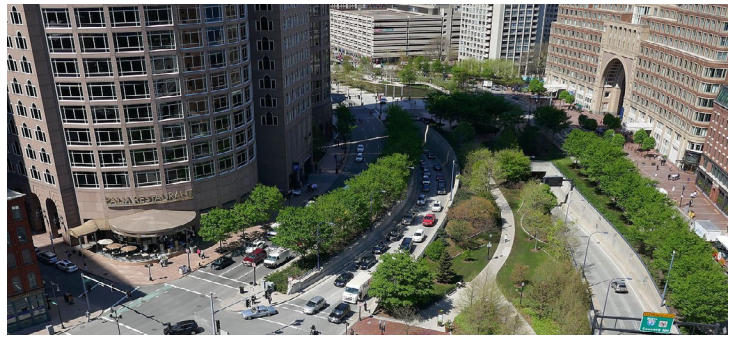


CLIMATE READY: DOWNTOWN

Land area: 1.3 sq miles
Population: 30,000
Jobs: 200,000
Economic contribution: \$50 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 Downtown

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.
- Downtown is less at risk from coastal and riverine flooding than some areas, yet its density means flooding can lead to significant structural damage and economic losses.
- Direct exposure to stormwater flooding will increase steadily over time with climate disruption.

MORE HOT
DAYS



More Heat:

- Climate change means hotter temperatures in Downtown "heat islands," or areas with more asphalt and less tree cover to provide shade.
- Downtown has a large number of older community members, people of color, and renters who can be more vulnerable to heat waves and resulting power outages.

What's At Stake



Community Assets & Flooding

A number of Downtown community assets are vulnerable to major flooding events.

- The waterfront from Union Wharf to the Aquarium and inland areas near Faneuil Hall and North Station will be exposed to coastal flooding.
- This type of storm will also impact the Aquarium Blue Line Station, the Leverett Circle Connector Bridge to I-93, and Central Artery north tunnel entrances.
- Flooding will expand mid-century in the North End, Leather District, and Chinatown and be more likely from Faneuil Hall to the Financial District.
- In the second half of the century, major flooding events will impact additional I-93 and I-90 tunnels, Tufts Medical Center, a number of MassDot stormwater pump stations, and other critical community assets.
- Later this century, areas from Lewis Wharf to the Aquarium and inland to Faneuil Hall will be at risk from high tide flooding at least once a month.
- North Station and South Station also face exposure to major flooding later this century.



People and Buildings Impacted by Major Flood Events

As sea level rise accelerates, a greater area of Downtown will be affected by major flooding.

- In the near term, Downtown is expected to have approximately 60 structures exposed to flooding during monthly high tides—more than any other part of the city.
- In 2030, more than 4,600 people and 400 buildings with a value of over \$4.5 billion would be exposed in a major flood.
- In 2070, this figure rises to more than 13,900 people and 1,200 buildings with a value of over \$15 billion.



Economic Output and Jobs

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

- Downtown is expected to face annual losses of \$68M in economic output and 500 jobs by the end of the century.
- The restaurant and retail industries are expected to be most affected by coastal flooding throughout the century.

Downtown in Action

The following initiatives have been proposed to ensure that Downtown Boston is prepared for climate change impacts.



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 Downtown 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, the Downtown Waterfront Municipal Harbor Plan, and any future Municipal Harbor Plan processes.
 - Development of financing strategies and governance structures to support district-scale adaptation.
- Near term protection is needed along the low-lying areas of the Downtown Waterfront and at the New Charles River Dam.



Resilient Infrastructure:

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



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.