BEAT THE HEAT

Green Cities = Cool Cities

Demographics

Top Five Racial and Ethnic Groups*

65.5%	White (Non-Hispanic)
25.2%	Black (Non-Hispanic)
3.14%	White (Hispanic)
2.33%	Asian (Non-Hispanic)
1.37%	Two+ Races (Non-Hispanic)
$53,571	Median Household Income

*Source: 2018 Data USA, at:
https://datausa.io/profile/geo/greenville-sc

Urban Forest

36.3%	Current tree canopy
43.2%	Potential tree canopy
6.9%	Potential canopy increase
37.7%	Impervious surfaces
876	Acres of Potential Planting Area (PPA)

Urban Heat

106°F Average surface temperature*

Projected future days above 100°F**

5 days	Historically	(1971 – 2000)
45 days	Mid-century	(2036 – 2065)
78 days	Late century	(2070 – 2099)

*across study area on June 23, 2016
** Data source: Union of Concerned Scientists, Killer Heat in the United States, at: https://www.ucsusa.org/resources/killer-heat-united-states-0

Overview

Investing in and revitalizing a community's urban parks and green spaces is often a key strategy for mitigating urban heat. Knowing temperature data and distribution of tree canopy can be useful to strategize ways to equitably mitigate urban heat. For example, Mayberry Park is hotter than other surrounding green space in the area because of a lack of shade-cooling trees. The nearby West Greenville neighborhood is just outside of the downtown core and lacks access to many parks. The West Greenville neighborhood is majority black (74%) and is a lower-income neighborhood in a city with a median household income at $21,750: about half the citywide median of $53,571. On July 2, 2020, the average temperature for

The park above could be cooler and more pleasant if the city retrofitted it with new trees.
The new Unity Park (below) will have shade on its playgrounds as newly planted trees grow up.

Image courtesy of City of Greenville

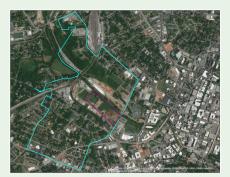West Greenville was a round 109°F – a temperature that is unhealthy for residents.

The neighborhood has a long and rich history and its two formerly-segregated parks, Mayberry Park and Meadowbrook Park, were very popular with the black community. Home to a variety of outdoor activities, such as football and baseball, picnics, dances and a Black Arbor Day celebration, these parks have been integral to community culture for more than a century. Both parks were integrated in the 1960s, with Mayberry Park remaining a part of the public park system for decades.

The community pushed hard for more parks and open space within their neighborhood and were the first partners to have a voice in the creation of a new park, Unity Park. Currently under-construction, this park has resulted in removal of some 300+ trees due to grading and utility work. However the city partnered with a local environmental group TreesUpstate to plan for planting 750 deciduous, evergreen and understory trees to reestablish the tree canopy and provide habitat, shade and visual interest, which resulted in nearly two trees planted for every tree removed. In addition to the new green space amenities, affordable housing is being built to address housing needs and to stem possible gentrification, which can result when urban parks are restored or updated. This story is an example of how residents and city government can come together and create green infrastructure solutions that benefit the community, while not displacing residents with strong ties to the neighborhood. Working with GIC and TreesUpstate, the City has also adopted a goal for 40% canopy by the year 2040.

For more see:
http://unityparkgreenville.com/1862/Community-Involvement

Step-Wise Strategy
to Identify Communities and Mitigation Opportunities

1. Use maps to identify hot parks or greenspaces in the city.
2. Identify vulnerable or underserved populations of interest .
3. Prioritize areas that meet the first two criteria.
4. Outreach and engage with the community.

5. Identify opportunities for enhancing parks.

Unity Park site before redevelopment.

6. Incorporate community design and consider other equity issues (such as housing). Graphic credit: City of Greenville.