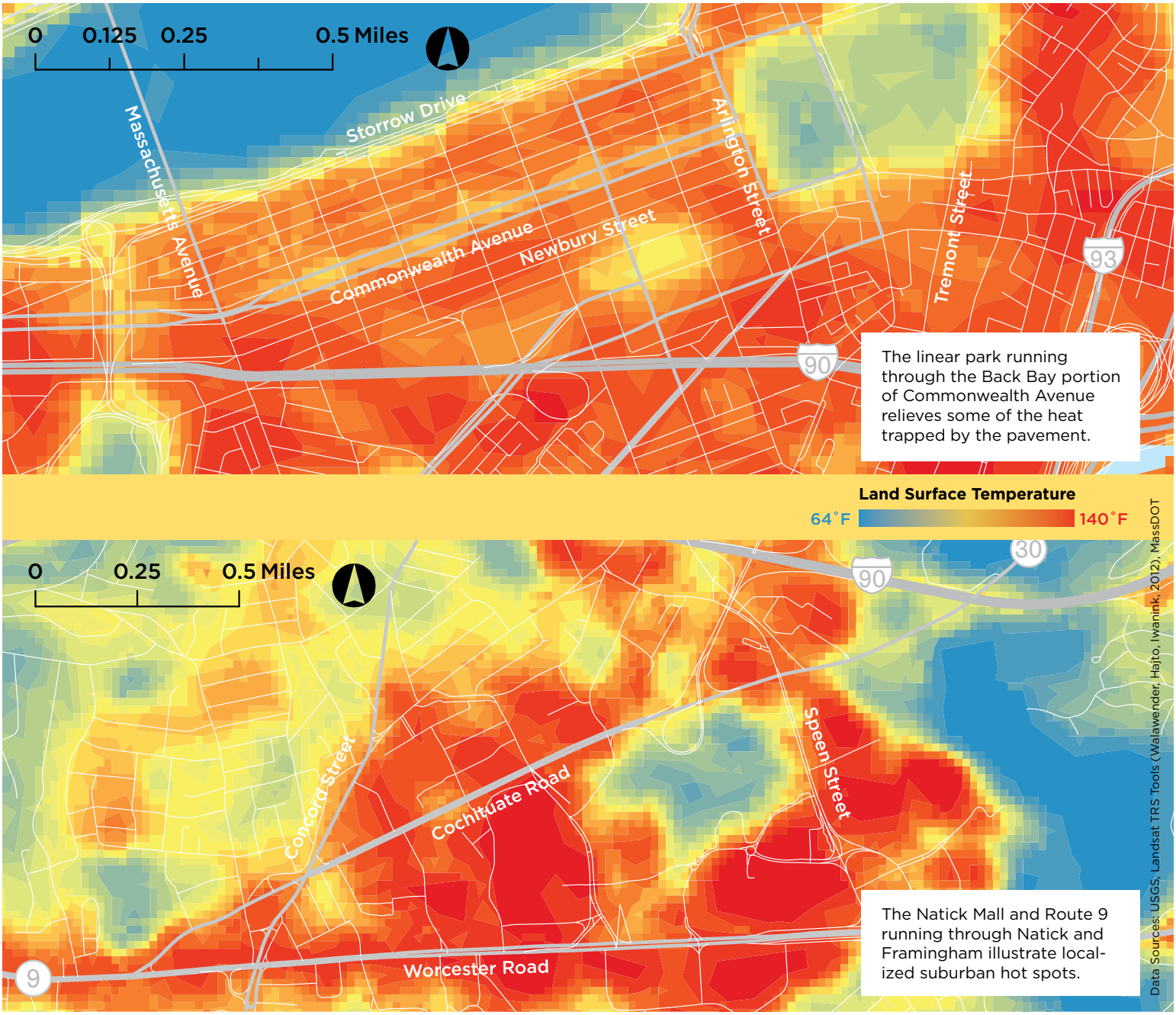

WHERE THE HEAT IS: MAPPING SURFACE TEMPERATURES

Boston has averaged 11 days above 90 degrees over the last ten summers. By 2100, the number of days above 90 degrees is expected to at least triple.

Lengthy periods of high heat can be dangerous, even deadly, for the region's most vulnerable residents — the elderly, those living alone, children, people with pre-existing health conditions, and the poor. Tenants living on the upper floors of buildings without air conditioning and children playing on artificial surfaces can suffer ill effects from extreme heat.

On hot days, temperatures can soar as high as 140 degrees on paved surfaces, which continue to radiate heat even after sundown, meaning the night air doesn't get cool enough to offer relief.

Urban areas are generally hotter than less densely populated areas, but hot spots are not limited to the urban core. Suburban commercial centers with black roofs and large parking lots also create localized hot spots. Incorporating cooling elements such as white roofs, street trees, parks, streams and greenways into the urban environment will become increasingly important as the region warms.