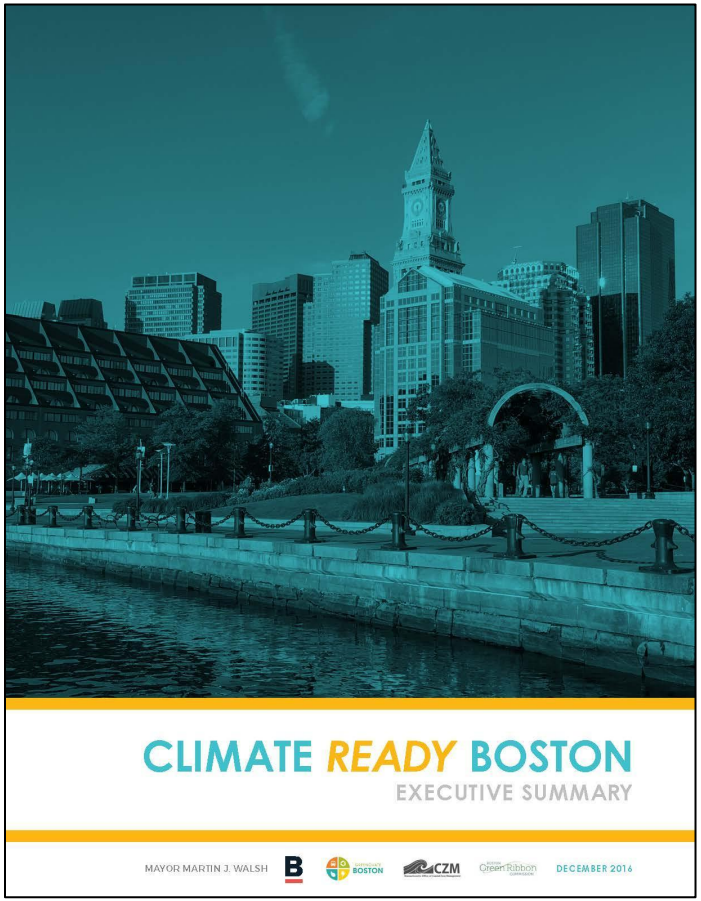
City of Boston & U.S. Army Corps of Engineers Partnership

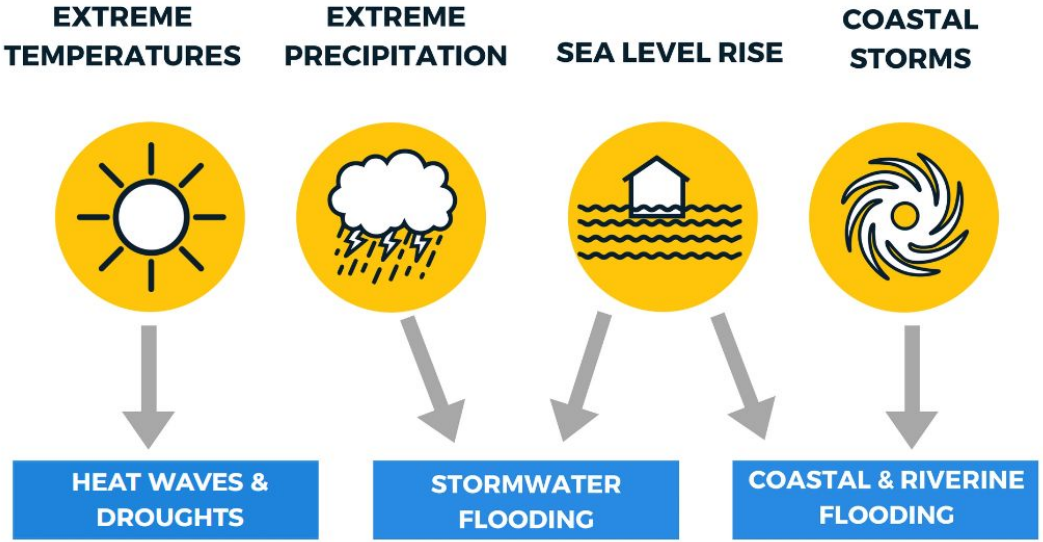
December 2024

AGENDA

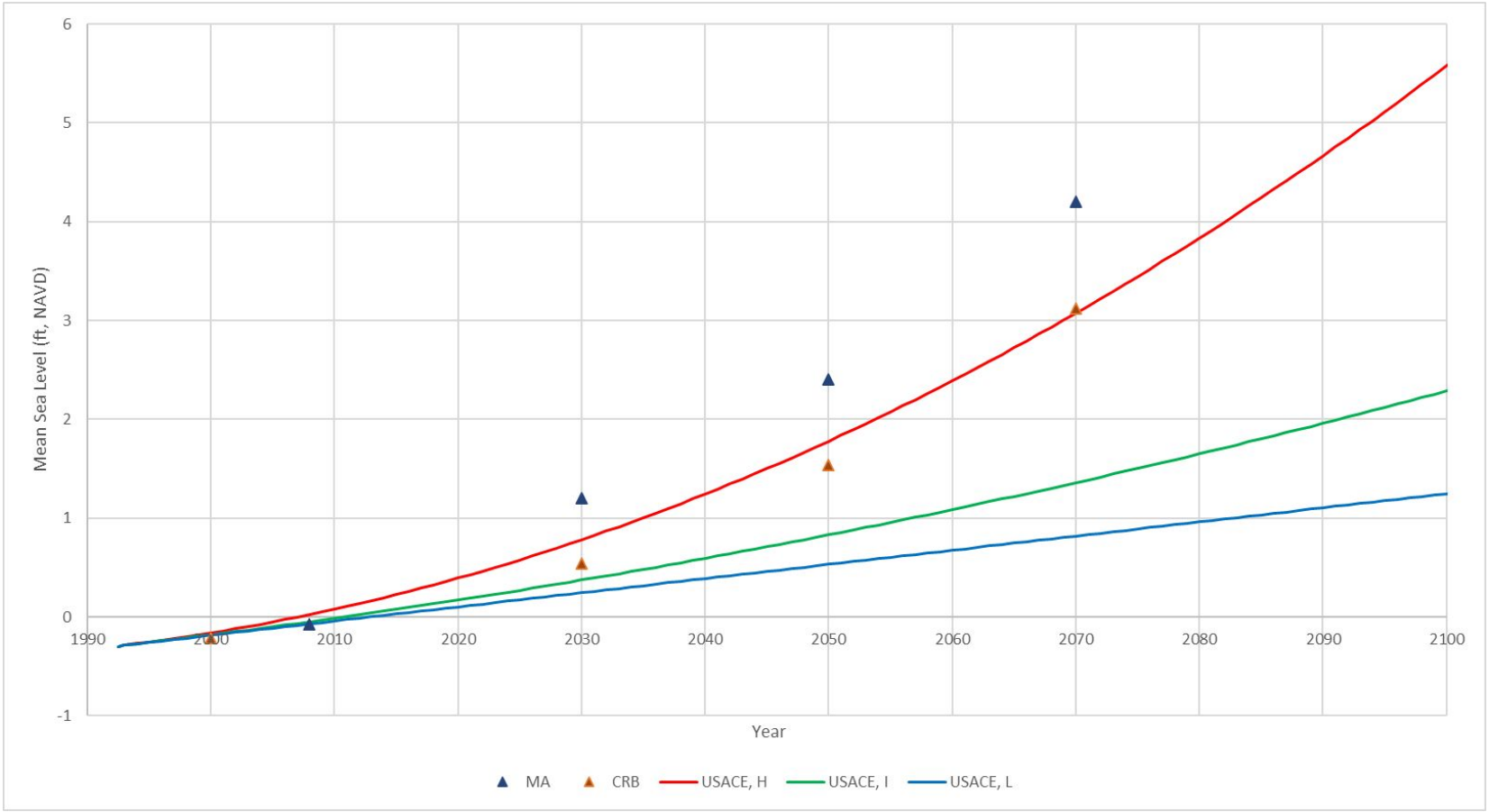
1. Introductory Remarks
2. Climate Ready Boston: Background, Update on Progress & Key Projects
3. U.S. Army Corps of Engineers & City of Boston Partnership
4. U.S. Army Corps of Engineers Presentation
5. Question & Answer Session

CLIMATE READY BOSTON





SEA LEVEL RISE PROJECTIONS IN BOSTON



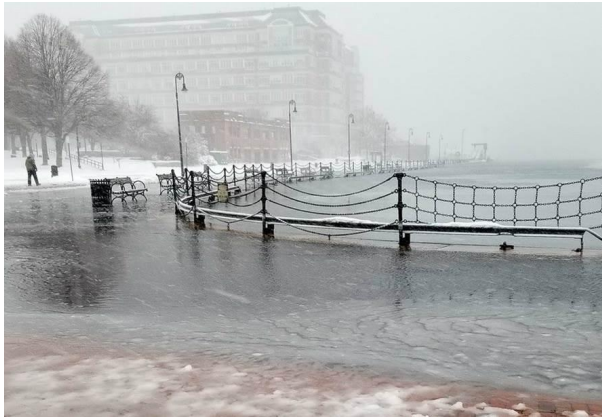
COASTAL FLOODING IN BOSTON

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)

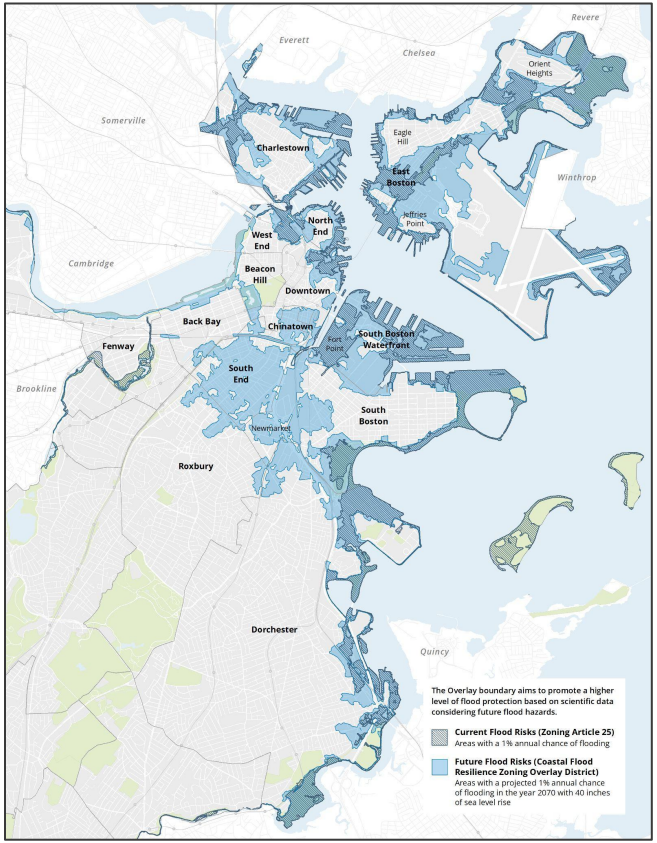
Man kayaks along surface streets near Lewis Mall in East Boston
(Source: Steve Holt, Winter 2018)



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)

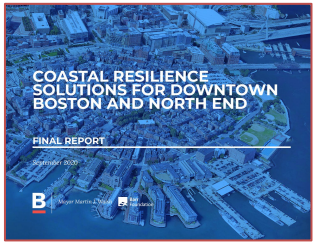
NEIGHBORHOOD COASTAL RESILIENCE PLANS



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

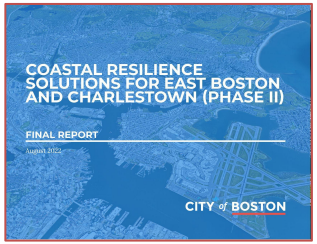
East Boston & Charlestown Phase 1 (2017)

South Boston (2018)



North End & Downtown (2020)

Dorchester (2020)

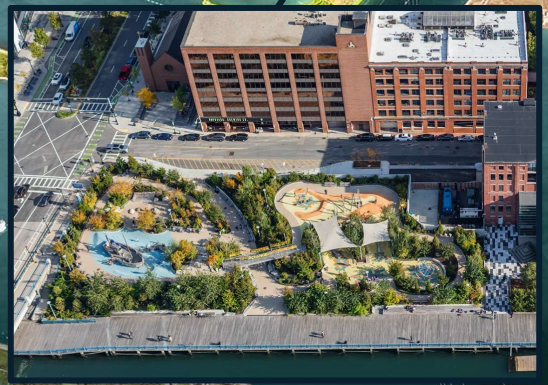


East Boston & Charlestown Phase 2 (2022)


DORCHESTER
SOUTH BOSTON
DOWNTOWN
EAST BOSTON
= FLOOD ADAPTED BUILDINGS
= ELEVATED LANDSCAPES
= CONNECTIONS AND ACCESS
RESILIENT BOSTON HARBOR

Completed Projects

McConnell Park, Dorchester
Photo: Dorchester Reporter



Martin's Park, Fort Point Channel
Photo: Michael Van Valkenburgh Associates, Inc.

Langone Park, North End
Photo: Weston & Sampson

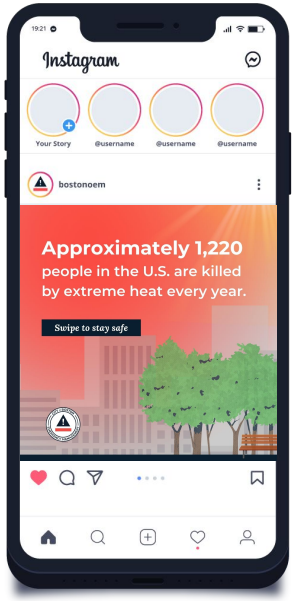
Coastal Resilience: Concurrent Strategies

Today's Storms	**Strengthen Our Response to Today's Flooding**
This Decade's Storms	**Address Key 2030 Floodpaths**
Beyond the 2030s	**Transform Our 47 Miles of Coastline**

Coastal Resilience: Near Term Response & Preparedness

CITY HALL FLOOD BARRIER
Standard Operating Procedures

Operational Planning



Public Engagement

Citywide Coordination

Dorchester


DORCHESTER
DORCHESTER
SOUTH BOSTON
SOUTH BOSTON
DOWNTOWN / NORTH END
DOWNTOWN
CHARLESTOWN
EAST BOSTON
EAST BOSTON
Tenean Beach
Morrissey Boulevard
McConnell Park
= FLOOD ADAPTED BUILDINGS
= ELEVATED LANDSCAPES
= CONNECTIONS AND ACCESS

South Boston

Martin's Park

DOWNTOWN / NORTH END

CHARLESTOWN

DOWNTOWN

EAST BOSTON

EAST BOSTON

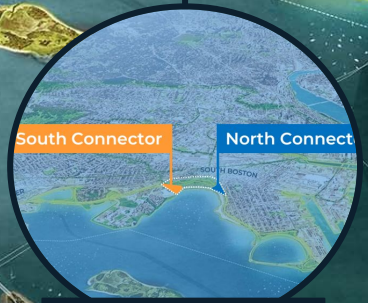
SOUTH BOSTON

SOUTH BOSTON

DORCHESTER

DORCHESTER

Moakley Park



Moakley Park Connectors

Fort Point Channel

RLF Marine Park

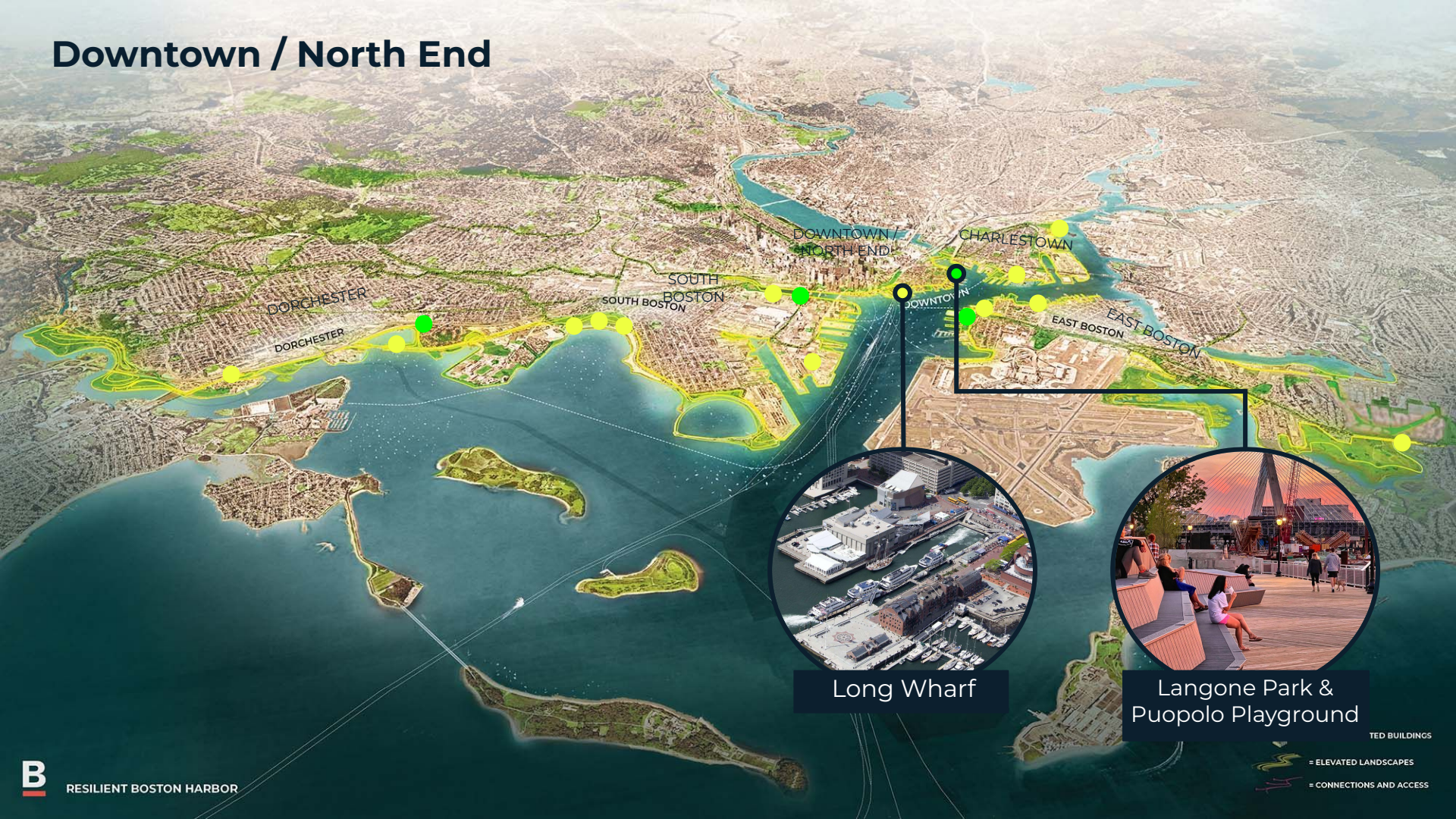
= FLOOD ADAPTED BUILDINGS

= ELEVATED LANDSCAPES

= CONNECTIONS AND ACCESS

RESILIENT BOSTON HARBOR

Downtown / North End



Charlestown

East Boston

Piers Park II

Lewis Mall & Carlton Wharf

Border Street

Bennington Street & Fredericks Park

RESILIENT BOSTON HARBOR

Coastal Resilience: Concurrent Strategies

Today's Storms	Strengthen Our Response to Today's Flooding
This Decade's Storms	Address Key 2030 Floodpaths
Beyond the 2030s	Transform Our 47 Miles of Coastline

USACE Coastal Storm Risk Management Project

MEET THE USACE TEAM

Jeff Herzog- Project Manager and Lead Planner

- Retired US Army
- USACE Planner since 2015
- Water Resources Certified
- Experience in Alaska, Hawaii, Mass.
- Expertise in Climate Change adaptation, Community resilience,Communications, and Urban Planning

Todd Randall- Lead Environmental Coordinator

- Marine Ecologist
- USACE Planner since 2000
- Water Resources Certified
- Experience throughout New England
- Expertise in Ecology, Ecological Resource Inventories, Environmental Impact Assessments, and National Environmental Policy Act (NEPA) procedures

Lisa Winter- Lead Engineer

- Registered Professional Engineer
- Certified Floodplain Manager
- USACE Coastal Engineer since 2015
- Agency Technical Reviewer for Coastal Engineering and Climate preparedness & Resilience
- Experience in New England, California, Florida and Gulf Coast regions
- Expertise in coastal engineering, coastal structure design, climate change analysis and adaptation

Courtney Jackson- Lead Economist

- USACE Economist and Planner since 2015
- Master's degree in applied economics and statistics
- Experience in southeast and Gulf Coast regions
- Expertise in economic analysis as part of USACE navigation and coastal storm risk management planning studies

AUTHORIZATION AND PURPOSE

Authorized for execution and funded in 2022.

Army Corps studies are not unilateral, need 3 things-

1) Authorization
2) Funding
3) Non-federal Partner for cost sharing 50/50

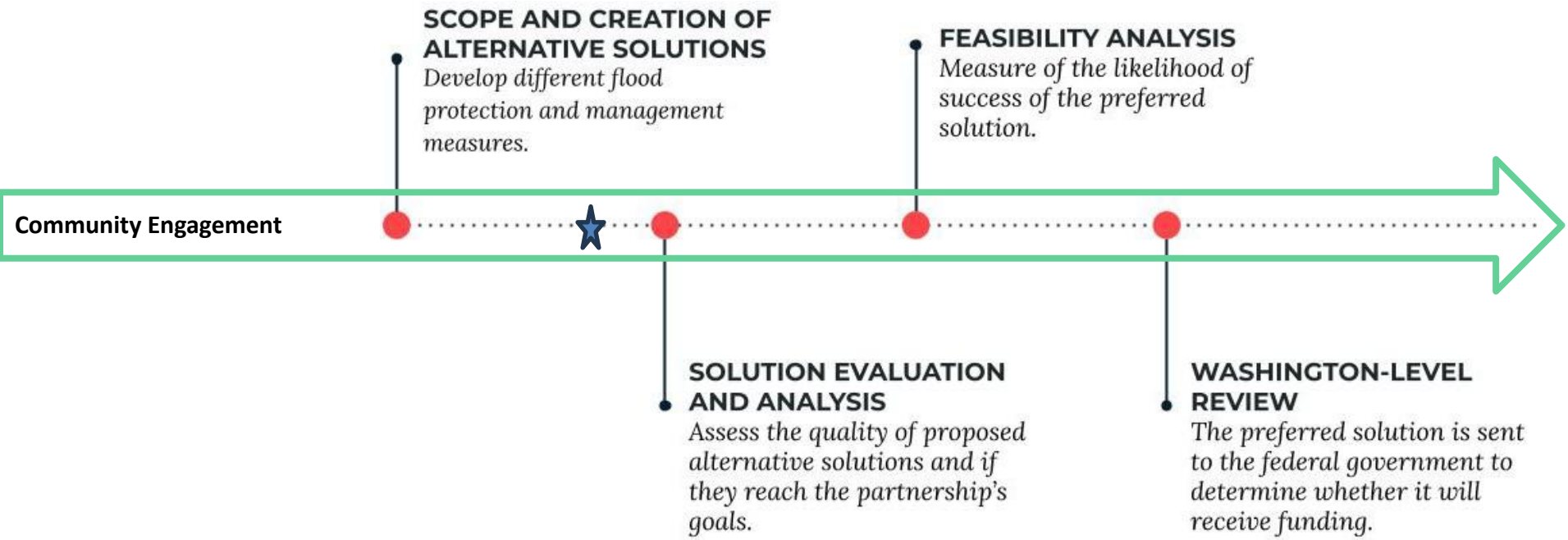
Study is authorized to build upon Climate Ready Boston efforts to investigate opportunities for federal investment

Objective is to manage risks associated with coastal storms and coastal hazards to the city over a 50-year period for economic analysis, but adaptable over 100-years

Outcome is a recommendation to Congress for design and implementation

2018 Nor'easter, Boston, MA

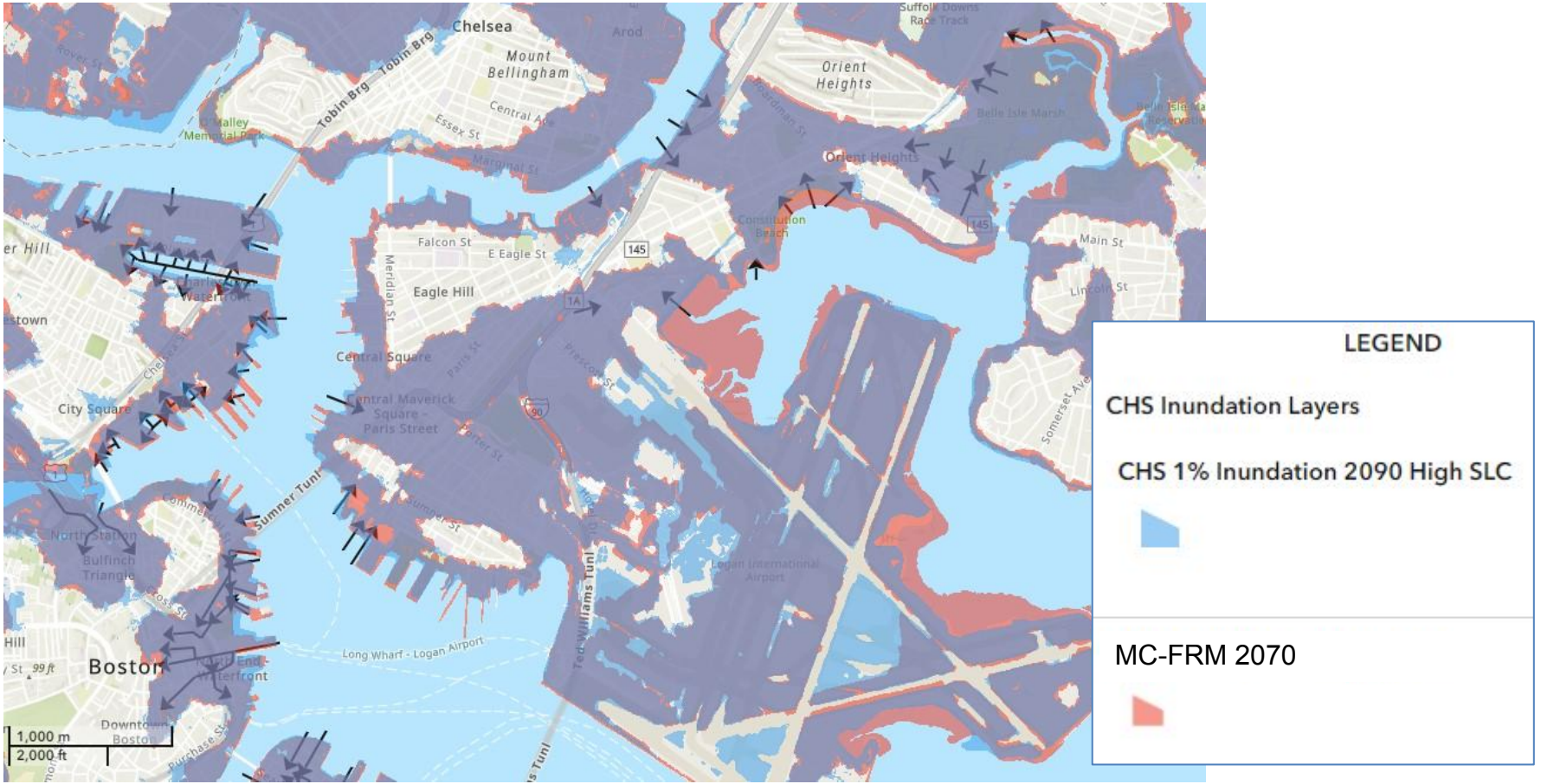
STUDY TIMELINE



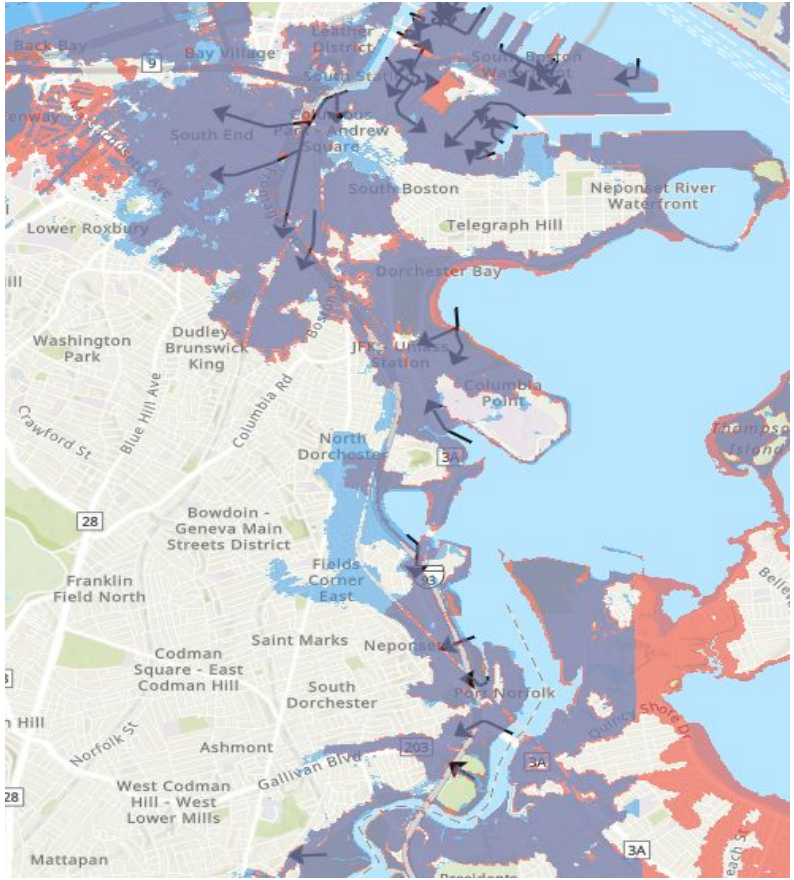
WHAT ARE WE LOOKING AT?

- Five Neighborhoods
  - East Boston
  - Charlestown
  - Downtown and North End
  - South Boston
  - Dorchester (Neponset River)
- Sea Level Change
- Structures at risk now and in the future

Northern Part of Study Area



Southern Part of Study Area



LEGEND

CHS Inundation Layers

CHS 1% Inundation 2090 High SLC

MC-FRM 2070

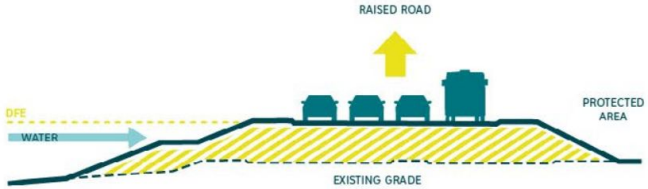
WHAT ARE SOME EXAMPLES OF COASTAL RESILIENCE STRATEGIES?

RAISED HARBORWALK / RAISED PARK SPACE

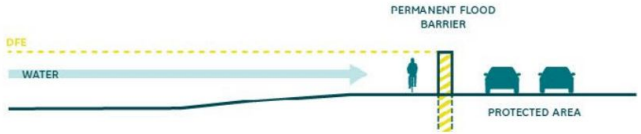
RAISED BERMS AND DUNES

NATURE-BASED SOLUTIONS

RAISED ROADWAYS / MEDIAN FLOODWALLS



VERTICAL FLOODWALLS



ADAPTED BUILDINGS AND STRUCTURES

STUDY CONSIDERATIONS

- Sea Level Change
- Public and Private Real Estate
- Future Infill Development
- Actions by Other Agencies/ Organizations
- Navigation and Port-related Operations
- Existing/Future Environmental Conditions
- Evacuation Corridors
- Community Connectedness to the Water
- Existing and Future Projects
- Flood Pathways
- Environmental Justice Communities
- Protected Resources

STUDY PROCESS

2024 and 2025 Focus:

COMMUNITY ENGAGEMENT IS A VITAL PART TO ANSWERING THESE QUESTIONS: Share your ideas, concerns,questions

We seek to answer these questions over the next year-

- Where are others already doing work?
- Who are the key stakeholders in these areas?
- Where should the federal government invest to support state, regional and local efforts?
- How can the federal government invest, construction, planning, adaptation?
- Where can we use nature-based adaptation vs. where does risk require stronger intervention with barriers along the coastline? What are the impacts to community, economy, natural resources if we build?
- Where is a building adaptation, flood proofing, or long-term managed retreat strategy providing a better solution than structural intervention?
- Where do we have to coordinate with other agencies, municipalities and stakeholders to implement a comprehensive solution?
- How do we optimize benefits while balancing costs, community impacts and impacts to natural resources?

STUDY PROCESS

2025 into 2026 Focus:

- Engage stakeholders, community, resource agencies to identify what did we miss in our draft analysis?

- Identify a plan, from a focused set of plans for public, peer, academic, technical, and agency review.

- Coordinate mitigation and conservation recommendations for cultural, historic, and natural resources impacts.

2027 Focus:

- Develop a final recommendation for Washington DC Leaders to endorse and recommend to Congress.

- State and Agency Review of final recommendation before submittal to Congress.

- Finalize NEPA Document and Publish the agency decision.

- Chief of Engineers US Army Corps of Engineers submits recommendation to Congress.

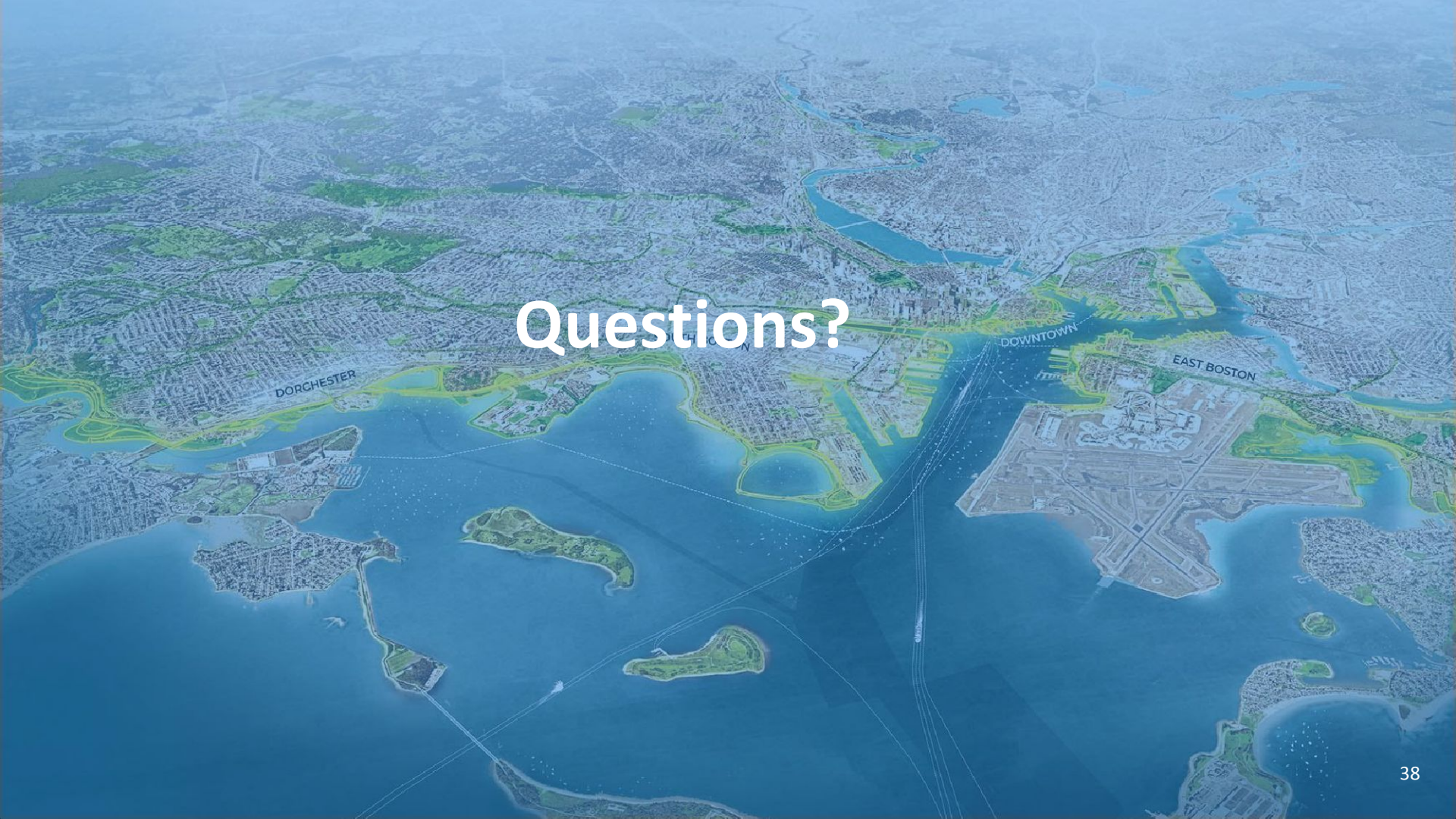
2028 and beyond: Wait for Congress to authorize and fund implementation

HOW CAN YOU PARTICIPATE? WHAT DO WE NEED FROM YOU TODAY?

- **Do you have an existing study or project that could influence our plan?**
- **Do you have a question or a comment?**
- **Are you a landowner with a concern or maybe you have pictures or videos of flooding to share?**
- **Have you seen something somewhere else that you would like us to look at for your area?**
- **Do you just want to be included on future invitations for meetings, mailings, or emails?**

Map-based Feedback and Collaboration

Question-based Feedback form



Questions?

THANK YOU!

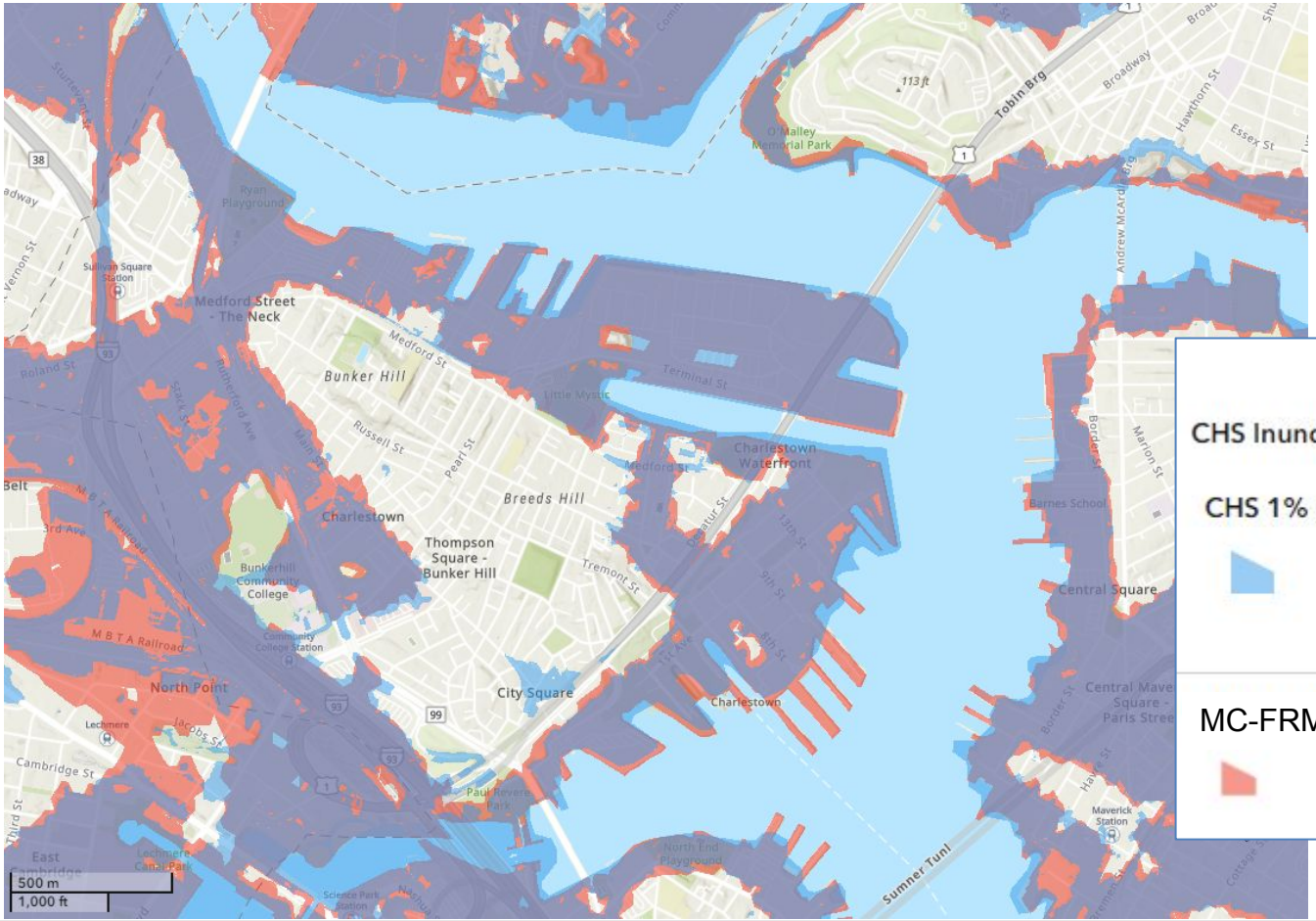
Ben Matusow Project Manager:
Benjamin.matusow@boston.gov
617-918-6238

Connect with us:
https://docs.google.com/forms/d/e/1FAIpQLSeYX7gpBi_zDAjCDxnBCN7oHlSnY6tW95gO-DGoaeaK4do0jg/viewform

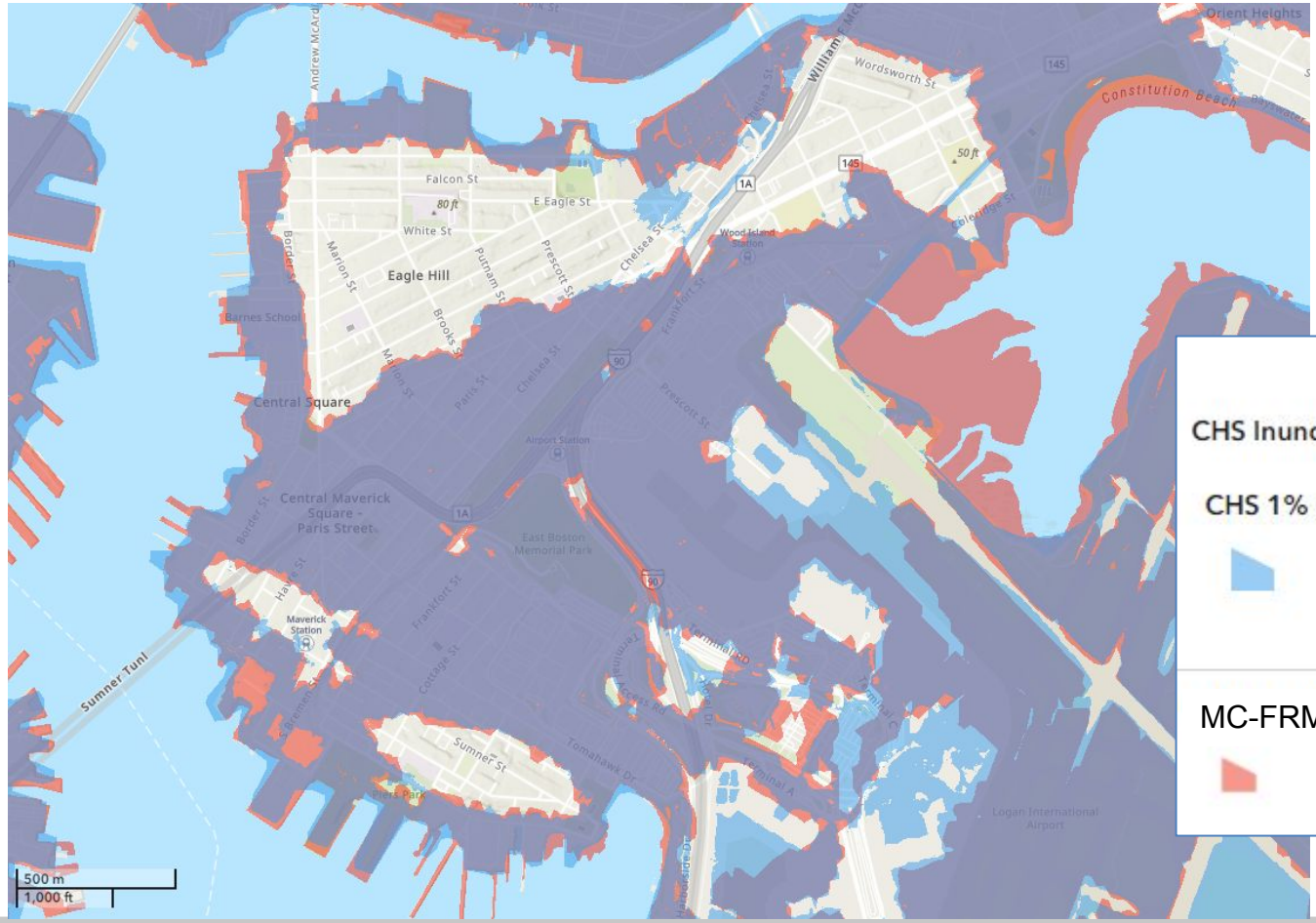
City of Boston Project Site:
https://www.boston.gov/departments/environment/climate-ready-boston-and-army-corps-partnership

USACE Project Site:
https://www.nae.usace.army.mil/Missions/Projects-Topics/City-of-Boston-Coastal-Storm-Risk-Management-Project/

CHARLESTOWN



EAST BOSTON



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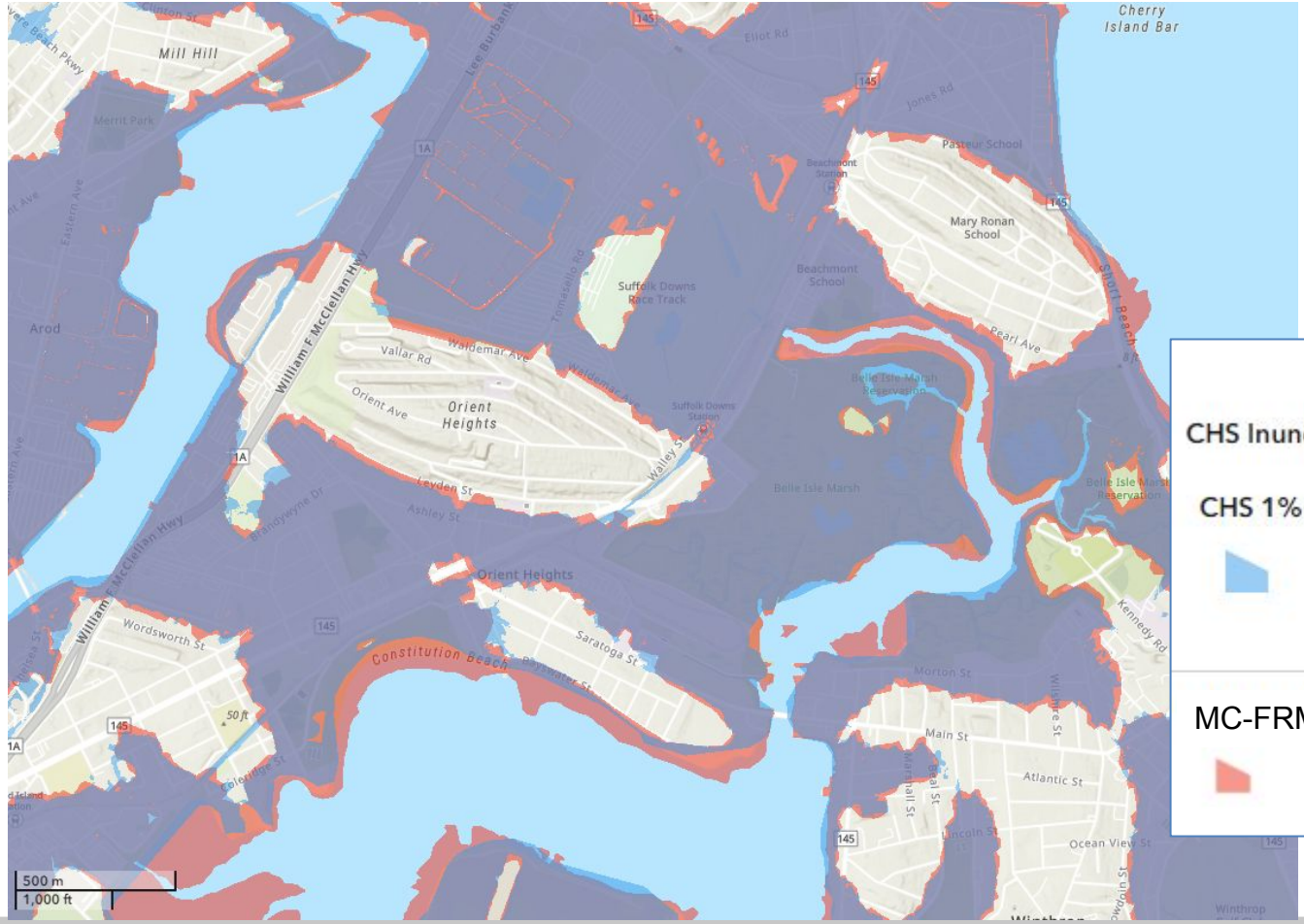

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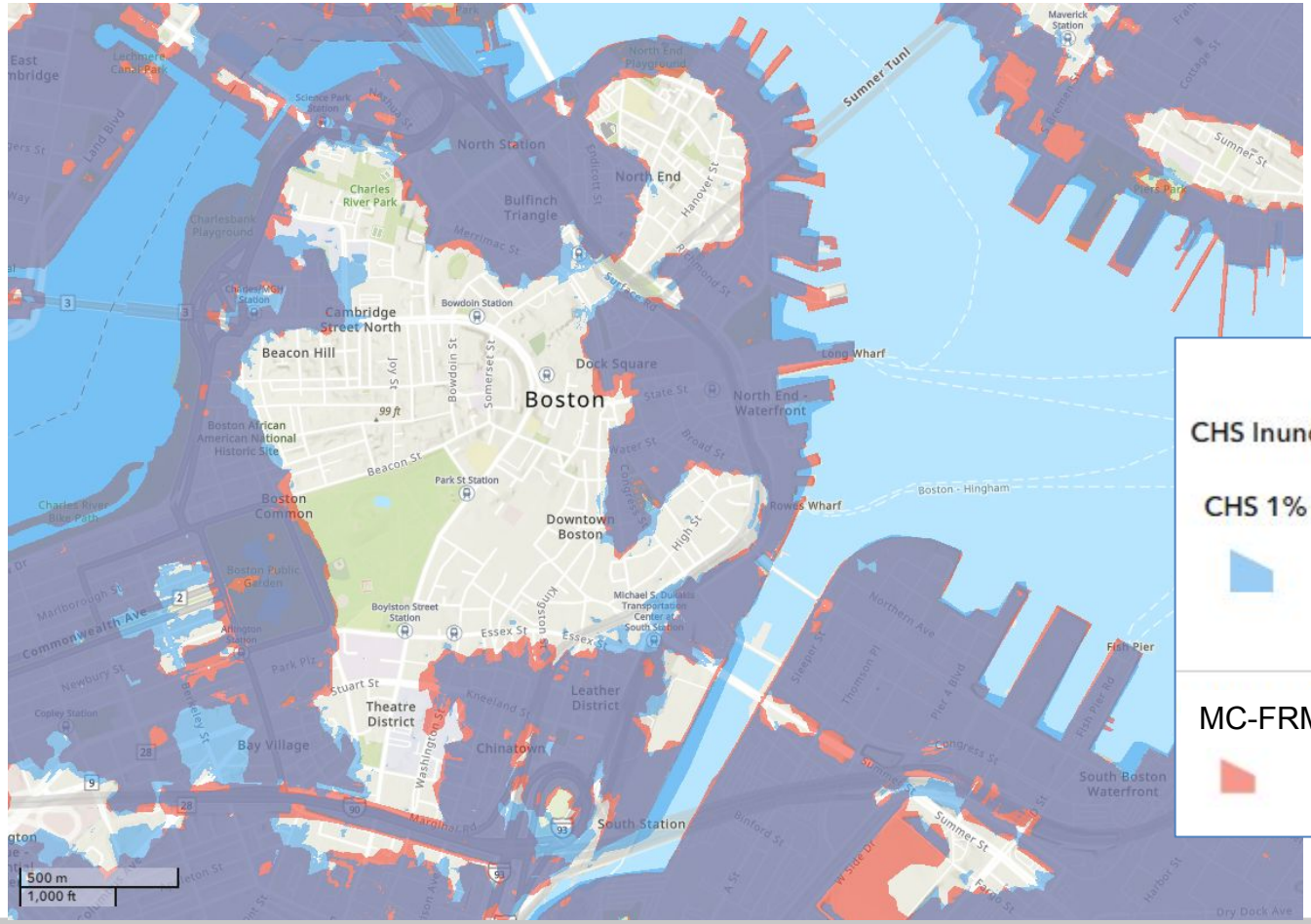
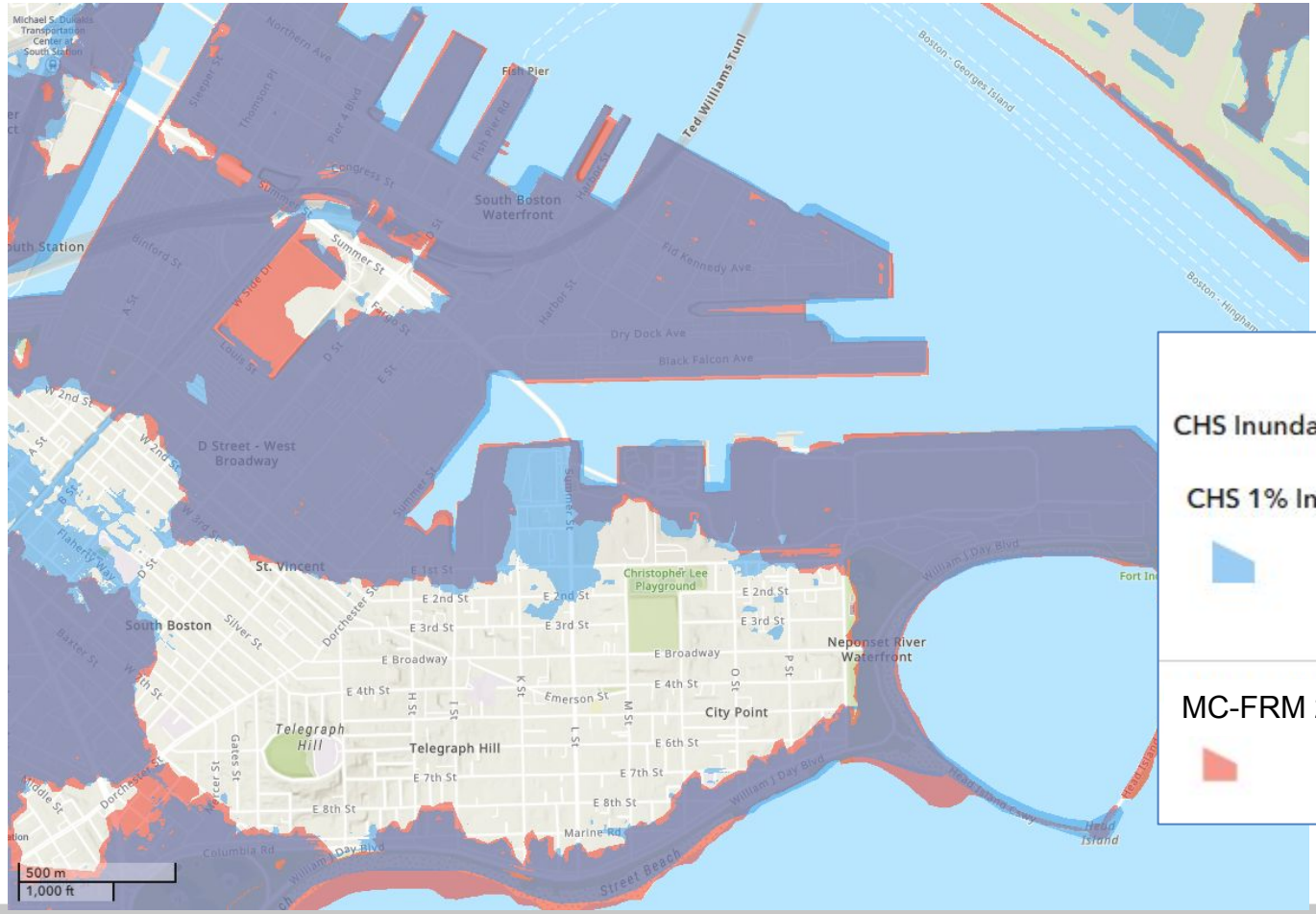
DOWNTOWN/NORTH END



SOUTH BOSTON



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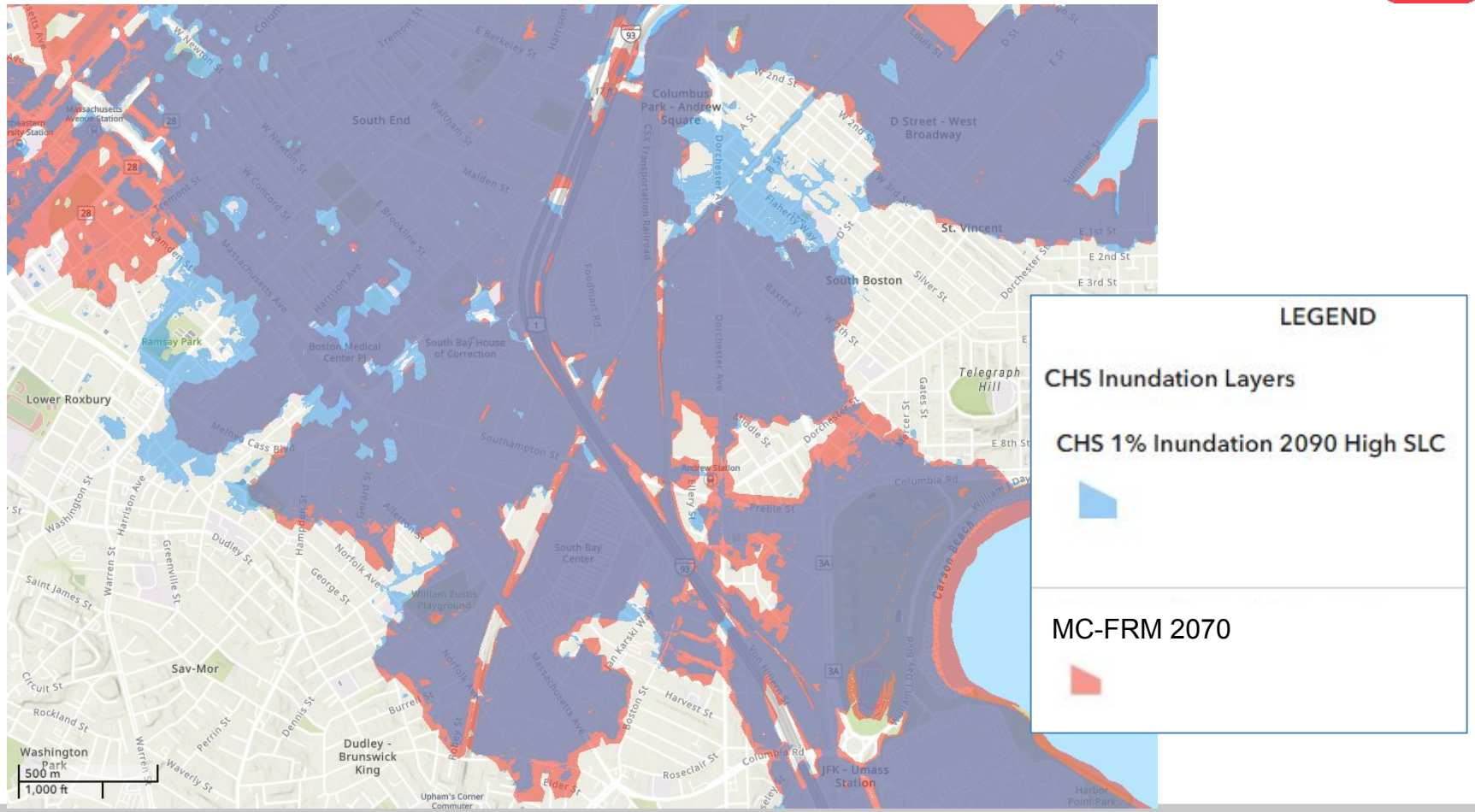
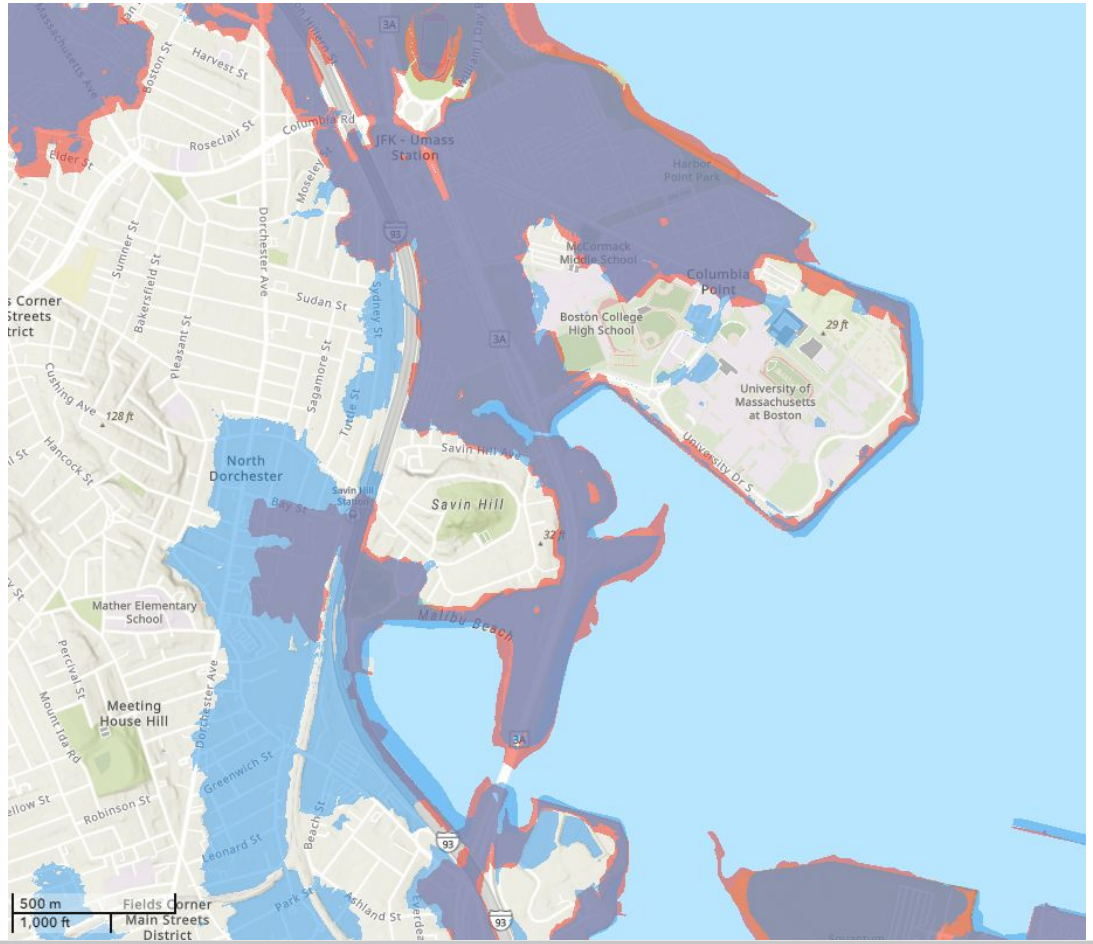


DORCHESTER



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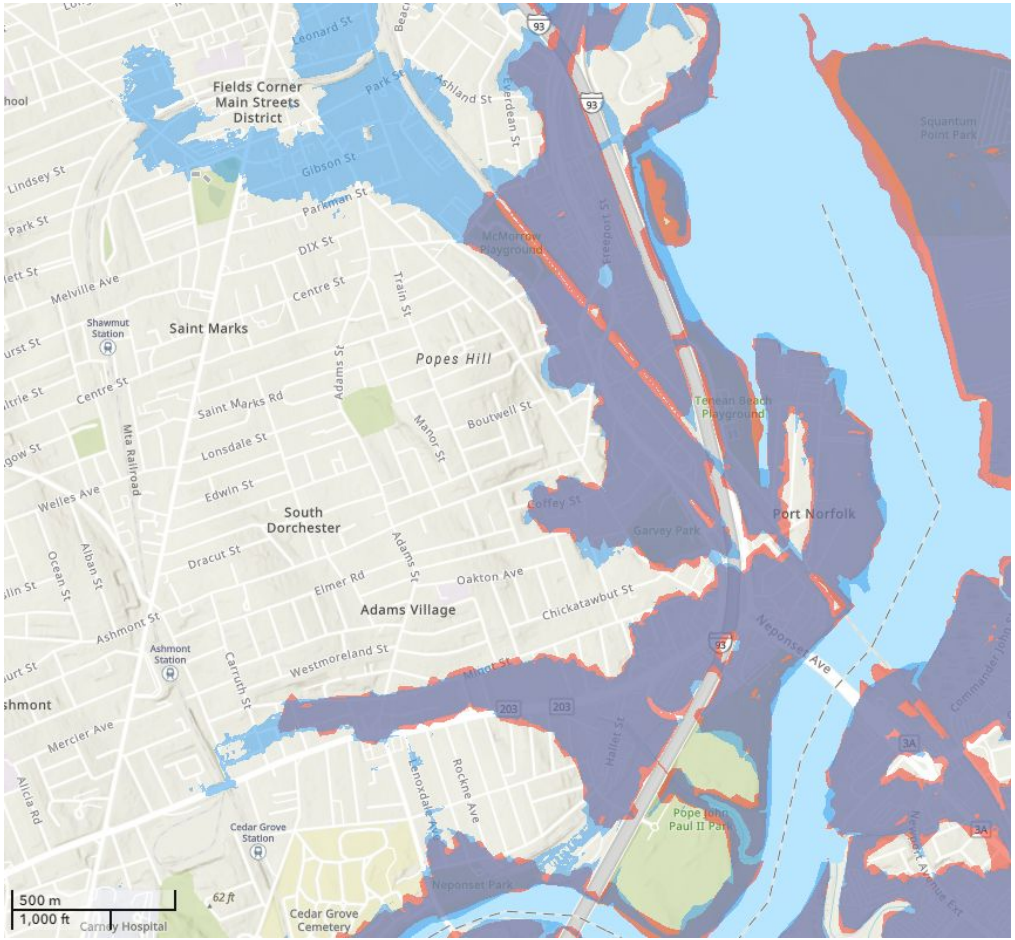

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