

Boston
Green Ribbon
Commission

Cultural Institutions
Working Group

Climate Risk for Cultural Institutions

November 2, 2022



The mission of the Green Ribbon Commission is to accelerate the implementation of the City's Climate Action Plan by convening, organizing, and enabling leaders from Boston's key sectors.

www.greenribboncommission.org

Speakers

- Dr. Alison Brizius Environment Commissioner, City of Boston
- Steven Rothstein Managing Director, Ceres Accelerator for Sustainable Capital Markets
- D'Anne Hurd Governance & ESG Advisor, Plan C Advisors

Today's Agenda

- 01 Welcome
- 02 Climate Impacts and Policies in the City of Boston
- 03 Climate Governance for Board Members
- 04 Audience Q&A

BOSTON CLIMATE ACTION

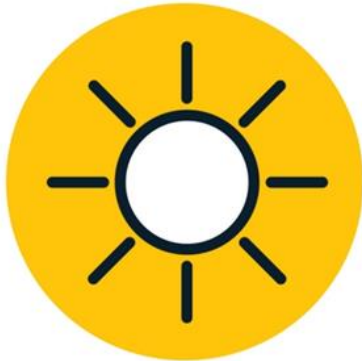
Mayor Michelle Wu



BOSTONIANS ALREADY EXPERIENCE IN IMPACTS OF CLIMATE CHANGE

LOS BOSTONIANOS YA EXPERIMENTAN LOS IMPACTOS DEL CAMBIO CLIMÁTICO

**EXTREME
TEMPERATURES**



HEAT

**EXTREME
PRECIPITATION**



**STORMWATER
FLOODING**

SEA LEVEL RISE



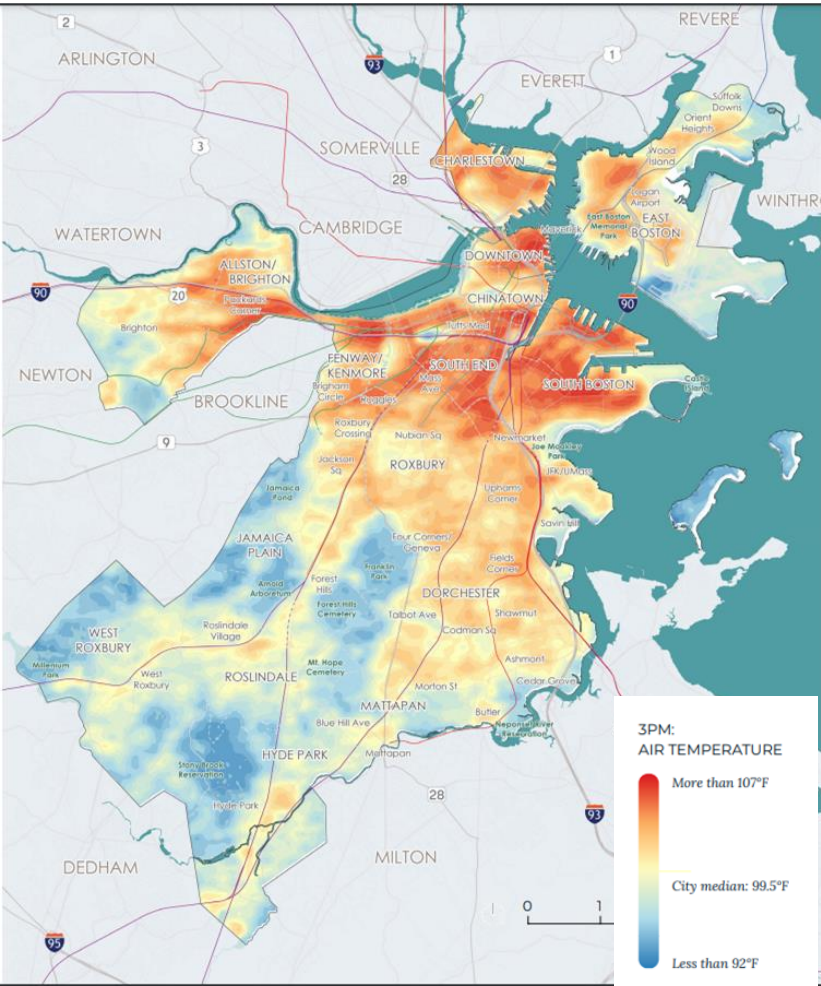
**COASTAL & RIVERINE
FLOODING**

**COASTAL
STORMS**

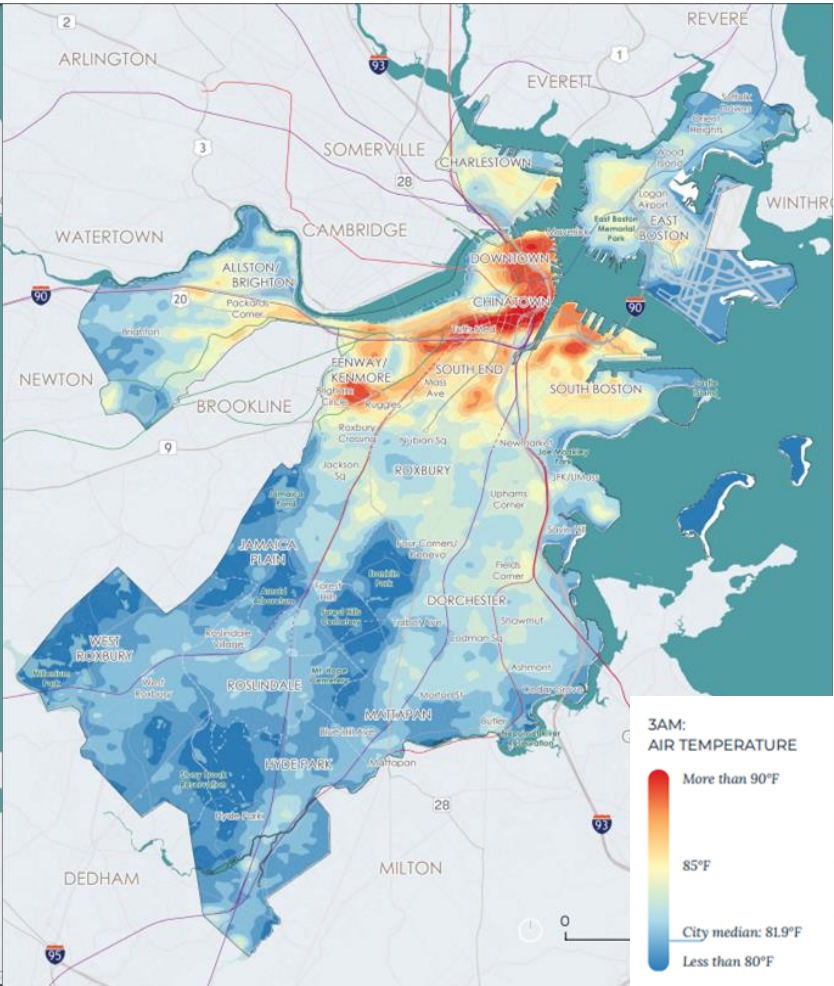


INCREASED HEAT

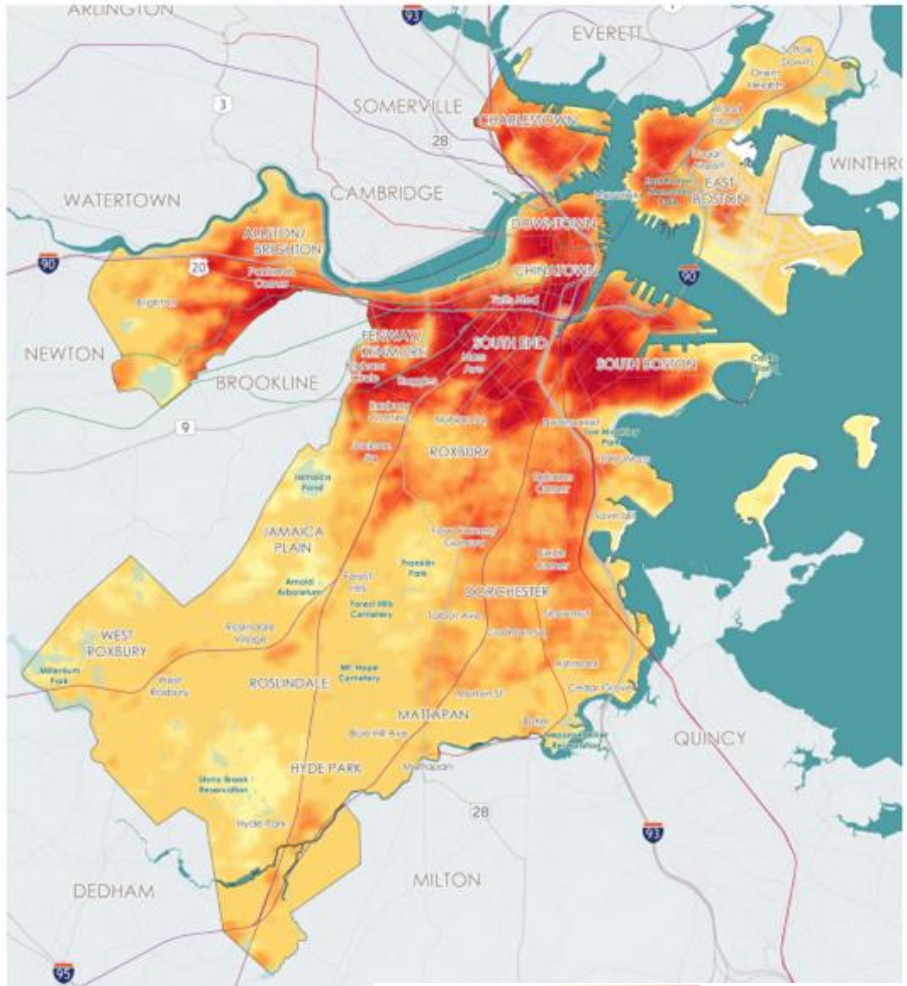
DAYTIME AIR TEMPERATURE



NIGHTTIME AIR TEMPERATURE

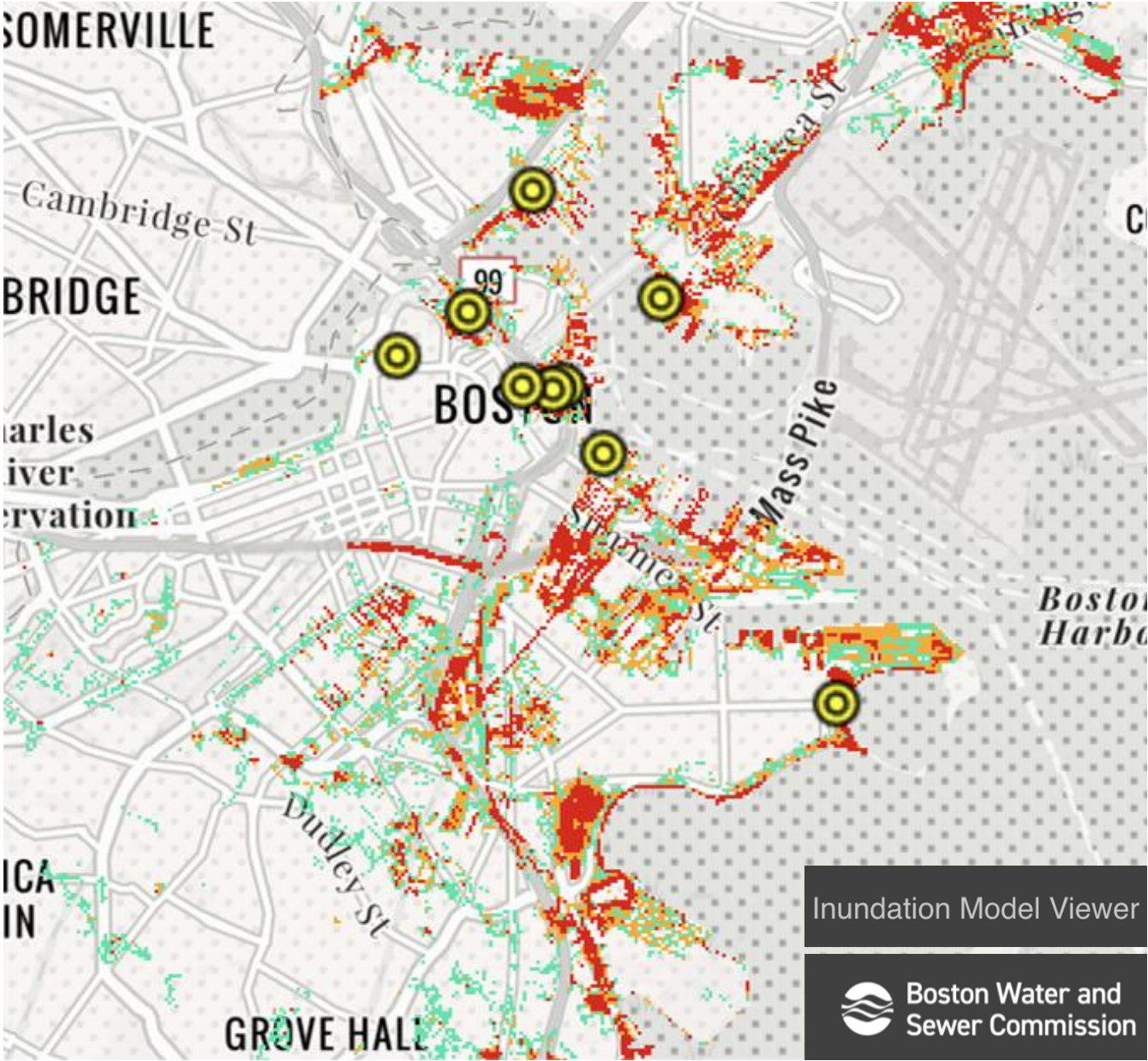


EVENT DURATION

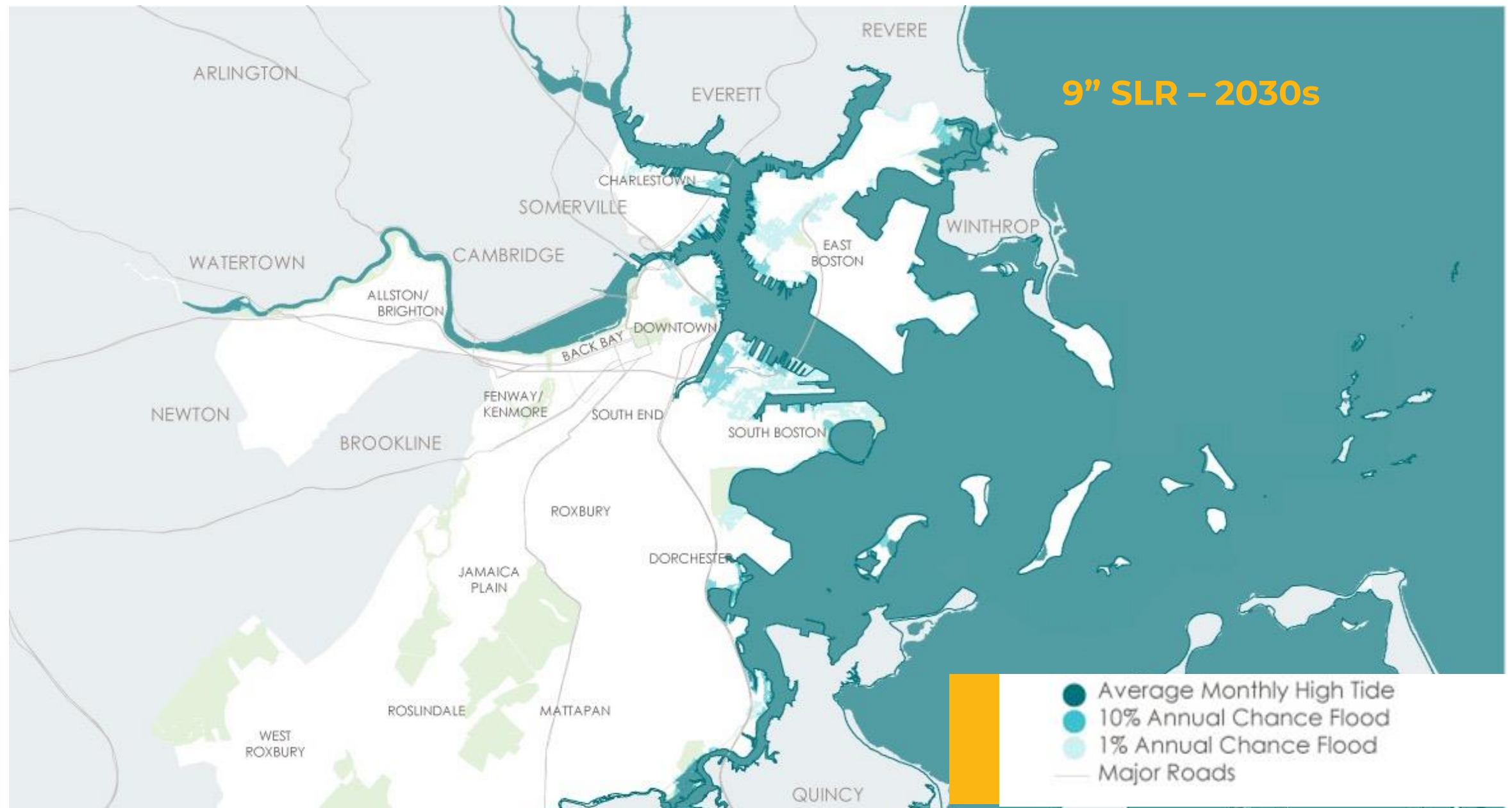


Less than 25 hrs More than 37 hrs

INCREASED STORMWATER



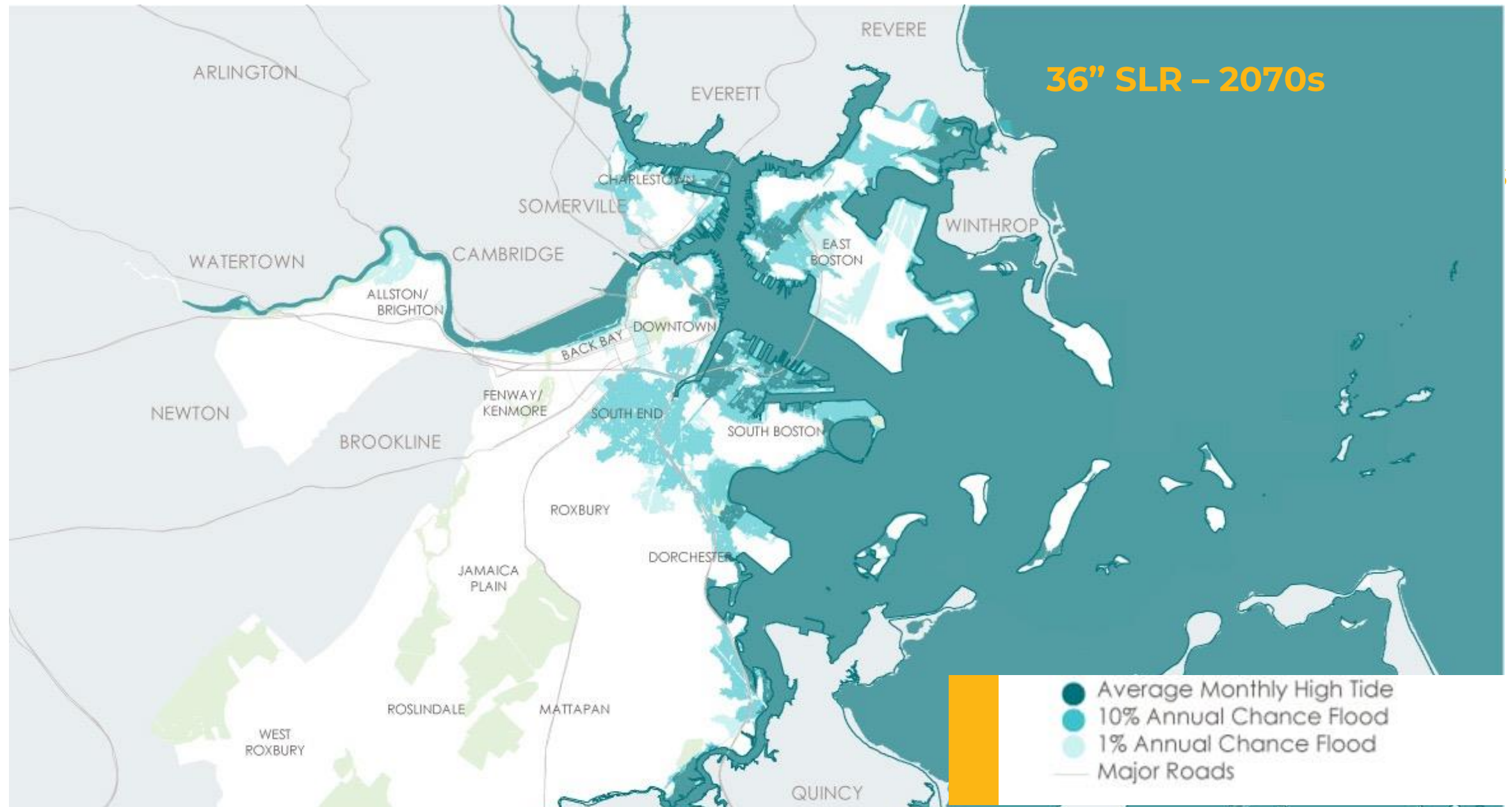
INCREASED COASTAL FLOODING



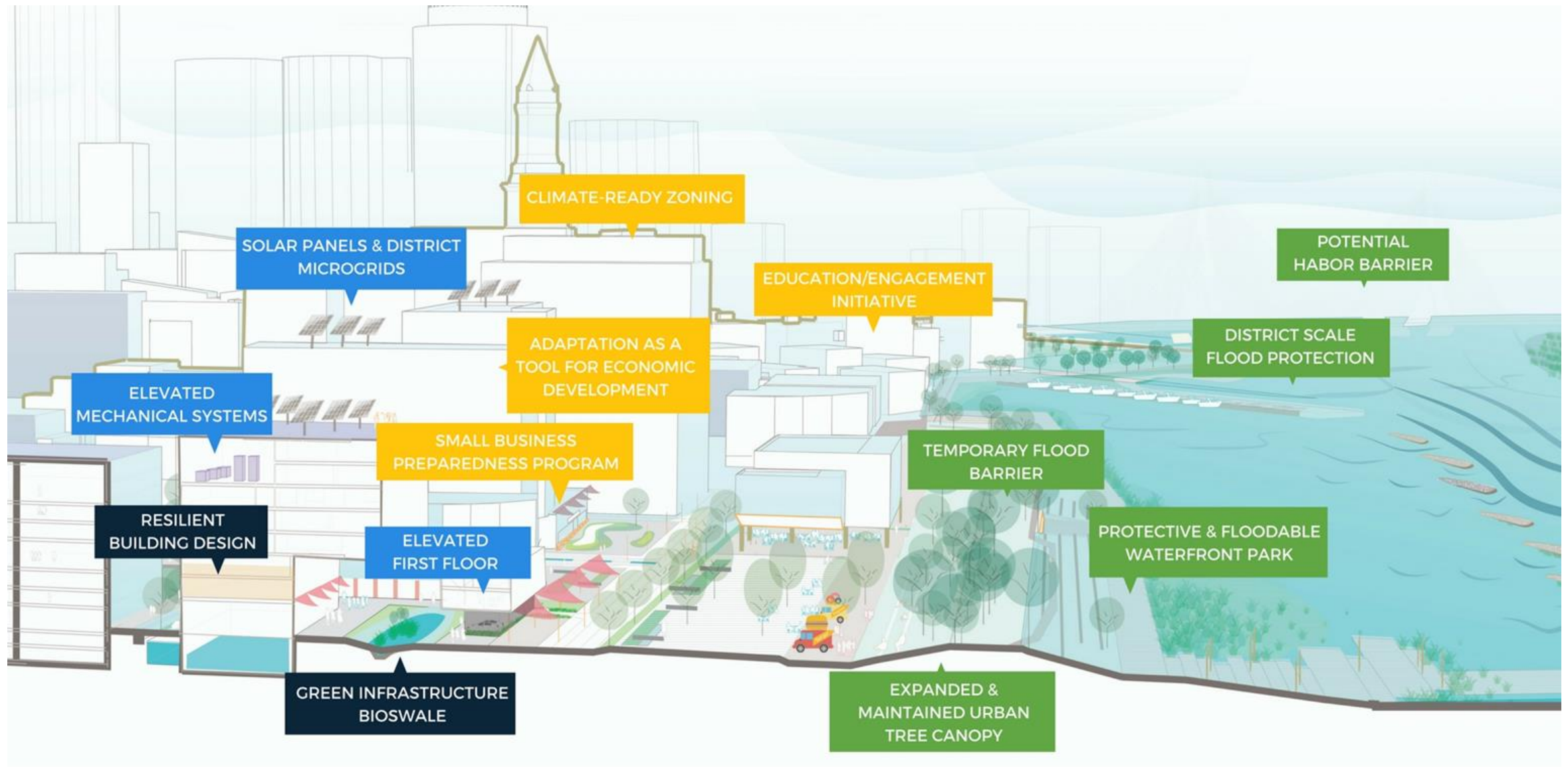
INCREASED COASTAL FLOODING



INCREASED COASTAL FLOODING



A layered approach



Identifying resilience solutions in Boston's coastal neighborhoods



East Boston & Charlestown I



South Boston & Seaport



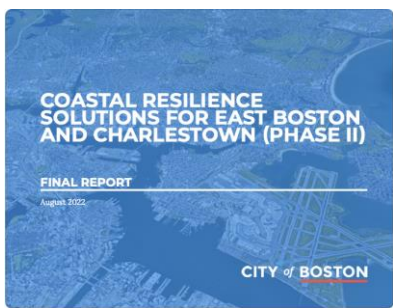
Moakley Park Vision Plan



North End & Downtown



Dorchester



East Boston & Charlestown II

2017

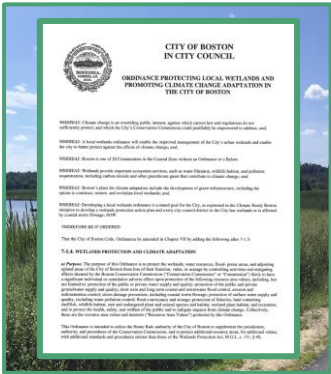
2018

2019

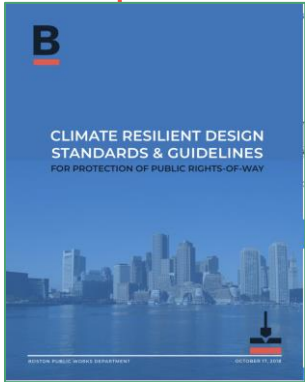
2020

2021

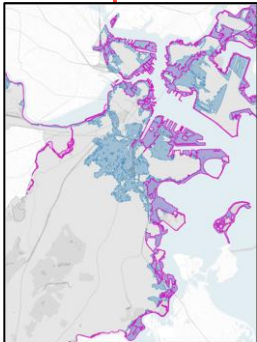
2022



Boston Local Wetlands Ordinance



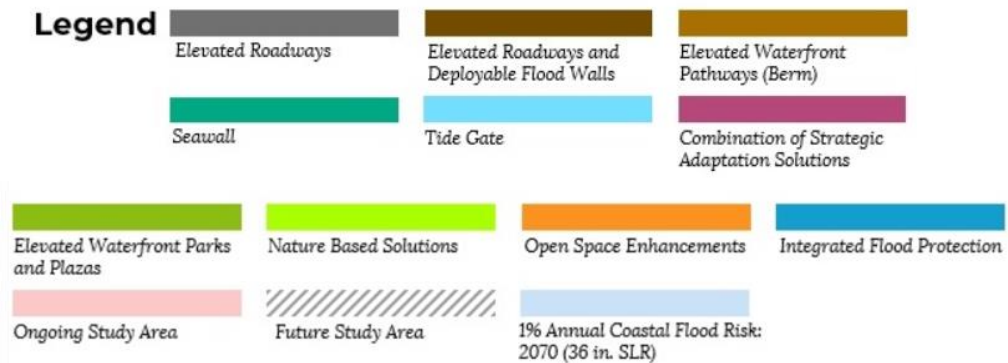
Climate Resilient Design Standards and Guidelines for Projects in the Public Right of Way



Coastal Flood Resilience Guidelines & Zoning Overlay District

Click on a project to learn more about its implementation and strategy

Legend



(1 of 3)

Clippership-Hodge Berm

Status: In Development

Strategy: Elevated waterfront pathways

Description: Elevating the Harborwalk in combination with a deployable flood wall across would protect residents nearby housing and the MBTA Maverick Station entrance from flooding damage and disruption.

For more information

Click on the image below to find out more about coastal resilience strategies in EAST BOSTON

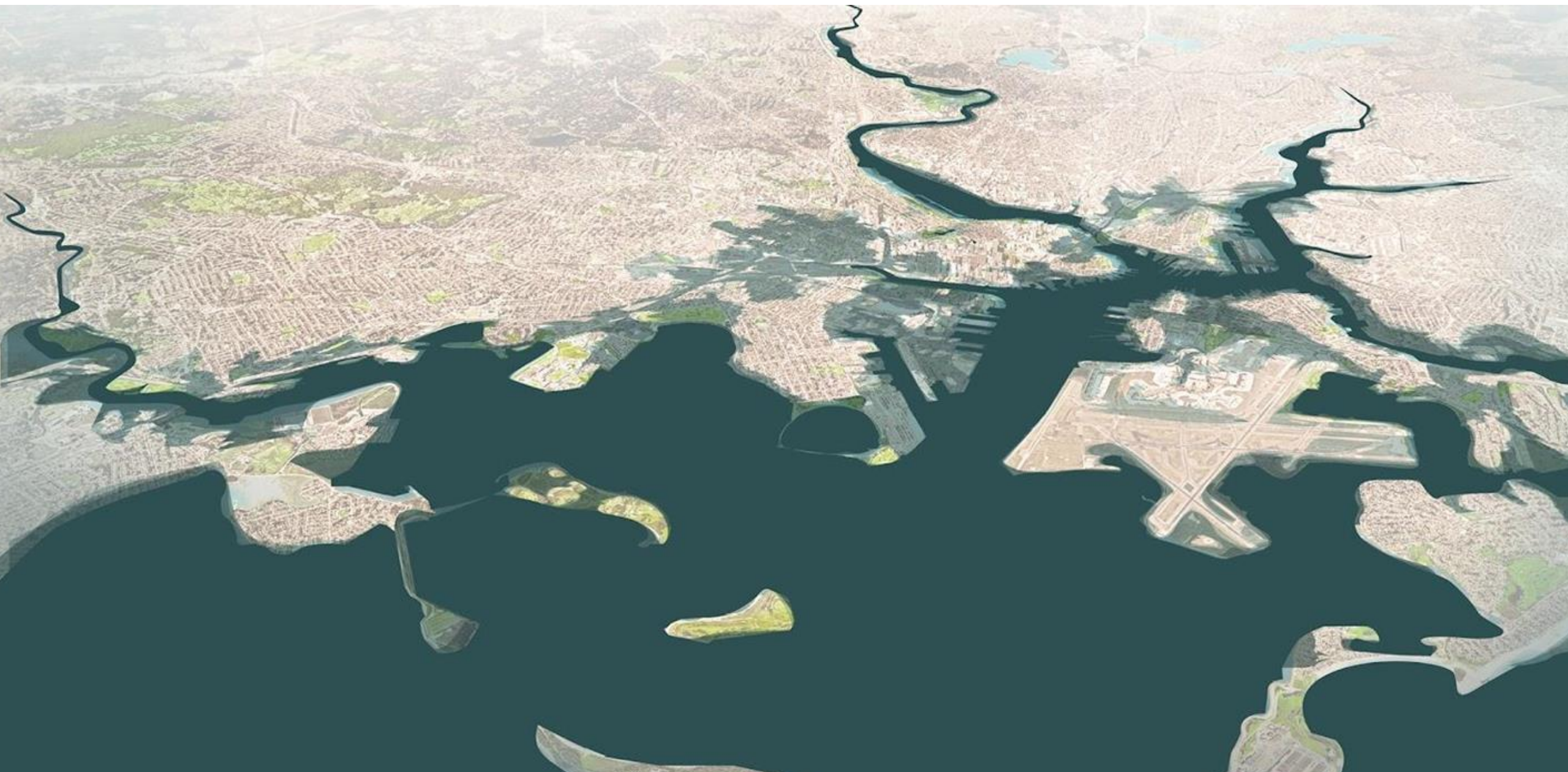


RESILIENT WATERFRONT PARKS

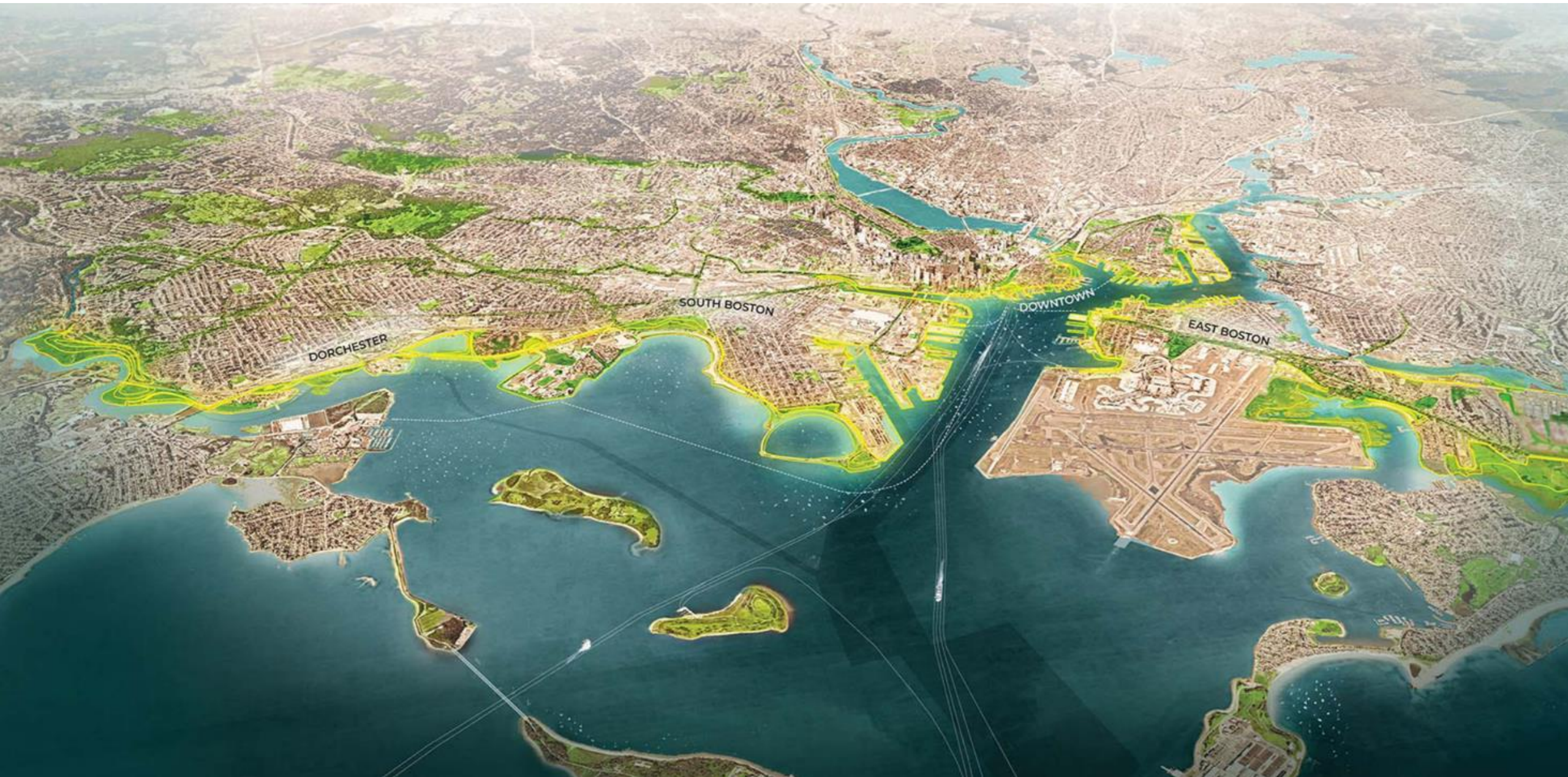


LANGONE &
BOUDO

When implemented, these plans will help secure Boston's shoreline



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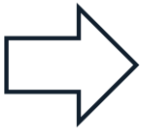


Reducing Emissions (Mitigation)



What does it take to get to carbon neutrality?

Boston needs to pursue 3 strategies **simultaneously**:



Reduce demand for energy by increasing efficiency;



Convert nearly everything that runs on fossil fuels to run on electricity;

Buy 100% clean energy.

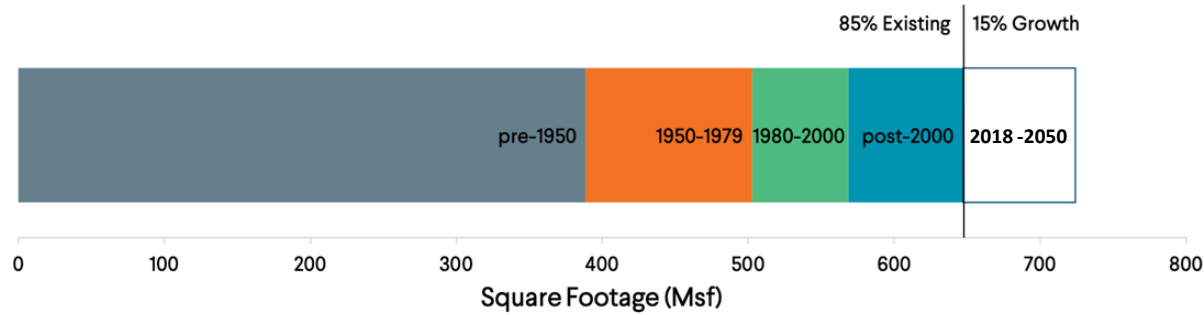


Carbon neutrality can be achieved with the technologies of today and is essential to a healthy, thriving and resilient Boston.

BUILDINGS

Current building stock

Boston's building stock is old.



- ½ of existing floor space was built before 1950.
- 85% of floor space that will exist in 2050 has already been built.



EMISSIONS PERFORMANCE STANDARD TO DECARBONIZE EXISTING LARGER BUILDINGS



BUILDING EMISSIONS PERFORMANCE STANDARD **B**

Sets carbon targets for existing buildings that decrease over time.

- Energy reporting and data verification starting in **2022**
- Requirements to meet emissions standards in 2025 (buildings 35,000+ SF) and 2030 (buildings 20,000+ SF)

DESIGNING FOR EQUITY

- Community oversight
- Funding for emissions reduction projects in environmental justice populations in Boston
- Support for economic inclusion
- Transparency and accountability
- Connecting residents and building owners to resources



**BETTER BUILDINGS
FOR RESIDENTS**



**QUALITY JOBS FOR
WORKERS**



**HEALTHIER CLIMATE
FOR EVERYONE**

(Credit: Black Illustrations)

Zero Net Carbon Building Zoning Initiative



**boston planning &
development agency**

**Technical
Advisory
Groups:**

**Low
Carbon
Buildings**

**On-site
Renewable
Energy**

**Renewable
Energy
Procurement**

FOSSIL FUEL FREE STANDARDS FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS



Starting in 2023 – 3 Energy Code options:

This straw proposal includes an update to the stretch code alongside the new specialized stretch option for Municipalities

Base Code (10th Edition of MA Building Code)

- New Buildings in towns and cities that have not adopted a stretch code
- 52 communities
- BBRS update effective in 2023

Stretch Code (Update)

- New Buildings in towns and cities that adopted, including all green communities
- 299 communities
- DOER update effective in 2023

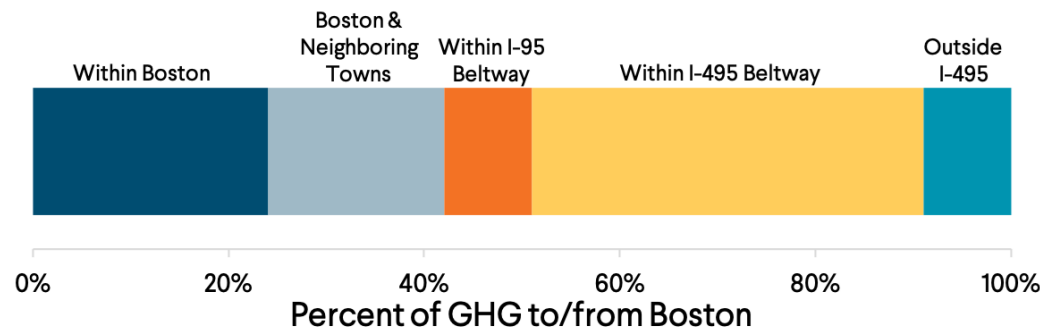
Specialized Opt-in (New Code Option)

- New Buildings in towns and cities that choose to opt-into this code
- Available for adoption Dec 2022

TRANSPORTATION

Commuters drive emissions:

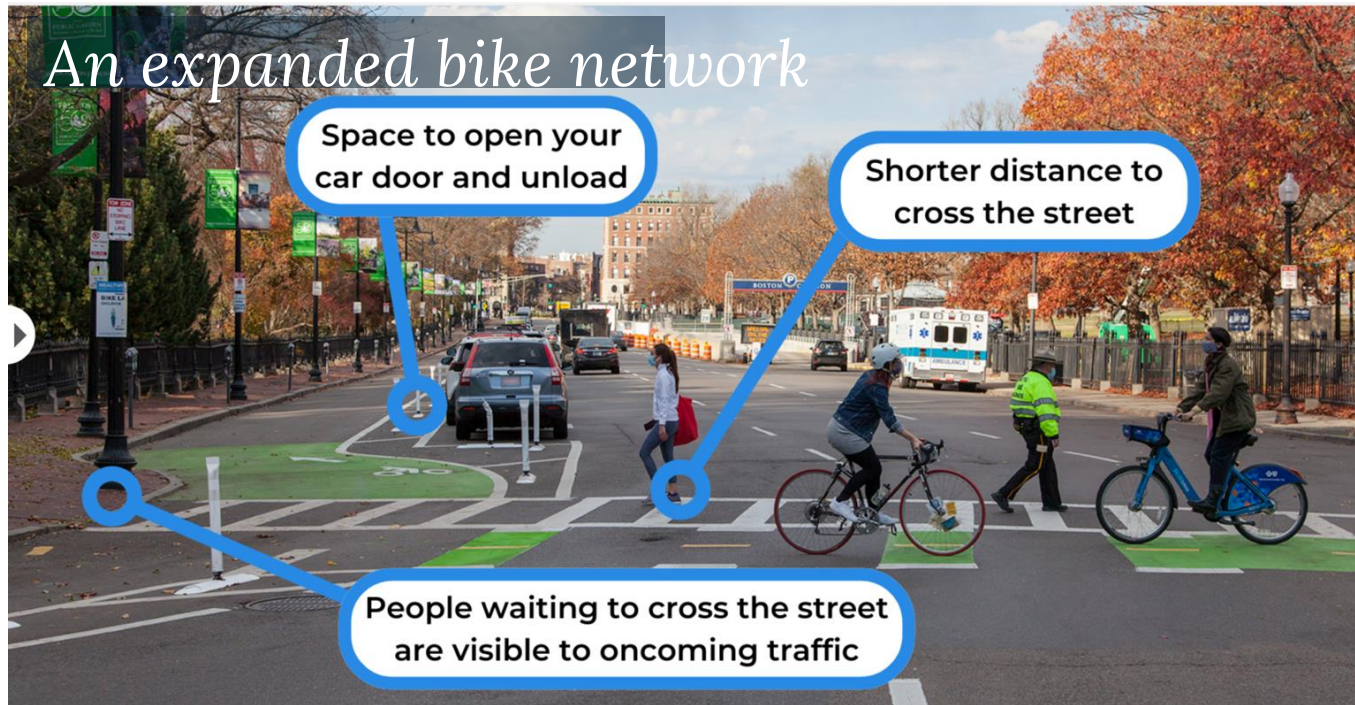
- 65% of Boston's transportation emissions come from personal vehicles.
- $\frac{3}{4}$ of transportation emissions come from travel to and from the metro area.



Transportation is a regional challenge. We need to advocate for regional transit investments.

We need to shift drivers out of single occupancy vehicles, and electrify any remaining vehicles.

TRANSPORTATION



An aerial photograph of a building with a blue corrugated metal roof. A large array of solar panels is installed on the roof. The building is surrounded by green trees. In the background, a city skyline is visible under a hazy, orange-tinted sky, suggesting a sunset or sunrise. The text "Thank You!" is overlaid in large white letters, and the email address "alison.brizius@boston.gov" is overlaid in smaller white letters below it.

Thank You!

alison.brizius@boston.gov