



## Logan Airport 2020/2021 EDR Overview

December 15, 2022

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### Background/Context

The Massachusetts Port Authority (Massport) is continuing its nearly four-decade practice of providing an extensive record of Boston Logan International Airport (Logan Airport or Airport) environmental trends, facility planning, operations and passenger levels, and mitigation commitments. This Logan Airport *2020/2021 Environmental Data Report* (EDR) is the latest in a series of annual environmental review documents submitted to the Massachusetts Secretary of the Executive Office of Energy and Environmental Affairs (EEA) for public review, in accordance with the Massachusetts Environmental Policy Act (MEPA). Since 1979, Massport has submitted these detailed documents to report on the cumulative environmental effects of Logan Airport's operations and activities. Logan Airport is the first airport in the nation for which an annual environmental assessment on airport activities was prepared, and Massport continues to be a leader in environmental reporting.

This EDR reports on 2020 and 2021, and focuses on the significant changes at Logan Airport and throughout the aviation industry occurring as a result of the COVID-19 pandemic. Where available, Massport has included relevant updates through fall 2022 where the current conditions have resulted in changes in projects or programs that were in place in 2019 and prior. By year-end 2020, total numbers of take-offs and landings (aircraft operations) were down approximately 50 percent and passenger levels were down by about 70 percent compared to year-end 2019, dropping to levels of activity not seen since the 1970s. However, 2021 aircraft operations recovered to approximately 62 percent of 2019 levels. In 2021 and 2022 the Airport has experienced a gradual return towards 2019 passenger and flight levels.

### EDR Reporting Categories

Through this extensive process, Massport monitors, analyzes, and reports on a wide range of Logan Airport environmental and operations factors. In addition, the reports present information on current projects, those in the planning phase and the status of the many environmentally beneficial measures and associated mitigation strategies Massport implements to reduce the impact of airport operations. In addition, roughly every five years, Massport prepares an *Environmental Status and Planning Report* (ESPR) in lieu of an EDR that both reports on current conditions as well as likely future operational and environmental impacts based on a projected future planning horizon. The next ESPR is currently planned to follow this *2020/2021 EDR*.

This EDR presents information on the following subject areas:

- **Activity Levels** (including aircraft operations, passenger levels, and cargo volumes). 2020 and 2021 activity was significantly affected by the COVID-19 pandemic. In 2020, passenger levels dropped at one point by nearly 98 percent compared to 2019. By the end of 2021, passenger levels had recovered to approximately 53 percent of pre-pandemic levels seen in 2019 when Logan Airport experienced a historical peak of 42.5 million passengers. This dramatic reduction in passenger levels, aircraft operations (takeoffs/landings), ground traffic and associated activity was the key factor in the environmental analysis and reporting for this EDR.
- **Airport Planning** (including activities underway and upcoming projects). As a result of this significant reduction in Airport activity and dramatic reduction in revenues through 2020 and 2021, Massport, airlines, and other Logan Airport tenants necessarily adjusted their operations, projects, and programs. Massport continues to review the status of its projects/programs, and adjustments continue to occur in response to activity levels and revenues. Of particular note is careful and continuing review of Logan's ground access programs (such as Logan

Express) to remain aligned with ridership levels and long-standing high-occupancy vehicle (HOV) transportation services. Despite these challenges, Massport remains committed to implementing project-related mitigation strategies. Chapter 3 of the EDR presents updates on on-going construction of the Terminal E Modernization Project, the Terminal C Canopy, Connector and Roadway Project and permitting for the Runway 9-27 Runway Safety Area (RSA) Improvement Project, among other programs. The report also presents updates on other planned and permitted projects.

- **Regional Transportation.** This chapter looks at Logan's role within the broader New England regional airport's context. In 2020, air passenger activity in the New England region declined significantly with some recovery in 2021. By year-end 2021, regional air passengers recovered to about 56 percent of 2019 levels. Prior to the pandemic, nearly 60 million air passengers flew through the New England system in 2019, a historic high. The 10 regional airports (excluding Logan Airport) in New England accommodated approximately 6 and 11 million air passengers in 2020 and 2021, respectively, compared to approximately 17.2 million passengers in 2019.
- **Ground Access to and from the Airport.** Massport has a comprehensive trip reduction strategy designed to offer passengers and employees a choice of High Occupancy Vehicle (HOV), transit, and shared-ride options that are convenient and reliable, and that reduce environmental and community impacts. The strategy also aims to provide sufficient on-Airport parking for passengers choosing automobile access modes and/or who have limited access to HOV options. Improving the multimodal connectivity of the Airport provides transportation and environmental benefits by reducing vehicle trips, vehicle miles travelled (VMT), and greenhouse gas (GHG) emissions. Chapter 5 of the EDR addresses ground access adjustments made during the pandemic, including the public's reduced interest in using HOV services. Massport continues to carefully review both on and off-Airport activity levels and will adjust its ground access programs to align with air passenger levels.
- **Noise Abatement.** Massport strives to minimize the noise effects of Logan Airport operations on its neighbors through a variety of noise abatement programs, procedures, studies, and other tools. Massport implements one of the oldest and most extensive noise abatement programs of any airport in the nation. Including extensive residential and school sound insulation programs; time-of-day and runway restrictions for noisier aircraft; ground run-up procedures; and flight tracks designed to optimize over-water operations (especially during nighttime hours). Chapter 6 of the EDR presents information on changes in annual noise contours, populations within noise-impacted areas, and changes resulting from reduced passenger levels associated with the pandemic during 2020 and 2021. Updates on Massport's Residential Sound Insulation Program are also presented.
- **Air Quality/Emissions Reduction.** Overall, even prior to the pandemic, Logan Airport's emissions were generally less than they were a decade ago, with the exception of oxides of nitrogen (NO<sub>x</sub>). This long-term downward trend is consistent with Massport's longstanding objective to accommodate the demands of increasing passenger and cargo activity levels with fewer aircraft operations and reduced emissions wherever possible. The reduction in aircraft operations and passenger-related ground access trips in 2020 and 2021 during the pandemic compared to 2019 documented lower emissions of air pollutants for which there are National Ambient Air Quality Standards (NAAQS), as well as GHG emissions, and other parameters. Chapter 7 of the EDR presents findings for the 2020 and 2021 emissions inventories for carbon monoxide (CO), particulate matter (PM), and volatile organic compounds (VOCs), as well GHGs and NO<sub>x</sub>.
- **Water Quality/Environmental Compliance.** Massport's environmental management and compliance strategy is tied directly to our commitment to environmental sustainability and responsible stewardship. Through monitoring and documentation, Massport assesses environmental performance, continually developing, implementing, evaluating, and improving policies and programs. Massport promotes appropriate environmental practices through pollution prevention and remediation measures. Massport also works closely with its tenants and operations staff at Logan Airport in an effort to continuously improve environmental compliance. Chapter 8

of the EDR details information on stormwater management, spills, and associated pollution prevention and remediation measures.

- **Sustainability and Resiliency.** Massport’s approaches to sustainability and resiliency are addressed by topic area in the individual chapters.
- **Environmentally Beneficial Measures and Mitigation Commitments.** Chapter 9 of the EDR summarizes Massport’s environmentally beneficial measures associated with Logan Airport. While many measures are applied on an individual project basis, Massport also implements a wide range of ongoing measures both to enhance operational efficiency and reduce overall environmental impacts. EDRs and ESPRs also provide updates on Massport’s formal mitigation commitments under the Massachusetts Environmental Policy Act (MEPA) for projects at Logan Airport for which an Environmental Impact Report (EIR) was filed and state Section 61 Findings which document Massport’s commitment that feasible measures will be taken to avoid or minimize project impacts. The first part of this chapter provides an overview of programs and initiatives that reduce operational and environmental impacts and associated environmental benefits. The second part provides updates for specific projects with ongoing or upcoming Section 61 environmental mitigation commitments.
- **Response to Public/Agency Comments.** Each EDR and ESPR is required to contain copies of all comments on the previous document, including Massport’s written responses to those comments.
- **Proposed Scope for 2022 ESPR.** Appendix C presents a proposed scope for the 2022 ESPR.

#### **2020/2021 EDR Public Review Process and Schedule**

Consistent with the longstanding process, which is unique to Massport, EDRs and ESPRs are formally submitted for public and agency review through the state’s MEPA Process. Once submitted, the reports are publicly noticed in the online MEPA *Environmental Monitor* for a review period. During that review period, Massport holds a (virtual) public meeting to present the EDR findings and answer questions. Public comments must be submitted in writing (email currently preferred) to the MEPA Office by the end of the comment period. Upon review of all comments, the MEPA Office then determines the completeness/adequacy of the EDR and determines the scope and requirements for the next filing.

The current schedule for the *2020/2021 EDR* is as follows:

November 15, 2022	<i>2020/2021 EDR submitted</i> to the MEPA Office Post electronic copy of the full EDR on Massport website ( <a href="https://www.massport.com/logan-airport/about-logan/environmental-reports/">https://www.massport.com/logan-airport/about-logan/environmental-reports/</a> )
November 23, 2022	MEPA <i>Environmental Monitor</i> published online formally commencing public comment period
December 15, 2022	Massport holds virtual public meeting (MEPA staff attends)
January 23, 2023	Extended MEPA Comment Period Closes
January 30, 2023	EEA Secretary issues Certificate, including Scope for 2022 ESPR