

The Climate Ready Boston Initiative

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THREATS



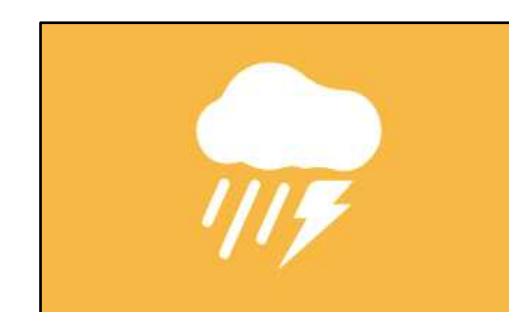
Extreme Heat

Worse, longer heat waves. There will be as many 40 days per year of extreme temperatures by 2030.



Coastal and Riverine Flooding

Due to sea level rise, storm surge and high tides will flood waterfront neighborhoods within 20 years.



Storm Flooding

Local flooding from a 10-year, 24-hour flooding will expose 7 percent of the land area of Boston by 2050.

KEY INSTITUTIONS AND PLAYERS

- The **Climate Ready Boston Steering Committee**: comprised of the City of Boston, Green Ribbon Commission, MA Office of Coastal Zone Management, and the Boston Planning and Development Agency.
- The **Boston Research Advisory Group** was responsible for much of the predictive science in four key areas: Sea Level Rise, Coastal Storms, Extreme Precipitation and Extreme Temperatures.
- **Other key teams involved**: Project Team, Infrastructure Advisory Committee, Community Advisory Group.

IMPLEMENTATION STATUS

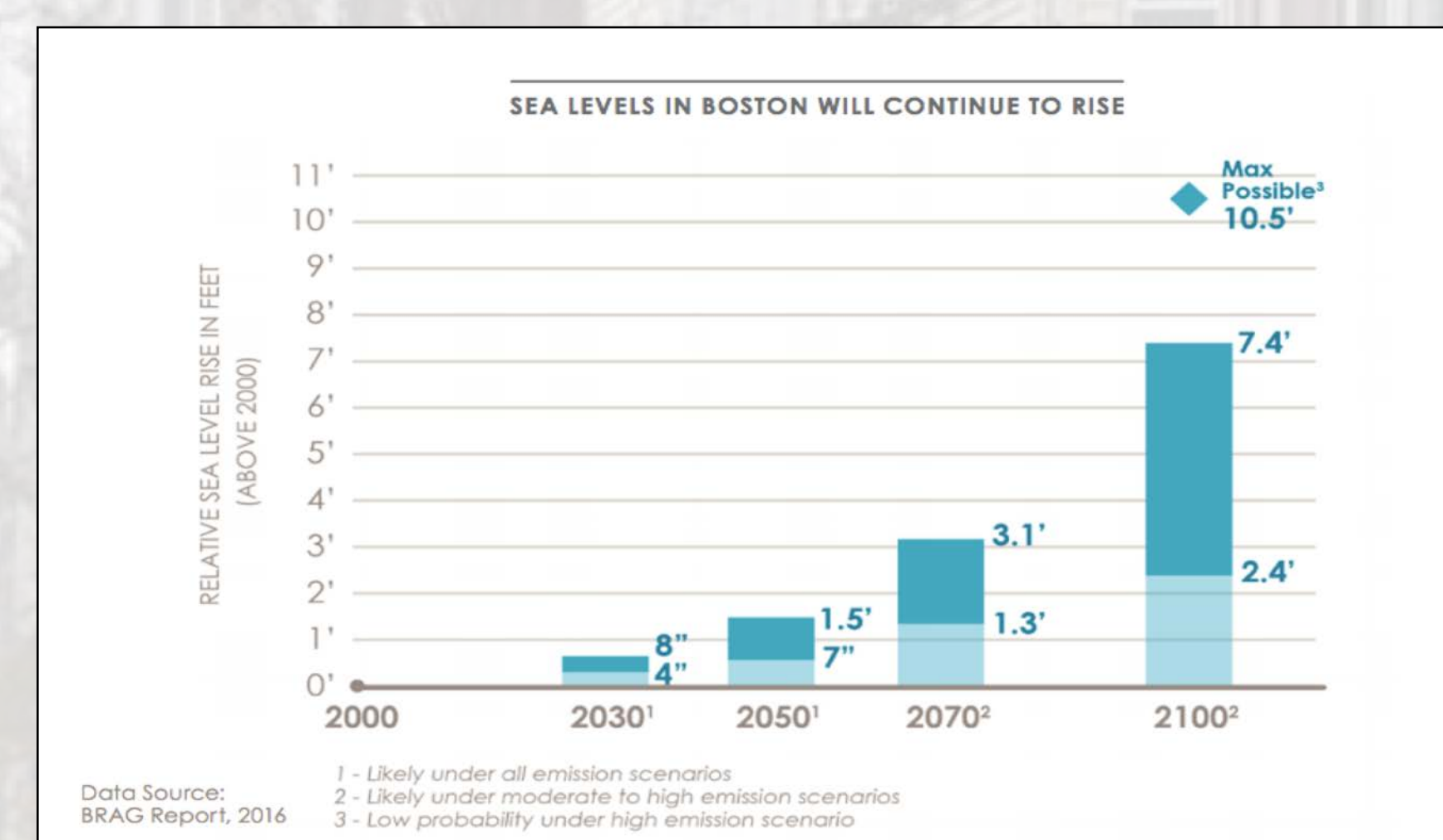
- 2013** **Climate Ready Boston (CRB) was published** as a thorough assessment of current and future climate change effects to guide Boston towards a more resilient future.
- Mid 2017** Community **outreach and engagement events** were held for East Boston residents regarding neighborhood resiliency plans.
- Present Day** **Development continues** on all 11 CRB mitigation strategies. Coastal protection and green infrastructure projects are nearing completion, while retrofitting buildings and updating critical infrastructure remain persistent problems for Boston to both fund and implement.

THE SOLUTIONS

Climate Ready Boston: Layers of Protection

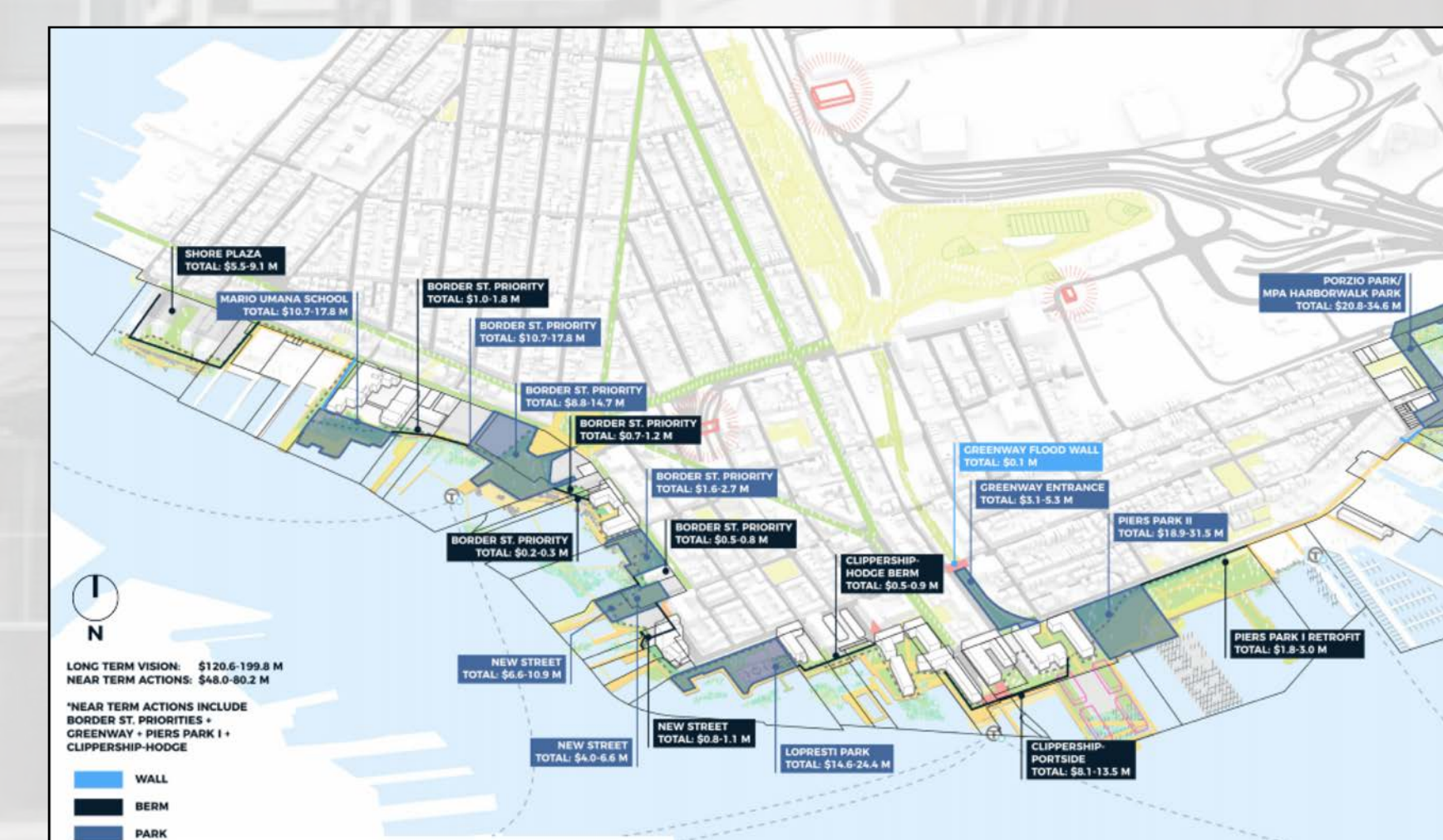
The City of Boston, galvanized by catastrophic Sandy damage just south, and spurred by a local group of business leaders, scientists, and politicians, developed consensus projections on climate factors to assess and project vulnerabilities to population and critical infrastructure. In an action plan, Climate Ready Boston (CRB), the City laid out five "layers" of climate change adaptation strategies. Boston plans on using neighborhood-level flood protection, zoning informed by updated projections, and new building codes and retrofitted infrastructure to protect its most vulnerable residents and infrastructure.

UPDATED PROJECTIONS



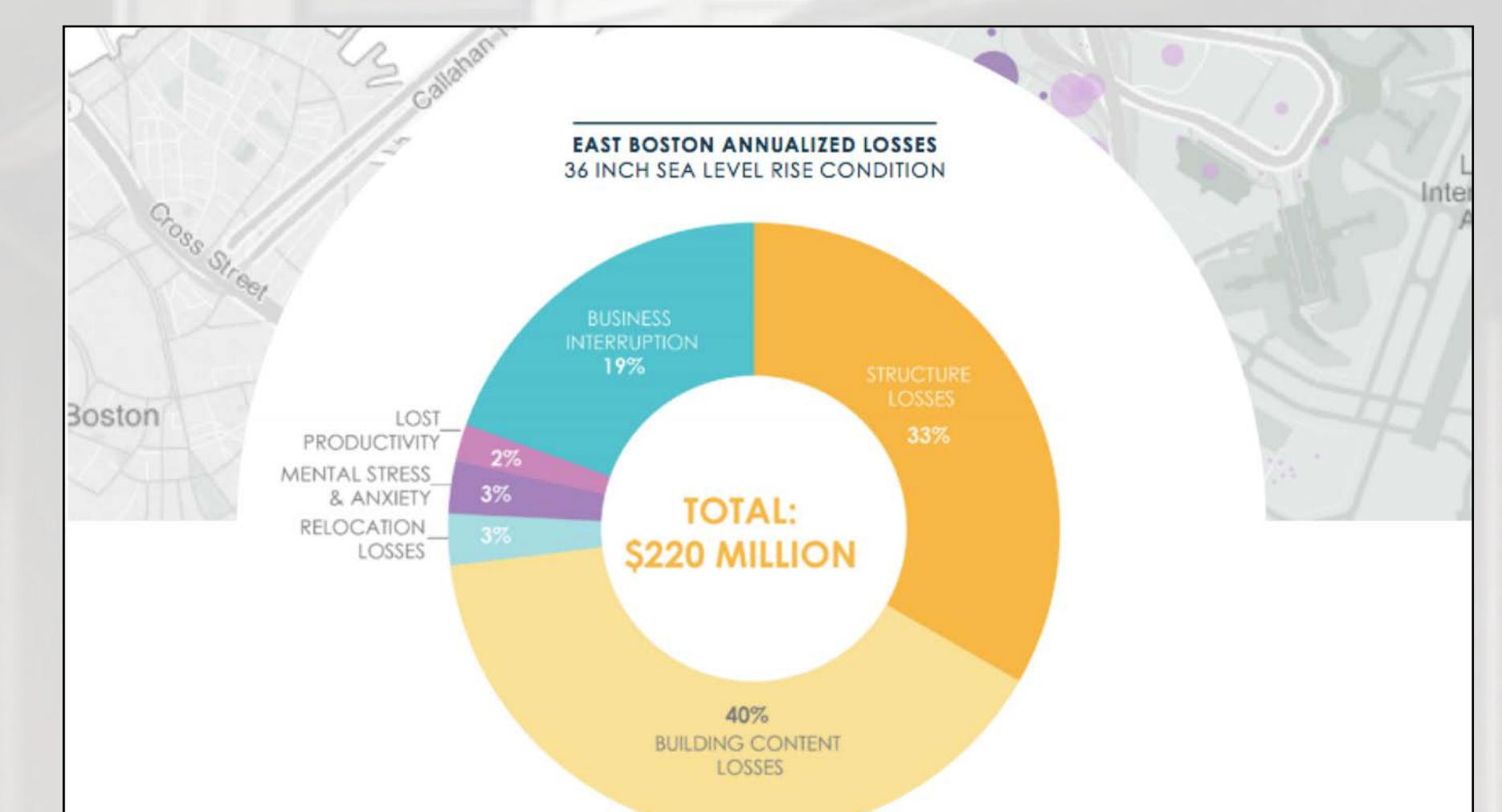
The Boston Research Advisory Group produced consensus local projections on extreme temperatures, storms, extreme precipitation, and sea level rise based on IPCC emissions projections.

PROTECTED SHORES



In East Boston, CRB plans on elevating waterfront parks and building a deployable floodwall at the entrance of the East Boston Greenway to cut off flood paths inland.

ADAPTED BUILDINGS



The City has recommended new zoning requirements based on flood maps created by CRB, and is also planning on updating building codes to move vulnerable systems above ground floor.

OBSTACLES TO PROGRESS

- **Over-planning vs. under-performing.** CRB lays out several detailed plans to build Boston's resiliency, but most measures have not progressed past the planning stage.
- While Boston has received funding from several sources, it will not be enough to cover the **\$1 – 2.4 billion** CRB proposal. Boston must look more seriously at implementing various funding mechanisms to support its resiliency endeavors.
- SLR projections depend on current and future **carbon emission policy**. Uncertainty in achieving global best-case vs. worst-case scenarios affects how Boston will continue to implement mitigation strategies.

LESSONS FOR THE BAY AREA

- **Preparation is key.** Developing mitigation strategies *before* storm surges, SLR, or other climate-based disasters strike is necessary in protecting and maintaining cities.
- Ambitious yet realistic solutions are essential in garnering outside support and funding. **Data-driven mitigation strategies** are particularly favorable in winning resiliency grants and challenges.
- Collaboration is necessary in **determining unintended consequences** on nearby communities when developing local climate mitigation strategies.