

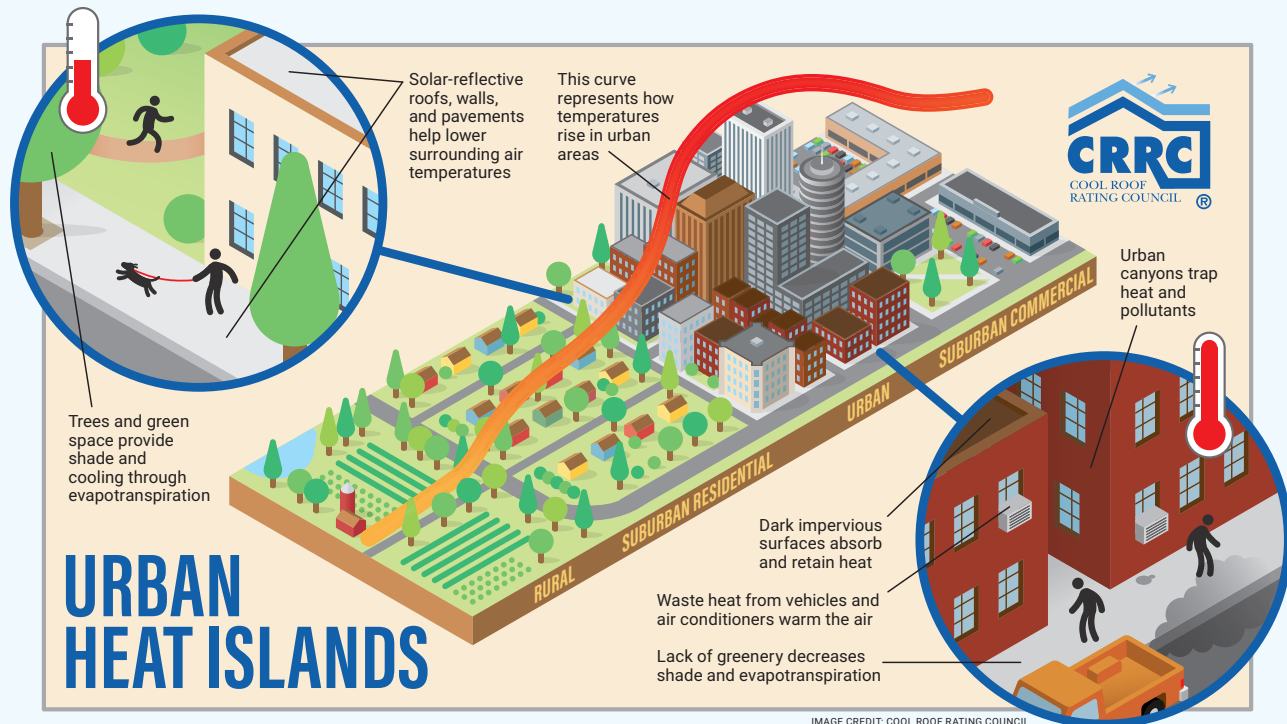
HEAT EQUITY AND RESILIENCE

A MEDIA PRIMER ON HEAT-VULNERABLE COMMUNITIES AND “COOL” BUILDING SOLUTIONS

This document provides scientifically supported information to assist media and public relations professionals with reporting about heat-vulnerable communities and passive cooling solutions, such as solar-reflective “cool” roofs and exterior walls.

WHAT IS A HEAT-VULNERABLE COMMUNITY?

Heat-vulnerable communities experience heightened risk and increased sensitivity to extreme heat and have less capacity and fewer resources to cope with, adapt to, or recover from heat-related impacts.



TALKING POINTS

1. CITIES ARE TYPICALLY HOTTER THAN SURROUNDING AREAS

Daytime temperatures in urban areas are about 1–7°F higher than temperatures in outlying areas, with nighttime temperatures about 2–5°F higher. This is caused by the urban heat island (UHI) effect.

The UHI effect is caused by a concentration of dark, impervious surfaces such as roofs, walls, roads, and parking lots that retain heat from the sun, combined with a lack of trees and green space. Waste heat released by vehicles and air conditioning units also contribute to UHIs.

Source: U.S. Environmental Protection Agency

2. HEAT DISPROPORTIONATELY HARMS PEOPLE LIVING IN UNDERSERVED NEIGHBORHOODS

Source: Cool Roof Rating Council: Urban Heat Island Mitigation (2023)

3. CLIMATE CHANGE AND INCREASED URBANIZATION ARE MAKING COMMUNITIES HOTTER

Sources: Vose et al. (2017); Krayenhoff et al. (2017)

4. EXTREME HEAT IS A MAJOR CAUSE OF WEATHER-RELATED DEATHS AND ILLNESSES IN THE U.S.

National Weather Service (2023); Centers for Disease Control and Prevention (2023); American Public Health Association (2022); World Health Organization (2023)

5. HIGH TEMPERATURES INCREASE POLLUTANT EMISSIONS AND SMOG FORMATION

Sources: U.S. Environmental Protection Agency: Heat Islands and Equity (2023); UCAR Center for Science Education (2023)

6. HEAT INCREASES THE ENERGY BURDEN AND EQUITY GAP FOR UNDERSERVED COMMUNITIES

Source: U.S. Environmental Protection Agency: Heat Islands and Equity (2023)

7. EXTREME HEAT INCREASES PEAK POWER DEMAND WHICH CAN LEAD TO POWER INTERRUPTIONS

Source: U.S. Environmental Protection Agency: Heat Island Impacts (2023)

Passive cooling strategies such as reflective “cool” roofs and walls provide immediate heat relief, improve health outcomes, reduce air-conditioning use, and lower energy bills.

Source: Cool Roof Rating Council: Urban Heat Island Mitigation (2023)

