Climate Ready Boston is Mayor Walsh’s initiative to help the City prosper and grow in the face of long-term climate change. Goals for climate preparedness are included in many City plans, and new projects are underway to address priority issues. In Downtown, our priority is to develop solutions to protect the neighborhood from coastal flooding caused by sea level rise and storms. These solutions can create equitable development and job creation, improve transit and community service, increase access to open spaces and enhance health and security in the community. The workshop today is to involve the community early in the design process. At the end of the year, the City will release a final report with draft designs and an implementation plan for the City and its partners in Downtown Boston.

**Climate Projections**

**The Number of Very Hot Days Will Increase**

<table>
<thead>
<tr>
<th>Year</th>
<th>Days Above 90°F</th>
<th>Days Above 100°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>2030</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>2070</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>


**Stormwater Flooding Will Increase**

<table>
<thead>
<tr>
<th>Year</th>
<th>5-in. Flooding</th>
<th>8-in. Flooding</th>
<th>8.5-in. Flooding</th>
<th>9.5-in. Flooding</th>
<th>Average City Curb in Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today</td>
<td>2”</td>
<td>3”</td>
<td>4” (High Emissions)</td>
<td>6” (Low Emissions)</td>
<td>6” (High Emissions)</td>
</tr>
<tr>
<td>2020</td>
<td>3”</td>
<td>4”</td>
<td>5” (High Emissions)</td>
<td>7” (Low Emissions)</td>
<td>7” (High Emissions)</td>
</tr>
<tr>
<td>2030</td>
<td>4”</td>
<td>5”</td>
<td>6” (High Emissions)</td>
<td>8” (Low Emissions)</td>
<td>8” (High Emissions)</td>
</tr>
<tr>
<td>2050</td>
<td>5”</td>
<td>6”</td>
<td>7” (High Emissions)</td>
<td>9” (Low Emissions)</td>
<td>9” (High Emissions)</td>
</tr>
<tr>
<td>2070</td>
<td>6”</td>
<td>7”</td>
<td>8” (High Emissions)</td>
<td>10” (Low Emissions)</td>
<td>10” (High Emissions)</td>
</tr>
</tbody>
</table>

*numbers from a 24-hour, 10-year storm event

**Sea Levels in Boston Will Continue to Rise**

- **High Emissions Scenario**
  - 2030: 5’
  - 2050: 6’
  - 2070: 7’
  - 2100: 8’

- **Low Emissions Scenario**
  - 2030: 4’
  - 2050: 5’
  - 2070: 6’
  - 2100: 7’


**WHERE DO WE FIT IN?**

- **Jan**
  - Climate Ready Boston Downtown Kickoff

- **Mar 12**
  - Engagement Touch Point: Open House #1
    - Learn about the project and provide feedback on how you experience flooding and waterfront open spaces

- **May/Jun**
  - Engagement Touch Point: Open House #2
    - Provide feedback on draft design schemes that improve your waterfront open spaces and create a more resilient downtown

- **Sep**
  - Climate Ready Downtown Final Report
Climate Ready East Boston / Charlestown (2017)
Identifying short- and long-term solutions to protect East Boston and Charlestown from coastal flooding.

Resilient Harbor Boston (2018)
A comprehensive Boston Harbor-wide vision of coastal resilience that recommends open space opportunities for flood protection.

Boston Flood Resiliency Zoning Overlay District and Resiliency Design Guidelines (in progress)
Designating vulnerable areas of the City and establishing building design and guidelines that promote resiliency standards.

Moakley Park Vision Plan (in progress):
Addressing recreational needs, park opportunities, and coastal and stormwater flooding concerns.

Please join us for the upcoming Moakley Park Vision Plan Open House on Thursday March 21, 2019 at 6pm-7:30pm. Please RSVP at http://greenovateboston.org/moakley_park_vision_plan

Climate Ready South Boston (2018)
Identifying short- and long-term solutions to protect South Boston from coastal flooding.

Climate Resilient Design Standards & Guidelines (2018)
Providing engineers and designers with climate design adjustments and a standardized climate resilient design process for flood barriers.
FLOODING IN DOWNTOWN

LEARN MORE ABOUT CURRENT AND FUTURE FLOODING PATHS

For more information please visit: http://maps.bostonplans.org/zoningviewer/

PHOTOS FROM RECENT FLOOD EVENTS
*numbers correlate to locations on map

1. PUOPOLO PARK
   MARCH 2018

2. SARGENT’S WHARF
   MARCH 2018

3. MARRIOTT LONG WHARF
   JANUARY 2018

For more information please visit: http://maps.bostonplans.org/zoningviewer/
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**MAP YOUR FLOODING**

**HELP US TRACK AREAS OF CURRENT FLOODING**

Use a **green pin** to mark where it floods when it's raining.

Use a **blue pin** to mark where you experience coastal flooding.

Tell us more about your flooding issues in Downtown Boston on the survey provided.
RESILIENT SOLUTIONS

DESIGN LIFE AND ADAPTABILITY
- Design Life
- Performance horizon
- Adaptability/flexibility
- Maintenance Requirements
- Phase-ability and time to implementation

SOCIAL IMPACT
- Recreational
- Cultural
- Aesthetic

FEASIBILITY
- Stakeholder acceptance
- Constructability
- Permitting
- Replicability
- Affordability: Cost of Construction
- Affordability: Cost of Maintenance

VALUE CREATION
- New value created on sites or adjacent sites
- Capacity to catalyze future funding and investment

EFFECTIVENESS
- Maximum level of protection (% probability / SLR scenario)
- Reduction in flood extent
- Avoided damage and loss
- Residents protected
- Critical assets protected

ENVIRONMENTAL IMPACT
- Water and air quality
- Habitat value
- Human health benefits

EQUITY
- New and equitable access to water
- Educational opportunities
- Community partnerships
- Preservation /addition of affordable housing

POTENTIAL RESILIENCY METHODS

COASTAL MARSH
Hunter’s Point South Waterfront Park, New York, NY

STEPPE EDGE
Chicago Riverwalk, Chicago, IL

STORMWATER GARDEN
NCMA Park, Raleigh, NC

TEMPORARY FLOOD WALL
Wakefield Waterfront, Wakefield, England

RAISED PARKS
Hunter’s Point South Waterfront Park, New York, NY

LIVING BREAKWATER
West Bay, Chocolate Bayou, TX

ELEVATED PATHWAY
Seattle Central Waterfront, Seattle, WA

ADAPTIVE BUILDINGS
Spaulding Rehabilitation Hospital, Boston, MA

FLOOD WALL
Seattle Central Waterfront, Seattle, WA
RESILIENT SOLUTIONS
WE WILL APPLY ALL OF THESE CRITERIA WITHIN FUTURE RESILIENT SOLUTIONS. WHAT ARE THE THREE MOST IMPORTANT TO YOU?

1. Use a blue sticker to mark your first priority.
2. Use a red sticker to mark your second priority.
3. Use a green sticker to mark your third priority.

Criteria:
- Design + Adaptability
- Effectiveness
- Environmental Impact
- Equity
- Feasibility
- Social Impact
- Value Creation

1ST 2ND 3RD
Waterfront open spaces present an important opportunity to enhance coastal resilience and improve access to improved open spaces. The Resilient Harbor Boston vision identified sites that could demonstrate these opportunities. In order to improve these waterfront open spaces, we’d like to know how you currently use them today and how you’d like to use them in the future.

**Current Activities**

**How do you use waterfront open spaces today?**

**Step 1**
Pick your top three waterfront activities.

**Step 2**
Put a bean in your top three waterfront activities' containers.

**Future Activities**

**How would you like to use waterfront open spaces in the future?**

**Step 1**
Write what you'd like to do on the waterfront in the future.

**Step 2**
Find the category your activity falls under, and put your note in that container!
Tell us about how you use a downtown park.

For more information on Langone + Puopolo Park redesign please visit: