

Nature's Cooling Systems Project for Heat Action Planning in Greater Phoenix

Executive Summary

In Greater Phoenix, urban heat is impacting health, safety, and the economy and these impacts are expected to worsen over time. The number of days above 110°F are projected to more than double by 2060. In May 2017, The Nature Conservancy, Maricopa County Department of Public Health, Central Arizona Conservation Alliance, Urban Resilience to Extremes Sustainability Research Network, Arizona State University's Urban Climate Research Center, and Center for Whole Communities launched a participatory Heat Action Planning process in the Edison-Eastlake Community, Mesa Care Neighborhood, and in Lindo Park-Roesley Park Neighborhood to identify both mitigation and adaptation strategies to reduce heat directly and improve the ability of residents to deal with heat. Community based organizations in these three neighborhoods later joined the project team: Phoenix Revitalization Corporation, RAILMesa, and Puente Movement. Beyond building a community Heat Action Plan and completing demonstration projects, this participatory process was designed to develop awareness, agency, and social cohesion in

underrepresented communities. Furthermore, the Heat Action Planning process was designed to serve as a model for future heat resilience efforts and create a local, contextual, and culturally appropriate vision of a safer, healthier future. The iterative planning and engagement method used by the project team strengthened relationships within and between neighborhoods, community-based organizations, decision-makers, and the core team, and it combined storytelling wisdom and scientific evidence to better understand current and future challenges residents face during extreme heat events.

As a result of three workshops within each community, the residents brought forth ideas that they want to see implemented to increase their thermal comfort and safety during extreme heat days. As depicted below, residents' ideas intersected around similar concepts, but specific solutions varied across neighborhoods. For example, all neighborhoods would like to add shade to their pedestrian corridors but preferences for the location of shade improvements differed. Some

Strategic Themes

Advocate and Educate **Improve Comfort/Ability to Cope** **Improve Safety** **Build Capacity**

Mesa Care
Using social media and hashtags to highlight child safety and bus route issues



Lindo-Roesley
Planting vegetation for empty lots to reduce dust



Edison-Eastlake
Create signage for heat safety and wayfinding could reduce risk



Heat action in neighborhoods should be supported through strengthened relationships between various levels of organization and governance.



neighborhoods prioritized routes to public transportation, others prioritized routes used by children on their way to school, and others wanted to see shaded rest stops in key places. Four overarching strategic themes emerged across all three neighborhoods: **advocate and educate; improve comfort/ability to cope; improve safety; build capacity**. These themes signal that there are serious heat safety challenges in residents’ day-to-day lives and that community, business, and decision-making sectors need to address those challenges.

Heat Action Plan elements are designed to be incorporated into other efforts to alleviate heat, to create climate-resilient cities, and to provide public health and safety. Heat Action Plan implementation partners are identified drawing from the Greater Phoenix region, and recommendations are given for supporting the transformation to a cooler city.

To scale this approach, project team members recommend a) continued engagement with and investments into these neighborhoods to implement change signaled by residents as vital, b) repeating the heat action planning process with community leaders in other neighborhoods, and c) working with cities, urban planners, and other stakeholders to institutionalize this process, supporting policies, and the use of proposed metrics for creating cooler communities.

Comments on Heat Action Planning

“I ride the bus and sometimes I go to the bus stop and it is really hot. Also, my apartment, it’s also really hot in there....I have to go to bus stations and there is no shade structure. There is nothing. There are no trees along the way...I wish that there were more trees where I live...because there is nothing.”

- Edison-Eastlake Resident

“With conversations with neighbors in South Phoenix, what is very interesting to me is that they say, “Oh it’s hot, that’s normal.” And I think that’s the interesting part of the conversation. It is hot, but it’s not normal. There is something that we can do.”

- Community Organizing Partner

“What makes this project unique is that we’re focused on improving quality of life, we’re not just recording facts about heat and shade, etc., you need people’s experiences to drive the process of change”

- Core Team Partner