Boston Metropolitan Area Coastal Study

US Army Corps of Engineers Coastal Flood Risk Management Watershed Study, in partnership with the MA Executive Office of Energy and Environmental Affairs, and MAPC

Stakeholder Working Group Meeting #1

December 5, 2022

US Army Corps of Engineers®
New England District

Executive Office of Energy and Environmental Affairs

MASSACHUSETTS OFFICE OF COASTAL ZONE MANAGEMENT

MAPC



USE THE RAISE HAND FEATURE IF YOU WOULD LIKE TO SPEAK AND WAIT FOR THE FACILITATOR TO GIVE YOU THE FLOOR



SHARE YOUR NAME AND VIDEO IF ABLE

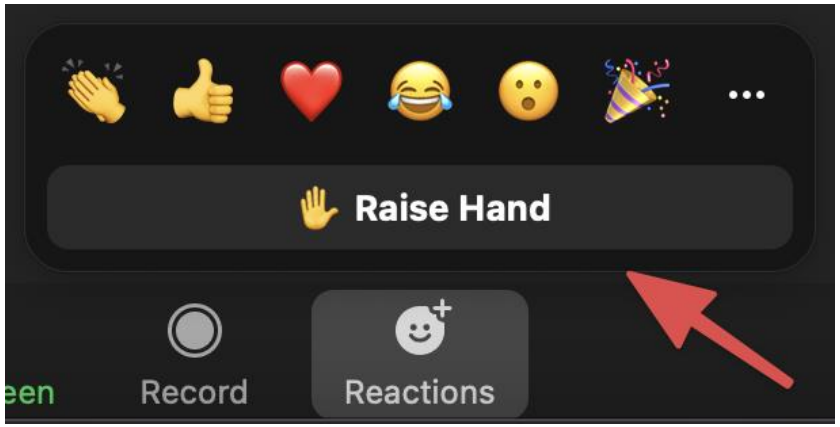


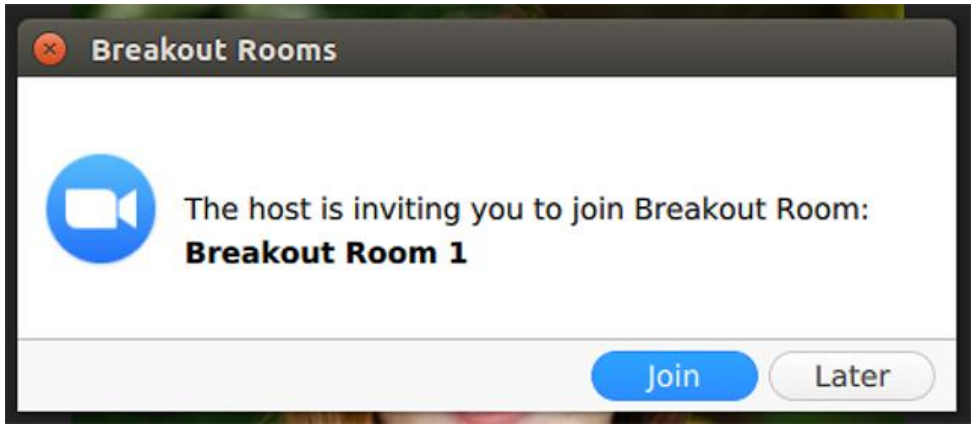
USE THE CHAT FOR ADDITIONAL QUESTIONS AND COMMENTS

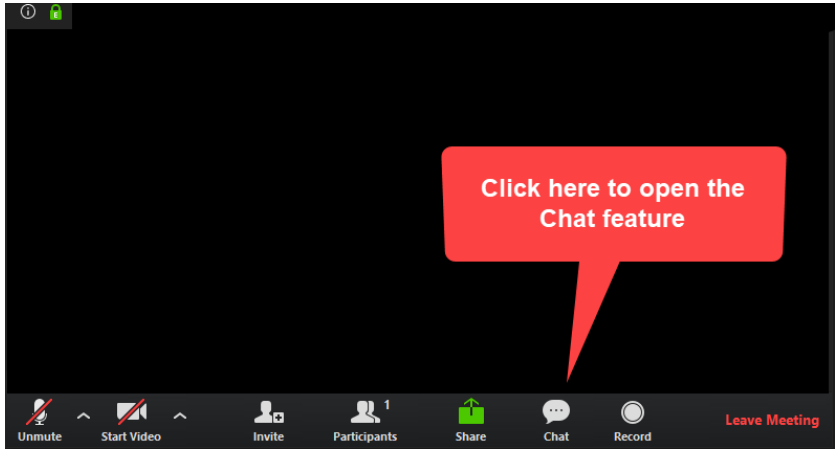


PLEASE MUTE YOURSELF WHEN NOT SPEAKING

Meeting Guidelines









Zoom Logistics

Agenda

- **Welcome & Introductions** (10 min.)
- **Boston Metro Coastal Study Context Setting Presentation** (20 min.)
- **Shared Vision Milestone Stakeholder Engagement Presentation** (10 min.)
- **Initial Q&A** (5 min.)
- **Breakout Group Discussion** (60 min.)
  - *Round 1: Existing projects and plans, needs and gaps, and benefits*
  - *Round 2: Opportunities and constraints*
- **Report Out and Q&A** (10 min.)
- **Wrap Up & Next Steps** (5 min.)

Meet the Project Team

Project Lead

U.S. Army Corps of Engineers, New England District

Barbara Blumeris, Project Manager/Planner
*representing the New England District Multi-Disciplined Project Delivery Team

John Kennelly, Chief of Planning Division

Chris Hatfield, Chief of Plan Formulation Branch

Hande McCaw, Coastal Engineer

Non-Federal Sponsor

MA Executive Office of Energy and Environmental Affairs

(co-lead) Mia Mansfield, Director of Climate Adaptation and Resilience

(co-lead) Lisa Engler, Director for the Office of Coastal Zone Management

Joanna Yelen, CZM Boston Harbor Regional Coordinator

Patricia Bowie, CZM Coastal Resiliency Specialist

Carolyn Meklenburg, MVP Greater Boston Regional Coordinator

Engagement Facilitator

Metropolitan Area Planning Council

Van Du, Senior Environmental Planner

Adria Boynton, Senior Environmental Planner & Resiliency Specialist

Julia Nassar, Clean Energy and Climate Planner II

Emily Wood, Clean Energy and Climate Intern

Introductory Welcome & Remarks

John Kennelly, *Chief of Planning Division, New England District*

- Study provides a unique opportunity for communities to work together to develop a cohesive plan to address coastal storm risk in the Boston Harbor Region.
- While the plan does not result in project implementation, it will result in a shared vision for the future work in the region that can be used as blueprint by stakeholders to implement actions to reduce costal storm risk and support the goal of coastal resilient communities.
- Performing coordinated/cooperative planning will result in improved solution to address the increased frequency of coastal inundation forecasted with sea level rise.
- The New England District has two other on-going studies the city of Boston Coastal Storm Risk Management Feasibility Study (a project development focused effort) and the New Charles River Dam planning assessment (focused on the evaluation of future operation with SLR and increased runoff).

Icebreaker Zoom Poll



If your community has identified coastal flood risk management-related projects, what phase are your projects in?

- Planning and assessment
- Design and permitting
- Construction
- Other (tell us in the chat!)

Boston Metro Area Coastal Study Overview

What and why are we doing this project?

- 3-year planning study authorized under Section 729, Water Resources Development Act (WRDA; appropriated by Congress in 2021) to allow for a 75/25 funding cost share agreement with MA EEA to address coastal resiliency at a watershed scale in the metro Boston region.
- EEA has partnered with USACE to build on existing plans and priorities and conduct a regional assessment of long-term coastal flood risk to populations, property, ecosystems, and infrastructure; and develop potential strategies to manage risk.
- **The study will provide a framework and timeline for regional adaptation investments** that consider coastal inundation vulnerability, vulnerable populations and Environmental Justice communities, impact on critical infrastructure, high-level costs & benefits, and key stakeholders.
- **This working group will provide input into the study over the 3-year timeframe,** with an initial focus on the Shared Vision Milestone that will be complete by spring 2023.

USACE Six-Step Watershed Planning Process

1. Identify Problems and Opportunities
2. Inventory and Forecasting
3. Identify and Screen Measures
4. Formulate Initial Array of Strategies
5. Refine Initial Array and Evaluate Focused Array of Strategies
6. Strategy Comparison and Selection

Shared Vision Planning provides an inventory of problems and opportunities, defines the overall shared vision, and presents a coordinated study framework that will be used as a reference point as the study continues.

Study Timeline Overview



Signed Cost-Share Agreement 16 Dec 21

Develop a PMP
- Coord. with EEA and Vertical Team through USACE Office of Water Project Review

Shared Vision Milestone
- Develop shared Vison with Stakeholders
- Review Existing information
- Identify problems and opportunties, objectives and constraints
- Describe present day and future conditions using existing information
- Develop study framework and refine work plan tasks

Recommendations Milestone
- Work with stakeholders to develop coastal risk reduction strategies.
- Complete a qualitative assessment of strategies
- Work with stakeholders to collectively determine recommendations

Draft Report

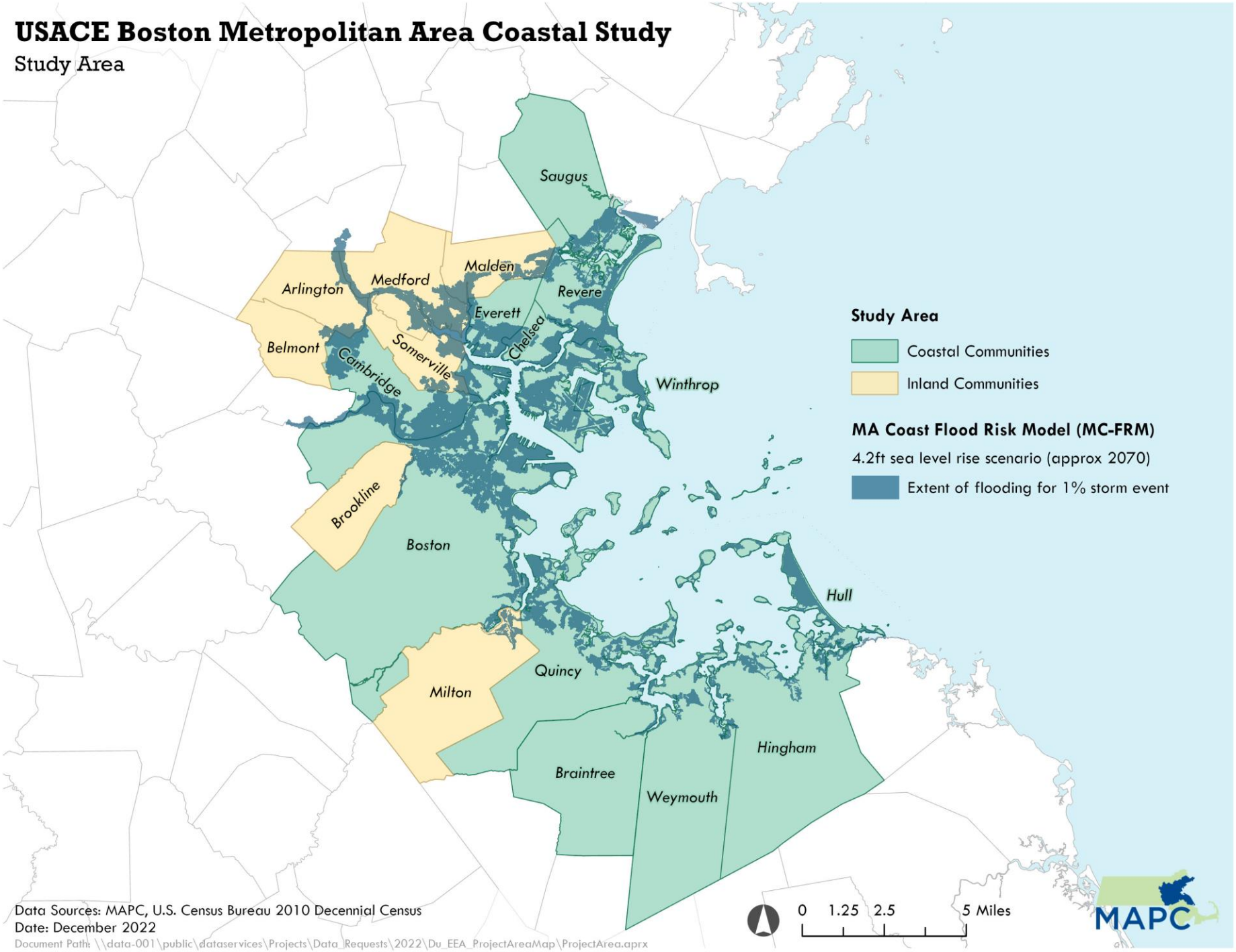
Concurrent Reviews

Prepare Draft Report and conduct concurrent reviews
- Public
- USACE Agency Technical Review
- USACE Policy and Legal Compliance Review
- Sponsor and Community Review

Approval of Report/Plan by NAD Division Commander

Transmittal of Approved Plan/Report through HQ-USACE, ASA(CW) to Congress in Response to Study Authority

** Current engagement with this Working Group will support the development of a Shared Vision Milestone*



Municipalities included within the **MC-FRM 2070 1% annual exceedance probability event,** and directly impacted adjacent inland communities

How the Metro Area Coastal Study Compares with the Ongoing City of Boston USACE Study

	EEA, Metropolitan Area Coastal Flood Risk Management Study	City of Boston, Coastal Storm Risk Management Feasibility Study
Study Area	Boston Harbor communities from Winthrop to Hull including the City of Boston, 12 coastal (including the City of Boston) and 6 additional inland communities (subject to coastal surge along riverine pathways.)	City of Boston
Goal	**A Watershed Study** - A regional assessment of long-term coastal flood risk to populations, property, ecosystems, and infrastructure; and development of potential strategies to reduce risk	**A Feasibility Study** - Investigate federal interest in implementing a plan to reduce the risks associated with coastal storms, sea level change, and climate change, in the City of Boston over the 50-year period of analysis.
Outcomes	Final Report that recommends **coastal resilience regional adaptation strategies** for the Boston Harbor communities. Will result in recommended strategies and identified municipal, state, federal, or other leads to pursue next steps on the elements of the strategies. **Study will not result in a USACE recommended project for implementation**	Chief's Report that recommends **a USACE project implementation** to address coastal flood risk for the City of Boston. Detailed evaluation and qualification of benefits focused on the City of Boston. While analysis will focus on the City of Boston study area, a watershed approach will be necessary to not only capture ancillary CSRM benefits to the surrounding communities, but also impacts to surrounding communities. Caution must be taken to ensure risk is not transferred to areas outside of the City of Boston to reduce the risk in the City of Boston

Study Phase 1 December 2022- April 2023: Shared Vision Milestone

What is included in the development of a Shared Vision Milestone?

- Develop **shared vision statement** of risks and opportunities
- Develop plan formulation objectives and constraints for study
- Identify current and proposed coastal flood risk management **projects and priorities**
- Inventory and forecast relevant conditions based on readily available existing information
- Collect **readily available data** on assets in the study area
- Discuss **screening and decision criteria**
- **Brainstorm initial list** of strategies/measures for the study area
- Input on the study's stakeholder engagement activities

With input from this Working Group, focus groups, and interviews

Problems: current or future negative conditions

Opportunities: desirable future conditions

Objectives: statements that describe the results you want to get by solving the problems and taking advantage of the opportunities you identified

Constraints: are statements about things you want to avoid doing, or things you cannot change, while meeting your objectives.

Shared Vision Milestone Stakeholder Engagement

*** Facilitated by EEA and MAPC**

Regional Working Group

To provide feedback during development of the Shared Vision Milestone regarding:

1. Current and proposed local and regional plans, projects, priorities
2. Problems and opportunities in the study area
3. Data and relevant conditions in the study area
4. How this regional study can help advance local coastal flood risk management effort

Interviews and Focus Groups

Follow-up conversations with Working Group members, and others (inland communities, additional community-based organizations, etc.)

Summary of Findings

- **Inform the development of the Shared Vision Milestone and USACE Study Framework**
- **Reach consensus and gather letters of support from Working Group**

Shared Vision Milestone Stakeholder Engagement

Timeline

Shared Vision Milestone

Task	2022 Sep	Oct	Nov	Dec	2023 Jan	Feb	Mar	Apr
1. Stakeholder Mapping								
2. Formation and Facilitation of the Working Group				★	★	★		
3. Interviews and Focus Groups								
4. Summary of Findings Memo								
5. Public Virtual Forum/Webinar (Broad Audience)								

Legend

★ Working Group Meetings

Continued working group engagement beyond Shared Vision Milestone!

Working Group Member Expectations

- Attendance at 3 meetings, potential follow up through interviews
- Feedback on draft information
- Share Letter of Support at end of project, anticipated July 2025

Working Group Members Invited

Federal agencies

- U.S. EPA
- Department of Agriculture, NRCS
- U.S. Dept of the Interior, USFWS
- National Park Service
- FEMA Region 1

Tribal Government

- Mashpee Wampanoag Tribe

State agencies

- DCR
- MassDOT
- Massport
- MWRA
- MEMA

Municipalities (coastal)

- Braintree
- Boston
- Cambridge
- Chelsea
- Everett
- Hingham
- Hull
- Quincy
- Revere
- Weymouth
- Winthrop

Community-based Organizations

- Greenroots
- Boston Harbor Now
- Charles River Watershed Association
- Mystic River Watershed Association
- Harborkeepers

We will also have follow-up conversations with:

- Working Group members
- Municipalities from inland communities in the study area
- Additional representatives from federal and state agencies, watershed organizations, non-profits, community-based organizations, academics, and representatives from Environmental Justice communities
- Additional representatives from tribes including the Wampanoag Tribe of Gay Head (Aquinnah) and the Narragansett Tribe

Current Regional Planning & Coalitions

Saugus Pines River Advocacy for Regional Resilience (SPRARR)

- Revere, Saugus, Malden, Everett, & Lynn
- Currently conducting a Regional Saugus River Watershed Vulnerability and Adaptation Study

Charles River Climate Compact (CRCC)

- 27 communities in the watershed
- Currently creating a Climate Resilient Strategic Plan

Resilient Mystic Collaborative (RMC)

- 20 communities in the Mystic River Watershed
- Designing and permitting three stormwater wetlands to manage flooding

Metro Mayor Climate Preparedness Taskforce (MMC)

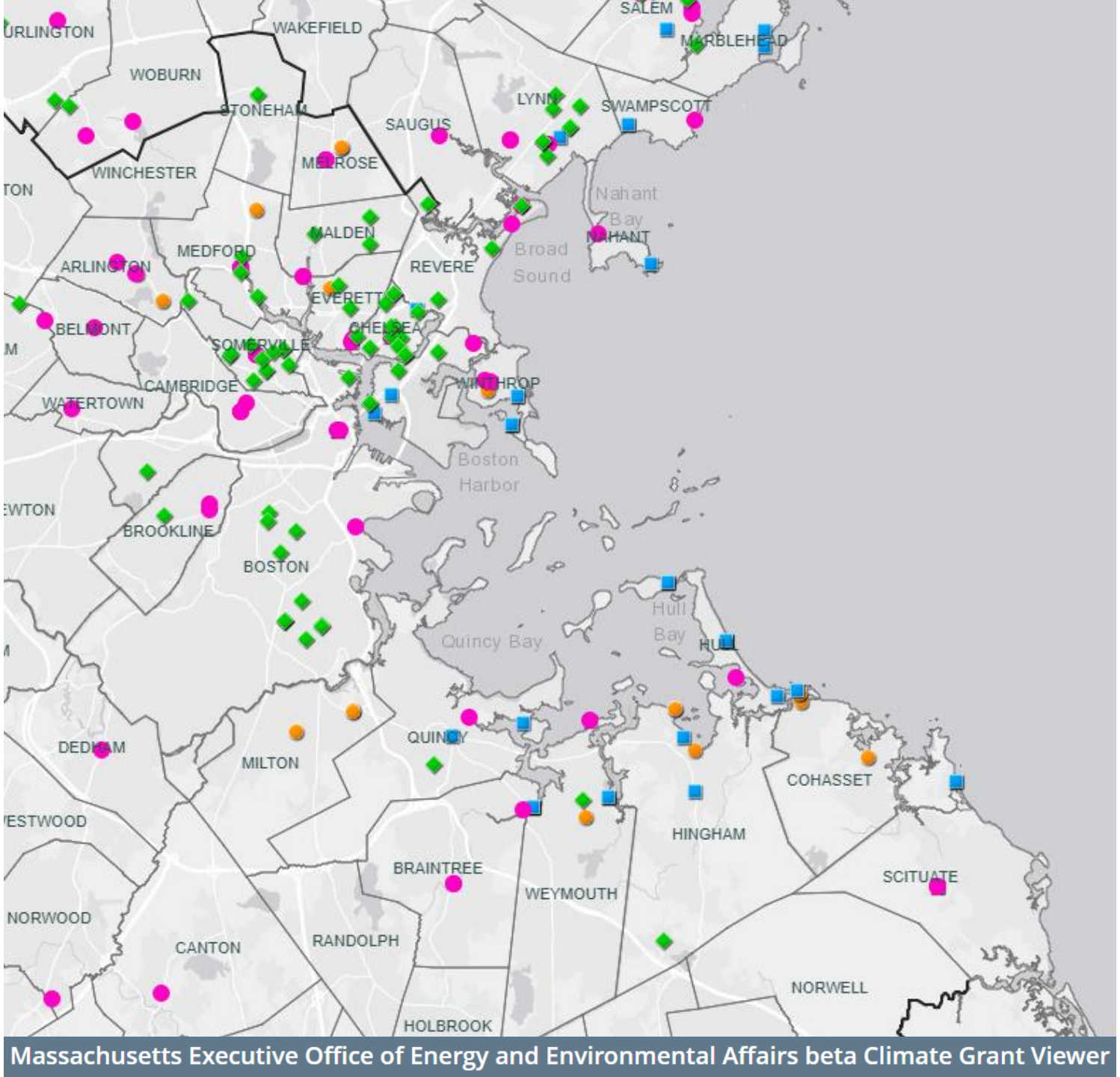
- An ongoing regional and cross-governmental coordination among 15 communities in Greater Boston to protect critical infrastructure and other vital resources and systems through policy recommendations and regional priorities.

Neponset River Watershed Regional Adaptation Strategy and Flood Modeling

- 12 communities in the Neponset River Watershed
- Developing a regional flood model and priority implementation measures

Identifying Current Local and Regional Coastal Flood Management Planning

- EEA Municipal Vulnerability Preparedness Action
- CZM Coastal Resilience
- CZM Coastal Pollutant Remediation
- Parkland Acquisitions and Renovations for Communities (PARC)



Massachusetts Executive Office of Energy and Environmental Affairs beta Climate Grant Viewer

Current Local & Regional Planning

Inventory of Municipal Coastal Flood Management Planning Projects in Study Area

Lead	Project Type *Planning/Assessment, Convening, Data Analysis/Modeling, Mapping, Design, Permitting, Construction, Restoration, Education*	Project Title	Project Area *If applicable*	Status *Complete, In-progress*	Timeframe	Funding Source *I.e., grant name*	Reference *I.e., URL, report title*
Multiple	Planning/Assessment	All communities have completed their Municipal Vulnerability Preparedness (MVP) Planning process	Multiple	Complete	Varies	Municipal Vulnerability Preparedness (MVP) Planning Grant	https://resilientr
Winthrop	Design	Veterans Road Drainage Improvements	Winthrop	Complete	2015	CZM Coastal Resilience Grant	CZM
Winthrop	Rehabilitation	Lewis Lake Tide Gate Replacement and Structure Rehabilitation	Winthrop	Complete	2016	CZM Coastal Resilience Grant	CZM
Winthrop	Planning/Assessment	Climate Change Vulnerability and Risk Assessment of Infrastructure	Winthrop	Complete	2016	CZM Coastal Resilience Grant	CZM https://www.tov vulnerability-clim
Winthrop	Feasibility, Design, Permitting, Construction	Coughlin Park Shoreline Restoration	Winthrop	Complete	2016-2019	CZM Coastal Resilience Grant	CZM https://www.tov grants
Chelsea	Design	Designing Coastal Community Infrastructure for Climate Change	Chelsea	Complete	2016	CZM Coastal Resilience Grant	CZM
Chelsea	Restoration	Resiliency, Restoration and Remediation of the Green Parcel	Chelsea	Complete	2021	CZM Coastal Resilience Grant	CZM
Chelsea	Design	Regional Resilience in Two Gateway Cities: Chelsea-Everett Protective Barrier Partnership	Chelsea	Complete	2019	CZM Coastal Resilience Grant	CZM
Boston	Design	Designing for the Rising Tide: A Climate Change Preparedness Competition for Boston Harbor	Boston	Complete	2014	CZM Coastal Resilience Grant	CZM https://www.bos https://www.bos
Boston	Planning/Assessment	Boston Climate Preparedness Planning Initiative	Boston	Complete	2016	CZM Coastal Resilience Grant	CZM https://www.bos
	Design	Acting on Climate Ready Boston Recommendations - Priority		Complete	2017	CZM Coastal	CZM



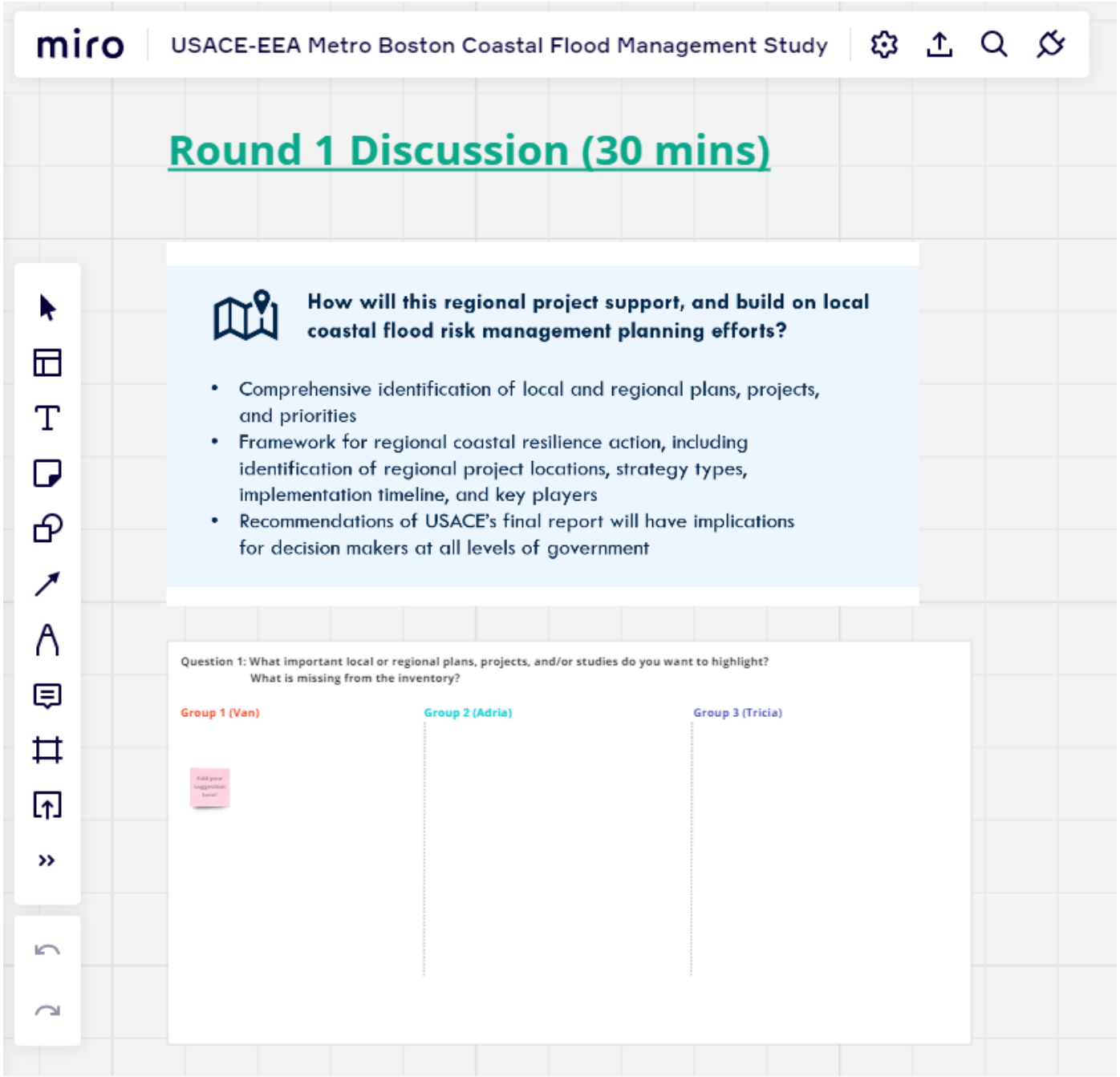
Let's pause for questions & comments



Preview Breakout Room Content

Miro

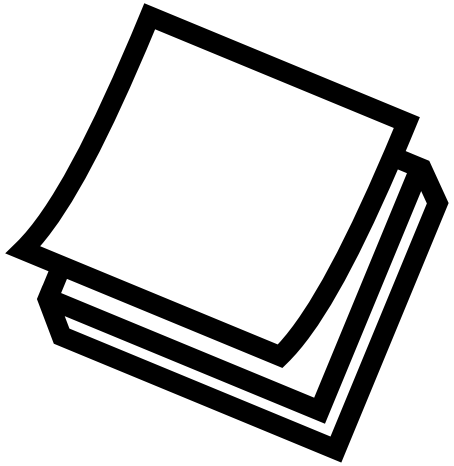
- Link to join: https://mapc.ma/3gTFAKF
- Use sticky notes to add comments, questions



How will this regional project support, and build on local coastal flood risk management planning efforts?

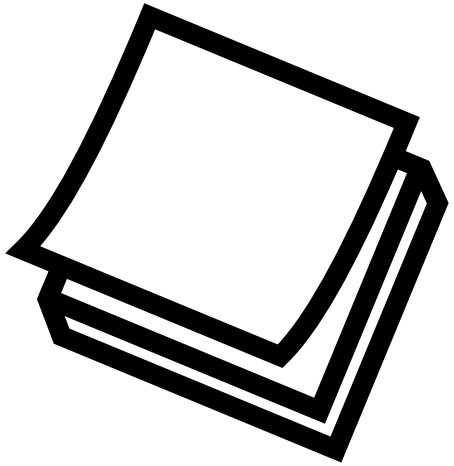
- Comprehensive identification of local and regional plans, projects, and priorities
- Framework for regional coastal resilience action, including identification of regional project locations, strategy types, implementation timeline, and key players
- Recommendations of USACE's final report will have implications for decision makers at all levels of government

Miro Question 1



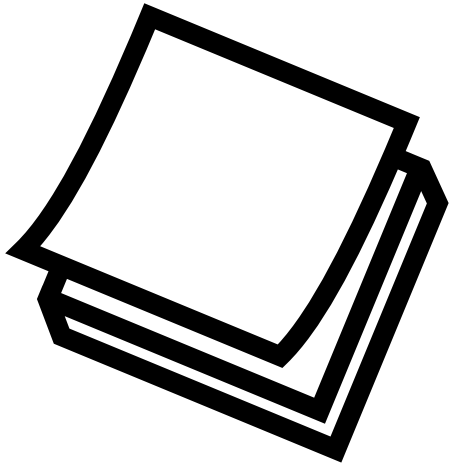
What important local or regional plans or projects do you want to highlight? What is missing from the list?

Miro Question 2



What are the needs and gaps in current local or regional coastal resilience planning efforts?

Miro Question 3



How can this process most benefit local priorities and regional coastal flood risk thinking?

Initial Problems & Opportunities Identified by USACE

Problems: current or future negative conditions

- Current coastal storm and tidal flooding causing damage to structures and infrastructure in the study area
- Future, as sea level rises, increase in coastal storm and tidal flooding causing damage to structures and infrastructure in the study area
- Current and future coastal storm and tidal flooding causing harm to health of the population
- Current coastal storm and tidal flooding causing damage to minority and economically disadvantaged communities that have fewer resources to recover from the damage

Opportunities: desirable future conditions

- Improve/improved public awareness of increasing coastal storm risk
- Increase public recreation areas along the shoreline
- Develop and Implement coordinated plans (or regional plans) between communities to reduce coastal storm risk
- *Anything else?*

Initial Objectives & Constraints Identified by USACE

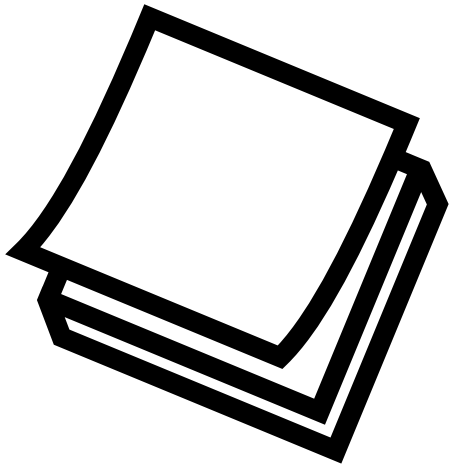
Objectives: planning objectives form a clear statement of a desired end. An objective does not say how those things should be done, only that it is an objective to do so. Objectives describe the results you want to get by solving the problems and taking advantage of the opportunities you identified. Objectives should address an identified problem and/or opportunity and be measurable and attainable. Objectives need to fit within the study purpose.

- Reduce risk of long-term coastal storm flood inundation to residential, commercial, and industrial structures in the study area over the period of analysis
- Reduce the risk of coastal storm flood inundation to critical transportation infrastructure in the study are over the period of analysis
- Reduce the risk to of coastal storm inundation impacting the health and safety of the population in the study area over the period of analysis

Constraints: statements about things you want to avoid doing, or things you cannot change or impact, while meeting your objectives.

- Universal Constraint
- Avoid, minimize or mitigate for environmental resources impacts (this is a constraint for all USACE plan formulation)
- Study area specific Constraint
- Avoid or minimize impact to navigation in Boston Harbor

Miro Question 4



What opportunities are missing from this list?

What are some constraints on developing regional strategies to reduce coastal flood risk?



Join Breakout Rooms

Report Out and Q&A



Debrief from Breakout Rooms



Any Questions?

Wrap Up & Next Steps

- Stay tuned for a follow-up email with links to share feedback

- Share additional feedback by **December 15, 2022** on the:
  - Current plans and projects inventory *(feedback via Sharepoint spreadsheet)*
  - Objectives, Constraints, Problems and Opportunities *(feedback via Miro)*

- Stay tuned for an invitation to Working Group Meeting #2, anticipated on **January 19, 2023**

Let's Keep the Conversation Going!

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