

Spearmint: Green Cooling

Annika Johnson



The Problem

- Massachusetts's Climate Change Clearinghouse predicts drastic increases in average temperature and number of days with highs above 90 degrees.
- Extreme heat exposure and heat waves have pronounced cardiovascular, respiratory, and maternal health effects, the most vulnerable populations being children, elders, and low-income people.
- The urban heat island effect produces even higher temperatures in cities like Boston, which is identified as having “extremely high” vulnerability to heat.
- According to Tufts research, East Boston is the most vulnerable neighborhood in the city, based on social/environmental vulnerability, social isolation, prevalence of no air conditioning, and proportion of elderly/diabetes.



The Solution

Prevention

Creating a green space in East Boston with resilient trees to increase canopy cover in the neighborhood. This would increase the region's albedo, and help mitigate the UHI effect.



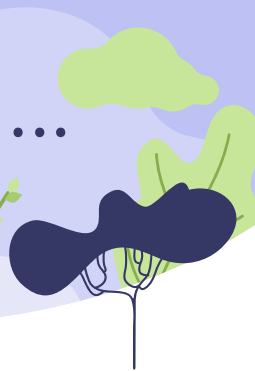
Adaptation

Including outdoor cooling, like battery-powered misting systems, in the green space. This would give the space the potential to act as a cooling station during heat emergencies.



Business Model

The green space would be available for free to the public, including accommodations for children and people with disabilities. It would include signage to let passersby know that there were cooling systems available, which has been identified as an important feature in cooling centers/stations. Finally, it would be listed, with its location, as a cooling station in government resources that inform people of cooling centers/stations in their area.



Impact

By addressing the issue of urban overheating from two angles, this project, especially if expanded, would both combat temperature rise and provide a refuge for people currently vulnerable to extreme heat.



Needed Resources

- It would be crucial to collaborate on the city's government to make sure that this project reaches fruition and best serves the community and can be promoted in government resources.
- Partnership with urban planners would be important to creating a space that is well organized and best suited to its area.
- This would be an expensive endeavor, involving the costs of trees, their planting, cooling systems, and continued maintenance of the area, meaning fundraising would be necessary.



Challenges/Barriers

- In a city setting, it may be difficult to find areas of plantable space large enough to repurpose as a green space.
- Raising sufficient funds for this project may pose a significant barrier.
- It may also be difficult to build a green space, a process which will likely include large scale tree planting, in a timely manner.
- Identifying the most effective, cost-efficient, and appropriate outdoor cooling system for the area may be a challenge.



CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, infographics & images by **Freepik** and illustrations by **Stories**



Thanks for viewing!

Join Us

<https://www.fxbclimateadvocates.org/join-us>



@FXBinternational



@FXBIntl



@Fxbclimateadvocates



@FXB Climate Advocates

