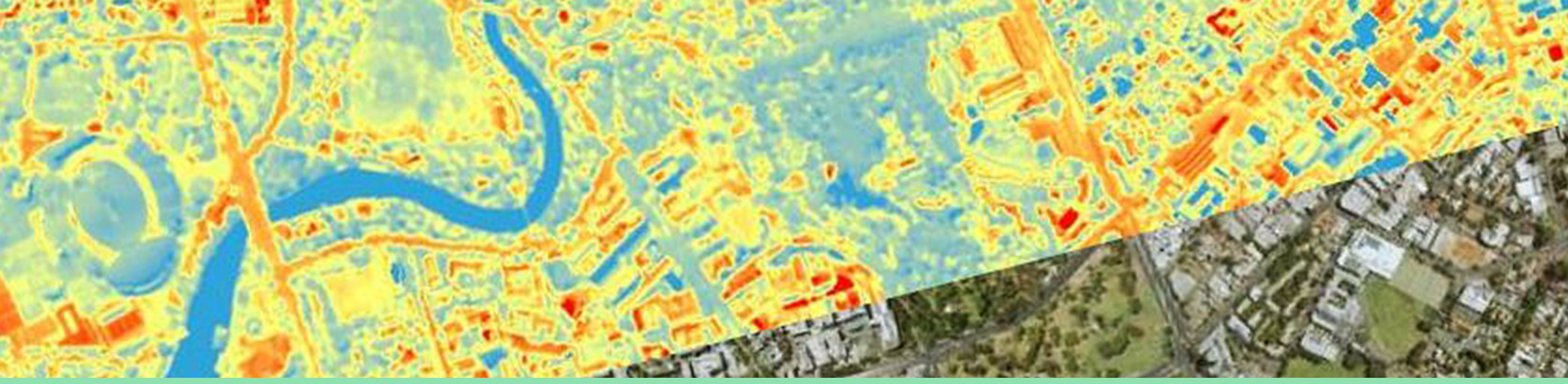
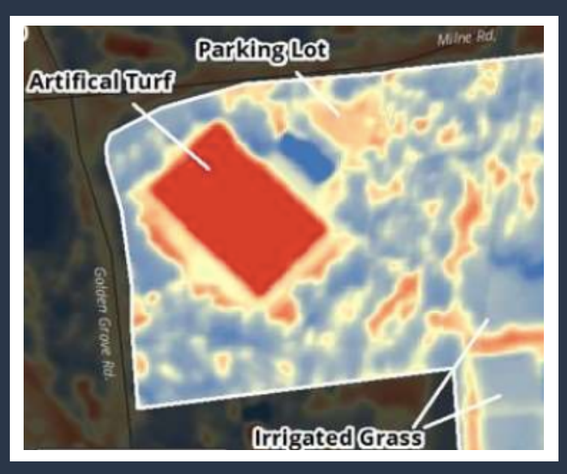


RESILIENT EAST

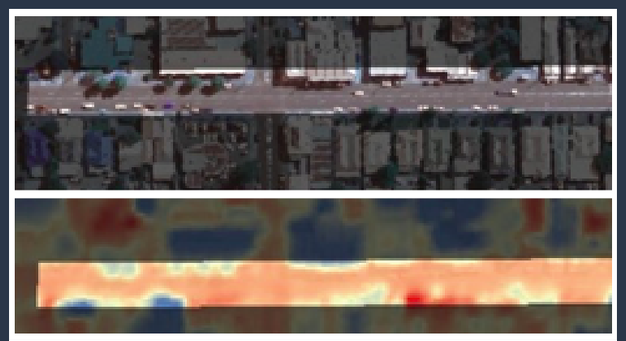
Climate Ready Eastern Adelaide

PLANNING OUR CITIES

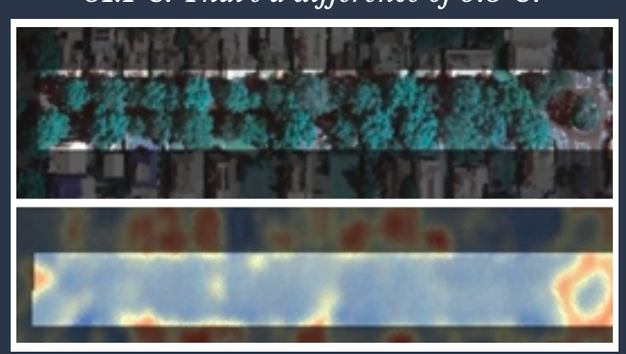
The number of extremely hot days are increasing across Adelaide, impacting on health, energy demand and the economy.



By understanding the data and using the online maps, we hope you can see how this information can help all of us to plan more resilient homes, businesses, schools, neighbourhoods and cities.



A street with little to no trees (above) has a surface temperature of about 40.6˚C, versus a street with full canopy cover (below) which is 31.1˚C. That's a difference of 9.5˚C!

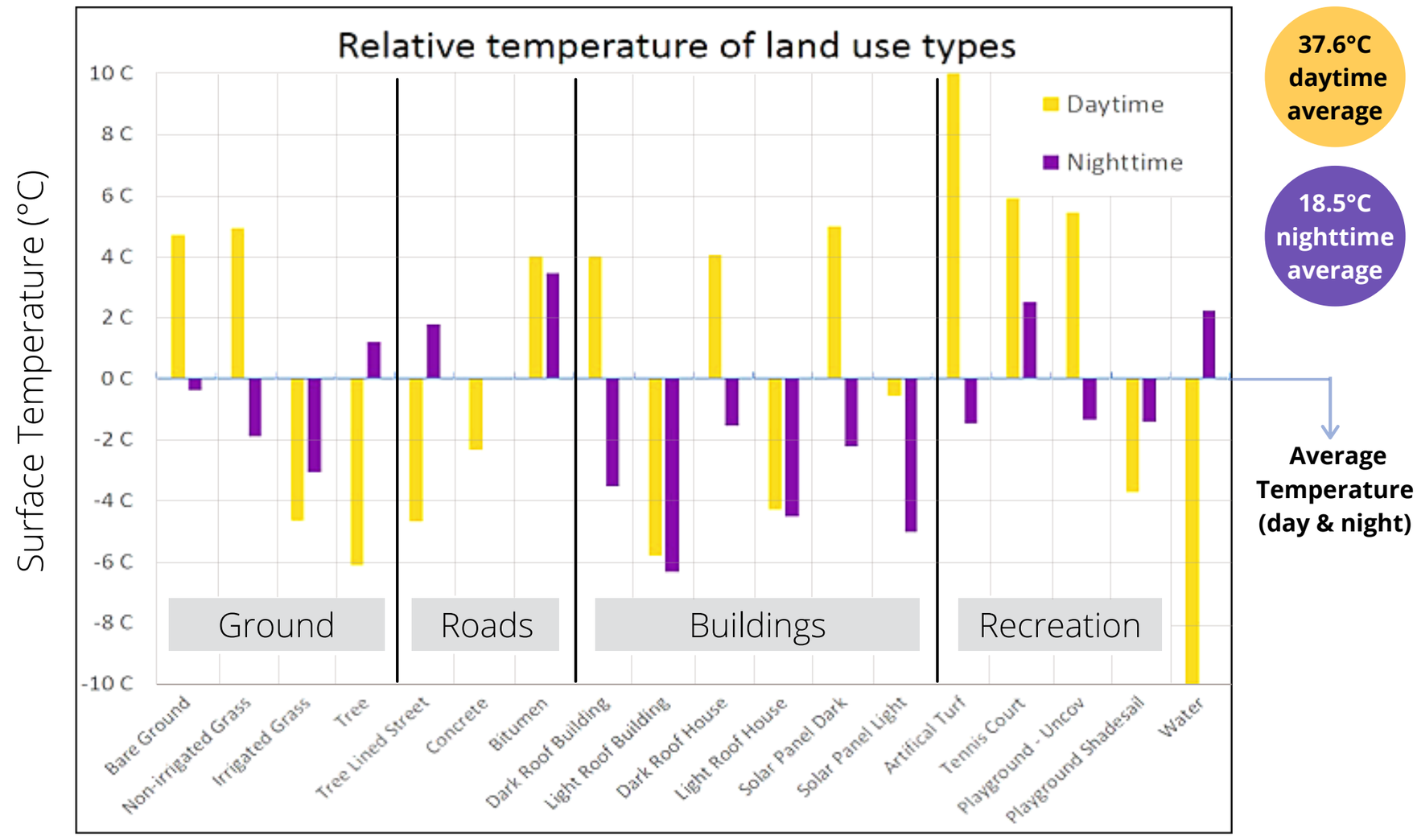


resilienteast.com

UNDERSTANDING THE DATA

Let's understand the data behind the Urban Heat and Tree Mapping Viewer using the graph below. Access the maps at resilienteast.com/map-viewer.

Across the Resilient East region in this study, the average surface temperature for day and nighttime is 37.6°C & 18.5°C, respectively. This represent a baseline (0°C) for us to work from. Across 18 surface types, 1,100 points on the map were randomly selected. Relative to the baseline, the average temperature for each surface type is shown in the graph. Below the line is cooler (negative), and above the line is hotter than the average. Note, concrete at nighttime is the same temperature as the baseline (18.5°C).



USE THE GRAPH!

1. Which surface has the hottest average daytime temperature of 47.6°C?

2. Name three surfaces that are hotter than bitumen during the day.

3. What is the temperature difference between irrigated grass and artificial turf during the day?

4. Which surface is the coolest at night?

5. An uncovered playground is _ _ _ _ _ _ _ _ _ _°C hotter than a shaded playground in the day.

6. Compare a tree-lined street to a bitumen street (which doesn't have trees). The _ _ _ _ _ _ _ _ _ street is _ _ _ _ _ _ _ _ _°C cooler. At nighttime, the _ _ _ _ _ _ _ _ street releases the heat it absorbed during the daytime.

7. _ _ _ _ _ _ _ _ _ _ _ roofs or solar panels remain below the average temperature for both day and nighttime.

Answers: 1. Artificial Turf, 2. Bare ground, non-irrigated grass, solar panel dark, artificial turf, tennis court &/or playground uncovered, 3. 14.5°C (or 15°C also accepted), 4. Light Roof Building, 5. 9°C, 6. Tree-lined / 8.5°C / Bitumen, 7. Light