2. Outreach and Environmental Justice

Massport is committed to fostering strong relationships with the communities surrounding Logan Airport by prioritizing community engagement and effective outreach strategies. Massport has participated in and initiated programs that directly benefit neighboring communities, as described in this chapter and the *2022-2023 Massport Sustainability, Net Zero, and Resiliency Report*.[1]

To increase community awareness of Logan Airport's projects and programs, Massport has developed project-specific as well as EDR and ESPR program-specific outreach initiatives. EDR and ESPR community outreach efforts include an expanded distribution list, translation into languages commonly spoken within these communities, and frequent engagement with the public at local meetings. In addition, Massport participates in the **Massachusetts Environmental Policy Act** Office's (MEPA) Logan Airport Work Group (the Work Group), which brings together state agencies, local government representatives, and community groups to identify potential beneficial air quality measures within the communities of East Boston, Winthrop, and Chelsea. Although the Work Group's efforts will conclude in early 2026, Massport will continue to meet with community groups to further engage in Logan Airport's environmental conditions.

In addition to summarizing the status of Massport's 2023 and 2024 outreach programs, this chapter characterizes **environmental justice (EJ)** populations within the vicinity of Logan Airport by building on the public health existing conditions assessment conducted for the *2022 ESPR*. It presents findings from the newly released **Massachusetts Department of Environmental Protection (MassDEP)** Cumulative Impact Analysis (CIA) Framework. Massport continues to follow regulatory frameworks and serves as a responsive partner in reporting and engaging with the surrounding community through these efforts.

1 2022-2023 Massport Sustainability, Net Zero, and Resiliency Report. Massport 2024. https://www.massport.com/environment/sustainability

2023 Outreach and Environmental Justice Key Findings

The following details key findings of outreach and environmental justice efforts at the Airport in 2023:

- For this EDR and future EDRs and ESPRs, Massport has expanded its EJ outreach to provide translation services in languages spoken by at least 5 percent of the population located within 5 miles of Logan Airport and among the 35 **Massport Community Advisory Committee (Massport CAC)** communities. For this EDR, this includes eight languages.

2024 Outreach and Environmental Justice Key Findings

The following details key findings of outreach and environmental justice efforts at the Airport in 2024:

Massport employees participate in various community activities throughout the year, including a children's winter coat drive, Veterans Day initiatives, a Thanksgiving food drive, a children's backpack drive, a donation drive for a women's shelter, and community beautification projects.

- Massport is a member of MEPA's Logan Airport Work Group, which was established following the *2022 ESPR* Secretary's Certificate. The Work Group has brought together state agencies, local government representatives, and community groups to identify potential air quality beneficial measures within the communities of East Boston, Winthrop, and Chelsea.
- An updated assessment of existing community conditions was developed using the newly released **MassDEP CIA Framework**. The framework provides tools for public health assessments and environmental indicators, offering more detailed data than previously available tools.

2.1 Massport Community Engagement

Massport has and will continue to champion community benefits and robust community engagement. Working in concert with government, community, and civic leaders throughout Massachusetts and New England, Massport is actively engaged in advancing environmental initiatives and expanding community programs for residents living near Massport's facilities. **Table 2-1** provides an overview of the community giving program and progress for 2023 and 2024. Refer to the **User's Guide, Section U2.1** for a more comprehensive list of Massport's past community giving.

User's Guide Section U2.1

Table 2-1 2023 and 2024 Massport Community Giving and Engagement Summary

Program	2023/2024 Update
Massport Charitable Contribution Program	• Massport's Charitable Contribution Program is intended to assist non-profit programs in neighboring communities with grants to support their missions. • In Fiscal Year (FY) 23, Massport supported 55 organizations with $260,000 in grants. • In FY24, Massport supported 58 organizations with $280,000 in grants.

Table 2-1 2023 and 2024 Massport Community Giving and Engagement Summary

Program	2023/2024 Update
Community Summer Jobs	• Massport's Community Summer Jobs Program provides grants to help civic and social services agencies hire youth employees for the summer. • In 2023, Massport awarded $650,000 for 275 youth employment positions to 30 neighborhood organizations. • In 2024, Massport awarded $680,000 for 285 youth employment positions to 29 neighborhood organizations.
East Boston Foundation, South Boston Foundation, and Winthrop Foundation	• Community foundation payments are based on project milestones. The funding is used to support organizations in their neighborhoods with programming grants. • In 2023, Massport provided $1.3M in community foundation payments to the East Boston, South Boston, and Winthrop Foundations. • In 2024, Massport provided $150,000 to the South Boston Foundation.
NeighborHealth	• Beginning in 2014, as a result of the Logan Airport Health Study, Massport provides annual funding to NeighborHealth (formerly the East Boston Neighborhood Health Center). • This partnership helps to expand the efforts of their Pediatric Asthma and Chronic Obstructive Pulmonary Disease (COPD) Prevention and Treatment Program in East Boston and Winthrop. The program offers services that include screenings for children, distribution of asthma kits, and home visits to support families. • Massport provides $340,000 to support these programs each year. • As of 2024, 554 patients were enrolled.
Diversity Science, Technology, Engineering, and Mathematics (STEM) Scholarships and Memorial Scholarships	• Each year, Massport awards 2 Diversity STEM Scholarships and 4 Memorial Scholarships to local students for $5,000 each. • As of 2024, Massport has awarded $340,000 in scholarships to 96 students.
Pathways Internship Program	• In 2023, the law enforcement internship program was extended to UMass Boston, aiming to attract diverse talent, including students of color and women. Since the program began, three students have been hired full-time by Massport.
Aviation and Maritime STEM Expo	• In 2023, the annual onsite STEM Expo in collaboration with the Federal Aviation Administration (FAA) was resumed after a three-year COVID-19 hiatus. The event featured over 50 exhibits and 35 aircraft, and attracted more than 1,000 students interested in aviation, technology, transportation, and sustainability careers. • In 2024, approximately 2,000 8th-grade and high school students representing 48 schools from the New England region attended the annual Aviation & Maritime STEM Expo. The event showcased an experimental electric airplane, a Boston MedFlight emergency aircraft, snow removal equipment, and many other vehicle and plane displays.

2.2 Community and Environmental Justice Outreach

Massport, through its Community Relations & Government Affairs Department and the Massport CAC, has demonstrated a consistent commitment to engaging with nearby communities and enhancing the quality of life of Massport's neighbors. This section outlines Massport's public outreach practices, including its comprehensive EJ and translation policies. These practices inform Massport's strategy across both specific projects and broader filings such as EDRs and ESPRs. Included are particular measures taken to ensure thorough, inclusive, and accessible communication through public involvement. Additionally, this section highlights Massport's continued evolution in its approach to community engagement, with recent expansions in outreach efforts and the addition of pre-filing public information sessions for projects in the MEPA process.

2.2.1 Regulatory Framework

Massport continues to comply with the **Executive Office of Energy and Environmental Affairs (EEA)**-enacted Climate Roadmap Act, the *MEPA Public Involvement Protocol for Environmental Justice Populations,* and the *MEPA Interim Protocol for Analysis of Project Impacts on Environmental Justice Populations* (2022 EJ Protocols) for individual projects at Logan Airport filed with MEPA.[2] While Massport's EDR and ESPR filings are not formally subject to these recent regulations and protocols as they are not projects, Massport voluntarily complies with these protocols. Following these regulations and protocols, the *2023/2024 EDR* defines the **designated geographic area (DGA)** as a 1-mile radius from the outer perimeter of Logan Airport, consistent with 301 Code of Massachusetts Regulations (CMR) 11.02 and the *2022 ESPR*. The DGA is utilized for characterizing EJ populations within the vicinity of the Airport, assessing existing health conditions, and, at a minimum, determining the extent of outreach for the *2023/2024 EDR*. Characterization is conducted through the analysis of **census tracts** within the DGA and **block groups**, which are smaller subsets of a census tract. Census tracts are small statistical subdivisions of municipalities with a targeted population size of 4,000 people. Block groups divide census tracts into smaller subsets of around 1,200 residents.[3] As discussed in the following sections, Massport strives to provide comprehensive outreach on the on-going and upcoming activities and operations at Logan Airport to neighboring communities. A map of the EJ populations within the DGA (1-mile) is illustrated in **Figure 2-1**.

2.2.2 Massport's History of Community Outreach

Massport has conducted and continues to conduct comprehensive outreach to the surrounding communities through its Community Relations & Government Affairs Department. This department manages Massport's relations with community members and government officials, furthering Massport's

2 EEA. 2021. MEPA Interim Protocol for Analysis of Project Impacts on Environmental Justice Populations. https://www.mass.gov/doc/final-mepa-interim-protocol-for-analysis-of-project-impacts-on-environmental-justice-populations-effective-date-of-january-1-2022/download.

3 United States Census Bureau, 2025. https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13

goal of being a good neighbor. The department implements Massport's public engagement practices, which are tailored on a project-by-project basis to meet community needs and for the annual EDRs and ESPRs. Additionally, Massport relies on input from the Massport CAC to serve as the formal government representatives for the 35 communities surrounding Massport facilities, thereby fostering a strong relationship of continued collaboration and cooperation. Massport CAC meetings are open to the public, both during the meeting and after, through published recordings. These meetings are also announced with sufficient notice for the public to attend.[4]

2.2.3 Project-Specific Massport Public Involvement Practices

The Community Relations & Government Affairs Department directs Massport's EJ and community outreach for projects subject to **MEPA review**. Massport identifies EJ block groups within a 1-mile radius and a 5-mile radius[5] for a Project Area as part of the DGA for MEPA project filings on projects occurring after the enactment of the *Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs* (2021 EJ Policy) and 2022 EJ Protocols.

2.2.4 ESPR Public Involvement Practices and Outreach

This EDR, like previous Massport EDR and ESPR filings, voluntarily offers an extension to the typical 30-day MEPA public comment period. Throughout the development of the *2023/2024 EDR*, Massport enhanced public involvement and outreach through continuing practices initiated within the *2022 ESPR* and through participation in MEPA's Logan Airport Work Group, which is discussed in subsequent sections. Additionally, Massport's Community Relations & Government Affairs Department provides oral updates on on-going projects and programs at Logan Airport, including ESPRs and EDRs, through its participation in neighborhood meetings. Further information on project-specific Massport outreach policies can be found in the **User's Guide, Section U2.3**.

User's Guide Section U2.3

2.2.4.1 Translation

Starting with the *2022 ESPR*, Massport has expanded EJ outreach and the subsequent EJ Reference List to EJ populations within 5 miles of the Airport and translates the document into languages spoken by at least 5 percent of the census tract's population who do not speak English well or at all within 5 miles of Logan Airport, as well as within Massport CAC communities. **Table 2-2** provides a list of languages spoken by more than 5 percent of the population who "do not speak English very well," within 5 miles of Logan Airport and within the 35 Massport CAC communities.[6] The table also denotes how Massport incorporated these languages into the EJ and community outreach strategy.

4 Massport CAC. https://massportcac.org/

5 EJ populations within 5 miles of standard individual projects undergoing MEPA review are typically depicted in a figure, while EJ populations within 1 mile are detailed in a table and analyzed for disproportionate adverse effects. If the project exceeds an air quality threshold, the project is subject to a disproportionate adverse effects analysis for all EJ populations within 5 miles.

6 MEPA Public Involvement Protocol for Environmental Justice Populations. January 1, 2022. https://www.mass.gov/doc/final-mepa-public-involvement-protocol-for-environmental-justice-populations-effective-date-of-january-1-2022/download

Table 2-2 Massport Enhanced Language Access

Massport Expanded Outreach	Languages Spoken by Greater Than 5% of Population within DGA							
	Spanish	Portuguese	Simplified Chinese	Haitian Creole	Vietnamese	Russian	Mon-Khmer	Arabic
Notification of Availability								
Full Translation	X	X	X	X				
Babel Notice					X	X	X	X
Chapter 1, Introduction and Executive Summary								
Full translation	X	X[1]	X[1]	X[1]				
Email Filing Notification								
Full Translation	X	X	X	X				
Babel Notice					X	X	X	X
Public Meetings								
Full Translation	X	X	X	X				
Babel Notice					X	X	X	X
Interpreter Provided	X							

Notes: Interpretation services for all languages listed above can be provided by Massport with at least 48 hour notice before a public meeting.

1 Available electronically on Massport's website and at local libraries (see Appendix D, *Distribution List*).

Chapter 1, *Introduction and Executive Summary*, has been translated into Spanish, Portuguese, Simplified Chinese, and Haitian Creole. The Spanish translation of Chapter 1 is included in all electronic and printed copies. Portuguese, Simplified Chinese, and Haitian Creole translations are available electronically via links to Massport's website and are also available in print at local libraries (see Appendix D, *Distribution List*, for a list of the libraries that receive a copy). Massport intends to follow this translation approach for future public notices and summaries. In addition, Massport provided a Babel Notice for five additional languages. A Babel Notice informs readers, in English and other languages, how to access language translation services and how to request project materials in a specific language. The languages Massport included in the Babel Notice for the *2023/2024 EDR* are Vietnamese, Russian, Mon-Khmer, Arabic, and Korean. Massport offered interpretation services in Spanish and additional languages upon request for public meetings.

2.2.4.2 MEPA's Logan Airport Work Group

Starting in February of 2025, Massport has been participating in MEPA's Logan Airport Work Group, a working group co-led by MEPA and the EEA EJ Office. The purpose of the Work Group is to identify

potential supplemental beneficial measures related to air quality in communities neighboring the Airport. The recurring members of the Work Group include:

- EEA MEPA Office (co-moderator);
- EEA Environmental Justice and Equity Office (co-moderator);
- Massport;
- MassDOT;
- MassDEP Air and Climate Programs;
- Massachusetts Department of Public Health (MassDPH) Environmental Epidemiology Program;
- City of Boston: Air Quality Division;
- City of Chelsea;
- Massport CAC;
- GreenRoots;
- Conservation Law Foundation (CLF);
- Airport Impact Relief Inc. (AIR Inc.);
- Mothers Out Front (East Boston and Winthrop); and
- Friends of Belle Isle Marsh.

Initial Work Group agendas included presentations by MassDPH on their Logan Airport Health Study and Tufts, Boston University, and Olin College research on ultrafine particulate (UFP) matter monitoring around airports. Future Work Group meetings will include public health experts as recommended by members of the Work Group and presentations from Massport. The Work Group will continue to meet into early 2026 and will conclude with recommendations for supplemental beneficial measures related to air quality. The *2025 EDR* will provide further updates on the status and conclusion of the work group.

2.2.4.3 Public Information Sessions

Through work within MEPA's Logan Airport Work Group, Massport has increased engagement with community groups that have frequently participated in past public information sessions and provided comments on previous EDRs, ESPRs, and other Massport projects. In 2025, Massport continued to meet with interested stakeholders to discuss airport activities further. Massport's Community Relations & Government Affairs Department frequently attends neighborhood association meetings and other local meetings to provide verbal updates on current and upcoming projects and programs at Logan Airport as part of its regular community involvement.

2.3 Environmental Justice Populations

Figure 2-1 shows EJ block groups within the DGA for Logan Airport and within a 5-mile radius of the Airport, as well as the 37 census tracts within the Logan Airport DGA. Of those, 26 census tracts contain at least one EJ block group, totaling 64 EJ block groups.

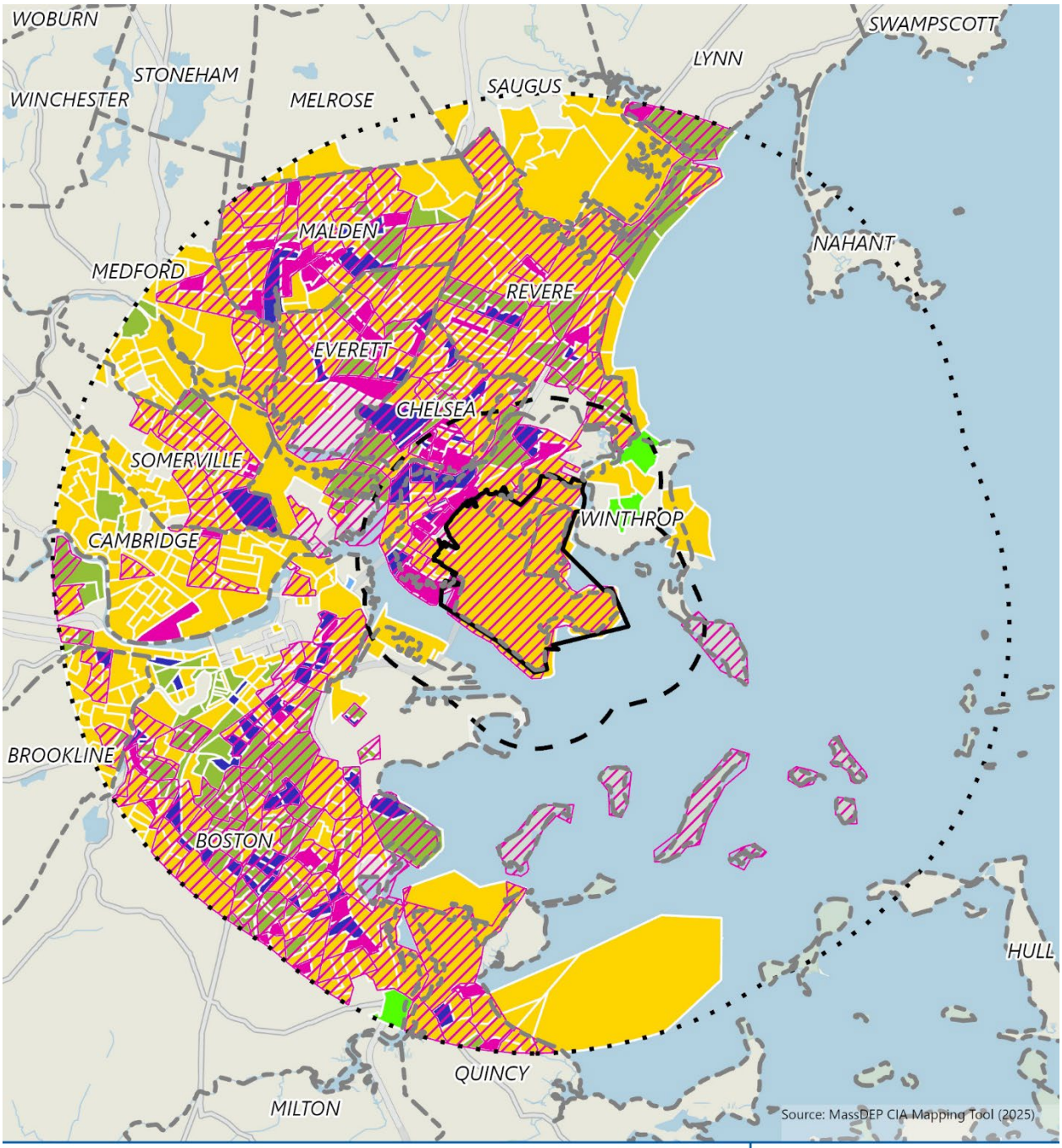

Figure 2-1 EJ Populations within 1 and 5 miles of Logan Airport

2023/2024 Environmental Data Report

- Minority
- Income
- English isolation
- Minority and English isolation
- Minority and income
- Minority, income and English isolation
- Language Spoken by at least 5% of Population
- Massport Boundary
- One Mile Boundary
- Five Mile Boundary
- Municipalities

0 0.5 1 2 Miles

The characterization of EJ block groups within the DGA is as follows:

- 32 meeting minority criteria;
- 3 meeting low-income criteria;
- 14 meeting both minority and English isolation criteria;
- 7 meeting both minority and income criteria; and
- 8 meeting minority, income, and English isolation criteria.

These characterizations are consistent with the *2022 ESPR*. See Appendix E, *Environmental Justice Supporting Documentation,* Table E-2 to Table E-5 for a more detailed breakdown of EJ block group characteristics within the DGA.

2.4 Public Health Existing Conditions Review

The *2022 ESPR* included a review of existing public health conditions within the DGA (1 mile) of Logan Airport in response to a request from the MEPA Office. This review was conducted to identify existing environmental burdens[7] and related public health consequences[8] experienced by communities surrounding Logan Airport. Tools used for the existing conditions review are approved by MEPA and are included in the 2022 EJ Protocols.

The tools used for the *2022 ESPR* existing conditions review and this update are unable to differentiate Logan Airport-related activities from other surrounding activities and site uses. When Massport can differentiate airport impacts from those derived from different sources, the impacts and associated offsets are reported in the respective EDR chapters. Future filings will provide updates on existing public health conditions, as data becomes available.

7 Environmental burdens are defined by EEA as "any destruction, damage, or impairment of natural resources that is not insignificant, resulting from intentional or reasonably foreseeable causes, including but not limited to climate change, air pollution, water pollution, improper sewage disposal, dumping of solid wastes and other noxious substances, excessive noise, activities that limit access to natural resources and constructed outdoor recreational facilities and venues, inadequate remediation of pollution, reduction of ground water levels, impairment of water quality, increased flooding or storm water flows, and damage to inland waterways and waterbodies, wetlands, marine shores and waters, forests, open spaces, and playgrounds from private industrial, commercial or government operations or other activity that contaminates or alters the quality of the environment and poses a risk to public health."

8 A public health consequence is designated by a rate of occurrence greater than 110 percent of the statewide rate of occurrence for DPH EJ Tool Vulnerable Health EJ Criteria data.

2.4.1 Public Health Regulatory Context

The *2022 ESPR* used the tools listed below to conduct the existing public health conditions review for the DGA:

- **Massachusetts Department of Public Health (MassDPH) Environmental Justice Tool (DPH EJ Tool) Vulnerable Health EJ Criteria**: The DPH EJ Tool presents vulnerable health criteria at the community level (heart attack and pediatric asthma) and the census tract level (low birth weight and elevated blood lead). Since the *2022 ESPR*'s filing, the DPH EJ Tool has not been updated.
- **DPH EJ Tool Potential Pollution Sources:** The DPH EJ Tool was used to identify potential off-airport sources of pollution that may have affected, or may currently affect, communities, including EJ populations, within 1 mile of Logan Airport based on Vulnerable Health EJ Criteria. Since the *2022 ESPR*'s filing, the DPH EJ Tool Potential Pollutant Sources has not been updated.
- **U.S. Environmental Protection Agency's (U.S.EPA's) EJScreen EJ Indexes:** presents percentile ranking comparisons by census block group to statewide and national averages, respectively, for 13 EJ Indexes. EJ Indexes indicate a potential existing burden or heightened risk of burden on EJ populations within the DGA but are not specific to aviation activities and airport operations. Since the *2022 ESPR*'s filing, the U.S.EPA's EJScreen has been removed from the U.S.EPA's website and is no longer accessible.

As demonstrated, since the publication of the *2022 ESPR*, previously used data tools have not been updated. With approval from the MEPA Office, the *2023/2024 EDR* has not repeated the existing conditions review of data sources that have not been updated. Findings from these tools were presented in Chapter 2, Section 2.5 of the *2022 ESPR*.

In accordance with *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy*, the MassDEP has implemented amendments to 310 CMR 7.00 Air Pollution Control, effective as of March 29, 2024. These amendments necessitate conducting a CIA as part of a Comprehensive Plan Application (CPA)[9] for facilities situated in or near EJ populations. The amendments include requirements for an assessment of existing community conditions following the MassDEP CIA Framework.[10] The assessment of existing community conditions includes identifying proximal EJ populations, sensitive receptors, and nearby regulated facilities, while assessing health conditions, air quality, and climate indicators within census tracts within the DGA. The Secretary's Certificate (see Appendix A, *MEPA Certificate and Responses to Comments*) directed the *2023/2024 EDR* to include a section on existing

9 A Comprehensive Plan Application (CPA): is a detailed regulatory proposal submitted to the Massachusetts Department of Environmental Protection, designed to address potential environmental impacts associated with facility operations. The CPA outlines plans for new or existing facilities, particularly focusing on air pollution control measures, compliance with state environmental regulations, and engagement with environmental justice communities. It includes assessments of potential emissions, strategies for minimizing environmental harm, and commitments to enhance public outreach and involvement of affected populations in the decision-making process.

10 MassDEP Guidance for Conducting Cumulative Impact Analysis for Air Quality Comprehensive Plan Applications. 2024. https://www.mass.gov/doc/guidance-for-conducting-cumulative-impact-analysis-for-air-quality-comprehensive-plan-applications-march-28-2024/download

community conditions utilizing the MassDEP CIA Framework for air quality and climate indicators. The following sections report on methodology and findings from the MassDEP CIA Framework for air quality and climate indicators. To assess air quality and climate indicators, a comprehensive evaluation of existing community conditions was conducted, following the MassDEP CIA Framework. This assessment presented health conditions and air quality data at a more granular level (often down to the census tract) compared to data available during the preparation of the *2022 ESPR*. Despite the increased granularity, findings for health conditions, air quality, and climate indicators remain consistent with those presented in the *2022 ESPR*.

2.4.2 Existing Community Conditions Review Methodology

The public health existing conditions review uses data made available by MassDEP on the CIA webpage. To obtain data for specific census tracts, a 1-mile buffer around Logan Airport was uploaded to MassDEP's CIA mapping tool, which then pulled data for these tracts into workable data files. These data sources are publicly available, but they do not provide the level of detail necessary to demonstrate Logan Airport-specific activity. The existing community conditions review uses the same 1-mile radius as the DGA for the EJ existing conditions review.

MassDEP CIA air quality and climate indicators are a series of seven environmental indicators (listed in **Table 2-3**) that quantify a census tract population's risk as a percentile compared to state averages. Six environmental indicators overlap with those used by the U.S. EPA's EJ Screen, as reported in the *2022 ESPR*. Per the 2022 EJ Protocols, environmental indicators with a value greater than or equal to the 80th percentile indicate a heightened risk of burden or an existing health consequence. Percentiles are valid for comparison purposes, but may not accurately portray burdens experienced by a community. EJ populations with rates of one or more of the environmentally related health indicators 110 percent above statewide rates, based on a five-year rolling average, exhibit vulnerable health EJ criteria.

Table 2-3 Related Public Health Data

Indicator Type	MassDEP CIA Environmental Indicators	Related Potential Sources of Pollution	Related Vulnerable Health EJ Criteria
Air Quality and Climate Indicators	• Particulate Matter • Ozone • Diesel Particulate Matter • Impervious Surface[1] • Air Toxics Cancer Risk • Air Toxics Respiratory Hazard Index (HI) • Toxic Releases to Air • Traffic Proximity	• Large quantity toxic users • Large quantity generators • Facilities with air operating permits • Proximity to roadways • Airport infrastructure • Non-electric rail infrastructure • Power plants • Construction activities	• Heart Attack • Pediatric Asthma • Low Birth Weight • Pediatric Asthma

Source: DPH, Environmental Public Health Tracking and Data, 2022. MassDEP CIA Framework, 2024.

1 Impervious Surface is the only environmental indicator that does not overlap with indicators in U.S.EPA's EJScreen.

2.4.3 MassDEP CIA Existing Community Conditions Review

The following environmental indicators, averaged across the DGA, are equal to or above the 80th percentile of the statewide rates, indicating a potential existing environmental burden for the area's EJ populations.[11] Appendix E, Table E-8 provides values for each environmental indicator at a census tract level, including air quality and climate indicators. Despite the increased granularity of available data, this analysis is unable to differentiate Logan Airport-related activities from other surrounding activities.

- **The Diesel Particulate Matter (PM):** represents the modeled annual average concentration of diesel PM in the air from all sources, including transportation and stationary emitters. The DGA's diesel PM concentration is 0.34 micrograms per cubic meter ($\mu g/m^3$). Logan Airport's DGA location, adjacent to major highway corridors and dense industrial activity, likely contributes to elevated diesel PM concentrations.
- **Air Toxics Cancer Risk:** This indicator reflects the estimated lifetime cancer risk per million people due to inhalation exposure to air toxics, based on the U.S.EPA's AirToxScreen modeling. The DGA's average cancer risk is 28.29 per million. These modeled risks are based on ambient concentrations and should be interpreted as estimates of general community-level exposure, not individual health outcomes.
- **Air Toxics Respiratory Hazard Index (HI):** The respiratory HI measures the ratio of exposure concentrations to health-based reference concentrations for multiple hazardous air pollutants. A value greater than 1.0 would indicate a potential for adverse effects. In the DGA, the average respiratory HI is 0.36, suggesting DGA populations are more likely to be exposed to elevated ambient concentrations of air toxics associated with respiratory effects.
- **Traffic Proximity:** This indicator measures the proximity of block groups to major roadways using a weighted combination of daily traffic counts and distance to roads, and is only reported for the 26 census tracts that contain EJ block groups.[12] The DGA's median traffic proximity value is 14,185,603 with an average of 13,684,987. This value reflects Logan Airport's urban location and proximity to major transportation infrastructure, including I-90, Route 1A, and the Sumner and Ted Williams tunnels. The value differs significantly from previous EJScreen-calculated results due to methodological differences.

11 U.S.EPA. Overview of Environmental Indicators in EJScreen.

12 The Traffic Proximity indicator in EJScreen is based on data from the US Department of Transportation National Transportation Atlas Database, Highway Performance Monitoring System. EJScreen reports traffic proximity as the count of vehicles per day (average annual daily traffic or AADT) at major roads within 500 meters (or nearest one beyond 500 m), divided by distance in meters (that is, the indicator is traffic counts weighted by distance from the block group). For Census Tract values, block groups within the DGA have been averaged

- **Impervious Surface (percentage):** This indicator represents the percentage of the land surface within a census tract that is covered by impervious materials such as pavement, which do not allow water infiltration. High impervious surface coverage is associated with increased urban heat island effects, reduced green space, and increased stormwater runoff. Within the DGA, the average impervious surface is 69 percent. The value reflects the dense urban and built-up character of the area, including Logan Airport.

2.4.4 Existing Community Conditions Review Conclusions

Select census tracts with EJ and non-EJ populations within the DGA that meet the Vulnerable Health EJ Criteria, as established by EEA's 2021 EJ Policy and 2022 EJ Protocols, were determined using MassDEP's CIA existing community conditions framework. According to this public health existing conditions review, which utilized publicly available and validated data from government sources, both EJ and non-EJ populations within the DGA are likely to experience health consequences if these populations meet the Vulnerable Health EJ Criteria. Several census tracts within the DGA met Vulnerable Health EJ Criteria, with select census tracts showing elevated rates of health consequences, including heart attack, pediatric asthma, low birth weight, and elevated blood lead levels, which are correlated in the scientific literature with exposure to pollutants in air, potable water supplies, and soil or groundwater, as well as exposure to excessive noise levels. The findings of the public health existing conditions review are typical for a DGA centered around Boston. They are consistent with typical sources of pollution within metropolitan areas across the State and the U.S.

MassDEP CIA Framework indicates that air quality and climate indicators are categorized as an environmental and health consequence when the census tract is in the 80th percentile or greater compared to the State. These pollutants have been shown in scientific literature to be associated with transportation, manufacturing, construction, and other industrial activities. Some types of facilities where these activities occur, or source areas, include pharmaceutical manufacturing facilities, factories, roadways, active construction sites, railyards, ports and shipping facilities, and airports.

Currently, the scientifically validated data and technology needed to differentiate each of the pollution sources affecting these surrounding communities are not available. The scope and scale of source contributions cannot be directly quantified using current technology. Therefore, it is not possible at the time of filing this EDR to accurately assess what effects are under a source's direct control to address or what actions could be taken that would have a meaningful effect.