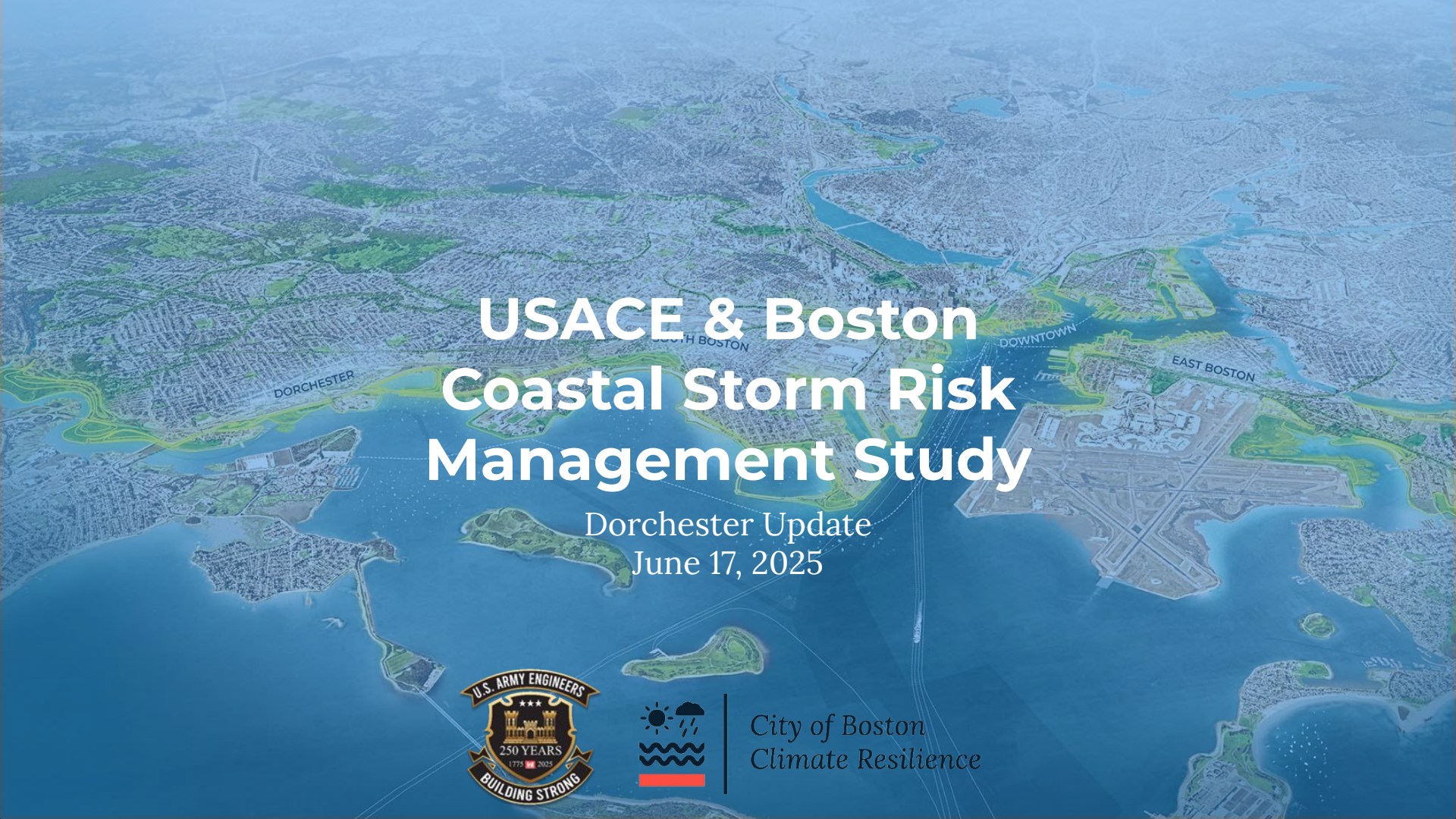


USACE & Boston Coastal Storm Risk Management Study

Dorchester Update
June 17, 2025

U.S. ARMY ENGINEERS
250 YEARS
1775 2025
BUILDING STRONG

City of Boston
Climate Resilience

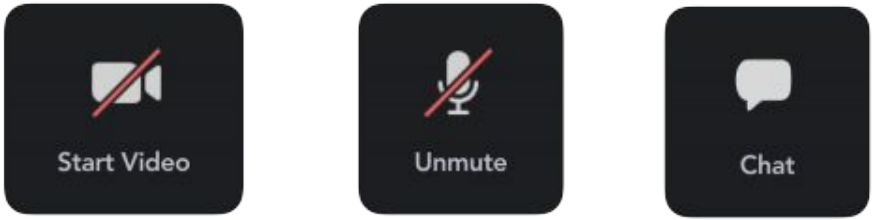
ZOOM TIPS - MEETING RECORDING

At the request of community members, this event will be recorded and posted on the project webpage for those who are unable to attend the Zoom event live:

https://www.boston.gov/departments/climate-resilience/climate-ready-boston-and-army-corps-partnership

If you do not wish to be recorded during the meeting, please turn off your microphone and camera.

If your camera and microphone are off, you can still participate through the text chat feature.



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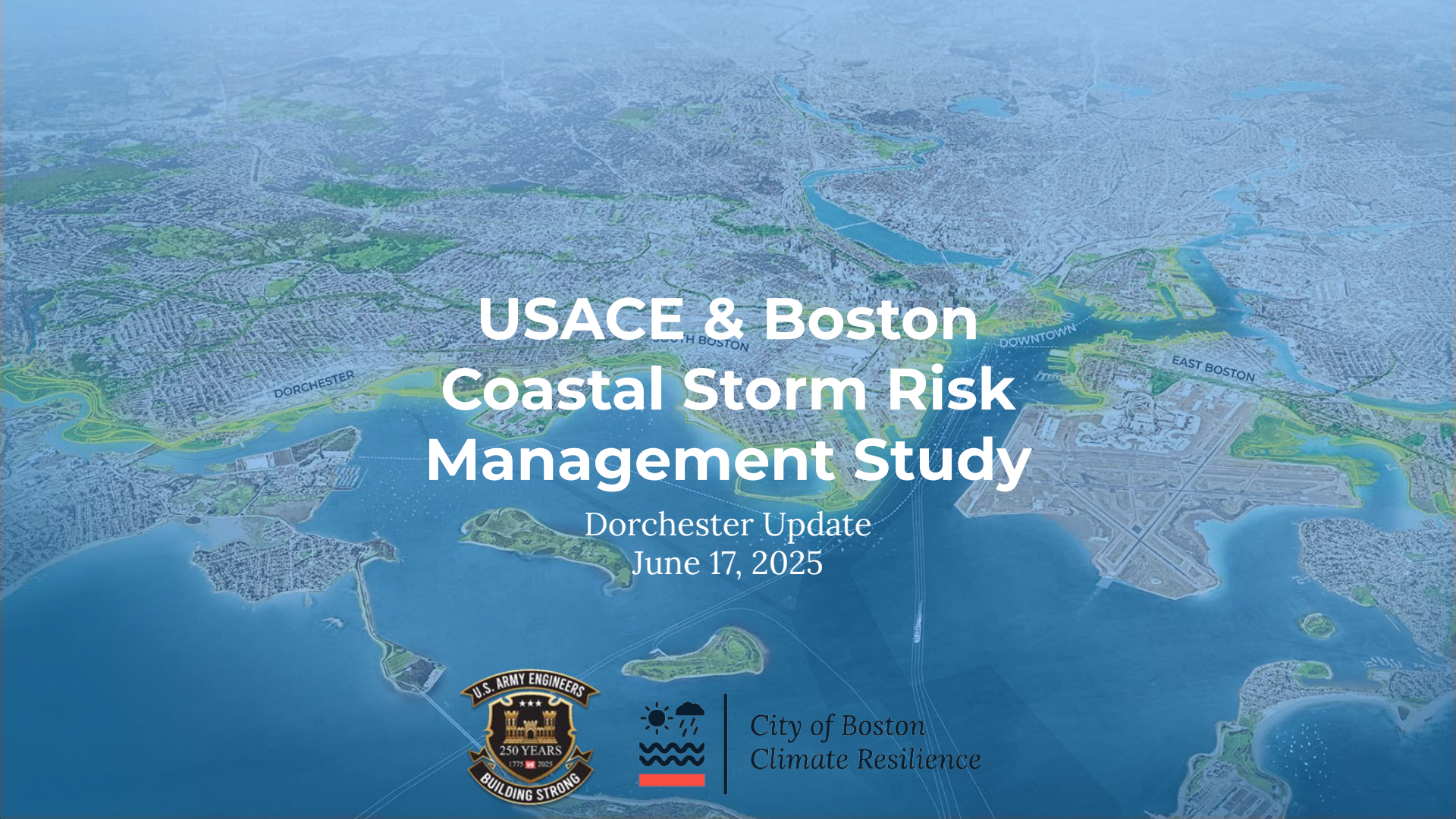

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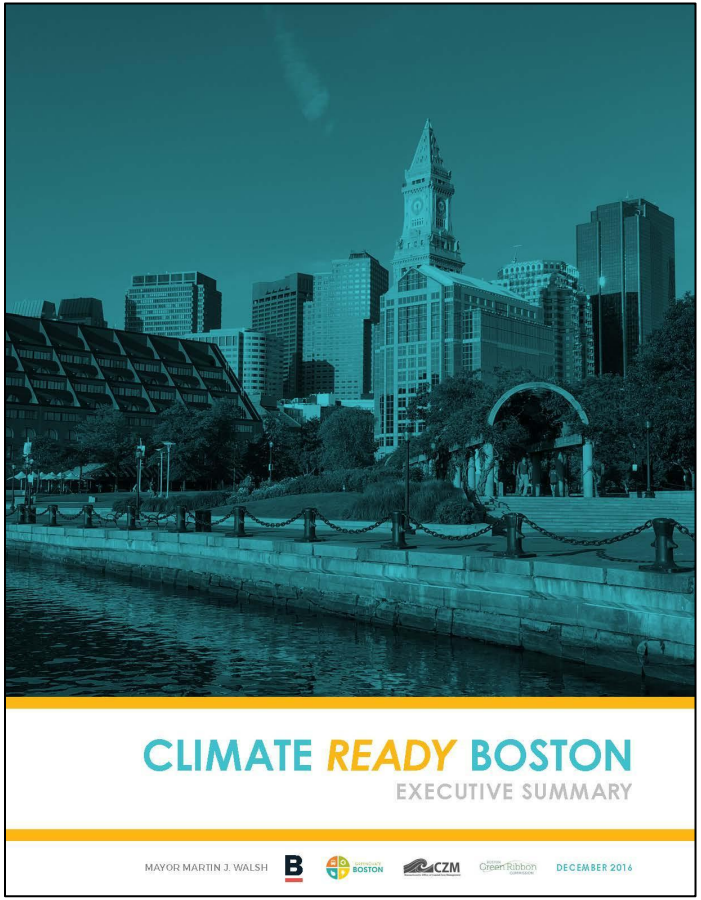
Goals

- *an introduction to the City and Federal teams*
- *background from "Climate Ready Boston" in Dorchester*
- *report out of USACE study steps and progress*
- *an opportunity to ask questions*
- *how to provide feedback and next steps*

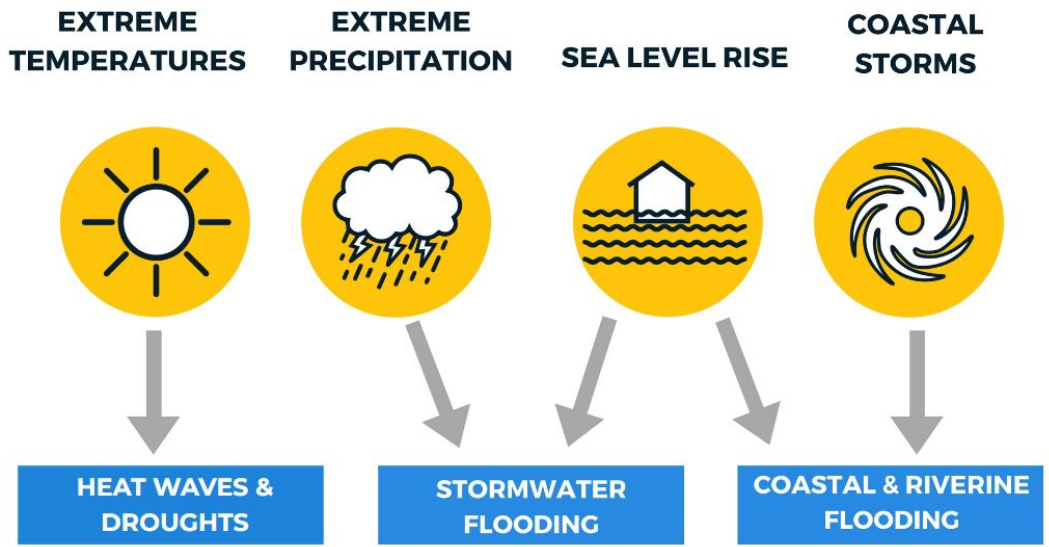
U.S. ARMY

US Army Corps of Engineers

CLIMATE READY BOSTON

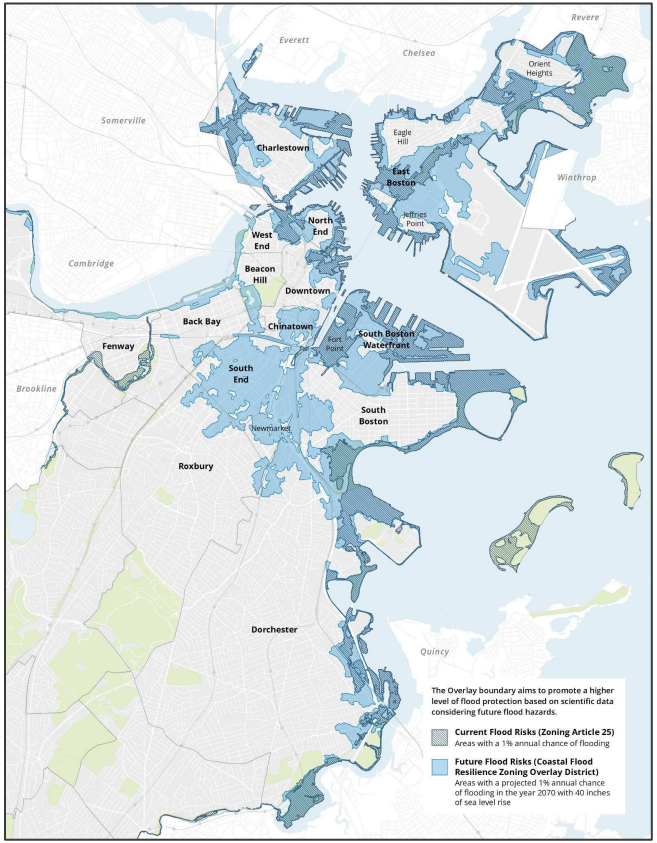


In 2016, the City of Boston released the *Climate Ready Boston* report, which included a comprehensive vulnerability assessment of current and projected risks associated with each of three climate hazards under a low, medium, and high greenhouse gas emissions scenario.



RESILIENT HARBOR VISION

NEIGHBORHOOD COASTAL RESILIENCE PLANS

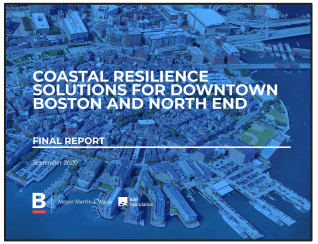


1% annual chance storm with 9 inches of SLR (2030s
th
1% annual chance storm with 40 inches of SLR (2070s)

Between 2017-2022, the City completed neighborhood-level coastal resilience plans for all 47 miles of Boston's coastline.

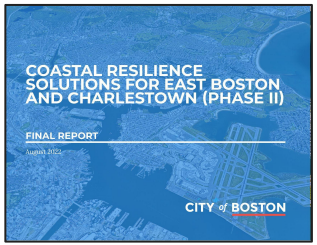
East Boston & Dorchester Phase 1 (2017)

South Boston (2018)



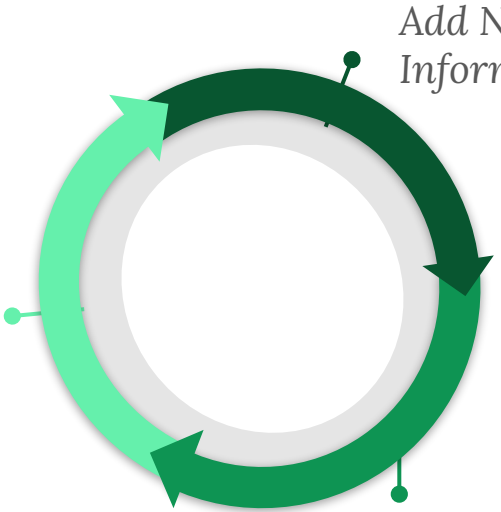
North End & Downtown (2020)

Dorchester (2020)



East Boston & Dorchester Phase 2 (2022)

THE PROCESS CAN FEEL LIKE A SPIRAL STAIRCASE...



Construction, Operation and Maintenance

Final Design and Permitting

Preliminary Design

Conceptual Plan

Vision

U.S. ARMY

US Army Corps of Engineers

COASTAL FLOODING IN BOSTON IN 2018 AND 2022

Flooding from during Winter Storm Riley in Boston's North End
(Source: Matt Conti, Winter, 2018)

Flooding along the Mary Ellen Welch Greenway in East Boston
(Source: Lisa A. DiFrisco, Winter 2018)

Flooding beneath the Evelyn Moakley Bridge in South Boston's Fort Point Channel
(Source: Alison Brizius, December 2022)

Man kayaks along surface streets near Lewis Mall in East Boston
(Source: Steve Holt, Winter 2018)

Flooding along the Harborwalk in the Charlestown Navy Yard
(Source: Gerry Angoff, Winter 2018)

Flooding along the Harborwalk in Downtown Boston
(Source: Alison Brizius, December 2022)

COASTAL RESILIENCE IMPLEMENTATION: THREE CONCURRENT STRATEGIES

TODAY'S STORMS

Key Goal:
Strengthen our response to today's flooding

How?

Educate residents about emergency preparedness, strengthen protocols for preparing for and responding to extreme weather, and operationalize deployable barriers

Key City Agencies:

Office of Emergency Management
Office of Climate Resilience

THIS DECADE'S STORMS

Key Goal:
Address 2030 flood pathways

How?

Advance near-term priority projects identified in coastal resilience plans from conceptual design to construction

Key City Agencies:

Office of Climate Resilience
Planning Department
Parks & Recreation Department

BEYOND 2030

Key Goal:
Transform our 47 miles of coastline

How?

Through an ongoing partnership with the U.S. Army Corps of Engineers, advance mid- and long-term priority projects from conceptual design to construction

Key City Agencies:

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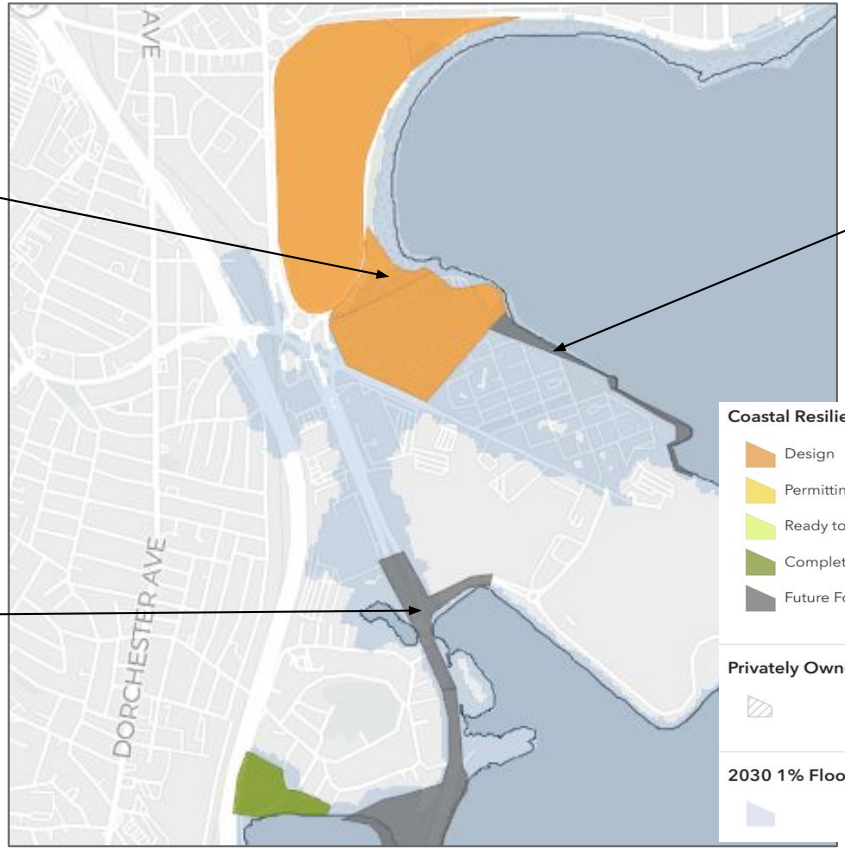
Moakley Park & Moakley Connectors
Design in progress

Morrissey Boulevard
MassDOT and DCR
Awaiting Next Steps



The map displays extents of flooding produced from the Massachusetts Coast Flood Risk Model (MC-FRM), which is the Commonwealth of Massachusetts' adopted flood projection model. The flooding shown accounts a 1% annual chance storm with 2030 sea level rise projections.

Harbor Point Harborwalk
Future Focus Area

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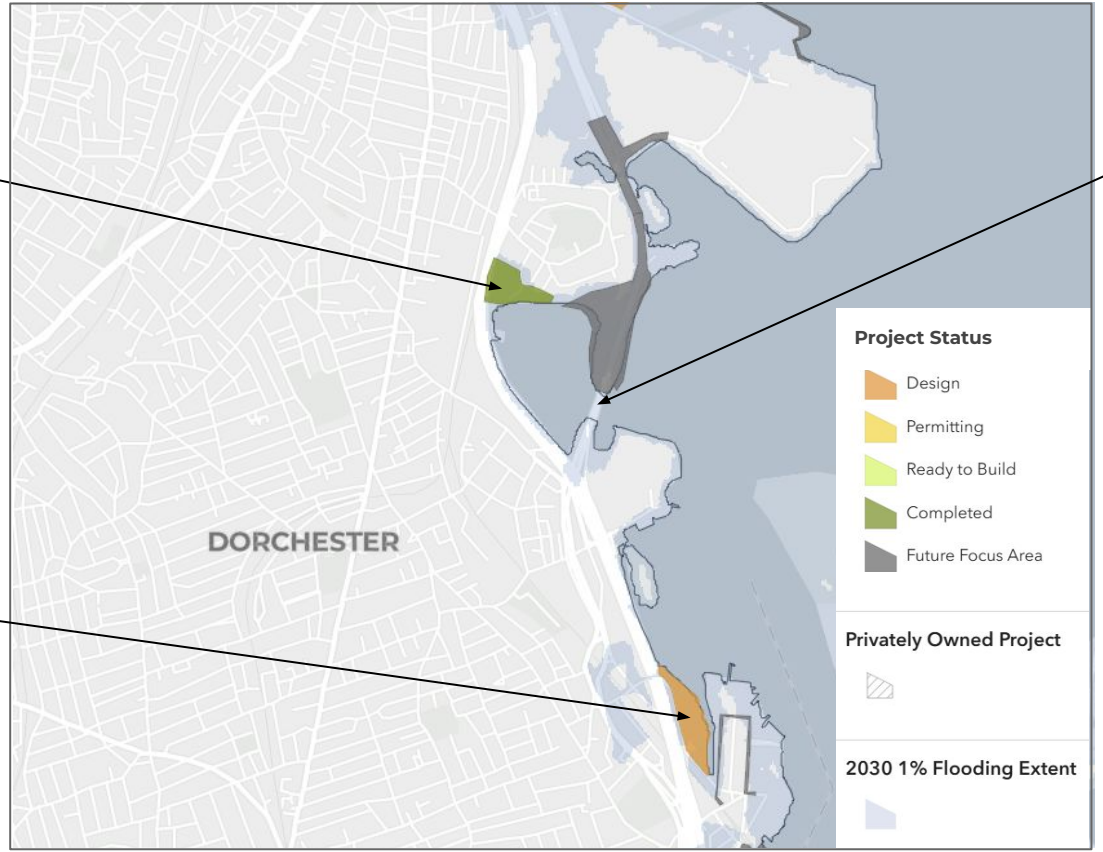
McConnell Park
Constructed in 2022

Tenean Beach
DCR Awaiting Next Steps



Beades Bridge
MassDOT and DCR
Project in Design

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WHY NOW AND WHY USACE?

- USACE *has a specific charge for proposing coastal resilience solutions that are* ***effective in mitigating risk to the Federal Interest;***
    - *We have shared interest in* ***protecting homes, critical infrastructure, and evacuation corridors****;*
- USACE ***follows a specific process*** *in designing, evaluating and selecting projects.*
    - *They can provide* ***up to 65% of the cost*** *to build these structures.*

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US Army Corps of Engineers

WHERE ARE WE IN THE USACE PROCESS?

What We've Done (Before 2025)

Defined the risk of inaction

Where We Are (2025 - 2027)

Define where and what to build

What's Ahead (2028 & Beyond)

2028: Submit report to Congress

2028+: Get Federal funding for projects

2030+: Refine designs and build

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CSRM Process:

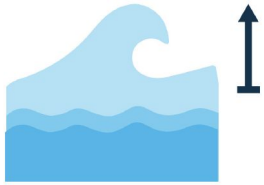
Coastal Storm Risk Analysis and Management 101

HOW DOES USACE DEFINE COASTAL STORM RISK?

COASTAL HAZARDS:

SEA LEVEL *CHANGE*

Permanent rise in ocean level relative to land



STORM SURGE

Temporary rise in ocean level during a storm event

WAVE ACTION & EROSION

Gradual reduction in the coastline as waves carry away sediment

CLOSING LONG-TERM FLOOD PATHWAYS:

FLOOD PATHWAY

Impacts inland areas when water enters through a low-lying area on the waterfront

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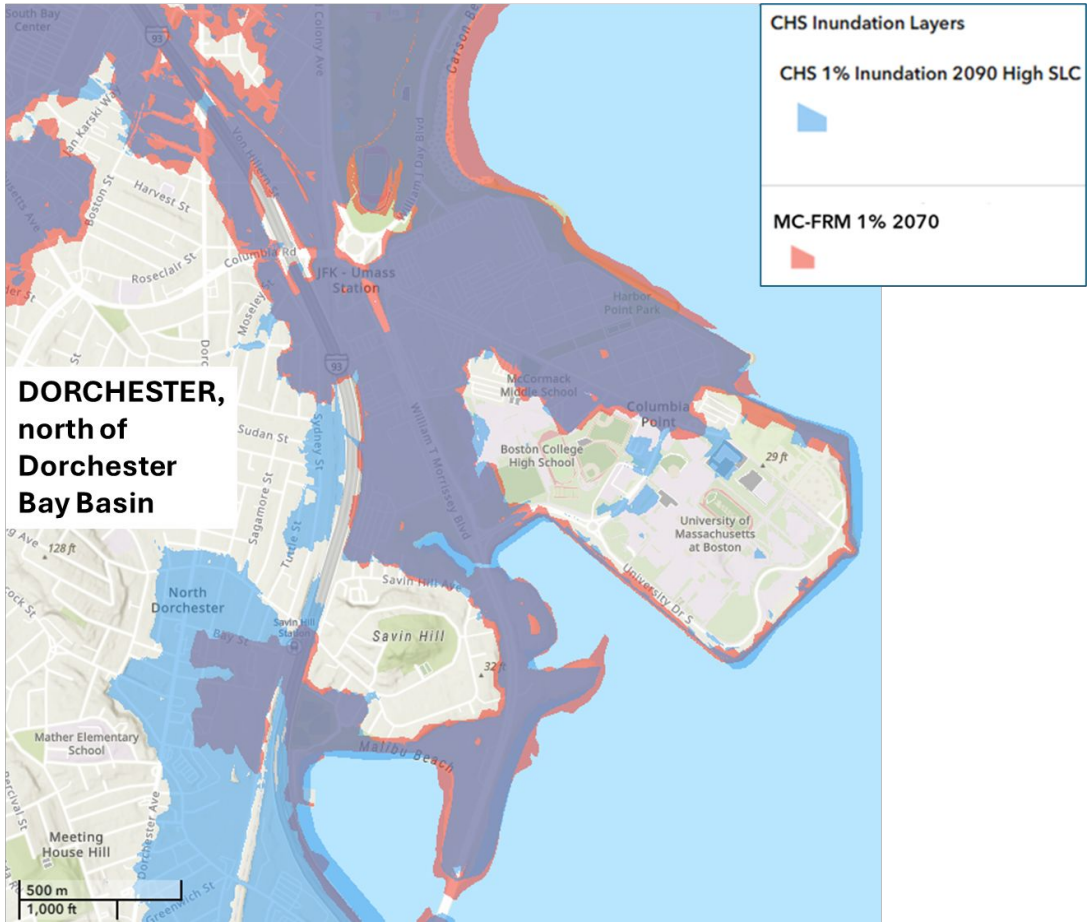
COASTAL STORM RISK MANAGEMENT: HOW IS THIS DIFFERENT FROM CLIMATE READY BOSTON?



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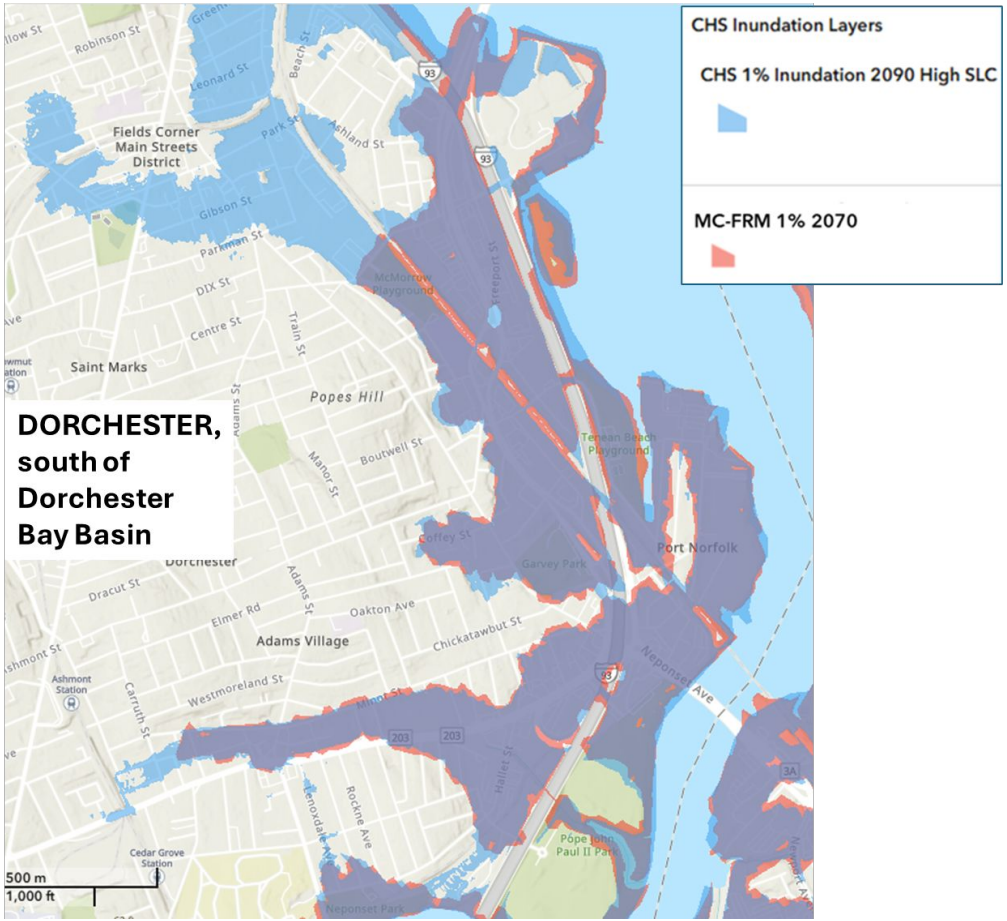

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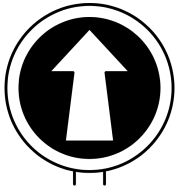
HOW DOES USACE DEFINE “FEDERAL INTEREST”?

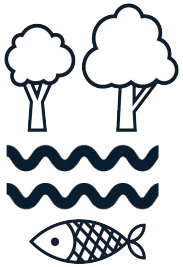
Protection of Housing



Protection of Evacuation Corridors

Protection of Critical Infrastructure

Protection of People



Protection of Natural Resources

Protection of Critical Transportation

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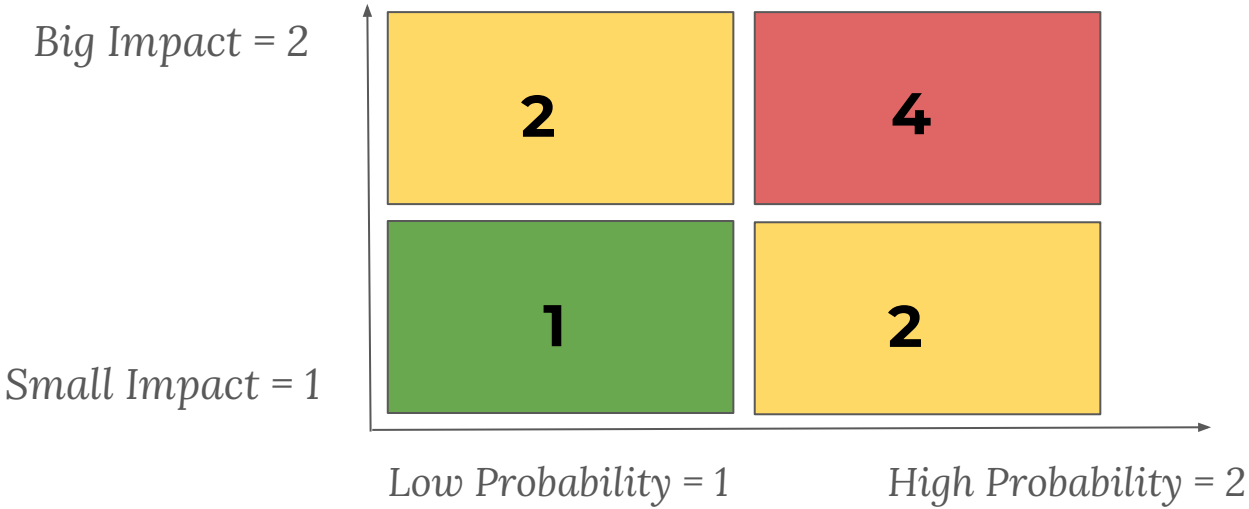
HOW DOES USACE MANAGE STORM RISK?

- Storm Risk is the possibility of a bad storm happening in a specific area
  - Level of Probability multiplied by Level of Impact



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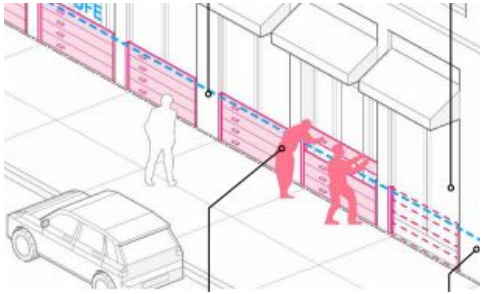
HOW DOES USACE ADDRESS STORM RISK? PICK THE RIGHT TOOL

1st Drawer: PROTECT

Structural

2nd Drawer: ADAPT or ACCOMMODATE

Non-Structural, Physical



3rd Drawer: MANAGE

Non-Structural, Non-Physical

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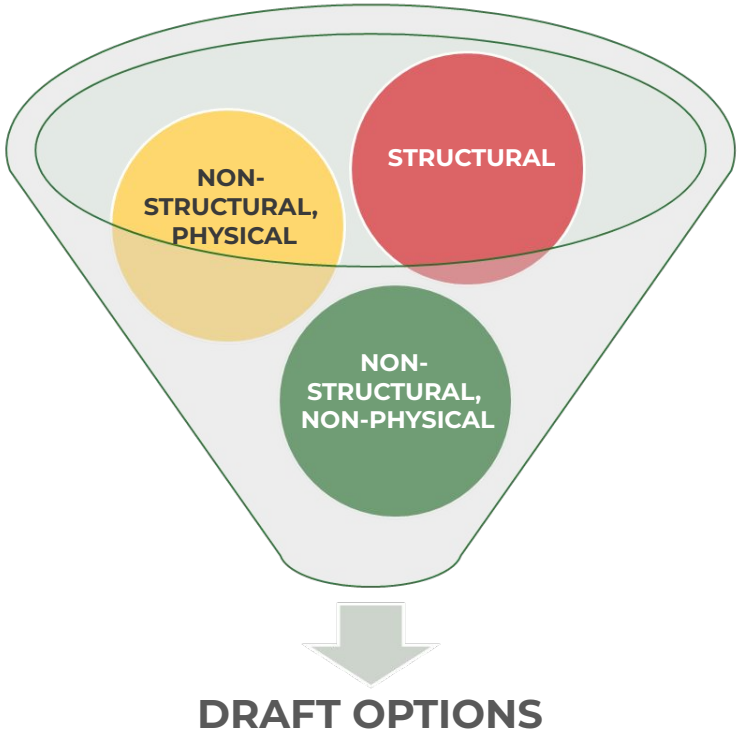
HOW DOES USACE SELECT TOOLS FOR BOSTON?

- *What provides maximum protection?*
- *What is possible to build?*
- *What is the best fit for Dorchester?*



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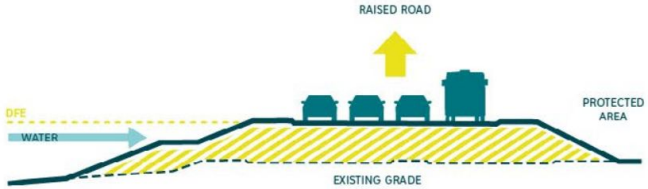
REFRESHER: CLIMATE READY BOSTON TOOLS

RAISED HARBORWALK / RAISED PARK SPACE

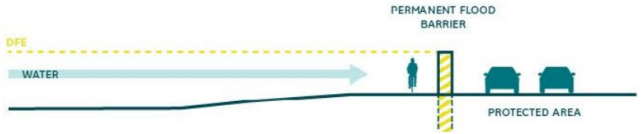
RAISED BERMS AND DUNES

NATURE-BASED SOLUTIONS

RAISED ROADWAYS / MEDIAN FLOODWALLS



VERTICAL FLOODWALLS



ADAPTED BUILDINGS AND STRUCTURES

EXAMPLES OF USACE APPLICATIONS

RAISED HARBORWALK / RAISED PARK SPACE

USACE Example: Norfolk, VA

RAISED BERMS AND DUNES

USACE Example: New Bedford, MA

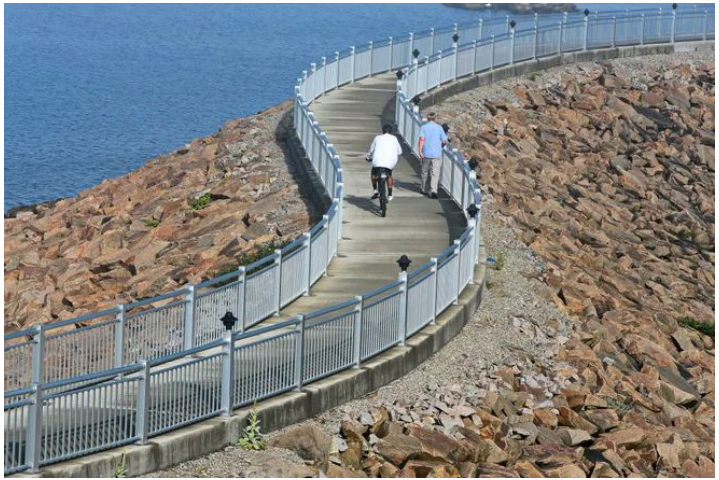


Photo Credit: Peter Pereira, The Standard-Times

EXAMPLES OF USACE APPLICATIONS

USACE Example: Norfolk, VA

USACE Example: Long Island, NY

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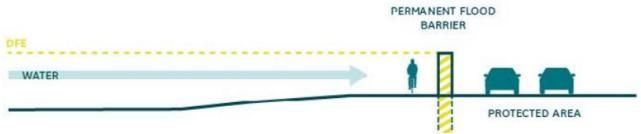

ADAPTED BUILDINGS AND STRUCTURES

HOW YOU CAN HELP TODAY:

- *Ask us questions*
- *Share your concerns*
- *Help us answer these questions:*
  - *Did we miss any areas with coastal risk?*
  - *Did we miss any areas we need to protect?*
  - *What is important to you that we know about the tools or the locations for draft USACE structures?*
  - *How can we make the process more accessible to you?*

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US Army Corps of Engineers

How to Provide Feedback:

Come to Office Hours

VIRTUAL, EVERY FRIDAY

Friday, June 20

10 am - 12pm

https://calendar.app.google/qScfkdc9zqMwxB3n6

Submit comments online

STUDY FEEDBACK FORM

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Make an appointment

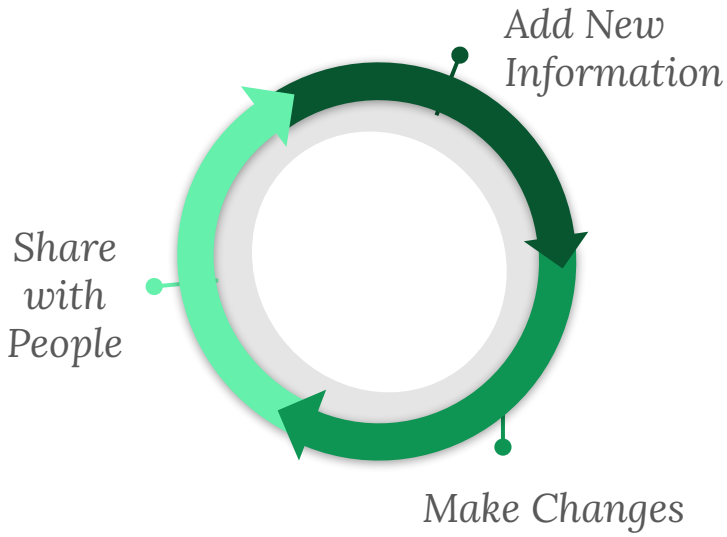
VIRTUAL
(WITH CITY AND CORPS)

U.S. ARMY

US Army Corps of Engineers.

WHAT WE WILL DO NEXT:

- *Give you answers, as best as we can*
- *Send you these presentation slides*
- *Meet you in person to hear more about your concerns and questions*
- *Report back with a second presentation later this year (Fall 2025)*



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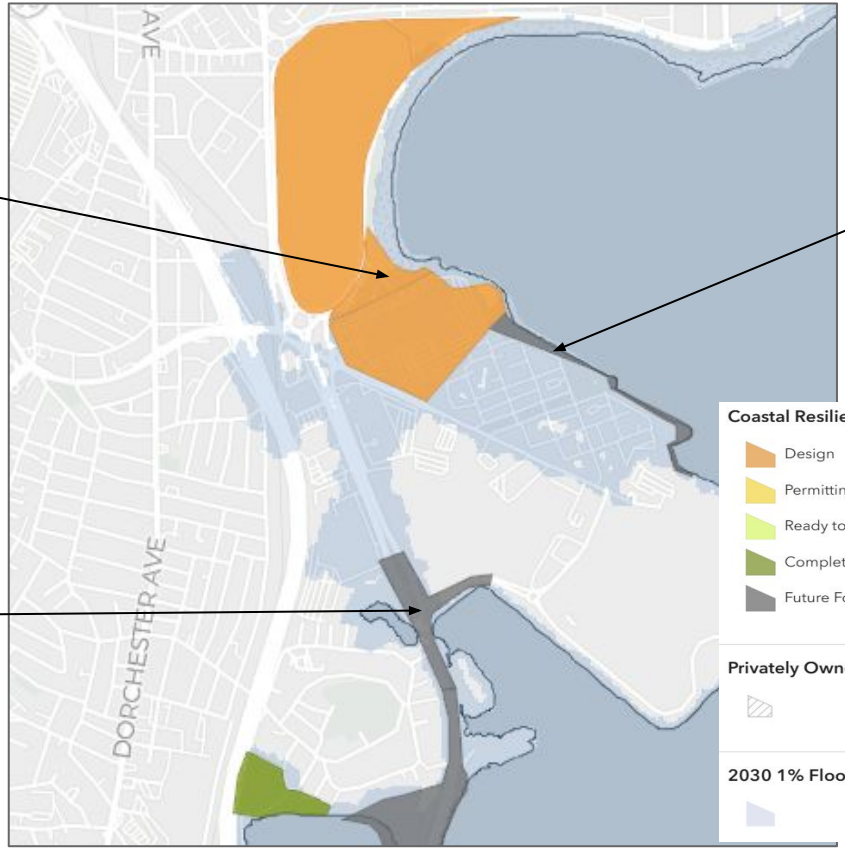
Preliminary Locations:

Draft Alignments for Dorchester

COASTAL RESILIENCE IMPLEMENTATION - DORCHESTER

Moakley Park & Moakley Connectors
Design in progress

Morrissey Boulevard
MassDOT and DCR
Awaiting Next Steps



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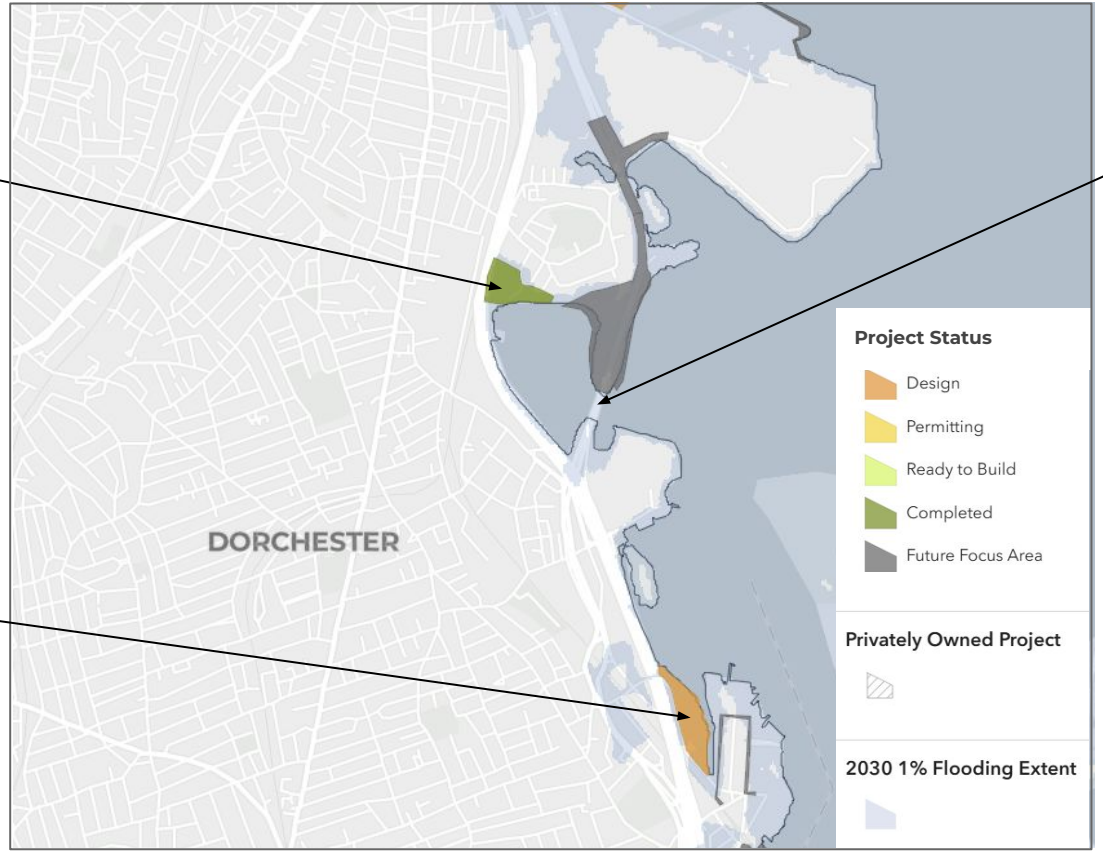

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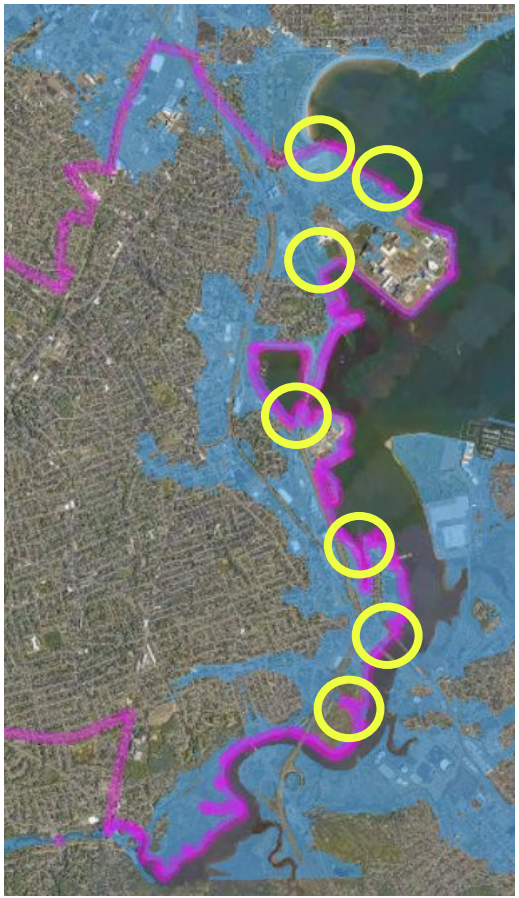
DORCHESTER OVERVIEW



1. Moakley Park Southern Connector
2. Harbor Point Harborwalk
3. Pattens Cove
4. Morrissey Boulevard (Mid-Section)
5. Tenean Beach
6. Neponset Bridge
7. Davenport Creek

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US Army Corps of Engineers

1. MOAKLEY PARK SOUTHERN CONNECTOR AND
2. HARBOR POINT HARBORWALK

LEGEND

CHS Inundation Layers

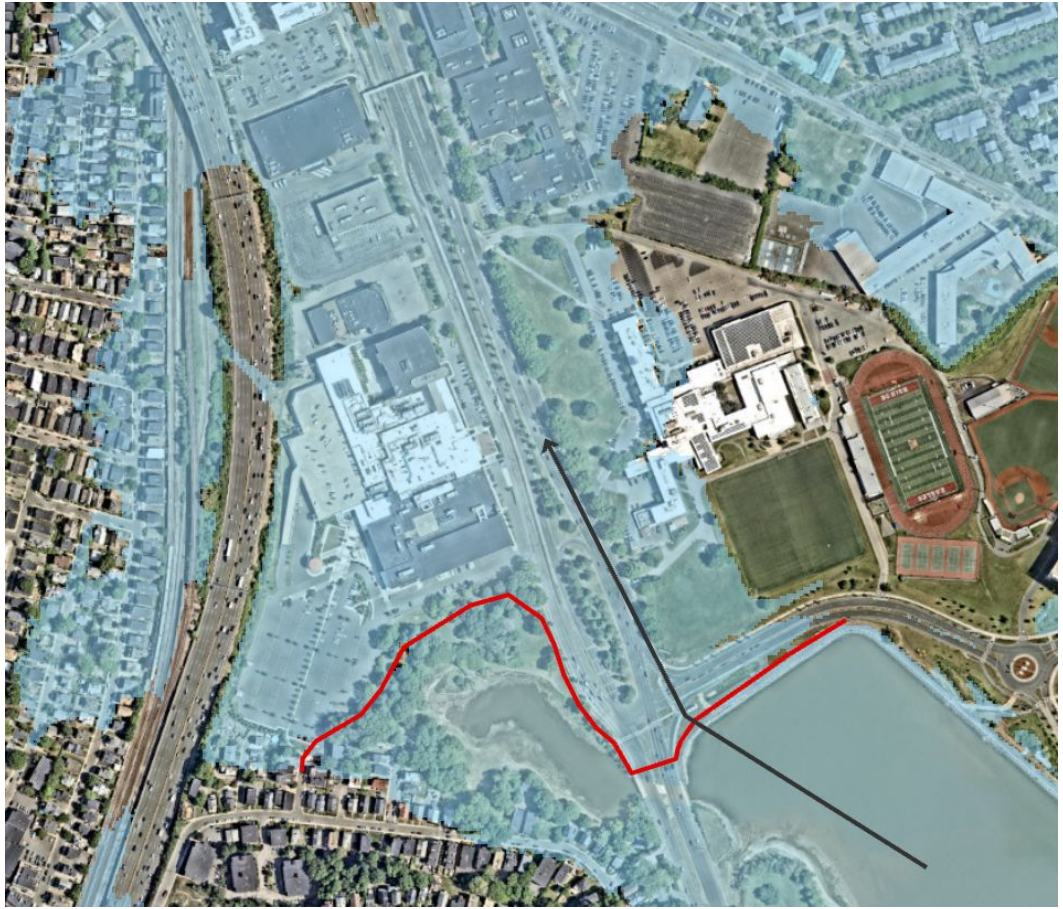
CHS 1% Inundation 2090 High SLC

Flood Pathways

U.S. ARMY

US Army Corps of Engineers.

3. PATTENS COVE



LEGEND

CHS Inundation Layers

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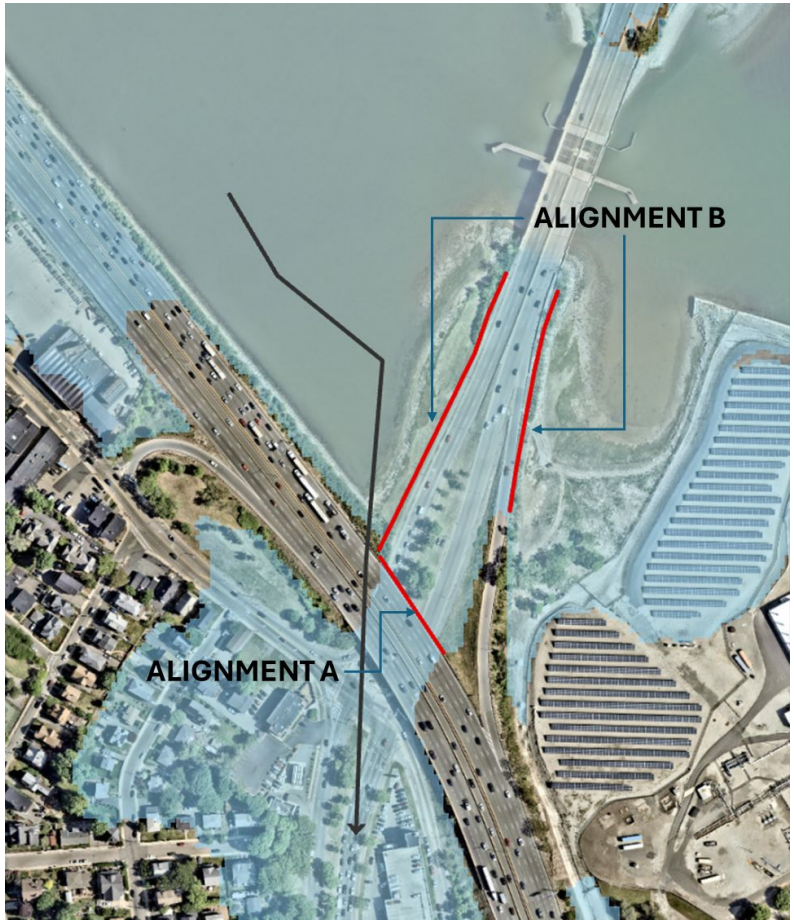
U.S. ARMY

US Army Corps of Engineers.

4. MORRISSEY BOULEVARD (MID-SECTION)



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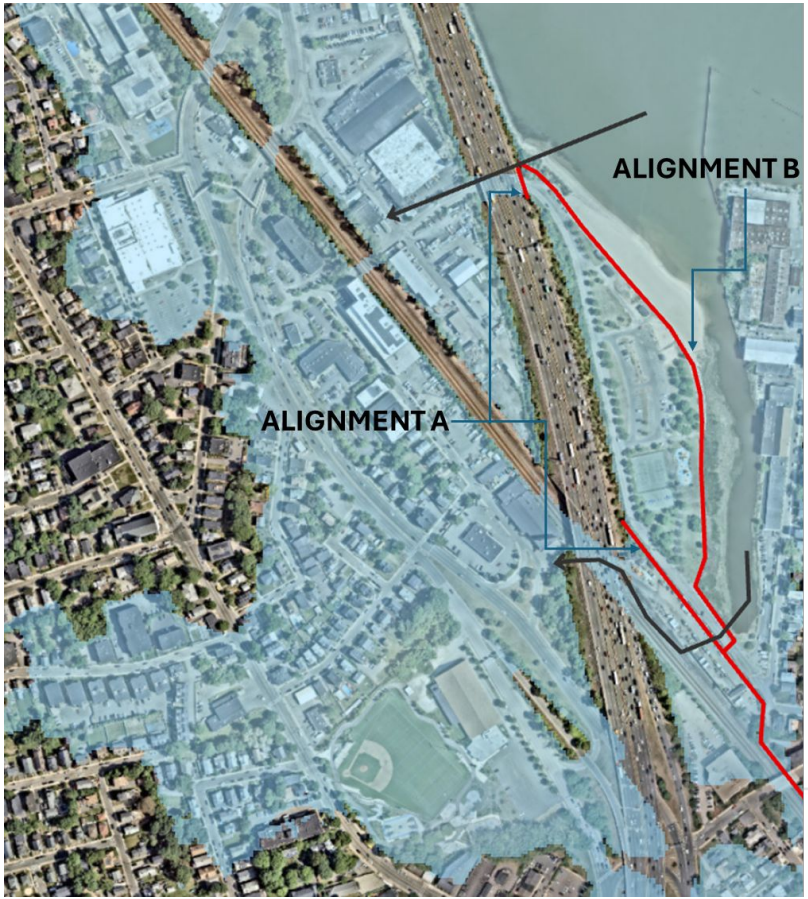
5. TENEAN BEACH



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PORT NORFOLK

LEGEND

CHS Inundation Layers

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U.S. ARMY

US Army Corps of Engineers.

6. NEPONSET BRIDGE AND
7. DAVENPORT CREEK

LEGEND

CHS Inundation Layers

CHS 1% Inundation 2090 High SLC

Flood Pathways

U.S. ARMY

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Summary

- *Long Term Projects to Address Long Term Risk*
- *Current Focus on Getting Questions on Process and Areas of Focus*
- *Subsequent Feedback on Designs (and construction alternatives)*

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US Army Corps of Engineers

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VIRTUAL
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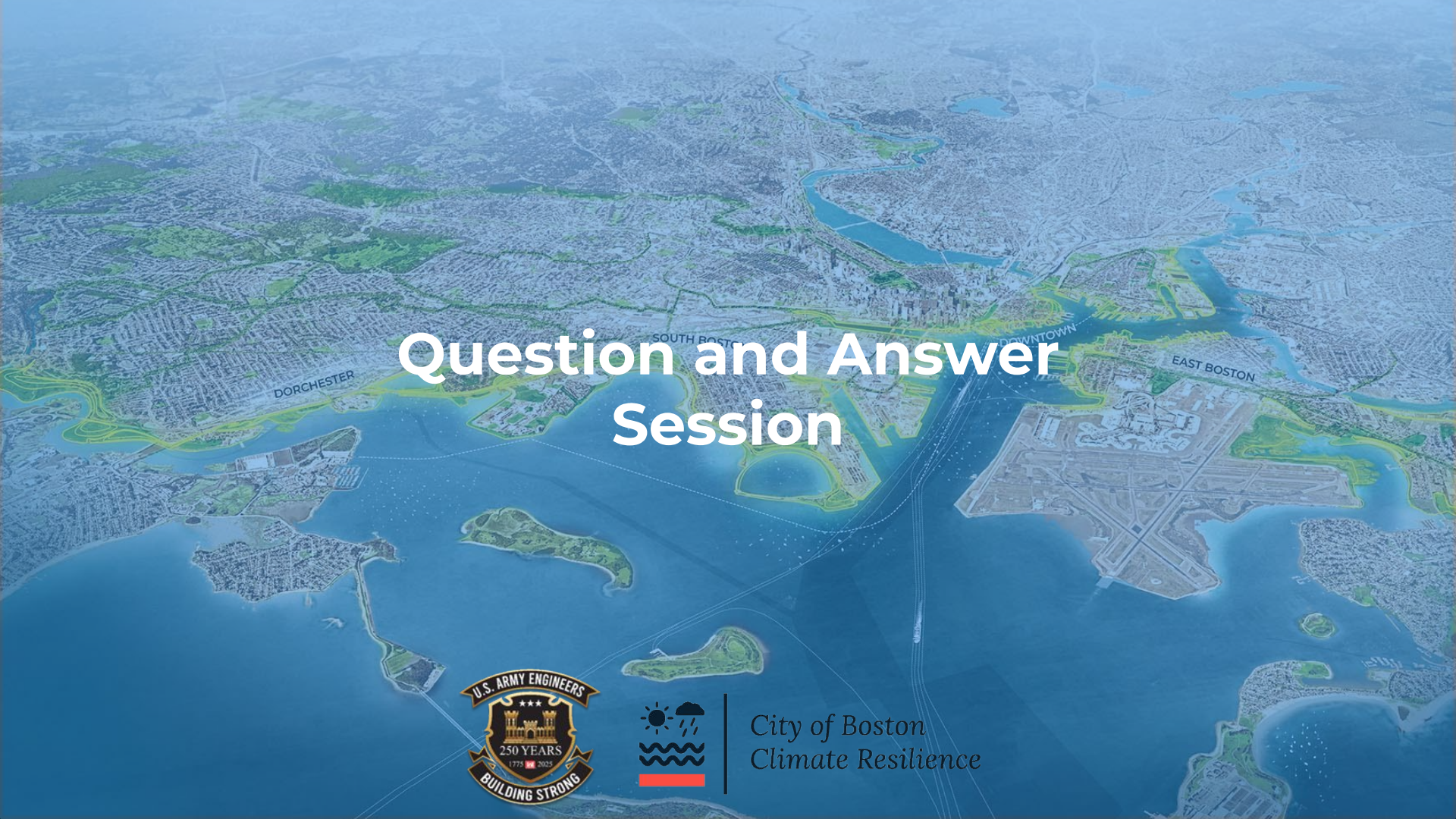
U.S. ARMY

US Army Corps of Engineers.



Question and Answer Session

U.S. ARMY ENGINEERS
250 YEARS
1775 2025
BUILDING STRONG

City of Boston
Climate Resilience

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U.S. ARMY ENGINEERS
250 YEARS
1775 2025
BUILDING STRONG