Metro Mayors Coalition

KEEPING METRO BOSTON COOL

A Regional Heat Preparedness and Adaptation Plan

Executive Summary

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Historically, Metro Boston's climate has been characterized by cold, snowy winters, and humid summers with few extreme heat days (on average experiencing up to 11 days over 90 a year). As climate change impacts local and regional weather patterns the region is getting hotter and experiencing more extreme heat days over 90 degrees, as well as warmer spring and fall seasons.

Climate change science predicts that in the next 10 years, by 2030 the Metro Boston region could experience up to **37 days over 90 degrees.**

Extreme heat is a growing threat to public health and safety and is considered the deadliest type of extreme weather in the US. In addition to the health impacts, extreme heat can damage critical infrastructure such as our water systems, electricity grid, transportation, and can have broad impacts on economic and social well-being.

While extreme heat and rising temperatures impact everyone, some people are more at risk than others due to high levels of exposure to unsafe heat and lack of access to affordable cooling options.

Low-Income residents, Black, Indigenous, and People of Color **experience the greatest heat burdens** resulting from a historic and ongoing disinvestment and discrimination.

This includes a long history of disinvestment in these communities, which has resulted in poor access to green spaces, open space, and fewer trees to shade homes and sidewalks.

In 2022, the Metro Mayors Climate Taskforce released **"Keeping Metro Boston Cool: A Regional Heat Preparedness and Adaptation Plan"** that provides an actionable roadmap and recommendations on how the region can better prepare for and adapt to extreme heat and rising temperatures. This plan provides strategies and actions to reduce risk and exposure to climate driven heat, and increase preparedness through public health, planning, land use, policy and other municipal and regional actions.

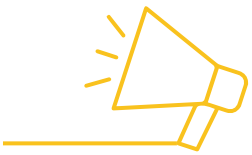
Strategic Focus Areas

- Cool communications
- Cool communities
- Cooling our homes and buildings
- Cooling our blocks
- Cooling our region
- Emergency response

The Metropolitan Mayors Council (MMC) is a collaborative group of 15 municipalities in the urban core of Metro Boston that work together on shared issues affecting the region. Municipalities include Arlington, Boston, Braintree, Brookline, Cambridge, Chelsea, Everett, Newton, Malden, Medford, Melrose, Quincy, Revere, Somerville, and Winthrop. In 2015, MMC made a commitment to better prepare the region for the impacts of climate change and started the Climate Preparedness Taskforce.

Cool Communications

Communications, education, engagement, and outreach play a critical role in developing a heat resilient region and shifting both individual and community level behavior to reduce risk. It is important to continue to build awareness that extreme heat is increasing in the region and that it causes health, social, economic, and other impacts. To better prepare the region for extreme heat it is important to develop a heat-health warning system and heat awareness campaigns that reach those most vulnerable to extreme heat. Most importantly, these communications must be culturally and linguistically inclusive of all the communities this region represents.



Cool Communities

Connection and social cohesion are critical to developing heat resilient communities and positive public health outcomes. Social isolation and extreme heat exposure can collectively worsen health risks such as depression, anxiety, as well as heart and respiratory dysfunction. Therefore, increasing and strengthening localized community connection and social cohesion are crucial to becoming more resilient to heat. To achieve this as a region and as individual municipalities, it is important to invest in the power of frontline community leaders and organizations and provide resources to address extreme heat.

Cooling Our Homes and Buildings

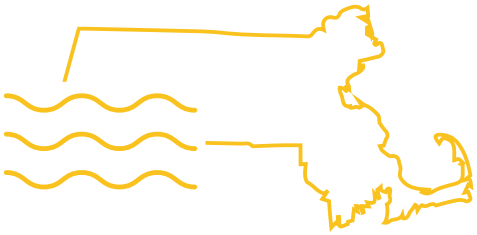
Many aging buildings and homes lack appropriate weatherization for both cold and hot weather, which means that occupants are spending more energy and money to heat and cool their homes. Many homes in the region lack air conditioning (AC), and even if a home does have access residents may be unable to afford to run their AC due to high electricity and utility costs. Helping people cool inside while at home, school, or work is critical to reducing illness and deaths during extreme heat events. Working to retrofit existing buildings, ensuring that new construction is energy efficient, and providing public facilities with access to cooling are some of the ways to ensure our buildings are resilient to heat.

Cooling our Blocks

Although climate change will increase temperatures throughout the entire Metro region, some neighborhoods already experience disproportionate exposure to extreme heat due to urban heat island effect. This plan focuses on actions to reduce urban heat island effect, as well as ways to provide cooling, shading, and heat relief in public spaces. Planting more trees in urbanized areas, ensuring shade on walkways and trails, and implementing heat resilience in future open space plans are all ways to improve temperatures in our shared outdoor spaces.

Cooling our Region

While there are many actions municipalities can take to address extreme heat, others will require and be strengthened by regional collaboration. Not all municipalities have the same resources and capacities to tackle climate resilience, and by working together we can leverage resources and expertise. Whether it's advocating for State and Federal policies or using collective procurement and shared services to save money and staff resources, working together can be a powerful agent of change.



Emergency Response

The region and municipalities must better prepare for extreme heat emergencies, in particular multi-day heatwaves over 90 degrees. Municipal emergency management, health, and communications departments need to work together to effectively respond to heat emergencies. A municipal level Heat Emergency Response Plan or Heat Action Plan can help prevent heat-related illness and death and reduce impacts on public safety. There is also an opportunity and need to share best practices and resources across the region, and coordinate with other agencies and emergency response providers in this space.

Moving from Planning to Action

The Metro Mayors Climate Taskforce will work together with Metropolitan Area Planning Council and other partners to implement the plan. Implementation will include two tiers of work, municipal level and regional collaboration. Each of the fifteen municipalities will work to determine what local priorities and municipal actions they can advance in the near-term. Municipalities will be encouraged to work together, when possible, to implement new policies, programs, or processes. Other strategies and actions will be advanced and implemented through the Climate Taskforce and regional collaboration.

Because extreme heat is an emerging challenge for Metro Boston, it is recommended that the plan be updated every five years to incorporate best available data, analysis, and best practices.