

CLIMATE READY: SOUTH END

Land area: 1.0 sq miles
Population: 38,600
Jobs: 20,000
Economic contribution: \$3.6 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 South End

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.
- The South End and East Boston can expect to see the greatest increase in land exposed to stormwater flooding as sea levels rise and rainfall becomes more extreme.

MORE HOT
DAYS



More Heat:

- Climate change means hotter temperatures in the South End, especially in its urban "heat islands," or areas with more asphalt and less tree cover to provide shade.
- Low-income community members make up 30% of the South End population and could face greater risks from heat waves due to lack of air conditioning, adequate housing, or green space.

What's At Stake



Community Assets & Flooding

A number of South End's community assets are vulnerable to major flooding events.

- In the near term, areas near the Courthouse and adjacent to Fort Point Channel will be exposed most frequently to coastal flooding.
- By 2050, portions of the Orange Line will be impacted by major flood events.
- Mid century, exposure will extend to the Conley Terminal, Raymond Flynn Marine Park, Fan Pier, and Joe Moakley Park.
- Later this century, much of the Seaport will be exposed to flooding during the average monthly high tide.
- Later this century, the South End's major roads and evacuation routes, in addition to the Orange and Silver Line routes, will be exposed to flooding. The Union Park pump station may also be exposed.
- Some of the area's top economic industries, the Boston Medical Center, and Boston University Medical Campus, will be exposed to late-century flooding.



People and Buildings Impacted by Major Flood Events

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

- In 2070, more than 27,400 people and 3,400 buildings valued at more than \$15 billion will be exposed to flooding impacts.
- The South End will be among the top three exposed neighborhoods in Boston toward the end of the century.



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 South End is expected to face annual losses of \$60 million in economic output and 330 jobs toward the end of the century.
- The main industries likely to be affected are real estate, hospitals, and restaurants.

South End in Action

The following initiatives have been proposed to ensure that South End 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 South End 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 potential Municipal Harbor Plan process;
 - Development of financing strategies and governance structures to support district-scale adaptation.
- Near term protection is needed at Dorchester Bay, at the South Boston Waterfront, and the New Charles River Dam.



Resilient Infrastructure:

- Develop coordinated risk response plans for extreme weather events.
- Support MBTA's assessment of flooding impacts.
- Explore options for a neighborhood energy grid along Massachusetts Avenue, Tremont Street, and at Public Alley 706.



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.