

CLIMATE READY: EAST BOSTON

Land area: 4.7 sq miles
Population: 40,000
Jobs: 28,000
Economic contribution: \$6 billion



Equitable development and job creation. Improved transit and community services. Increased access to open space. Enhanced health and security. All of these community benefits can be achieved through preparing Boston for the impacts of climate change.

Led by the City of Boston and the Green Ribbon, Climate Ready Boston is aimed at identifying how Boston’s climate is going to change, what’s most at risk, and steps that can be taken to improve our community and thrive in the future. It builds on Boston’s commitment to address global warming by cutting carbon and other emissions. The Climate Ready Boston report is available at (<https://www.boston.gov/environment-and-energy/climate-ready-boston>) and was developed with input from leading scientists; city, regional and state staff; utilities; and nonprofit and community organizations.

What Climate Change Means for East Boston

GREATER
AMOUNTS
OF SEA
LEVEL RISE



More Flooding:

- Due to sea level rise, significant flooding will result from storm surges less powerful than those causing flooding today.
- East Boston, along with South Boston, will have the most land area in the city affected by sea level rise and coastal flooding.
- East Boston will also face flooding from flows of excess stormwater as extreme rainfall events increase in intensity.

MORE HOT
DAYS



More Heat:

- Climate change means hotter temperatures, especially in urban “heat islands” with more asphalt and less tree cover to provide shade
- Heat waves pose a particular risk to the 34% of East Bostonians on low-incomes, who may have less access to air conditioning and health services, and the 14,000 suffering from medical illnesses

What's At Stake



Community Assets & Flooding

East Boston's waterfront geography places a number of community assets at risk to major flooding events.

- In the near term, eight I-90 and Route 1A tunnel exits and entrances would be affected.
- An additional 9 inches of sea level rise would impact Wood Island, Orient Heights, and Suffolk Downs MBTA stops.
- By the middle of the century, the Airport MBTA Stop would be exposed. In more severe events, Engine 56 & Ladder 21 Firehouse would be impacted along with healthcare facilities, schools, and community centers.
- As soon as the 2070s, 50% of East Boston's land area will be exposed.
- Later this century, major flooding would impact the Ted Williams Tunnel entrance, Airport Silver Line stops, multiple MassDOT stormwater pump stations, and other community assets.



People and Buildings Impacted by Major Flood Events

As sea level rise accelerates, a greater area of the city will be affected. Over the next century, two-thirds of the buildings in East Boston that face coastal flooding are expected to be residential or mixed-use.

- In 2030, 7,020 people and 1,070 buildings valued at \$5 billion would be exposed in a major flood.
- In 2070, 19,070 people and 3,080 buildings valued at \$25 billion would be exposed.



Economic Output and Jobs

Flooding can be extremely disruptive to the local economy as operations are interrupted while structures are repaired or businesses relocate.

- The annual flooding impact in East Boston later this century is expected to be \$30.7 million with a loss of 270 jobs.
- This figure increases by \$12.6 million and 63 job losses if other effects, such as flooding impacts to suppliers and partners outside of East Boston, are considered.
- Key sectors affected include transportation, food services, and accommodations, which collectively provide 47% of East Boston's jobs.

East Boston in Action

The following initiatives have been proposed to ensure that East Boston is prepared for the effects of climate change.



Prepared & Connected Communities:

- Conduct an outreach campaign to private facilities that serve vulnerable populations to ensure that they engage in emergency preparedness and adaptation planning.
- Update the city’s heat emergency action plan.
- Expand Boston’s small business preparedness program.



Protected Shores:

- Develop a local climate resilience plan for East Boston to support district-scale climate adaptation. The plan should include the following:
 - Community engagement through a local climate resilience committee;
 - Land-use planning for future flood protection systems;
 - Infrastructure adaptation planning;
 - Coordination with other plans, including Imagine Boston 2030, GoBoston 2030, Special Planning Areas, and any updates to the East Boston Municipal Harbor Plan;
 - Development of financing strategies and governance structures to support district-scale adaptation.
- In the near term, protection is needed at Jeffries and Central Squares to address flooding along the waterfront.



Resilient Infrastructure:

- Develop coordinated risk response plans for extreme weather events.
- Support MBTA’s assessment of flooding on the Blue Line.
- Explore options for a neighborhood energy grid in Central Square.



Adapted Buildings:

- Update zoning and building codes and notify developers with projects in the pipeline to update plans.
- Help building owners assess potential impacts and increase resilience.
- Promote access to insurance.
- Prepare municipal buildings to withstand change.