CHARLES RIVER CLIMATE COMPACT
EQUITY ACTION PLAN SUMMARY



Charles River
Climate Compact

2024-2028

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CONTENTS

INTRODUCTION 05

- The Charles River Climate Compact
- Climate Compact Resilience Plan

CLIMATE COMPACT RESILIENCE STRATEGIES 06

DEVELOPING THE EQUITY ACTION PLAN 08

- Member Priorities
- The Climate Equity Advisory Team (CEAT)

WHAT WE LEARNED 11

- Compact Equity Action Statements + Goals

CLIMATE COMPACT EQUITY ACTION STATEMENTS 13

EQUITY ACTION PLAN OVERVIEW 14

- Listen
- Partner
- Learn

INTRODUCTION

The Charles River Climate Compact

The Charles River Climate Compact (CRCC), also referred to as the "Compact," works to increase climate resilience for people and the natural ecosystems in the Charles River watershed. The CRCC is a voluntary partnership of cities and towns that takes a watershed approach to climate adaptation and mitigation to address precipitation-based flooding, sea level rise, extreme heat, and ecosystem health through regional collaboration and information sharing.

Our partnership connects communities across 80-miles of the Charles River representing twenty-eight communities in the watershed, including Arlington, Bellingham, Belmont, Boston, Brookline, Cambridge, Dedham, Dover, Franklin, Holliston, Hopkinton, Lincoln, Medfield, Medway, Millis, Natick, Needham, Newton, Norfolk, Sherborn, Somerville, Walpole, Waltham, Watertown, Wellesley, Weston, Westwood, and Wrentham, with the Charles River Watershed Association (CRWA).

We work towards nature-based solutions (NBS) and green infrastructure projects such as **wetland** and **dam restoration**, as well as smaller scale projects like **rain gardens**, **rain barrels**, and **permeable pavement** that likewise expand wildlife habitat, provide flood protection, and improve air and water quality.

We believe that as the impacts of climate change transcend municipal boundaries, so too will the solutions. We also embrace equity, environmental justice and climate justice as a core value and belive that investing in resilience provides an opportunity to build a more equitable society, including opportunities to address historic wrongs.

Climate Compact Resilience Plan

In 2023, the Compact completed a Resilience Strategic Plan, a roadmap to guide the group's resources and decision making for the next five years. We identified seventeen resilience strategies to pursue, oriented around six key goals:

- Build resilience in watershed communities to extreme events caused by climate change, with a focus on **flooding** and **heat**, primarily through regional collaboration and identification of effective local solutions.
- Identify and implement **NBS** that mitigate flooding and drought, and improve **water quality** and **ecological health** across the region.
- Maintain and improve **biodiversity** of the river and watershed.
- Work together to advocate for **smart and effective climate laws, policies, and programs** at all levels of government.
- **Collaborate** on climate adaptation, mitigation, and sustainability efforts.
- Establish a **strong regional partnership** through effective Compact logistics, capacity building, and sharing resources.

The Equity Action Plan builds on the Compact's Resilience Strategic Plan and lays out key activities for integrating equity into future action. Developed through an eleven-month, collaborative planning process, the plan builds upon knowledge and experiences from Compact members; resilience leaders and climate justice practitioners across Massachusetts; watershed residents; as well as equity leaders in other parts of the country.

CLIMATE COMPACT RESILIENCE STRATEGIES

High Priority Strategies (HPS)

HPS-1: Advocate for climate-related programs, legislation, state-level requirements and restrictions through joint comments letters, meetings or other means.

HPS-2: Support municipalities in applying for grants or obtaining other funding that would be invested in green stormwater infrastructure implementation and maintenance.

HPS-3: Develop and support incentives and/or regulatory framework for better stormwater management, including GSI implementation on private property.

HPS-4: Pursue resiliency strategies with a focus on nature-based solutions (NBS); strategies include elevation, dam removal, culvert improvements, land protection/conservation, wetlands and stream restoration, and GSI/ other water quality focused projects.

HPS-5: Coordinate and collaborate with state agencies, regional groups, municipalities, nonprofits, and international partners.

HPS-6: Support communities in updating bylaws/ ordinances with climate considerations.

HPS-7: Develop public educational materials related to water conservation, water quality, local climate impacts, and more.

HPS-8: Implement nature-based solutions (NBS), actively pursue implementation of a feasible NBS that would provide broad benefits such as reducing the heat island effect and managing stormwater flooding.

HPS-9: Share regular member updates and plan field trips and an annual in-person meeting.

HPS-10: Formalize external communication process and package/materials for messaging from the Compact.

Medium Priority Strategies (MPS)

MPS-1: Promote specialized opt in energy code (DOER Stretch Code)

MPS-2: Education on resiliency strategies for developers and public audience.

MPS-3: Fund land conservation and acquisition efforts.

MPS-4: Research clean energy strategies.

MPS-5: Share information on community choice electric programs within the Compact.

"Environmental Justice is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits."

State of Massachusetts, Executive Office of Energy and Environmental Affairs

DEVELOPING THE EQUITY ACTION PLAN

As we began the equity action planning process, we asked Compact members to review the resilience strategies from the Compact's strategic plan, and point to where equity and regional collaboration is particularly desired. Members noted interest in pursuing equity across all of the Compact's resilience strategies.

Member Priorities

High Priority Equity Foci for Members

Members overwhelmingly identified the Compact's activities to fundraise for, implement, and support the maintenance of green infrastructure and NBS as key opportunities for equitable climate resilience.

- Support municipalities in applying for grants or obtaining other funding that would invest in green stormwater infrastructure implementation and maintenance [HPS-2].
- Pursue resiliency strategies with a focus on NBS, including dam removal, culvert improvements, land protection/conservation, wetlands and stream restoration, GSI, and other water quality focused projects [HPS-4].
- Implement NBS, actively pursue implementation of a feasible number of NBS that would provide broad benefits such as reducing the heat island effect and managing stormwater flooding [HPS-8].
- Flag grant funding opportunities for communities, pursue funding as a Compact [HPS-12].

Medium Priority Equity Foci for Members

Members noted interest in receiving equity support for a number of other resilience strategies, including:

- Develop and support incentives and/or regulatory framework for better stormwater management, including GSI implementation on private property [HPS-3].
- Support communities in updating bylaws/ ordinances with climate considerations [HPS-6].
- Fund land conservation and acquisition efforts [MPS-3] .
- Share regular member updates and plan field trips and an annual in-person meeting [HPS-9].
- Offer training and capacity building programs related to climate impacts, environmental justice, and equity [HPS-11].
- Support education on resiliency strategies for developers and public audience [MPS-2] .
- Develop public educational materials related to water conservation, water quality, local climate impacts, and more [HPS-7].

Low Priority Equity Foci for Members

Strategies less frequently ranked as a priority for equity guidance and support included:

- Advocate for climate-related programs, legislation, state-level requirements and restrictions through joint comments letters, meetings or other means [HPS-1].
- Coordinate and collaborate with state agencies, regional groups, municipalities, nonprofits, and international partners [HPS-5].
- Research clean energy strategies [MPS-4].
- Share information on community choice electric programs within the Compact [MPS-5].
- Formalize external communication process and package/materials for messaging from the Compact [HPS-10].
- Promote specialized opt in energy code (DOER Stretch Code) [MPS-1].

The Climate Equity Advisory Team (CEAT)

To balance Compact members' equity requests and insights with experiences of environmental justice and climate justice populations and other resilience

experts, we invited volunteers from community-based groups, grassroots leaders, state agencies, and other nonprofits in the watershed to join Compact members to form a Climate Equity Advisory Team (CEAT).

CEAT members graciously provided feedback throughout the planning process, helping the Compact ensure that the equity action plan reflects local priorities and challenges, and complementary strengths. For example, CEAT members suggested key leaders in the watershed to engage in one-on-one interviews, noted key best practices from which to learn, and provided feedback on key elements of the equity action plan. The CEAT also helped the Compact to develop an initial framework for identifying priority equity populations – communities and populations most vulnerable to flooding, heat exposure, ecological decline, and structural inequality.

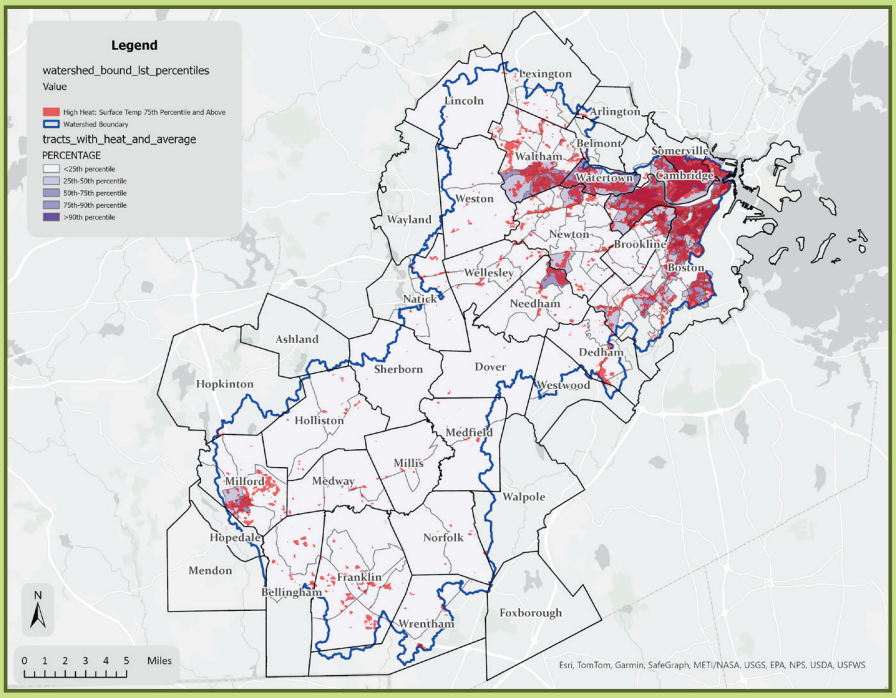
Together we reviewed the region's Environmental Justice communities, defined by the state as census block groups where one or more of the following occur:

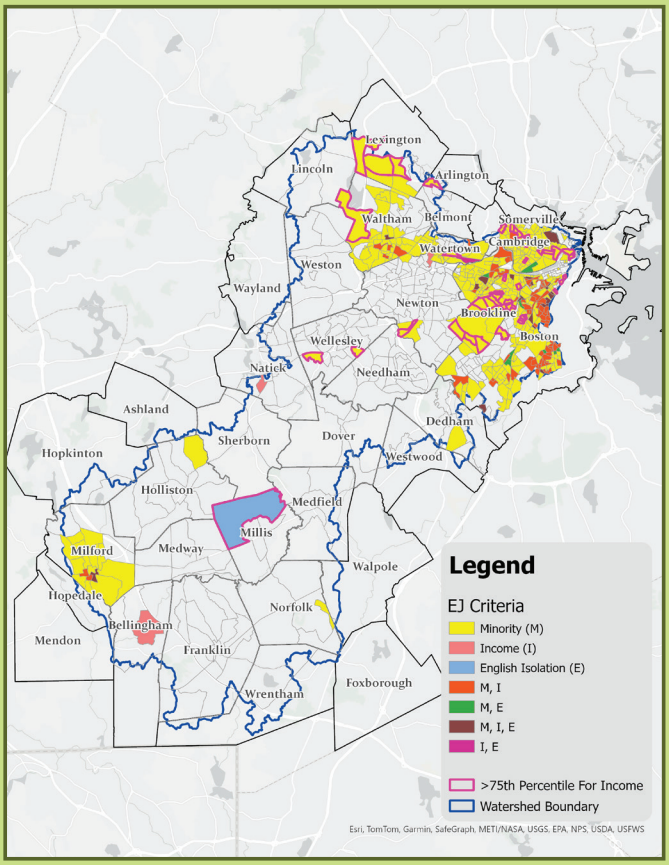
- the **annual median household income is less than 65 percent of the statewide** annual median household income;
- **forty percent or more** of the population is reported as a **member of a racial minority**;
- households **speaking english less than "very well"** account for **more than 25 percent of households**; or
- **twenty-five percent or more** of the population is reported as a member of **a racial minority and the annual median household income** of the municipality is **1.5 times the statewide** annual median household income.

With more than sixty percent of the watershed population living in an area identified as an EJ community, we sought to create a more nuanced understanding of the communities and individuals in the watershed that are particularly susceptible to or disproportionately impacted by climate change and environmental pollution. To that end, we developed a more expansive analysis of priority climate equity populations.

We reviewed additional frameworks and tools for understanding an individuals' climate vulnerability and the environmental health of a community, such as Massachusetts' Municipal Vulnerability Preparedness (MVP) program and Guides for Equitable and Actionable Resilience (GEAR). Following this review and discussions with CEAT members, we created watershed-scale maps and quantitative summaries that measure climate vulnerability across key social, environmental, and economic characteristics, and that highlight income inequality across the watershed.

ENVIRONMENTAL JUSTICE COMMUNITIES AND PRIORITY EQUITY POPULATIONS ACROSS THE WATERSHED





Top: Distribution of "hotspots," where land surface temperature index values are in the 95 percentile for the Regional Planning Area.

Bottom: Census block groups identified as Environmental Justice communities. Block groups outlined in pink are located in communities where median household income is in the 75 percentile for the region.

WHAT WE LEARNED

Member engagement, community outreach, and analyses of EJ and CJ populations, revealed several insights for the Compact. We found that across the watershed:

12.5% of families are considered **low-income**[1, 2]

9.4% of residents have at least one **disability**

18% of residents are **17 years old or younger**

6.3% of households are considered **limited in english** proficiency

37% of residents are **non-white**

9% of household receive Supplemental Nutrition Assistance Program **(SNAP) benefits**

45% of **hot spot**[3] areas occur in high poverty communities[4]

The process also highlighted a need for inclusive planning that engages and uplifts individuals and community leaders whose identities or experiences typically exclude them from environmental benefits and climate investments or unfairly intensify their environmental burdens and climate risks. We received suggestions for municipal leaders to set aside resources and staff time to: compensate partners for project planning and implementation; develop accessible education materials; offer language translation and interpretation services; and attend community events.

We also learned of the need to align NBS with other aspirations for well-being, such as economic opportunity, health, social connection, and reconciliation. For example, EJ leaders and watershed residents are interested in projects that advance stormwater management, urban cooling, and the health of natural ecosystems; however, they wish to balance these objectives with other priorities, such as food and housing security, green jobs, youth development, and cultural rematriation.

Another key takeaway we gathered is that multi-benefit projects that respond to climate resilience, and other priorities identified by the community, require thoughtful partnership in which the skills, goals, capacity, and expertise of all collaborators are valued and taken into account. Equitable partnerships lead to innovation, trust, and community support. The action planning process also pointed to a need for additional training and education on equitable climate resilience projects and municipal-community partnerships.

Compact Equity Action Statements + Goals

Based on this feedback, the Compact developed nine equity goals, organized around three equity action statements.

Equity Action Statement #1

Listen to EJ communities and CJ populations and develop accessible approaches that effectively engage individuals in the watershed whose identities or experiences typically exclude them from environmental benefits and climate investments or unfairly intensify their environmental burdens and climate risks.

Goals

→ Expand municipal resources for effective and inclusive community engagement in local climate resilience planning.

→ Enhance the capacity of grassroots groups, community-based organizations, and nonprofits to co-design or lead climate adaptation listening and visioning activities for their communities.

1. Households living on incomes less than or equal to twice the federal poverty line (FPL). The FPL for a family of four is $31,200.
2. Nearly 13 percent of watershed residents live in households with income levels at or below 65 percent of the annual statewide median income.
3. Hot spots are areas with the highest (95th percentile) Land Surface Temperature Index values in each Regional Planning Association (RPA) region.
4. Census tracts where 20 percent or more of residents live in low-income households.

→ Deepen collaboration with leaders of EJ communities and CJ populations.

Equity Action Statement #2

Partner with organizations and individuals that serve low-income populations, communities of color, youth, people with disabilities, unhoused persons, elders, immigrants, and other CJ and EJ populations to achieve

Goals

→ Develop effective and inclusive projects for regional climate resilience and ecosystem biodiversity.

→ Promote affordable, climate resilient housing.

→ Distribute Compact resources for green stormwater infrastructure and NBS equitably across watershed communities.

Equity Action Statement #3

Learn more about inclusive projects, approaches, resources, and tools to support resilience, ecological health, and biodiversity for all communities in the watershed.

Goals

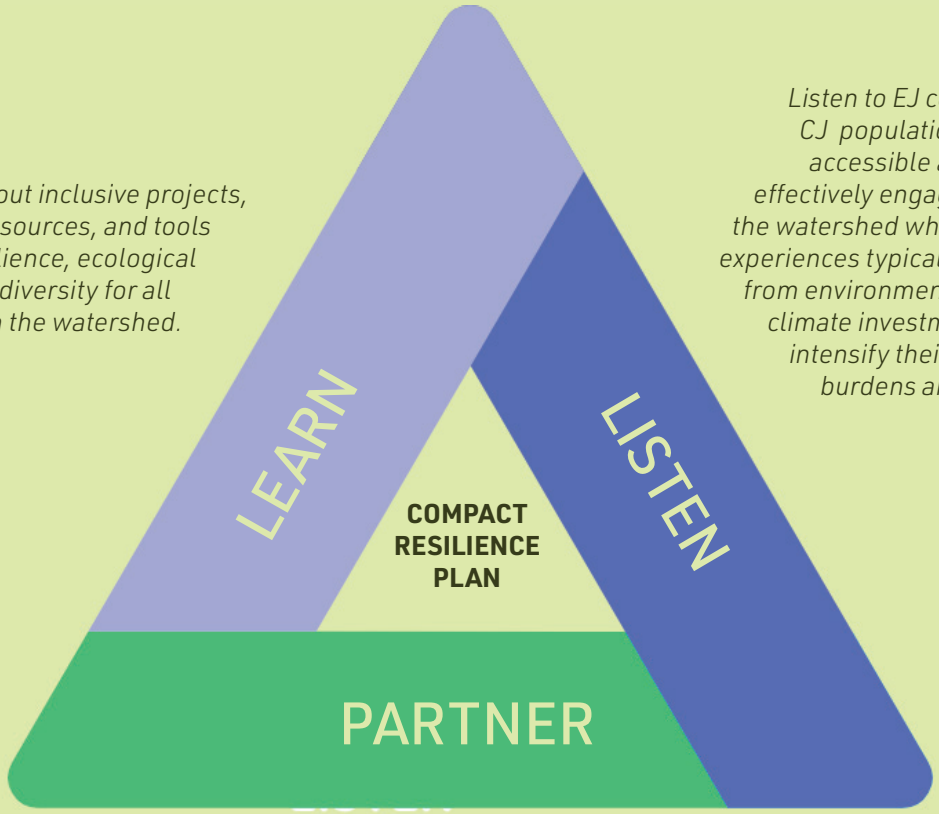
→ Increase understanding of the EJ communities and CJ populations in the watershed and how they are impacted by climate and environmental hazards.

→ Build knowledge of equitable and inclusive climate resilience best practices, tools, and funding.

→ Improve the Compact's equitable resilience practice.

CLIMATE COMPACT EQUITY ACTION STATEMENTS

Learn more about inclusive projects, approaches, resources, and tools to support resilience, ecological health, and biodiversity for all communities in the watershed.



Listen to EJ communities and CJ populations and develop accessible approaches that effectively engage individuals in the watershed whose identities or experiences typically exclude them from environmental benefits and climate investments or unfairly intensify their environmental burdens and climate risks.

Partner with organizations and individuals that serve low-income populations, communities of color, people with disabilities, unhoused persons, elders, and other CJ and EJ populations to achieve shared goals.

EQUITY ACTION PLAN OVERVIEW

1. Listen

Listen to EJ communities and CJ populations and develop accessible approaches that effectively engage individuals in the watershed whose identities or experiences typically exclude them from environmental benefits and climate investments or unfairly intensify their environmental burdens and climate risks.

Goal	Activity	Compact Resilience Strategies + Potential Partners
Expand municipal resources for effective and inclusive community engagement in local climate resilience planning.	1.1 Create a volunteer language bank to provide supplementary translation and interpretation services.	HPS: 4, 5, 7, 8, 10, 11, 12 Community Liaisons (residents); CRWA board members; Language Bank; Language Bank multilingual volunteers; MassDEP's Language Access Liaison; Neponset River Watershed Association; Resilient Mystic Collaborative
	1.2 Increase CRWA engagement capacity to support this work in partnership with individual communities.	HPS: 2, 4, 5, 8, 11, 12 MAPC; Massachusetts Ecosystem Climate Adaptation Network
	1.3 Explore Participatory Budgeting as a community-driven infrastructure planning process.	HPS: 2, 4, 5, 7, 8, 11, 12
Enhance the capacity of grassroots groups, community- based organizations, and nonprofits to co-design or lead climate adaptation listening and visioning activities for their communities.	1.4 Co-create educational materials that enhance residents' understanding of regional climate projections and build residents' capacity to engage with or understand local resilience issues and solutions.	HPS: 4, 5, 7, 10, 11 Artists; Community-based organizations; Communities Responding to Extreme Weather; CRWA River Advocates; Massachusetts Association of Community Development Centers; MIT Environmental Solutions Initiative; Neponset River Watershed Association; North American Indian Center of Boston; Resilient Mystic Collaborative; Speak for the Trees; WBUR Environment & Climate
Deepen collaboration with leaders of EJ and CJ communities and populations.	1.5 Support EJ community leaders and other leaders with CJ backgrounds to participate in upcoming projects, particularly in Compact activities related to strategic planning; stormwater management advocacy; education; conservation; and supporting a green workforce.	HPS: 2, 4, 5, 7 Community-based organizations and grassroots groups; Communities Responding to Extreme Weather; Neponset River Watershed Association; Professionals of Color in the Environment; Resilient Mystic Collaborative; CRWA River Advocates

2. Partner

Partner with organizations and individuals that serve low-income populations, communities of color, people with disabilities, unhoused persons, elders, and other CJ and EJ populations to achieve shared goals.

Goal	Activity	Compact Resilience Strategies + Potential Partners
Develop effective and inclusive projects for regional climate resilience and ecosystem biodiversity.	2.1 Encourage Native land and water stewardship practices and support Indigenous activities to connect communities to Traditional Ecological Knowledge.	HPS: 2, 4, 5, 8, 11, 12; MPS: 3 Indigenous Residents; Nipmuc Tribal Nation; Mashpee Wampanoag Tribal Nation (Natural Resources); Massachusett Tribal Nation; Metropolitan Area Planning Council; Native Land Conservancy; North American Indian Center of Boston; University of Massachusetts, Amherst (NSF Center for Braiding Indigenous Knowledges and Science); Massachusetts Department of Conservation & Recreation
	2.2 Connect local green workforce solutions and activities to public procurement opportunities.	HPS: 4, 5, 8, 11, 12 Codman Square Neighborhood Development Corporation; Mass Audubon; PowerCorps Boston; Fairmount Indigo Climate Collaborative; Southwest Boston Community Development Corporation; X-cel Conservation Corps; University of Massachusetts, Boston: School for the Environment
	2.3 Explore at a regional scale, multi-benefit, nature-based solutions that promote food security in low- and moderate-income communities.	HPS: 2, 4, 5, 8, 11, 12 Boston Food Forest Coalition; Groundworks Somerville;Healthy Waltham; Community Farms and Garden Clubs
Promote affordable, climate resilient housing.	2.4 Build regional capacity for affordable, climate resilient housing.	HPS: 1, 5, 6, 7; MPS: 3 Alternatives for Community & Environment; Enterprise Community Partners; Massachusetts Association of Community Development Corporations; HERO Coalition
Distribute Compact resources for green stormwater infrastructure and nature-based solutions equitably across Watershed communities.	2.5 Prioritize grant writing and management support for projects that benefit low-income persons and other EJ and CJ populations.	HPS: 1, 2, 4-8, 11, 12; MPS: 1-4

3. Learn

Learn more about inclusive projects, approaches, resources, and tools to support resilience, ecological health, and biodiversity for all communities in the watershed.

Goal	Activity	Compact Resilience Strategies + Potential Partners
Increase understanding of the EJ and CJ populations in the watershed and how they are impacted by climate and environmental hazards.	3.1 Create and maintain watershed-scale climate equity maps and indices that measure climate vulnerability across key social, environmental, and economic characteristics.	HPS 11
Build knowledge of equitable and inclusive climate resilience best practices, tools, and funding.	3.2 Develop and support training, webinars, field trips, and other activities to build professional knowledge of equitable and inclusive climate resilience practices.	HPS 1, 4, 5, 7, 8 Climate Equity Advisory Team; Metropolitan Area Planning Council; Neponset River Watershed Association; Resilient Mystic Collaborative; River Network
Improve the Compact's equitable resilience practice.	3.3 Monitor the implementation of the Compact's equity action plan and make adjustments as needed.	HPS 1-12; MPS: 2, 3 All partners