport expansion above AIR, Inc.'s objections for over a decade now. This needs to stop.

18. MEPA and EEA should require Massport to disclose Logan's maximum flight and passenger capacity and report each year on the percentage of attainment of that level

No airport has infinite capacity. Logan has systematically built additional capacity through airfield, terminal and roadway projects. Boston's roadway network appears to have reached its capacity in 2019, by which time we had been labeled the most congested city in the United States. Airfield capacity is another story. While Logan may not have reached its practical capacity yet, at some point it will. Whatever that capacity is, MEPA and community stakeholders deserve advanced warning. Overcapacity conditions create exponential congestion impacts. Myopic planning may serve the airlines' needs, but it spells disaster for the city.

## Conclusion

Overall, the MEPA review process and Massport's and EEA's political gamesmanship within it spells disaster for the city.

#### 4. Conservation Law Foundation; Staci Rubin

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January 23, 2023

Via Electronic Mail and Online Portal

Secretary Rebecca Tepper  
Executive Office of Energy and Environmental Affairs  
Attention: Jennifer Hughes  
100 Cambridge Street, Suite 900  
Boston, MA 02114

Subject: EEA #3247: Boston Logan International Airport 2020/2021  
Environmental Data Report

Dear Secretary Tepper, Director Kim, and Jennifer Hughes:

On behalf of the Conservation Law Foundation (CLF) and its members,<sup>1</sup> we provide comments regarding Massachusetts Port Authority's (Massport) Boston Logan International Airport 2020/2021 Environmental Data Report (EDR). CLF has appreciated its ongoing communications with Massport on a variety of issues. Through these discussions, it is apparent that Massport and CLF share the goal of reducing the overall environmental, emissions, and traffic impacts of travel to and from Logan Airport and encouraging an increase in the number and percentage of airport passengers who get to and from the airport by high-occupancy vehicle (HOV) modes.

### **Preliminary Statement**

The 2020/2021 EDR provides a historical review of environmental conditions for the given reporting years and describes Massport's progress on its environmental mitigation commitments. As noted in the EDR, flight activity and passenger volumes dropped significantly during the reporting period due to the COVID-19 pandemic,<sup>2</sup> but the most recent 2022 data indicate that travel patterns are currently on track to soon meet or even exceed 2019 peak numbers. It is therefore imperative that mitigation efforts remain a priority to reduce environmental and public health impacts.

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<sup>1</sup> 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 transportation options across New England.

<sup>2</sup> EDR 2020/2021, page 1-1.

Given that growth is a primary driver of public health and environmental impact, and consequently will determine the scale of Massport's obligations and opportunities to avoid, minimize, and mitigate environmental and human harm, CLF recommends that the Secretary's Certificate provide further detail on methodology and reporting requirements, prioritize mitigation efforts as travel patterns rebound, specify transparent thresholds for deferred mitigation projects, and direct robust and ongoing community engagement. Despite decreased travel in recent years due to the pandemic, it is clear that activity is rapidly resuming, and mitigation for this new and increased travel is essential.

Communities near Logan Airport have long been disproportionately affected by air pollution. Public health studies document strong links between air pollution and COVID-19 health risk,<sup>3</sup> and indeed communities near Logan have also been disproportionately affected by COVID-19.<sup>4</sup> Given these risks, it remains critical that Massport continue its mitigation projects and provide clear thresholds for any deferrals, engage with residents and organizations from affected communities, and provide transparent and clear reporting of environmental impacts. While travel activity and operations have not yet fully returned to pre-pandemic levels, trends from the past two years show that travel is rapidly resuming and trending back up toward these levels.

Mitigation efforts therefore remain critical, and CLF encourages Massport to be more exacting in its activities and transparent in its decision-making. We applaud Massport for following through on several important commitments despite the ongoing uncertainty, and we offer the following comments regarding the 2020/2021 EDR.

### **Detailed Comments**

CLF and Massport share and have worked collaboratively to achieve the goal of reducing overall environmental, emissions, and traffic impacts resulting from Logan Airport operations. CLF offers these comments regarding Massport's ongoing and planned initiatives to minimize and mitigate public health and environmental impacts as presented in the 2020/2021 EDR. We also reference the Executive Office of Energy and Environmental Affairs (EEA) certificate of the 2017 Environmental Status and Planning Report (ESPR) and the requests EEA posed to Massport in the certificate (ESPR Certificate). We note the importance of mitigation and a rigorous MEPA review process, which are even more urgent now as travel patterns increase with an easing of pandemic restrictions and years of delayed travel, and the ongoing need for robust community engagement and public information sharing regarding Massport activities.

- A. Massport needs to ensure that mitigation efforts keep up with increasing rates of travel as pandemic restrictions ease and travel resumes.

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<sup>3</sup> Wu, X., Nethery, R.C., Sabath, M.B., Braun, D. and Dominici, F., 2020. Air pollution and COVID-19 mortality in the United States: Strengths and limitations of an ecological regression analysis. *Science Advances*, 6(45), p.eabd4049.

<sup>4</sup> McDonald, Danny. "East Boston's COVID-19 positive test rate is over 11 percent, the highest of any Boston neighborhood by far." *Boston Globe*. August 27, 2020. Accessed January 20, 2023 at <https://www.bostonglobe.com/2020/08/27/metro/east-boston-covid-positive-test-rate-that-tops-11-percent-by-far-highest-city/>.

The 2020/2021 EDR reports that passenger levels had returned to 53 percent of 2019 levels by the end of 2021,<sup>5</sup> and operations had increased to 62 percent of 2019 levels.<sup>6</sup> It is somewhat misleading to consider these data only on an annual basis. The most recent data as published by Logan Airport for November 2022 indicate that the total number of passengers in that month was 3,060,571, which is 94 percent of the total passengers in November 2019.<sup>7</sup> This trend is consistent throughout 2022; the total passenger count in October<sup>8</sup> and September<sup>9</sup> of 2022 was 92.5 percent and 92 percent of travel in those months in 2019, respectively. In short, it is useful to examine the monthly changes as well as annual changes, and in doing so the numbers indicate a much more rapid return to pre-pandemic levels of travel than is stated in the EDR. Even when considering the 2020/2021 EDR reporting period, passenger numbers were at 71 percent of 2019 numbers at that time, and total airport flight operations numbers were at 80 percent of 2019 numbers, indicating a strong upward trend.<sup>10</sup>

Given the indication of a rapid return to “normal,” Massport must urgently prioritize mitigation efforts to reduce and ideally avoid human and environmental harms. The Secretary previously recommended that Massport work to fund the provision of HEPA room air purifier filters in key community locations such as schools, and to work with community-based organizations to collaboratively determine how to further mitigate air quality impacts.<sup>11</sup> We urge Massport to continue working with community-based organizations that have long been involved in this work, such as AIR, Inc., GreenRoots, Inc., and Mothers Out Front, and to support the dissemination of air filtration.

We also note the reference in the 2020/2021 EDR to recent and ongoing research studies including the current work of Boston University and Tufts University on Ultrafine Particulates (UFPs). The 2020/2021 EDR should provide a more detailed update on the study and how findings may relate to Massport activities. CLF underscores the importance of acting in accordance with the findings of this and other scientific research, and also of engaging with and responding to the nearby communities who experience the poor public health outcomes. We are pleased to see the ongoing efforts and partnership regarding treatment for asthma and other respiratory impacts, but underscore that prevention is far preferable to treatment and should be prioritized. The use of HEPA filters and other mitigation techniques should be a key goal to ensure that the negative impacts of airport activity are prevented and offset.

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<sup>5</sup> Logan Airport 2020/2021 EDR Overview, Accessed January 20, 2023 at [https://www.massport.com/media/vgphi3os/logan-edr-overview\\_12-15-22-final.pdf](https://www.massport.com/media/vgphi3os/logan-edr-overview_12-15-22-final.pdf), page 1.

<sup>6</sup> EDR 2020/2021, page 1-8.

<sup>7</sup> Boston Logan International Airport, Monthly Airport Statistics, November 2022, Accessed January 20, 2023 at <https://www.massport.com/media/pjlpulbv/1122-avstats-airport-traffic-summary.pdf>.

<sup>8</sup> Boston Logan International Airport, Monthly Airport Statistics, October 2022, Accessed January 20, 2023 at <https://www.massport.com/media/qa3di0ev/1022-avstats-airport-traffic-summary.pdf>.

<sup>9</sup> Boston Logan International Airport, Monthly Airport Statistics, September 2022, Accessed January 20, 2023 at <https://www.massport.com/media/jl3liaeg/0922-avstats-airport-traffic-summary.pdf>.

<sup>10</sup> Boston Logan International Airport, Monthly Airport Statistics, December 2021, Accessed January 20, 2023 at <https://www.massport.com/media/leufvaab/1221-avstats-airport-traffic-summary.pdf> and 2019 numbers at <https://www.massport.com/media/3927/1219-avstats-airport-traffic-summary.pdf>.

<sup>11</sup> Certificate of the Secretary of Energy and Environmental Affairs on the 2017 Logan Airport Environmental Status and Planning Report, MEPA Certificate 3247, page 4 (Nov. 25, 2019).

B. We recommend that Massport continue to clarify and refine its process for estimating growth rates and for other calculations and provide additional detail for the forecast methodology.

We commend the inclusion of the section outlining the 2022 ESPR Forecast Methodology in the current EDR and encourage even further detail and transparency in this section of the 2020/2021 EDR, in the 2022 ESPR, and in future reporting. CLF has identified in the past that Massport’s characterizations of environmental impact were based on an inadequate forecasting process for both operations and passenger activity. As previously noted, the forecasting process in the 2017 ESPR was inconsistently represented, historically inaccurate, and did not match the qualitative descriptions of key growth drivers within the ESPR. Further, as stated earlier, it is instructive to consider multiple timeframes when analyzing this data; short-term monthly reporting paints a much different picture of the recovery of travel patterns than when looking at the data over an annual timeframe. Given the importance of prevention and mitigation for its work, Massport’s process for measuring impacts and devising appropriate mitigation activities must be sufficiently robust to meet situational uncertainties.

Measuring impact (e.g., noise, air quality, vehicle miles traveled (VMT)) on inaccurate activity forecasts is problematic. We recommend that Massport provide a list of all measured impacts, how said impacts are methodologically related to the activity levels presented in the ESPR forecast, and how current and forward-looking data can be used instead in both the MEPA reporting process, and in other public engagement forums. We encourage Massport to work with community stakeholders to create a mitigation planning system which is based on actual passenger, flight, and daily traffic volumes.

To that end, Massport should more thoroughly document public health impacts. Massport should provide a more detailed update on the Tufts and Boston University Ultrafine Particulate (UFP) study and associated findings. EEA notes that the EDR should “provide an update on the status and finding of UFP research being performed by Tufts University and Boston University regarding the identification of airport-specific related UFPs in an urban environment.”<sup>12</sup> The 2020/2021 EDR notes Massport’s cooperation and data sharing in regard to the study but does not provide additional details on study findings or relevance to Massport activities. Further, CLF made this request in regard to the 2018/2019 EDR as well, so it is concerning to see a continued lack of detailed updates on this important work.

C. CLF seeks additional details in the EDR regarding ground transportation to conform with the Massport-CLF agreement.

The 2020/2021 EDR notes that HOV ridership dropped in the reporting years due to decreased travel overall and because of reluctance to use HOV modes of travel due to the ongoing COVID-19 pandemic.<sup>13</sup> Now that overall passenger numbers are increasing at Logan, this reluctance may be subsiding. Ideally HOV trips would keep pace with this trend. Per the 2017 Massport-CLF agreement, Massport needed to have achieved at least 35.5 HOV mode share by December 31,

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<sup>12</sup> 2017 ESPR Certificate, p. 18.

<sup>13</sup> EDR 2020/2021, page 5-1.

2022 and at least 40 percent by December 31, 2027.<sup>14</sup> Massport may have met this goal; the EDR states that according to the most recent reporting, conducted in 2019, air passenger ground access mode share is “40.4 percent for HOV and shared-ride modes, exceeding both near-term and longer-term goals.”<sup>15</sup>

It is not clear, however, how these numbers may have changed due to the pandemic. HOV ridership decreased severely along with all travel, and while it does appear to be rebounding, it is not clear in the 2020/2021 EDR whether the 35.5 percent goal for 2022 has truly been met. There was only a 12 percent increase from 2020 to 2021 reported in the EDR, when considering all HOV vehicles that the EDR reports on (MBTA Blue and Silver Lines, the Logan Express Bus, the MBTA Ferry, and private water taxis; this excludes RideApp trips because it is not clear what portion of these rides are considered HOV).<sup>16</sup> Additionally, when comparing the HOV passenger numbers to overall airport passengers, total HOV passengers only constituted 11 percent of all airport passengers in 2021.<sup>17</sup> Given that some HOV-related mitigation measures have been deferred (see Table 1), it’s possible that HOV mode share has now been reduced below the goal percentage.

While Massport states that they are on track to meet the goals of the Massport-CLF agreement, it is difficult to confirm this based on the information in the EDR. Massport must prioritize mitigation efforts that support increasing HOV mode share and must be transparent about this reporting in the forthcoming 2022 ESPR.

D. There should be transparent thresholds for deferred mitigation projects.

We are pleased to see that several mitigation projects that were previously on hold are moving forward or have been completed, including plans to procure eight additional MBTA Silver Line buses, and incentives for Logan Express riders such as security line priority status. Notwithstanding, there are still several initiatives that remain deferred without clear guidelines or goals for when they will resume. We list these in the table below. We recommend that Massport develop transparent thresholds of the appropriate metric (e.g., VMT, operations, passenger activity, etc.) for when Massport will return to the implementation of these projects, or at least clarify decision-making processes for returning to these mitigation measures. The 2020/2021 EDR notes that these projects will need to be re-evaluated but the decision-making processes that indicate when and under what conditions Massport will conduct this re-evaluation is unclear. In some cases, Massport notes that they will begin the project once passenger activities reach 2019 levels, and it is evident based on the 2022 Airport Statistics that current activities may already or very soon will match 2019 activities. CLF recommends that the Secretary’s 2020/21 Certificate establish thresholds for Massport to recommence deferred mitigation projects.

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<sup>14</sup> Massport-CLF Agreement (May 18, 2017).

<sup>15</sup> EDR 2020/2021, page 3-8.

<sup>16</sup> EDR 2020/2021, page 5-11.

<sup>17</sup> Calculated based on Boston Logan December 2021 Airport Statistics as accessed January 20, 2023 at <https://www.massport.com/media/leufvaab/1221-avstats-airport-traffic-summary.pdf>.

**Table 1 – Key Deferred Mitigation Projects**

Project Category	Mitigation Activity	Environmental Impact	2020/2021 EDR page reference
Airport Ground Transportation and Parking Projects/Planning Concepts	Logan Airport Parking Project (additional 5,000 spaces)	Reduced VMT	1-17
Suburban Logan Express Enhancement	Add about 1,000 additional spaces to the Framingham garage.	Added HOV share, reduced VMT.	1-21
Suburban Logan Express Enhancement	Evaluate new Logan Express suburban locations, with a plan to open at least one new site.	Added HOV share, reduced VMT.	3-7
Airport Ground Transportation and Parking Projects/Planning Concepts	Terminal E Modernization (incorporates former West Concourse Project) - Blue Line Pedestrian Connection	Added HOV share through pedestrian connectivity.	3-16 / 9-42
Urban Logan Express Service	Massport’s plan to operate a new urban Logan Express location between North Station and Logan Airport is currently on-hold (although Massport procured buses for this service in 2020).	Added HOV share, reduced VMT.	9-14
Other	Several options were identified to reduce on-Airport congestion and improve on-Airport ground access efficiency. Initial options included dedicated HOV bus lanes, the creation of an intermodal transportation center with bus service to terminals, the construction of an Automated People Mover (APM), or some combination of these improvements. These and other options are currently on hold and will be revisited once passenger levels recover closer to 2019 levels.	Added HOV share through intermodal transit, infrastructure improvements, reduced VMT	9-17

E. Massport must continue to engage with affected communities to discuss mitigation opportunities.

The 2020/2021 EDR reports on mitigation commitments and environmental impacts within the reporting period. In the EDR review process, Massport produces these documents internally, and then releases them to the public for comment and input after they are already complete. Given the rapid changes that have followed from the pandemic, an annual public review process where public input is only provided after Massport releases a document is insufficient for proper mitigation planning, especially as Massport is making decisions about mitigation projects and operations as the pandemic situation shifts. Instead, Massport should work with organizations and members from the most affected communities prior to the release of the next iteration of the report. This will allow Massport to conduct more thoughtful planning as operations and impacts shift. It would also significantly improve a reporting process that is opaque and very technical by making this information more accessible.

State laws and policies require enhanced engagement with residents of environmental justice populations.<sup>18</sup> We note Massport's acknowledgement of the updated MEPA protocols regarding public involvement, environmental justice populations, and climate change adaptation and resiliency.<sup>19</sup> To go even further and best address goals of equitable and efficient public involvement, CLF encourages Massport to hold community meetings, outside of MEPA processes and after MEPA deadlines expire, to discuss ways for Massport to be a great neighbor and best implement mitigation measures associated with its environmental impacts, which are especially important as we live through the next phase of the COVID-19 pandemic.

CLF is happy to provide additional information and assistance as may be required. You may contact me with questions at [SRubin@clf.org](mailto:SRubin@clf.org).

Sincerely,



Staci Rubin  
Vice President, Environmental Justice  
Conservation Law Foundation

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<sup>18</sup> An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy, St. 2021, c. 8, § 60; Exec. Order 552 (2014); 301 CMR 11.00 et seq., Executive Office of Energy and Environmental Affairs Environmental Justice Policy 2021.

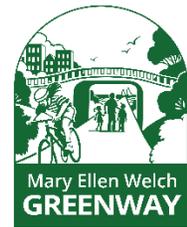
<sup>19</sup> EDR 2020/2021, page 1-7.

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5. Friends of the Mary Ellen Welch Greenway; Karen Maddelana

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Friends of the Mary Ellen Welch Greenway  
PO Box 74  
East Boston, MA 02128



December 16th, 2022

Dear Secretary Theoharides,

The Friends of the Mary Ellen Welch Greenway would like to comment on the Boston Logan International Airport, 2020/2021 Environmental Data Report (EEA #3247).

First and foremost, we appreciate the extension of the deadline for comments to January 23, 2023. The previous deadline on January 6th, right after the holidays, would have been rushed.

We would like to see more detailed information about the impact methodology in regards to the impact along the Mary Ellen Welch Greenway. For example, what are the expected air quality metrics along the Greenway?

Additionally, as the airport continues to grow, we would like to see it address an increase in traffic on 1A. We are highly interested in the locations with the most traffic volume along the Greenway, particularly on the Martin A. Coughlin Bypass Road.

Finally we would like to echo's AIR Inc.'s note about adding key updates to the ESPR 2017 iteration of Logan's unique MEPA review process:

1. The relevant scientific research on health impacts of aviation noise and pollution
2. Additional strategies to keep mitigation on pace with growth
3. Strategies for the most effective distribution of air filtration units

Best regards,

Sincerely,

A handwritten signature in black ink that reads "Karen Maddelana".

Karen Maddelana  
President

Friends of the Mary Ellen Welch Greenway

Cc: Nathalia Benitez, COB Neighborhood Services and District 1 City Councillor Gabriela Coletta.

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## 6. Responses to Comments

#	Author	Topic	Comment	Response
<b>1. Massachusetts Department of Energy Resources; Paul F. Ormond</b>				
1-1	Paul F. Ormond, Massachusetts Department of Energy Resources	Airport Planning	We recommend new construction and renovations use 100% efficient electric space and water heating. Efficient electrification entails the swapping of fossil fuels (natural gas, oil, propane) and fossil-fuel generated heat energy from the combined heat and power plant (CHP) with cold-climate rated air source heat pumps.	Massport is currently updating its design and construction guidelines to align with the <i>Roadmap to Net Zero by 2031</i> . The updated <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) will recommend all 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.
1-2	Paul F. Ormond, Massachusetts Department of Energy Resources	Air Quality and Emissions Reduction	The energy and emissions reported appear to take into effect onsite renewable energy production. We recommend that building energy and emissions use be tracked with and without effect of onsite renewable energy production to assess building efficiency measures themselves.	Massport collects building level energy and emissions data as part of its utility revenue system. Through its Massport Infrastructure Conditions Assessment (MICA)/Buildings Conditions Assessment (BCA) program, Massport is identifying building energy efficiency measures, and is simultaneously identifying strategies to enhance the granularity of metering capabilities. The MICA/BCA program is modeling or calculating building level emissions, where possible. This effort will take time as metering is not available in all locations to facilitate the calculation of emissions. Massport will continue to identify opportunities for increased metering to assist in performing these calculations.
1-3	Paul F. Ormond, Massachusetts Department of Energy Resources	Air Quality and Emissions Reduction	In addition to utility provided electric and gas, Logan also uses central plant combined heat and power (CHP) to heat, cool, and power buildings. When CHP is used, the building emissions picture is more complex. To assess this, EDRs and ESPRs should also report the following: <ul style="list-style-type: none"> <li>• Space and water heating end use consumption, estimated and broken down by heating which is provided by central plant steam versus heating provided by fossil-fuel fired (or other) equipment;</li> <li>• Space cooling end use consumption, estimated and broken down by cooling from central plant produced chilled water versus cooling provided by other non-CHP means;</li> </ul>	Massport is working to implement projects that would improve the Authority's capacity to respond to these reporting recommendations. For example, Massport is currently updating its design and construction guidelines to align with its <i>Roadmap to Roadmap to Net Zero by 2031</i> . The <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) will require project design teams to estimate annual operational greenhouse gas (GHG) emissions, and for Massport to measure actual GHG emissions post occupancy. Operational emissions will be estimated using current year emission factors provided by the United States Environmental Protection Agency (U.S.EPA) Emission Factors Hub, consistent with Massport's <i>Roadmap to Net Zero by 2031</i> , annual Airport Carbon Accreditation disclosures, and regular EDR and ESPR GHG emissions reporting. Many of the emission factors utilized by Massport are in alignment with those provided by the Department of Energy Resources (DOER) Leading by Example Program via: <a href="https://www.mass.gov/info-details/leading-by-example-tools-and-resources#greenhouse-gas-calculator">https://www.mass.gov/info-details/leading-by-example-tools-and-resources#greenhouse-gas-calculator</a> .

#	Author	Topic	Comment	Response
1-4	Paul F. Ormond, Massachusetts Department of Energy Resources	Content, Scope, EJ, Climate	<p>In addition to utility provided electric and gas, Logan also uses central plant combined heat and power (CHP) to heat, cool, and power buildings. When CHP is used, the building emissions picture is more complex. To assess this, EDRs and ESPRs should also report the following:</p> <ul style="list-style-type: none"> <li>• Estimated CHP heating, power, and cooling production efficiency.</li> <li>• Space and water heating end use consumption, estimated and broken down by heating which is provided by central plant steam versus heating provided by fossil-fuel fired (or other) equipment;</li> <li>• Space cooling end use consumption, estimated and broken down by cooling from central plant produced chilled water versus cooling provided by other non-CHP means;</li> <li>• Estimated CHP heating, power, and cooling production efficiency.]</li> </ul> <p>Once the above is estimated, the emissions of building space heating, space cooling, and service water heating can then be estimated. This analysis should be done using electric grid emissions of 633 pounds per megawatt hour (lbs/MWhr) for year 2022 and 200 lbs/MWhr for year 2050 to provide a picture of current and future emissions footprints.</p>	<p>Massport is currently updating its design and construction guidelines to align with the <i>Roadmap to Net Zero by 2031</i>. The <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) will require project design teams to estimate annual operational GHG emissions, and for Massport to measure GHG emission actuals post-occupancy. Operational emissions will be estimated using current-year emission factors provided by the United States Environmental Protection Agency (U.S.EPA) Emission Factors Hub, consistent with Massport's <i>Roadmap to Net Zero by 2031</i>, annual Airport Carbon Accreditation (ACA) disclosures, and regular Environmental Data Report (EDR) and Environmental Status and Planning Report (ESPR) GHG emissions reporting.</p> <p>Many of the emission factors utilized by Massport are in alignment with those provided by the Department of Energy Resources (DOER) Leading by Example Program via: <a href="https://www.mass.gov/info-details/leading-by-example-tools-and-resources#greenhouse-gas-calculator">https://www.mass.gov/info-details/leading-by-example-tools-and-resources#greenhouse-gas-calculator</a>.</p> <p>The ESPRs and EDRs report emissions based on modeling methodology, which follows industry standards and regulatory guidelines, but ESPRs and EDRs are materially different from project-specific reporting for project-derived impacts. An EDR/ESPR's emissions inventory reports on trends at a macro-scale, whereas each Massachusetts Environmental Policy Act (MEPA) applicable project has a more detailed and project-specific emissions inventory and analysis. The rationale and supporting justifications for the methodology used in the ESPRs and EDRs is provided in <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b>. Massport continues to implement new projects that are intended improve the Authority's ability to respond to these reporting recommendations.</p>

#	Author	Topic	Comment	Response
1-5	Paul F. Ormond, Massachusetts Department of Energy Resources	Air Quality and Emissions Reduction	<p>For new buildings, new building additions, and buildings which undergo alterations and/or change of use, we recommend the following:</p> <ul style="list-style-type: none"> <li>• Prioritize building design and construction practices that result in low heating and cooling thermal energy demand intensity (TEDI) with: <ul style="list-style-type: none"> <li>○ Built-up, framed, insulated walls with continuous insulation;</li> <li>○ Thermally-broken windows and other components to eliminate thermal bridges;</li> <li>○ Minimizing glass curtain wall assemblies and excessive windows;</li> <li>○ Low air-infiltration, confirmed with in-building air-infiltration testing;</li> <li>○ High levels of energy recovery;</li> <li>○ Management of solar heat gains.</li> </ul> </li> </ul>	<p>Massport is updating its <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) in 2024 which will substantially address these opportunities including encouraging projects to work towards meeting the Massport's net zero emissions target, which would include design strategies that optimize energy use intensity (EUI), mitigate heat losses and gains, and work in energy recovery strategies as feasible. In addition, projects are encouraged to meet the new Massachusetts Stretch Energy and Municipal Opt-In Specialized Building Code, as feasible.</p>
1-6	Paul F. Ormond, Massachusetts Department of Energy Resources	Content, Scope, EJ, Climate	<p>If new or renovated residential or hotel space is planned, pursue Passivehouse (either PHIUS or PHI certifications.)</p>	<p>Massport does not anticipate new or renovated residential or hotel space to be constructed at Logan Airport in the foreseeable future. Massport is currently updating its design and construction guidelines to align with the <i>Roadmap to Net Zero by 2031</i>. The <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) will encourage project design teams leverage feasible passive design strategies and optimize energy efficiency to reduce projects' total energy demand. Massport encourages, but does not require, pursuit of Passive House Institute, Inc.'s Phius ZERO™ certification. Where applicable, the SRDSGs will require projects to achieve the U.S. Green Building Council's (U.S.GBC) Leadership in Energy and Environmental Design (LEED®) Zero Carbon Certification. Facilities at the Airport that have received LEED® Certification are detailed in <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Table 2-3.</b></p>
1-7	Paul F. Ormond, Massachusetts Department of Energy Resources	Content, Scope, EJ, Climate	<p>Use air source heat pump space and water heating.</p>	<p>Massport is currently updating its design and construction guidelines to align with the <i>Roadmap to Net Zero by 2031</i>. The <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) will 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.</p>

## Comment Letters and Responses to Comments

#	Author	Topic	Comment	Response
1-8	Paul F. Ormond, Massachusetts Department of Energy Resources	Content, Scope, EJ, Climate	Avoid use of natural gas CHP and onsite gas combustion for space and water heating.	Massport is currently updating its design and construction guidelines to align with the <i>Roadmap to Net Zero by 2031</i> . The <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) will 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.
1-9	Paul F. Ormond, Massachusetts Department of Energy Resources	Content, Scope, EJ, Climate	Set aside as much rooftop space for solar as possible, including for projects in which solar may not be built as part of initial project.	Massport is currently updating its design and construction guidelines to align with the <i>Roadmap to Net Zero by 2031</i> . The <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) will include recommended standards for the integration of onsite and offsite renewables when feasible and encourage projects to pursue LEED® Zero Carbon Certification. Further, design teams of parking projects will evaluate the opportunity for 100 percent of total onsite electricity consumption with onsite renewable energy generation, with exceptions for electric vehicle charging as needed. Such omissions will be covered through Massport's other renewable energy generation, procurements, or both. Renewable energy requirements for vertical projects will prioritize onsite generation, followed by local generation on Massport properties, then offsite generation projects such as through power purchase agreements, and finally energy attribute certificates and renewable energy certificates allowable until 2040. Such efforts to support renewable energy may include support for photovoltaic (PV) readiness on rooftops or via other siting opportunities, depending on feasibility as projects are designed and constructed.
1-10	Paul F. Ormond, Massachusetts Department of Energy Resources	Airport Planning	Prepare for ubiquitous electric vehicles (EVs) with as much EV and EV ready parking spaces	Massport is currently updating its design and construction guidelines to align with the <i>Roadmap to Net Zero by 2031</i> . 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 SRDSGs to meet increasing local and regional adoption of EV use.

#	Author	Topic	Comment	Response
<b>2. Massport Community Advisory Committee; Aaron Toffler</b>				
2-1	Aaron Toffler, Massport Community Advisory Committee	Forecasting	In the Certificate of the Secretary of Energy and Environmental Affairs on the 2018/2019 Logan Airport Environmental Data Report (March 19, 2021), the Secretary said that “the next EDR should describe the methodology for the forthcoming future forecast which should be provided in the 2022 <i>ESPR</i> .” The MCAC would repeat this request to understand more fully how much growth is expected at the airport in the future and what mitigation will be necessary to protect our member communities.	<p><b>Chapter 3, Activity Levels and Forecasting, Section 3.4</b>, of the 2022 <i>ESPR</i> describes methodology for future forecasting. The chapter describes the use of 1) historical trends; 2) recent developments including COVID recovery; and 3) outlook for future demand drivers such as local and national economic growth. <b>Chapter 3, Activity Levels and Forecasting</b> also presents multiple tables providing data, and 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 <b>Chapter 3, Activity Levels and Forecasting, Section 3.4</b>.</p> <p>Massport follows industry best practices in preparing Future Planning Horizon and considers 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 <b>Chapter 3, Activity Levels and Forecasting, Section 3.5</b> and in <b>Appendix F, Activity Levels Supporting Documentation</b>. As a result of feedback from Environmental Status and Planning Report (<i>ESPR</i>) pre-filing meetings, additional content to clarify the forecasting process and methodologies was added to <b>Chapter 3, Activity Levels and Forecasting</b>, and <b>Appendix F, Activity Levels Supporting Documentation</b>, and relevant technical chapters. Additionally, data for baseline conditions from applicable comparison years were added to technical chapters to provide a contextual frame of reference for the conditions reported for the current year as well as for the forecasted future conditions and assumptions.</p> <p>Massport has and will continue to enhance public engagement as part of preparing the <i>ESPR</i> and future Environmental Data Reports (EDRs). To date, three additional meetings have been convened with the Executive Office of Energy and Environmental Affairs (EEA) and stakeholders regarding the format of the <i>ESPR</i> to develop strategies to improve readability for the general public. The first public information session on June 29, 2023, described the methodologies employed in the <i>ESPR</i> to develop future forecasts and technical approaches to modeling. A second session on December 12, 2023, with community advocacy group representatives and the EEA focused on review of 2020/2021 <i>EDR</i> comments and discussed ways to better address these comments in the 2022 <i>ESPR</i>. On January 17, 2024, a public information meeting provided an update on the <i>ESPR</i> preparation and findings. A fourth public information session will be held after the <i>ESPR</i> is filed with the Massachusetts Environmental Policy Act (MEPA) Office during the public review period. Broad notification of these meetings is facilitated through notices in multiple languages in newspapers, distribution to community-based organizations (CBOs) and tribes on the EEA’s Environmental Justice (EJ) Reference List, previous</p>

#	Author	Topic	Comment	Response
				reviewers, public libraries, Massport Community Advisory Committee (Massport CAC) and key community repositories.
2-2	Aaron Toffler, Massport Community Advisory Committee	Ground Access	The EDR discusses efforts to evaluate new Logan Express sites without going into detail about what factors are considered or how each line of the service is currently performing. As ground access and increasing the share of HOV users to the airport are important issues, more information would allow the MCAC to partner with Massport and make recommendations for minimizing impact to our communities, particularly those that are near to the airport itself. More detailed information on parking usage and how rates are set would serve the same purpose.	<p>Prior to the COVID-19 pandemic, Massport was aggressively moving forward with new and expanded high-occupancy vehicle (HOV) services including expansion of Logan Express service hours, facility enhancements and expansion of the Logan Airport Express's Framingham Garage. In late 2019, Massport also purchased new buses for the planned new North Station to Suburban Logan Airport Express Service. As with many planned (HOV enhancements prior to the COVID-19 outbreak, those services were suspended, reduced or deferred based on ridership demand and reduced revenues.</p> <p>As passenger activity recovers from COVID-19, Massport is restoring service and restarting select postponed projects, and projects are prioritized based on passenger needs and user demand. Updates on projects deferred due to COVID are discussed in <b>Chapter 4, Airport Planning, Section 4.1 and Section 4.2</b> and are summarized as follows:</p> <ul style="list-style-type: none"> <li>• <b>Postponed Terminal E Improvement Phases 1 and 2:</b> Terminal E Phase 1 opened in October 2023, and the next phase to add four new gates is currently in conceptual planning process.</li> <li>• <b>Postponed Parking Garage in front of Terminal E:</b> The project has resumed and currently in preliminary design phases.</li> <li>• <b>Suspended Logan Express service</b> from Peabody, Woburn, and Back Bay: Services restored in 2022.</li> <li>• <b>Logan Express headways</b> reduced from Braintree and Framingham Logan Express: Headways were restored in 2021, and new Quincy lot is helping to increase passenger capacity at Braintree as well as a parking expansion at Framingham, which is also helping to improve passenger use.</li> <li>• <b>Postponed construction of additional parking at Framingham Logan Express:</b> Project has resumed and is in the design phase with construction currently estimated to begin in 2024.</li> <li>• <b>New Logan Express suburban location:</b> Peabody Logan Express at new North Shore location opened in 2022 and planning for relocation to a new/enhances site in Danvers is underway for a planned late 2024 opening. Current priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing Back Bay Logan Express.</li> <li>• <b>Dedicated High Occupancy Vehicle (HOV) bus lanes:</b> HOV prioritization initiatives, including HOV bus lanes, are underway throughout the Logan Airport campus.</li> </ul> <p>Planned mitigation measures for specific projects at Logan Airport are detailed in <b>Chapter 10, Project Mitigation</b>, and will continue to be refined as growth and activity</p>

#	Author	Topic	Comment	Response
				<p>levels increase. Future EDRs and ESDRs will continue to provide regular updates on operational and environmental impacts and Massport's strategies to minimize environmental and community impacts as projects come on-line. The results of the <i>2022 Logan Airport Air Passenger Ground-Access Survey</i> informed the HOV, and ground access strategy as described in <b>Chapter 6, Ground Access, Section 6.5</b>. This strategy is evaluated on an on-going basis to adapt to the changes associated with the pandemic and the resultant passenger demands for airport access. <b>Chapter 7, Noise, Section 7.4</b> and <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b> discuss air and noise strategies to extend past project-specific mitigation and provide additional impact offset strategies and initiatives.</p>
2-3	Aaron Toffler, Massport Community Advisory Committee	Noise	<p>Massport collects a great deal of information from its noise monitoring system which could be useful in supporting our participation in this effort. Sharing this information with our members would assist us in determining the optimal placement of these monitors as well as evaluating the data that they produce.</p>	<p>Massport publishes detailed information on our website, including noise complaints, runway use, near-live flight tracking software (<a href="https://www.massport.com/environment/noise-abatement/logan-airport">https://www.massport.com/environment/noise-abatement/logan-airport</a>). For over three decades, Massport has provided extensive information on noise monitoring, noise modeling and associated inputs, including detailed technical appendices in ESDRs and EDRs.</p> <p>Massport's permanent noise monitoring program consists of 30 noise monitors located around the Airport and environs, and Massport recently upgraded the Noise and Operations Monitoring System (NOMS), replacing 29 of 30 monitors. Massport worked with community stakeholders to identify optimal locations for the noise monitors that generally aligned with the runway ends and direction of takeoffs and landings. During normal operation, the noise monitors continuously measure noise exposure levels as well as a variety of metrics associated with individual noise events that exceed preset threshold sound levels. Noise monitoring data are transmitted back to Massport's Noise Office, where daily night average noise level (DNL) values and other noise metrics are computed for each location and are summarized in various reports. Noise monitors collect sound data from not only aircraft noise events but also surrounding noise events such as roadway traffic and construction. Software algorithms identify aircraft noise events which allows Massport to separately calculate total DNL and aircraft only DNL.</p>

#	Author	Topic	Comment	Response
<b>3. Air, Inc</b>				
3-1	AIR, Inc.	Airport Planning	Address each of our past comments from the 2015, 2016, and 2018 / 2019 EDRs, the Terminal E Modernization Project, the Logan Parking Project, and the 2017 ESPR.	<p>Massport carefully reviews Environmental Data Report (EDR) and Environmental Status and Planning Report (ESPR) comments received and strives to be responsive to each commentor. The Massachusetts Environmental Policy Act (MEPA) Certificate provides formal guidance on specific topics to be addressed in the ensuing filings, and Massport consistently addresses all of these scoping requirements. When comments request information or actions outside the Certificate requirements or are not within Massport's ability to accommodate, Massport strives to respond as appropriate. If the Executive Office of Energy and Environmental Affairs (EEA) determines Massport has not fully responded to or addressed comments the EEA has deemed relevant, the EEA may require those comments be addressed by incorporating them into future ESPR or EDR scoping requirements.</p> <p>Public comments provided for project-specific MEPA filings are responded to within that regulatory framework, but individual comments on specific projects are not always within the scope or intended purpose of EDRs and ESPRs. Status updates on projects and project-specific mitigation are provided in <b>Chapter 10, Project Mitigation</b>, and future EDRs and ESPRs will continue to report this information.</p>
3-2	AIR, Inc.	Content, Scope, EJ, Climate	Limit the length of all environmental compliance documents.	<p>Massport has responded to this comment by implementing many ESPR format enhancements to improve readability and audience accessibility including:</p> <ul style="list-style-type: none"> <li>• Shortening the overall document;</li> <li>• Moving technical information on methodologies and assumptions as well as supporting data used in analyses to technical appendices;</li> <li>• Increasing use of infographics, charts, and illustrations in place of long text explanations;</li> <li>• Revising text to use more common vernacular and word choice with less technical jargon;</li> <li>• Removing previously published materials currently available from other sources, like prior ESPR and EDR publications hosted on Massport websites; and</li> <li>• Using icons and call-out boxes to highlight important data or findings to facilitate faster reading and comprehension.</li> </ul>

#	Author	Topic	Comment	Response
3-3	AIR, Inc.	Content, Scope, EJ, Climate	MEPA and EEA must require that Massport's MEPA submissions are succinct and readable.	<p>While the monitoring and analysis of operations and impacts from a major international airport requires large quantities of detailed data and information, Massport has responded to this comment by implementing many ESRP format enhancements to improve readability and audience accessibility including:</p> <ul style="list-style-type: none"> <li>• Shortening the overall document;</li> <li>• Moving technical information on methodologies and assumptions as well as supporting data used in analyses to technical appendices;</li> <li>• Increasing use of infographics, charts, and illustrations in place of long text explanations;</li> <li>• Revising text to use more common vernacular and word choice with less technical jargon;</li> <li>• Removing previously published materials currently available from other sources, like prior ESRP and EDR publications hosted on Massport websites; and</li> <li>• Using icons and call-out boxes to highlight important data or findings to facilitate faster reading and comprehension.</li> </ul>
3-4	AIR, Inc.	Content, Scope, EJ, Climate	Calculate and report the socialized costs of Logan Airport operations.	<p>The purpose of the ESRP 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 ESRP 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 <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.4.</b></p>
3-5	AIR, Inc.	Mitigation	Develop a schedule of proactive policy and mitigation responses to future impact levels.	<p>As passenger activity recovers from COVID-19, Massport is restoring service and restarting select postponed projects, such as Logan Express services and the Logan Parking Project, and projects are prioritized based on passenger needs, user demand and their effectiveness in reducing operational and environmental impacts associated with current activity levels. <b>Chapter 4, Airport Planning, Section 4.1 and Section 4.2</b> discusses the status of deferred capital projects and provides discussion on the methodology for when these projects will resume. <b>Chapter 4, Airport Planning, Table 4-1</b> summarizes Massport's short and long-term planning initiatives as well as a current status schedule for implementation.</p> <p>As passenger activity recovers, and impacts from those additional activities grow, Massport restores service and restarts select postponed projects. Updates on projects deferred due to the COVID-19 pandemic are as follows:</p> <ul style="list-style-type: none"> <li>• <b>Postponed Terminal E Improvement Phases 1 and 2:</b> Terminal E Phase 1 opened in October 2023, and the next phase to add four new gates is currently in conceptual planning process.</li> </ul>

#	Author	Topic	Comment	Response
				<ul style="list-style-type: none"> <li>• <b>Postponed Parking Garage in front of Terminal E:</b> The project has resumed and currently in preliminary design phases.</li> <li>• <b>Suspended Logan Express service</b> from Peabody, Woburn, and Back Bay: Services restored in 2022.</li> <li>• <b>Logan Express headways</b> reduced from Braintree and Framingham Logan Express: Headways were restored in 2021, and new Quincy lot is helping to increase passenger capacity at Braintree as well as a parking expansion at Framingham, which is also helping to improve passenger use.</li> <li>• <b>Postponed construction of additional parking at Framingham Logan Express:</b> Project has resumed and is in the design phase with construction currently estimated to begin in 2024.</li> <li>• <b>New Logan Express suburban location:</b> Peabody Logan Express at new North Shore location opened in 2022 and planning for relocation to a new/enhances site in Danvers is underway for a planned late 2024 opening. Current priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing Back Bay Logan Express.</li> <li>• <b>Dedicated High Occupancy Vehicle (HOV) bus lanes:</b> HOV prioritization initiatives, including HOV bus lanes, are underway throughout the Logan Airport campus.</li> </ul> <p>Planned mitigation measures for specific projects at Logan Airport and information on deferrals and when projects will resume are detailed in <b>Chapter 10, Project Mitigation</b>, and Massport will continue to refine estimates and resume previously planned projects as growth and activity levels increase. Future EDRs and ESPRs will continue to provide regular updates on operational and environmental impacts and Massport's strategies to minimize environmental and community impacts as projects come on-line.</p> <p><b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.2</b> provides an overview of measures Massport takes to avoid, minimize, and offset the environmental effects of airport operations. In addition, an EJ and Public Health Existing Conditions Review has been included in the <i>2022 ESPR</i> to assess the existing environmental and health conditions currently experienced by the Airport's surrounding communities, including Environmental Justice (EJ) communities. See <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.4 and Section 2.5</b></p> <p>When it is possible for Massport to differentiate effects of Airport activities from those derived from other impact sources in the surrounding community, these effects and associated measures taken to offset these effects are reported on in the technical chapters, such as <b>Chapter 7, Noise</b>, or <b>Chapter 10, Project Mitigation</b>, for example.</p>

#	Author	Topic	Comment	Response
				Massport is currently updating its <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) and construction sustainability guidelines to align with the <i>Roadmap to Net Zero by 2031</i> and improve its proactive measures that respond to potential impacts that could result from future developments. Responses to Comment 1-1 and 1-10 provide additional details on some of these improvements.
3-6	AIR, Inc.	Activity Levels	Provide comprehensive data [flight operations and passenger activity levels].	<b>Chapter 3, Activity Levels and Forecasting, Section 3.1</b> , provides detailed information on domestic and international passenger activity levels, and aircraft operations. Additional information on aircraft types and fleet mix, schedules, and flight destinations are included in <b>Appendix F, Activity Levels Supporting Documentation</b> , to <b>Chapter 7, Noise, Section 7.2.1</b> and these inputs are used in ground, noise, and air analysis.
3-7	AIR, Inc.	Air Quality and Emissions Reduction	Provide an accurate and detailed reporting of on-airport vehicle idling data, and a plan to control this avoidable form of pollution.	As part of its <i>Roadmap to Net Zero by 2031</i> initiative, Massport is working on fleet and equipment decarbonization for Massport facilities and supporting tenant's efforts to reduce greenhouse gas (GHG) emissions. Progress will be reported in forthcoming EDRs and ESPRs. The status of industry air quality studies on topics, including ultrafine particles (UFP), black carbon (BC), local public health impacts, etc., will continue to be reported and discussed, as described in <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b> . The Response to Comment A-6 provides a more detailed description of on-going air quality studies undertaken by Massport as well as other academic and research institutions. In addition, an EJ and Public Health Existing Conditions Review has been included in the <i>2022 ESPR</i> to assess the existing environmental and health conditions currently experienced by the Airport's surrounding communities, including Environmental Justice (EJ) communities. See <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.4 and Section 2.5</b> As part of the <i>2022 ESPR</i> , Massport conducted an idling and dwell time study to update the vehicle dwell time information for the Terminal A arrivals and departure curbs across all modes and Terminal B buses. Terminal A was used as a suitable proxy for the other terminals given the limitations associated with the on-going construction at Terminals B, C, and E during the course of the study. The study included in-person observations of the cell phone lot to determine the extent which vehicles were dwelling with engines running, or idling. Massachusetts General Law (MGL) requires vehicles to shut off engines when stationary or parked for more than five (5) minutes. Massport has enforcement mechanisms in place at the taxi, RideApp, bus, and limo pool areas, therefore dwelling vehicles were not observed at these locations. The study provided updated input data, which was used to complete the ground access and air quality modeling of current and future forecasted conditions for the <i>2022 ESPR</i> , and this information was integrated into the relevant discussion sections of <b>Chapter 6, Ground Access, Section 6.5</b> and

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				<b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.2.1.</b> As construction at the other terminal curbs are completed, Massport will conduct idling and dwell time studies at those locations and report on findings in upcoming EDRs or ESPRs.
3-8	AIR, Inc.	Air Quality and Emissions Reduction	<p>Commence planning for aircraft emissions reduction programs at Logan by:</p> <ul style="list-style-type: none"> <li>• Initiating a groundbreaking tri-state regional airport master planning process.</li> <li>• Developing an airport Emissions Rule.</li> <li>• Making single engine taxiing mandatory.</li> <li>• Development if a proposed electric aircraft airports plan.</li> <li>• Developing a Beta testing plan for electric aircraft which assures that electric aircraft distribution will benefit EJ communities.</li> <li>• Develop electric aircraft infrastructure and evaluate alternate technologies to generate power such as installation of microgrids and airfield solar farms.</li> <li>• Immediately designing and fully funding a community air filtration program for classroom and residential applications.</li> </ul>	<p>Massport 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. Examples of these efforts include those discussed below.</p> <ul style="list-style-type: none"> <li>• Providing electric charging infrastructure to facilitate use of electric ground service equipment (eGSE). In 2020, Massport received a \$4 million Voluntary Airport Low Emissions Program (VALE) grant to acquire charging stations at Logan for eGSE (electric ground service equipment). In 2018, the United States Environmental Protection Agency (U.S.EPA) granted Massport \$500,000 to install airline-owned eGSE charging stations at Logan’s Terminal B.</li> <li>• Promoting the use of sustainable aviation fuel (SAF) through the submission of a grant proposal to the Federal Aviation Administration (FAA) as part of its Fueling Aviation’s Sustainable Transition (FAST) Grant program to study the facility of transporting SAF from the mid-west to Logan Airport. Massport continues to keep up to date on SAF usage and availability in the northeastern U.S.</li> <li>• At Massport’s June 2023 board meeting, discussions focused on the future of electric aircraft and electric vertical takeoff and landing (eVTOL) and how Massport needs to be ready to accommodate these aircraft. Planning for additional e-aircraft is part of Massport’s <i>Roadmap to Net Zero by 2031</i> GHG strategy.</li> <li>• 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. When working with the EBNHC regarding installation of high efficiency particulate air (HEPA) filters in homes and other locations, representatives of the Center stated that home visits would be a more effective tool than filters. Accordingly, Massport is continuing to fund the home visit program.</li> </ul>
3-9	AIR, Inc.	Ground Access	Consider the costs and benefits of all viable ground access policy and mitigation alternatives, including use of an airport roadway fee, and all reasonable monetary and	Massport continues to evaluate ground access opportunities in relation to mode share goals, forecasted air passenger levels, and policy alternatives. An update on the performance of current policies and strategies for improving ground access to Logan Airport while reducing emissions and traffic congestion issues is provided in <b>Chapter 6, Ground Access, Section 6.5.</b>

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			non-monetary pricing adjustments under Massport’s control.	
3-10	AIR, Inc.	Air Quality and Emissions Reduction	Acknowledge the disparities of scale factoring into Massport’s emissions reporting.	<p><b>Chapter 3, Activity Levels and Forecasting, Section 3.4</b> describes the forecasting methodologies used for future planning activity levels. This ESPR reports on 2022 conditions with a comparison to 2021 and 2019 conditions and captures pandemic and post pandemic growth trends for activity levels.</p> <p>Massport follows industry best practices for forecasts and emissions reporting. As described in <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.2.3</b>, Massport uses the FAA’s-required Aviation Environmental Design Tool (AEDT) for air quality modeling of aircraft-related emissions and aircraft noise modeling. Consistent with past practice, the version of AEDT that is current at the inception of the study AEDT version 3e, released on May 9, 2022, was used to model 2022 data. The most recent version of the United States Environmental Protection Agency’s (U.S.EPA) Motor Vehicle Emission Simulator (MOVES) version 3.1, released in November 2022 was used to estimate motor vehicle emissions on airport roadways. The assumptions and sources of data are documented in <b>Chapter 3, Activity Levels and Forecasting, Section 3.4</b>, and in <b>Appendix F, Activity Levels Supporting Documentation</b>. As a result of feedback from these meetings, additional content to clarify the forecasting process and methodologies was added to <b>Chapter 3, Activity Levels and Forecasting, Section 3.4, Appendix F, Activity Levels Supporting Documentation</b>, and relevant technical chapters.</p> <p>Additionally, data for baseline conditions from selected comparison years were added to technical chapters to provide a contextual frame of reference for the conditions reported for the current year as well as for the forecasted future conditions and assumptions. These comparisons will support Massport’s data-driven approach to identifying which potential impact reduction measures could be feasible options for the future in addition to providing a framework for the public audience to assess the progress of Massport’s efforts to date.</p>
3-11	AIR, Inc.	Noise	Take action immediately to reduce nighttime aircraft noise.	<p>While wind and weather conditions are the primary factors influencing runway use, the nighttime preferential runway is 15R-33L with arrivals to Runway 33L and departures from Runway 15R, known as head-to-head procedures, to keep flights over Boston Harbor as much as possible and away from noise-sensitive land uses. There are two noise abatement procedures in place for Runway 33L arrivals. The first is known as the Light Visual, and the second is a recently adopted Area Navigation (RNAV) Required Navigational Performance (RNP) called “RNAV (RNP) X RWY 33L Approach” which resulted from the RNAV Pilot Project. The FAA completed development of the RNP procedure and published it in December 2021. <b>Chapter 7, Noise, Figure 7-12</b> shows the flight tracks of aircraft using these procedures in 2022. Massport is working with FAA on increasing use of this</p>

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				procedure. Regarding ground noise at night, Logan Airport has a restriction on nighttime engine run-ups and use of aircraft auxiliary power units (APUs).
3-12	AIR, Inc.	Noise	Update the Preferential Runway Advisory System (PRAS), providing target percentages for runway use to control noise impacts, including nighttime noise.	<p>Massport developed the Preferential Runway Advisory System (PRAS) in 1982, which had two primary objectives: to equitably distribute noise on an annual basis, and to provide short term relief from continuous operations over the same neighborhoods near the Airport. The PRAS consisted of two parts: A set of specific runway use goals to address the PRAS objectives; and a computer program to provide runway configuration recommendations to air traffic controllers based on weather, traffic, and PRAS goals.</p> <p>In February 2004, the PRAS system was suspended 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. Operational tests of a new program began in November 2014 and continued through September 2016. The BLANS project ended in 2016 without the Massport CAC agreeing on a new Runway Use Program. A final BLANS project report was issued in April 2017.</p> <p>Although PRAS is not in effect at Logan Airport, Massport continues to report on key PRAS statistics for public information purposes. <b>Chapter 7, Noise, Table 7-6,</b> provides the original PRAS goals and a comparison of effective runway use from 2019, 2021, and 2022.</p>
3-13	AIR, Inc.	Air Quality and Emissions Reduction	Commence an actual emissions measurement and reporting system.	<p>Air quality is a regional resource impacted by meteorological conditions, regional sources, and other factors. Air quality monitors in the region are unable to distinguish among different emission sources nor account for atmospheric impacts and therefore only changes in emissions can be quantified. The Massachusetts Department of Environmental Protection (MassDEP) and the United States Environmental Protection Agency (U.S.EPA) maintain a network of air quality monitors around the state to measure ambient air quality. <b>Appendix J, Air Quality and Emissions Reduction Supporting Documentation, Figure J-5,</b> illustrates the locations of these monitors. In addition to the MassDEP and U.S.EPA monitors, air</p>

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				quality studies by research institutions and community groups listed in Response to Comment A-6 have deployed short-term air quality monitoring to conduct studies on air quality in the vicinity of the airport. <b>Appendix J, Air Quality and Emissions Reduction Supporting Documentation Figure J-5</b> illustrates locations where short-term monitoring took place. Response to Comment A-6 briefly summarizes the outcome of these studies. Massport will continue to provide information in support of regional monitoring and research efforts.
3-15	AIR, Inc.	Content, Scope, EJ, Climate	Provide narrative context describing the relative effects on impact levels for metrics reported.	<b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.2</b> provides an overview of measures Massport takes to avoid, minimize, and offset the environmental effects of airport operations. Massport will continue conversations with the Massachusetts Environmental Policy Act (MEPA) Office and community stakeholders to refine this process, as feasible, in future EDRs and ESPRs.
3-16	AIR, Inc.	Airport Planning	MEPA and EEA must stop approving incremental airport capacity-building projects.	Massport's unique ESPR and EDR process is designed to provide cumulative context for individual projects at Logan Airport that may undergo MEPA review, National Environmental Policy Act (NEPA) review, or both. Many projects at Logan are designed to address projected impacts and include many design, construction and operational measures to reduce impacts that might otherwise occur. Where new projects result in impacts, Massport is required to avoid, minimize or mitigate for those impacts. <b>Chapter 10, Project Mitigation</b> reviews the status of project-specific mitigation measures currently being implemented or that were completed during the 2022 reporting year.
3-17	AIR, Inc.	Activity Levels	Disclose Logan's maximum flight and passenger capacity and report each year on the percentage of attainment of that level.	DRs/ESPRs provide context for understanding current and projected future passenger and flight activity and include analysis and trends of airlines such as passengers per flights, load factors, and passenger demand. An airport's throughput is determined by aircraft fleet mix, aircraft sizes, load factors, weather conditions, and operational requirements. Massport provides facilities to accommodate airlines' needs depending on those factors. EDRs and ESPRs have demonstrated that over the long run, the number of airport operations have gone down even as the numbers of passengers has increased due to higher load factors and aircraft efficiencies.
3-18	AIR, Inc.	Air Quality and Emissions Reduction	Substantiate any claimed improvement in air quality due to changes in the fleet (retirement of old, polluting aircraft) in quantitative terms.	<b>Chapter 8, Air Quality and Greenhouse Gas Emission, Section 8.2.3</b> model changes in air quality associated with emissions sources such as aircraft fleet mix and aircraft engine types. Using the FAA-approved AEDT model, which includes emissions factors for aircraft types, Massport models air emissions from aircraft, ground service equipment and other sources.

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<b>4. Conservation Law Foundation; Staci Rubin</b>				
4-1	Staci Rubin, Conservation Law Foundation	Airport Planning	Provide further detail on methodology and reporting requirements, prioritize mitigation efforts as travel patterns rebound, specify transparent thresholds for deferred mitigation projects, and direct robust and on-going community engagement.	<p>As passenger activity recovers from COVID-19, Massport is restoring service and restarting select postponed projects, and projects are prioritized based on passenger needs and user demand. Updates on projects deferred due to COVID are discussed in <b>Chapter 4, Airport Planning, Section 4.1 and Section 4.2</b>, and are summarized as follows:</p> <ul style="list-style-type: none"> <li>• <b>Postponed Terminal E Improvement Phases 1 and 2:</b> Terminal E Phase 1 opened in October 2023, and the next phase to add four new gates is currently in conceptual planning process.</li> <li>• <b>Postponed Parking Garage in front of Terminal E:</b> Permitted for up to an additional 5,000 spaces, the project has resumed and currently in preliminary design phases.</li> <li>• <b>Suspended Logan Express service</b> from Peabody, Woburn, and Back Bay: Services restored in 2022.</li> <li>• <b>Logan Express headways</b> reduced from Braintree and Framingham Logan Express: Headways were restored in 2021, and New Quincy lot is helping to increase passenger capacity at Braintree as well as a parking expansion at Framingham, which is also helping to improve passenger use.</li> <li>• Postponed construction of additional parking at Framingham Logan Express: Project has resumed and is in the design phase with construction currently estimated to begin in 2024.</li> <li>• <b>New Logan Express suburban location:</b> Peabody Logan Express at new North Shore location opened in 2022. Current priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing Back Bay Logan Express. Danvers Logan Express is expected to open towards the end of 2024.</li> <li>• <b>Dedicated High-Occupancy Vehicle (HOV) bus lanes:</b> HOV prioritization initiatives, including HOV bus lanes, are underway throughout Logan Airport campus.</li> </ul> <p>Planned mitigation measures for specific projects at Logan Airport are detailed in <b>Chapter 10, Project Mitigation</b>, and will continue to be refined as growth and activity levels increase. Future Environmental Data Reports (EDR) and Environmental Status and Planning Reports (ESPR) will continue to provide regular updates on operational and environmental impacts and Massport's strategies to minimize environmental and community impacts as projects come on-line. <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.2</b> provides an overview of measures Massport takes to avoid, minimize, and offset the environmental effects of airport operations. In addition, an EJ and Public Health Existing Conditions Review has been included in the <i>2022 ESPR</i> to assess the</p>

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				<p>existing environmental and health conditions currently experienced by the Airport's surrounding communities, including Environmental Justice (EJ) communities. See <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.4 and Section 2.5</b> The existing conditions are derived from regional sources provided by state entities such as the Massachusetts Department of Environmental Protection (MassDEP) and the Massachusetts Department of Public Health (MassDPH) and are not associated with one specific entity or activity.</p> <p>When it is possible for Massport to differentiate effects of Airport activities from those derived from other impact sources in the surrounding community, these effects and associated measures taken to offset these effects are reported on in the technical chapters, such as <b>Chapter 7, Noise</b> or <b>Chapter 10, Project Mitigation</b>, for example.</p>
4-2	Staci Rubin, Conservation Law Foundation	Mitigation	Ensure that mitigation efforts keep up with increasing rates of travel as pandemic restrictions ease and travel resumes.	<p>Due to the impacts and significant reduction in demand from the COVID-19 pandemic, Massport paused a number of projects and activities. As passenger activity recovers, Massport restores service and restarts select postponed projects. The status of Massport's mitigation commitment related to key projects is documented in <b>Chapter 10, Project Mitigation</b>. A new chapter of this <i>2022 ESPR</i>, <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.2</b>, documents Massport's extensive community benefits that includes providing community open space and parklands, Science, Technology, Engineering, and Math (STEM) programs, internships and summer jobs programs for local youth, and many other examples of community giving.</p> <p>In addition, In addition, an EJ and Public Health Existing Conditions Review has been included in the <i>2022 ESPR</i> to assess the existing environmental and health conditions currently experienced by the Airport's surrounding communities, including Environmental Justice (EJ) communities. See <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.4 and Section 2.5</b> Massport is currently updating its <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) and construction sustainability guidelines to align with the <i>Roadmap to Net Zero by 2031</i> and improve its proactive measures that respond to potential impacts that could result from future developments. Responses to Comment 1-1 and 1-10 provide additional details on some of these improvements.</p> <p>The results of the <i>2022 Logan Airport Air Passenger Ground-Access Survey</i> informed the HOV, and ground access strategy as described in <b>Chapter 6, Ground Access, Section 6.5</b>. This strategy is being evaluated on an on-going basis to adapt to the changes associated with the pandemic and the resultant passenger demands for airport access. <b>Chapter 7, Noise, Section 7.4 and Chapter 8, Air Quality, Section 8.5</b> discuss air and noise strategies to extend past project-specific mitigation and provide additional impact offset strategies and initiatives.</p>

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4-3	Staci Rubin, Conservation Law Foundation	Airport Planning	Provide further direct robust and on-going community engagement.	Massport has and will continue to enhance public engagement as part of preparing the ESRP and future EDRs. To date, for this ESRP, three additional meetings have been convened with the Executive Office of Energy and Environmental Affairs (EEA) and stakeholders regarding the format of the ESRP to develop strategies to improve readability for the general public. The first public information session on June 29, 2023, described the methodologies employed in the ESRP to develop Future Planning Horizon and technical approaches to modeling. A second session on December 12, 2023, 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 ESRP. On January 17, 2024, a public information meeting provided an update on the ESRP preparation and findings. A fourth public information session will be held after the ESRP is filed with the Massachusetts Environmental Policy Act (MEPA) Office during the public review period. Broad notification of these meetings is facilitated through notices in multiple languages in newspapers, distribution to community-based organizations (CBOs) and tribes on the EEA's EJ Reference List, previous reviewers, public libraries, and key community repositories.
4-4	Staci Rubin, Conservation Law Foundation	Air Quality and Emissions Reduction	Urgently prioritize mitigation efforts to reduce and ideally avoid human and environmental harms. The Secretary previously recommended that Massport work to fund the provision of HEPA room air purifier filters in key community locations such as schools, and to work with community-based organizations to collaboratively determine how to further mitigate air quality impacts. We urge Massport to continue working with community-based organizations that have long been involved in this work, such as AIR, Inc., GreenRoots, Inc., and Mothers Out Front, and to support the dissemination of air filtration.	Massport continues to work with the Federal Aviation Administration (FAA) and research institutions like MIT, Boston University, and Tufts University to look for ways to reduce impacts and expand research. <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b> provides an update on its on-going collaboration and evolving service strategy with the Massachusetts Department of Public Health (MassDPH) and East Boston Neighborhood Health Center (EBNHC). Massport has renewed an agreement to provide funding to the EBNHC to help expand the efforts of their Asthma and COPD Prevention and Treatment Program in East Boston and Winthrop that provides services including screenings for children, distribution of asthma kits, and home visits. When working with the EBNHC regarding installation of high efficiency particulate air (HEPA) filters in home and other locations, representatives of the Center stated that home visits would be a more effective tool than filters. Accordingly, Massport is funding the home visit program. Massport will continue to work with community-based organizations and will support science-based solutions and efforts.

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4-5	Staci Rubin, Conservation Law Foundation	Air Quality and Emissions Reduction	We also note the reference in the <i>2020/2021 EDR</i> to recent and on-going research studies including the current work of Boston University and Tufts University on Ultrafine Particulates (UFPs). Provide a more detailed update on the study and how findings may relate to Massport activities.	<p><b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b> provides updated information on recent and on-going scientific studies associated with airport emissions including the 2014 Logan Airport Health Study by MassDPH, the 2020 study "Impacts of Aviation Emissions on Near-Airport Residential Air Quality" by Tufts University, and similar airport-related health studies by the University of Southern California and University of Washington. The findings show that key differences exist in the particle size distribution and the black carbon (BC) concentration for roadway and aircraft features.</p> <p>Massport has an extensive air emissions mitigation program that benefits communities including East Boston, Chelsea, Revere, South Boston, and Winthrop. This includes time and location limits on engine runups, late night runway use preference, single engine taxiing, gate plug-in technology, runway use limitations, and aircraft towing requirements. Massport has also begun a program to electrify, where possible, airfield ground service equipment (GSE). Massport continues to work with FAA and research institutions like MIT, Boston University, and Tufts University to look for ways to reduce impacts and expand research including on ultrafine particulates (UFP). <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.3</b>, provides an update on its on-going collaboration on research efforts in which Massport provides data to support the studies.</p> <p>As part of the FAA-affiliated Center of Excellence for Alternative Jet Fuels and Environment, also known as the Aviation Sustainability Center (ASCENT), Massport is supporting a Boston University research effort to assess Community Measurements of Aviation Emission Contributions to Ambient Air Quality. The primary goal of this project was to conduct a new air pollution monitoring campaign beneath flight paths to and from Logan Airport, using a protocol specifically designed to determine the magnitude and spatial distribution of UFPs in the vicinity of arrival flight paths. Data were collected to assess whether aircraft emissions, particularly arrival emissions, significantly contribute to UFP concentrations at appreciable distances from the airport.</p> <p>For additional information refer to:  <a href="https://s3.wp.wsu.edu/uploads/sites/2479/2022/10/ASCENT-Project-018-2021-Annual-Report.pdf">https://s3.wp.wsu.edu/uploads/sites/2479/2022/10/ASCENT-Project-018-2021-Annual-Report.pdf</a></p>
4-6	Staci Rubin, Conservation Law Foundation	Air Quality and Emissions Reduction	The use of HEPA filters and other mitigation techniques should be a key goal to ensure that the negative impacts of airport activity are prevented and offset.	Massport has renewed a funding agreement with the EBNHC to help expand the efforts of their Asthma and COPD Prevention and Treatment Program in East Boston and Winthrop that provides services including screenings for children, distribution of asthma kits, and home visits. When discussing with the EBNHC regarding installation of HEPA filters in home and other locations, representatives of the Center stated that home visits would be a more effective tool than filters. Accordingly, Massport is funding the home visit program.

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4-7	Staci Rubin, Conservation Law Foundation	Forecasting	Clarify and refine the process for estimating growth rates and other calculations and provide additional detail for the forecast methodology.	<b>Chapter 3, Activity Levels and Forecasting, Section 3.4</b> , of this 2022 ESPR describes methodology for future forecasting and including future forecast growth. Massport follows industry best practices for forecasts and considers several factors including economic conditions; airplane manufacturers' plans; future forecast aircraft in the fleet mix; social factors; and anticipated airline route plans. Additional explanation on forecasting methodology is provided <b>Chapter 3, Activity Levels and Forecasting, Section 3.4 4</b> , and <b>Appendix F, Activity Levels Supporting Documentation</b> . To improve presentation of complex information, the description of the forecasting methodology is enhanced with graphics, tables and icons.
4-8	Staci Rubin, Conservation Law Foundation	Forecasting	We commend the inclusion of the section outlining the 2022 ESPR Forecast Methodology in the current EDR and encourage even further detail and transparency in this section of the 2020/2021 EDR, in the 2022 ESPR, and in future reporting.	As described in Response to Comment 4-7, <b>Chapter 3, Activity Levels and Forecasting, Section 3.4</b> , describes methodology for future forecasting and including future growth. Massport follows industry best practices for forecasts and considers several factors including economic conditions; airplane manufacturers' plans; future aircraft in the fleet mix; social factors; and anticipated airline route plans. Additional explanation on forecasting methodology is provided in <b>Chapter 3, Activity Levels and Forecasting, Section 3.4</b> and <b>Appendix F, Activity Levels Supporting Documentation</b> . To improve presentation of complex information, the description of the forecasting methodology is enhanced with graphics, tables and icons as well as further information on how the methodology compares to FAA methods and is in alignment with current aviation industry modeling standards. The Chapter also describes the use of industry-standard forecast techniques as recommended in FAA policy documents, including statistical econometric analysis.
4-9	Staci Rubin, Conservation Law Foundation	Content, Scope, EJ, Climate	Provide a list of all measured impacts, how said impacts are methodologically related to the activity levels presented in the ESPR forecast, and how current and forward-looking data can be used instead in both the MEPA reporting process, and in other public engagement forums.	Massport environmental analyses primarily focus on measured and modeled impacts associated with aircraft noise, air emissions, ground access and water quality. The results of those analyses inform planning for impact reductions and operational conditions. A key purpose of the EDR/ESPR process is to provide a cumulative assessment of Logan operational and environmental conditions which helps inform individual project planning, design and construction. The results of these analyses are shared with the public annually through the EDR/ESPR process as well as during environmental permitting of individual projects. The periodic activity level forecast updates are used to inform both current operations as well as near-term and long-term project and operations planning.

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4-10	Staci Rubin, Conservation Law Foundation	Content, Scope, EJ, Climate	Work with community stakeholders to create a mitigation planning system which is based on actual passenger, flight, and daily traffic volumes.	When required in accordance with the MEPA process, mitigation is applied on an individual project basis, as described in <b>Chapter 10, Project Mitigation</b> . Massport also implements a wide range of on-going measures to enhance operational efficiency and reduce overall environmental impacts. The community benefits, as detailed in <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.2</b> continually evolve as passenger, flight, and traffic volumes change. As discussed in the December 12, 2023, meeting with Executive Office of Energy and Environmental Affairs (EEA) and community stakeholders, Massport will continue to engage with the EEA and community stakeholders throughout the development of future EDRs and ESPRs to allow for discussion about community benefits and to receive commentary on planned activities, programs, and initiatives.
4-11	Staci Rubin, Conservation Law Foundation	Air Quality and Emissions Reduction	More thoroughly document public health impacts.	Massport will continue to work with community-based organizations (CBOs) and will support science-based solutions and efforts to improve public health and will report on them in EDRs and ESPRs. <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.5</b> , describes the research efforts and health studies Massport is participating in. <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.52</b> , provides an overview of measures Massport takes to avoid, minimize, and offset the environmental effects of airport operations. In addition, an Environmental Justice (EJ) and Public Health Existing Conditions Review has been included in the <i>2022 ESPR</i> to assess the existing environmental and health conditions currently experienced by the Airport's surrounding communities, including EJ communities. See <b>Chapter 2, Sustainability, Outreach, and Environmental Justice, Section 2.4 and Section 2.5</b> . The assessed conditions are derived from regional sources and are not associated with one specific entity or activity.
4-12	Staci Rubin, Conservation Law Foundation	Air Quality and Emissions Reduction	Provide a more detailed update on the Tufts and Boston University Ultrafine Particulate (UFP) study and associated findings. EEA notes that the EDR should "provide an update on the status and finding of UFP research being performed by Tufts University and Boston University regarding the identification of airport-specific related UFPs in an urban environment. The <i>2020/2021 EDR</i> notes Massport's cooperation and data sharing in regard to the study but does not provide additional details on study findings or relevance to Massport activities.	As part ASCENT, Massport is supporting Boston University research effort to assess Community Measurements of Aviation Emission Contributions to Ambient Air Quality. The primary goal of this project was to conduct a new air pollution monitoring campaign beneath flight paths to and from Logan Airport, using a protocol specifically designed to determine the magnitude and spatial distribution of UFPs in the vicinity of arrival flight paths. Data were collected to assess whether aircraft emissions, particularly arrival emissions, significantly contribute to UFPs concentrations at appreciable distances from the airport. For additional information refer to: <a href="https://s3.wp.wsu.edu/uploads/sites/2479/2022/10/ASCENT-Project-018-2021-Annual-Report.pdf">https://s3.wp.wsu.edu/uploads/sites/2479/2022/10/ASCENT-Project-018-2021-Annual-Report.pdf</a>

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4-13	Staci Rubin, Conservation Law Foundation	Mitigation	While Massport states that they are on track to meet the goals of the Massport-CLF agreement, it is difficult to confirm this based on the information in the EDR. Massport must prioritize mitigation efforts that support increasing HOV mode share and be transparent about this reporting in the forthcoming 2022 ESPR.	<p>Prior to the COVID-19 pandemic, Massport was aggressively moving forward with new and expanded HOV services including expansion of Logan Express service hours, facility enhancements and expansion of the Logan Express Framingham Garage. In late 2019, Massport also purchased new buses for the planned new urban North Station to Logan Airport Express Service. As with many planned HOV enhancements prior to the COVID-19 outbreak, those services were suspended, reduced or deferred based on ridership demand.</p> <p>As passenger activity recovers, Massport restores service and restarts select postponed projects. Updates on projects deferred due to the COVID-19 pandemic are as follows:</p> <ul style="list-style-type: none"> <li>• <b>Postponed Terminal E Improvement Phases 1 and 2:</b> Terminal E Phase 1 opened in October 2023, and the next phase to add four new gates is currently in conceptual planning process.</li> <li>• <b>Postponed Parking Garage in front of Terminal E:</b> The project has resumed and currently in preliminary design phases.</li> <li>• <b>Suspended Logan Express service</b> from Peabody, Woburn, and Back Bay: Services restored in 2022.</li> <li>• <b>Logan Express headways</b> reduced from Braintree and Framingham Logan Express: Headways were restored in 2021, and new Quincy lot is helping to increase passenger capacity at Braintree as well as a parking expansion at Framingham, which is also helping to improve passenger use.</li> <li>• <b>Postponed construction of additional parking at Framingham Logan Express:</b> Project has resumed and is in the design phase with construction currently estimated to begin in 2024.</li> <li>• <b>New Logan Express suburban location:</b> Peabody Logan Express at new North Shore location opened in 2022 and planning for relocation to a new/enhances site in Danvers is underway for a planned late 2024 opening. Current priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing Back Bay Logan Express.</li> <li>• <b>Dedicated High Occupancy Vehicle (HOV) bus lanes:</b> HOV prioritization initiatives, including HOV bus lanes, are underway throughout the Logan Airport campus.</li> </ul> <p><b>Chapter 4, Airport Planning, Section 4.1 and Section 4.2</b> discusses the status and approach of deferred capital projects. Planned mitigation measures for specific projects at Logan Airport are detailed in <b>Chapter 10, Project Mitigation</b>, and will continue to be refined as growth and activity levels increase. Future EDRs and ESPRs will continue to provide regular updates on operational and environmental impacts and Massport’s strategies to minimize environmental and community impacts as projects come on-line.</p>

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4-14	Staci Rubin, Conservation Law Foundation	Mitigation	<p>Notwithstanding, there are still several initiatives that remain deferred without clear guidelines or goals for when they will resume. We list these in the table below. We recommend that Massport develop transparent thresholds of the appropriate metric (e.g., VMT, operations, passenger activity, etc.) for when Massport will return to the implementation of these projects, or at least clarify decision-making processes for returning to these mitigation measures.</p> <p>Table 1 (Abbreviated) Key Deferred Mitigation Projects</p> <ol style="list-style-type: none"> <li>1. Airport Ground Transportation and Parking Projects/Planning Concepts (Logan Airport Parking Project [additional 5,000 spaces])</li> <li>2. Suburban Logan Express Enhancement (Add about 1,000 additional spaces to the Framingham garage)</li> <li>3. Suburban Logan Express Enhancement (Evaluate new Logan Express suburban locations, with a plan to open at least one new site)</li> <li>4. Airport Ground Transportation and Parking Projects/Planning Concepts (Terminal E Modernization [incorporates former West Concourse Project] Blue Line Pedestrian Connection )</li> <li>5. Urban Logan Express Service (Massport’s plan to operate a new urban Logan Express location between North Station and Logan Airport is currently on-hold [although Massport procured buses for this service in 2020])</li> <li>6. Other (Several options were identified to reduce on-Airport congestion and improve on-Airport ground access efficiency. Initial options included dedicated HOV bus lanes, the creation of an intermodal transportation center with bus service to terminals, the construction of an Automated People Mover (APM), or some</li> </ol>	<p>As passenger activity recovers, and impacts from those additional activities grow, Massport restores service and restarts select postponed projects. Updates on projects deferred due to the COVID-19 pandemic are as follows:</p> <ul style="list-style-type: none"> <li>• <b>Postponed Terminal E Improvement Phases 1 and 2:</b> Terminal E Phase 1 opened in October 2023, and the next phase to add four new gates is currently in conceptual planning process.</li> <li>• <b>Postponed Parking Garage in front of Terminal E:</b> The project has resumed and currently in preliminary design phases.</li> <li>• <b>Suspended Logan Express service</b> from Peabody, Woburn, and Back Bay: Services restored in 2022.</li> <li>• <b>Logan Express headways</b> reduced from Braintree and Framingham Logan Express: Headways were restored in 2021, and new Quincy lot is helping to increase passenger capacity at Braintree as well as a parking expansion at Framingham, which is also helping to improve passenger use.</li> <li>• <b>Postponed construction of additional parking at Framingham Logan Express:</b> Project has resumed and is in the design phase with construction currently estimated to begin in 2024.</li> <li>• <b>New Logan Express suburban location:</b> Peabody Logan Express at new North Shore location opened in 2022 and planning for relocation to a new/enhances site in Danvers is underway for a planned late 2024 opening. Current priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing Back Bay Logan Express.</li> <li>• <b>Dedicated High Occupancy Vehicle (HOV) bus lanes:</b> HOV prioritization initiatives, including HOV bus lanes, are underway throughout the Logan Airport campus.</li> </ul> <p><b>Chapter 4, Airport Planning, Section 4.1 and Section 4.2</b> discusses the status and approach of deferred capital projects. Planned mitigation measures for specific projects at Logan Airport are detailed in <b>Chapter 10, Project Mitigation</b>, and will continue to be refined as growth and activity levels increase. Future EDRs and ESPRs will continue to provide regular updates on operational and environmental impacts and Massport’s strategies to minimize environmental and community impacts as projects come on-line</p>

## Comment Letters and Responses to Comments

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			combination of these improvements. These and other options are currently on hold and will be revisited once passenger levels recover closer to 2019 levels)	
4-15	Staci Rubin, Conservation Law Foundation	Content, Scope, EJ, Climate	Continue to engage with affected communities to discuss mitigation opportunities.	Massport has and will continue to enhance public engagement as part of preparing the ESPR and future EDRs. To date, three additional meetings have been convened with the Executive Office of Energy and Environmental Affairs (EEA) and stakeholders regarding the format of the ESPR to develop strategies to improve readability for the general public. The first public information session on June 29, 2023, described the methodologies employed in the ESPR to develop future forecasts and technical approaches to modeling. A second session on December 12, 2023, with community advocacy group representatives and the EEA focused on review of <i>2020/2021 EDR</i> comments and discussed ways to better address these comments in the <i>2022 ESPR</i> . On January 17, 2024, a public information meeting provided an update on the ESPR preparation and findings. A fourth public information session will be held after the ESPR is filed with the MEPA Office during the public review period. Broad notification of these meetings is facilitated through notices in multiple languages in newspapers, distribution to community-based organizations (CBOs) and tribes on the EEA's EJ Reference List, previous reviewers, public libraries, Massport CAC and key community repositories.
4-16	Staci Rubin, Conservation Law Foundation	Content, Scope, EJ, Climate	Work with organizations and members from the most affected communities prior to the release of the next iteration of the report.	In addition to the public information meetings and extended comment period for the <i>2022 ESPR</i> ( <b>see Response to Comment 4-5</b> ), Massport will continue to meet with the Massport CAC and other community groups-on a regular basis. Projects going through the environmental review process also include public meetings during project scoping and ENF phases as well as other permit agency hearings, as appropriate.
4-17	Staci Rubin, Conservation Law Foundation	Content, Scope, EJ, Climate	Hold community meetings, outside of MEPA processes and after MEPA deadlines expire, to discuss ways for Massport to be a great neighbor and best implement mitigation measures associated with its environmental impacts, which are especially important as we live through the next phase of the COVID-19 pandemic.	In addition to the public information meetings and extended comment period for the ESPR ( <b>see Response to Comment 4-5</b> ), Massport will continue to meet with the Massport CAC and other community groups-on a regular basis. Projects going through the environmental review process also include public meetings during project scoping and ENF phases as well as other permit agency hearings, as appropriate.

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<b>5. Friends of the Mary Ellen Welch Greenway; Karen Maddelana</b>				
5-1	Karen Maddelana, Friends of the Mary Ellen Welch Greenway	Air Quality and Emissions Reduction	Provide more detailed information about the impact methodology in regard to the impact along the Mary Ellen Welch Greenway. For example, what are the expected air quality metrics along the Greenway?	<p>The Environmental Status and Planning Report (ESPR) conducts air emission inventories through modeling of airport related emission sources for criteria pollutants under the National Ambient Air Quality Standards (NAAQS) and for greenhouse gases (GHG). The modeling does not assess impacts at a specific location or area such as the Greenway. However, the Massachusetts Department of Environmental Protection (MassDEP) and the United States Environmental Protection Agency (U.S.EPA) maintain a network of air quality monitors around the state to measure ambient air quality. <b>Appendix J, Air Quality and Greenhouse Gas Emissions Supporting Documentation, Figure J-5</b>, illustrates the locations of these monitors.</p> <p>Massport continues to work with the Federal Aviation Administration (FAA) and research institutions like MIT, Boston University, and Tufts University to expand research including on ultrafine particles (UFP) and black carbon (BC). <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b> provides an update on Massport's on-going collaboration and evolving service strategy with the Massachusetts Department of Public Health (MassDPH) and the East Boston Neighborhood Health Center (EBNHC). Studies include those described below.</p>
5-2	Karen Maddelana, Friends of the Mary Ellen Welch Greenway	Ground Access	As the airport continues to grow, we would like to see it address an increase in traffic on 1A. We are highly interested in the locations with the most traffic volume along the Greenway, particularly on the Martin A. Coughlin Bypass Road.	<p>Massport assesses traffic data and forecasted levels within the Logan Airport campus roadways. Individual projects that go through the MEPA process identify and mitigate traffic impacts as needed. Massport is committed to alleviating burden on surrounding communities and has a robust and evolving ground access and HOV program that aims to reduce traffic on surrounding roadways, including Route 1A.</p> <p>Massport works closely with the Massachusetts Department of Transportation (MassDOT) and the Massachusetts State Police on managing traffic and congestion on the roadways/tunnels providing access to Logan Airport. The Coughlin Bypass was constructed by Massport and has been effective in shifting airport and Silver Line traffic out of Day Square and other local roads. These collaborative efforts to reduce congestion on local roadways will continue.</p>

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5-3	Karen Maddelana, Friends of the Mary Ellen Welch Greenway	Noise Air Quality and Emissions Reductions	Add key updates to the ESPR 2017 iteration of Logan’s unique MEPA review process: 1. The relevant scientific research on health impacts of aviation noise and pollution	<p>Since 2019, Massport has supported an MIT study on aircraft noise abatement procedures modeling and validation through the FAA-affiliated Center of Excellence for Alternative Jet Fuels and Environment, also known as the Aviation Sustainability Center (ASCENT). The study’s intent was to validate advanced approach and departure noise modeling techniques as well as to develop new noise abatement procedures. Information on the study, its findings, and associated annual reports are published here: <a href="https://ascent.aero/project/aircraft-noise-abatement-procedure-modeling-and-validation/">https://ascent.aero/project/aircraft-noise-abatement-procedure-modeling-and-validation/</a>. <b>Chapter 7, Noise, Section 7.4.</b> and <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b></p> <p>Since 2015, Massport has also supported research conducted by MIT and Pennsylvania State University, which involved a noise study that evaluated a new analytical approach to quantifying noise from advanced operational procedures. To better understand the noise environment, project objectives were to develop a method for improving the fidelity, accuracy, and utility of noise analysis techniques for the development and environmental review of advanced operational procedures. Aircraft noise is generated through a combination of engine and aerodynamic sources. Traditional noise analysis techniques such as the Aviation Environmental Design Tool (AEDT) model noise using a Noise Power Distance method, which does not fully capture aerodynamic and velocity effects. Information on this study is available on ASCENT’s website: <a href="https://ascent.aero/project/analytical-approach-for-quantifying-noise-from-advanced-operational-procedures/">https://ascent.aero/project/analytical-approach-for-quantifying-noise-from-advanced-operational-procedures/</a></p>
5-4	Karen Maddelana, Friends of the Mary Ellen Welch Greenway	Mitigation	Add key updates to the ESPR 2017 iteration of Logan’s unique MEPA review process: 2. Additional strategies to keep mitigation on pace with growth	<p>As passenger activity recovers from COVID-19, Massport is restoring service and restarting select postponed projects, and projects are prioritized based on passenger needs and user demand. Updates on projects deferred due to COVID are discussed in <b>Chapter 4, Airport Planning, Section 4.1 and Section 4.2</b>, and are summarized as follows:</p> <ul style="list-style-type: none"> <li>• <b>Postponed Terminal E Improvement Phases 1 and 2:</b> Terminal E Phase 1 opened in October 2023, and the next phase to add four new gates is currently in conceptual planning process.</li> <li>• <b>Postponed Parking Garage in front of Terminal E:</b> Permitted for up to an additional 5,000 spaces, the project has resumed and currently in preliminary design phases.</li> <li>• <b>Suspended Logan Express service</b> from Peabody, Woburn, and Back Bay: Services restored in 2022.</li> <li>• <b>Logan Express headways</b> reduced from Braintree and Framingham Logan Express: Headways were restored in 2021, and New Quincy lot is helping to increase passenger capacity at Braintree as well as a parking expansion at</li> </ul>

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				<p>Framingham, which is also helping to improve passenger use.</p> <ul style="list-style-type: none"> <li>• Postponed construction of additional parking at Framingham Logan Express: Project has resumed and is in the design phase with construction currently estimated to begin in 2024.</li> <li>• <b>New Logan Express suburban location:</b> Peabody Logan Express at new North Shore location opened in 2022. Current priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing Back Bay Logan Express. Danvers Logan Express is expected to open towards the end of 2024.</li> <li>• <b>Dedicated High Occupancy Vehicle (HOV) bus lanes:</b> HOV prioritization initiatives, including HOV bus lanes, are underway throughout Logan Airport campus.</li> </ul> <p>Planned mitigation measures for specific projects at Logan Airport are detailed in <b>Chapter 10, Project Mitigation</b>, and will continue to be refined as growth and activity levels increase. Future EDRs and ESPRs will continue to provide regular updates on operational and environmental impacts and Massport’s strategies to minimize environmental and community impacts as projects come on-line. Future EDRs and ESPRs will continue to provide regular updates on operational and environmental impacts and Massport’s strategies to minimize environmental and community impacts as projects come on-line.</p> <p>Massport is currently updating its <i>Sustainability and Resiliency Design Standards and Guidelines</i> (SRDSGs) and construction sustainability guidelines to align with the <i>Roadmap to Net Zero by 2031</i> and improve its proactive measures that respond to potential impacts that could result from future developments. Responses to Comments 1-1 and 1-10 provide additional details on some of these improvements. The results of the <i>2022 Logan Airport Air Passenger Ground-Access Survey</i> informed the HOV, and ground access strategy as described in <b>Chapter 6, Ground Access, Section 6.5</b>. This strategy is being evaluated on an on-going basis to adapt to the changes associated with the pandemic and the resultant passenger demands for airport access.</p> <p>As part of the <i>2022 ESPR</i>, Massport also conducted an idling and dwell time study to update the vehicle dwell time information for the Terminal A arrivals and departure curbs (all modes) and Terminal B buses. The study provided updated data used to complete the ground access and air quality modeling of current and future forecasted conditions for the <i>2022 ESPR</i>, and this information was integrated into discussions on anticipated future growth and plans to accommodate growth in applicable chapter sections.</p> <p><b>Chapter 7, Noise, Section 7.4.</b> and <b>Chapter 8, Air Quality and Greenhouse Gas Emissions, Section 8.5</b> discuss air and noise strategies to extend past project-specific mitigation and provide additional impact offset strategies and initiatives.</p>

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5-5	Karen Maddelana, Friends of the Mary Ellen Welch Greenway	Air Quality and Emissions Reduction	Add key updates to the ESPR 2017 iteration of Logan's unique MEPA review process: 3. Strategies for the most effective distribution of air filtration units	Massport has renewed an agreement to provide funding to the EBNHC to help expand the efforts of their Asthma and COPD Prevention and Treatment Program in East Boston and Winthrop that provides services including screenings for children, distribution of asthma kits, and home visits. When discussing with the EBNHC regarding installation of HEPA filters in home and other locations, representatives of the Center stated that home visits would be a more effective tool than filters. Accordingly, Massport is funding the home visit program.