



# Urban Heat Island Effect and Extreme Heat Preparedness

Introduction and Overview

Department of Environment and Sustainability

# Urban Heat Island (UHI) Effect and Heat Preparedness

What is the UHI and why does it matter?

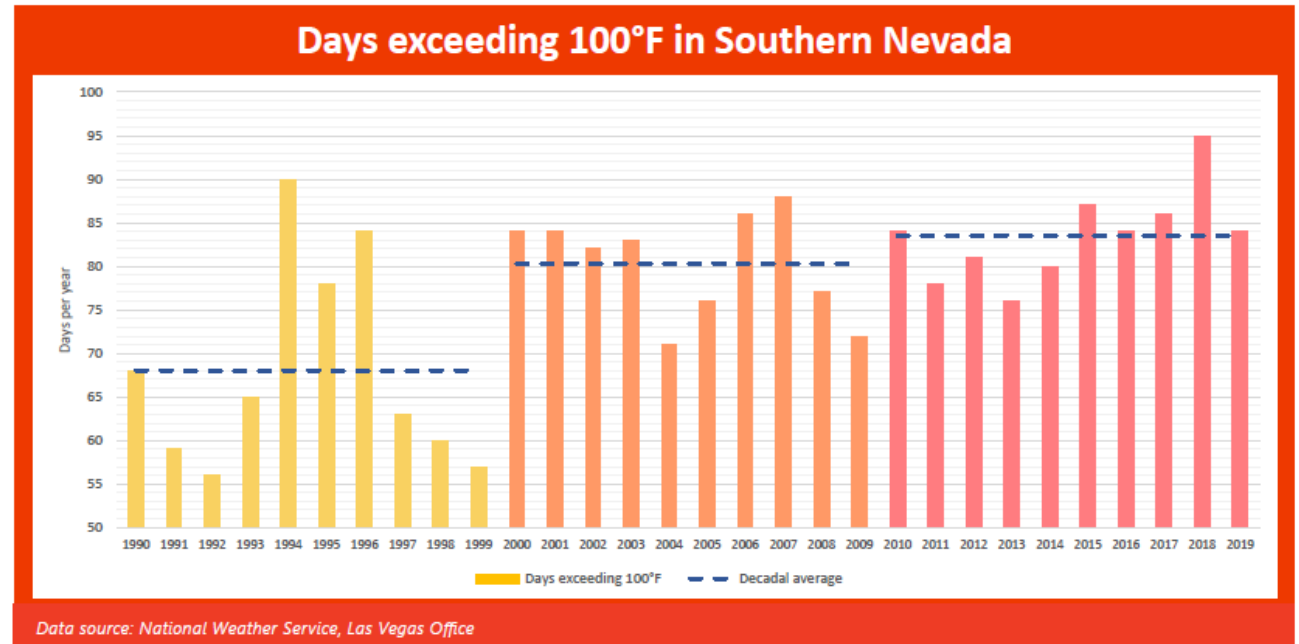


Preparing our communities for heat

- Watches vs warnings
- Heat is not experienced equally
- Heat impacts
- Preparedness and response

# Heat Warnings

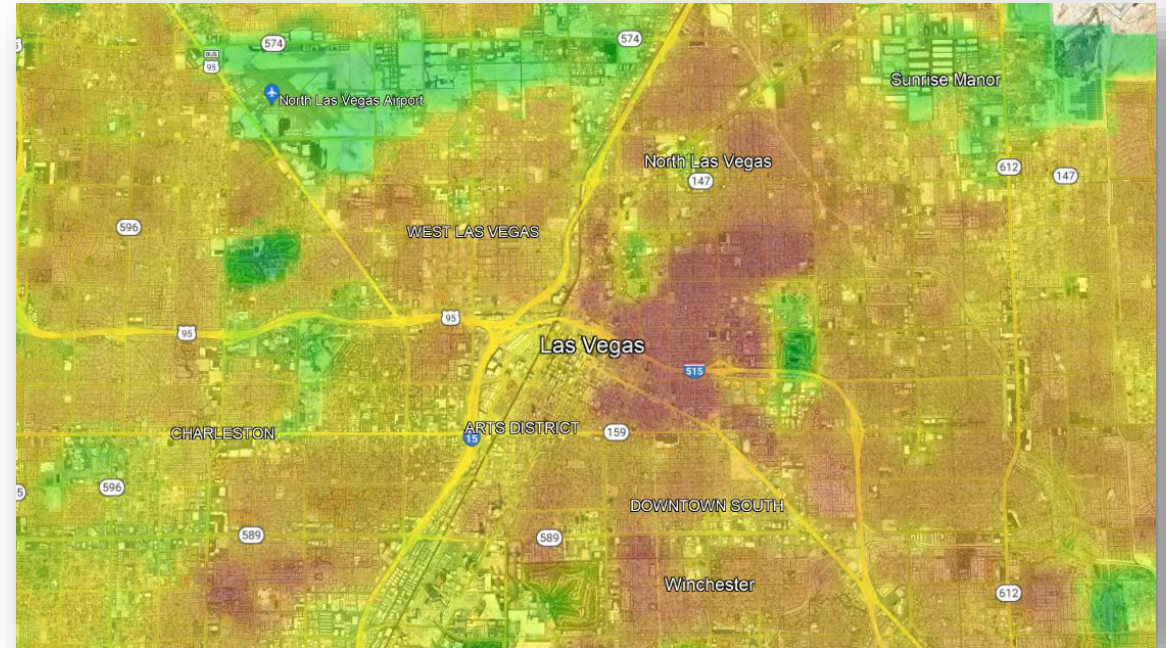
- Difference between watch and a warning
- Role of NWS
  - Heat health scale and the Heat Index
  - Official measure at Harry Reid
  - Heat Watch
  - Heat Warning



# Urban Heat Islands

## Why Do UHIs Matter?

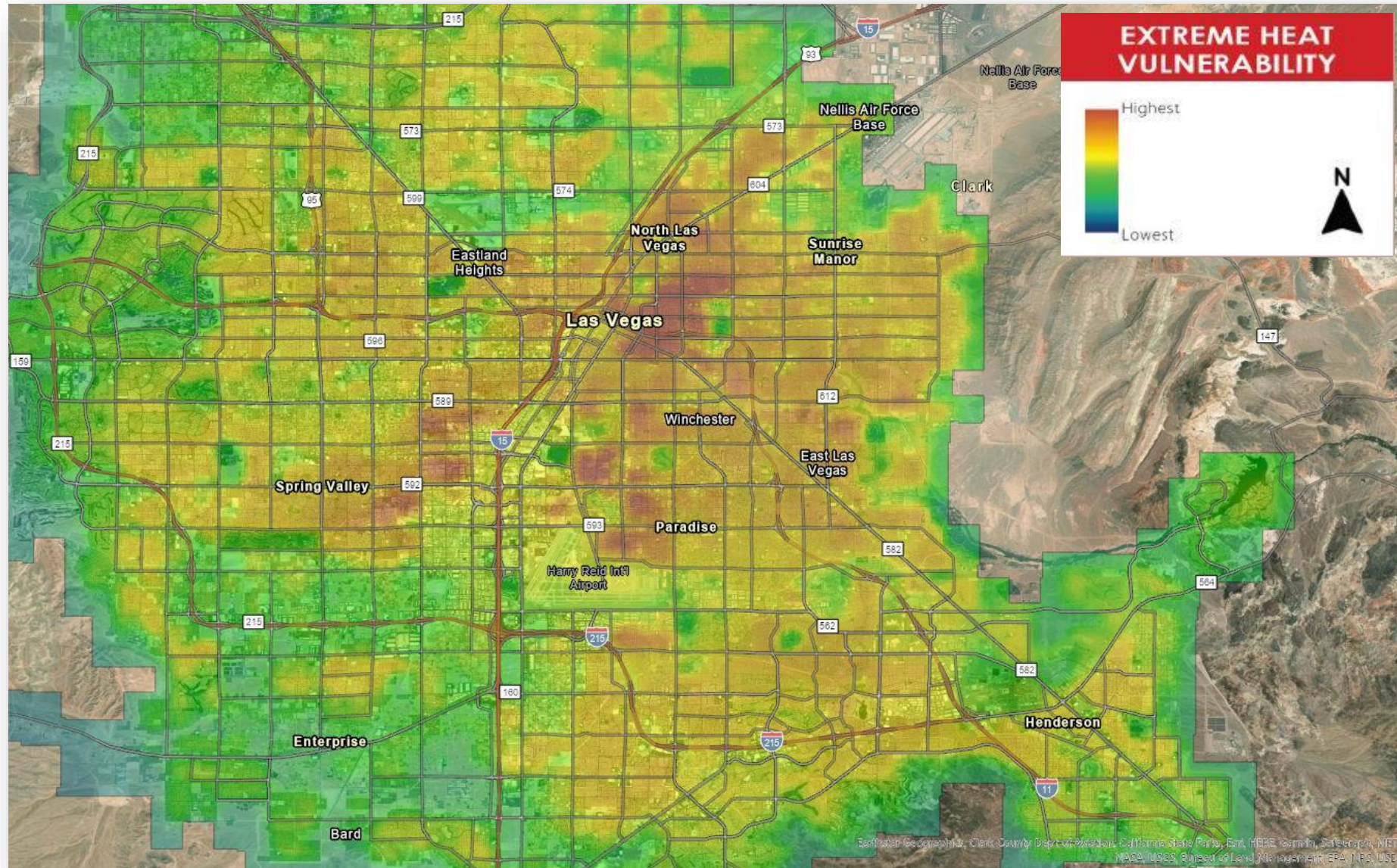
- Higher daytime highs **and** higher nighttime lows
- Unequal experience of heat:
  - Historically underserved communities
  - Housing stock
  - Social and economic factors



## UHI in the Las Vegas Metro Area

- LVMA has the worst UHI effect in the nation, 2<sup>nd</sup> fastest warming city in the US
- Increases exposure to heat which increases chronic heat stress, during extreme heat events (EHEs), increases chances of morbidity and mortality
- Under-warned populations
- Opportunities for intervention

# Heat Vulnerability in the Vegas Metro Area

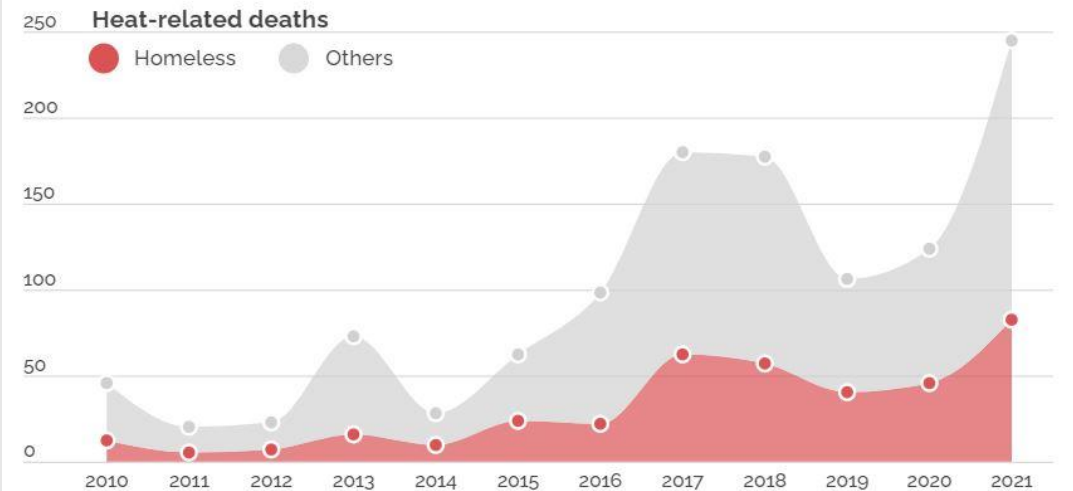


# Heat Health Impacts

- Near doubling of heat deaths during 2021 - 245 individuals died from heat last summer
- Heat Vulnerable populations
  - Senior Citizens
  - People with chronic illness
  - Babies and Children
  - Occupationally exposed
  - Unhoused
  - Economically disadvantaged
  - Pets and animals

## Heat-related deaths high among homeless

Clark County recorded almost 250 heat-related deaths last year, increasing more than fivefold since 2010. Homeless people made up about one-third of the fatalities.

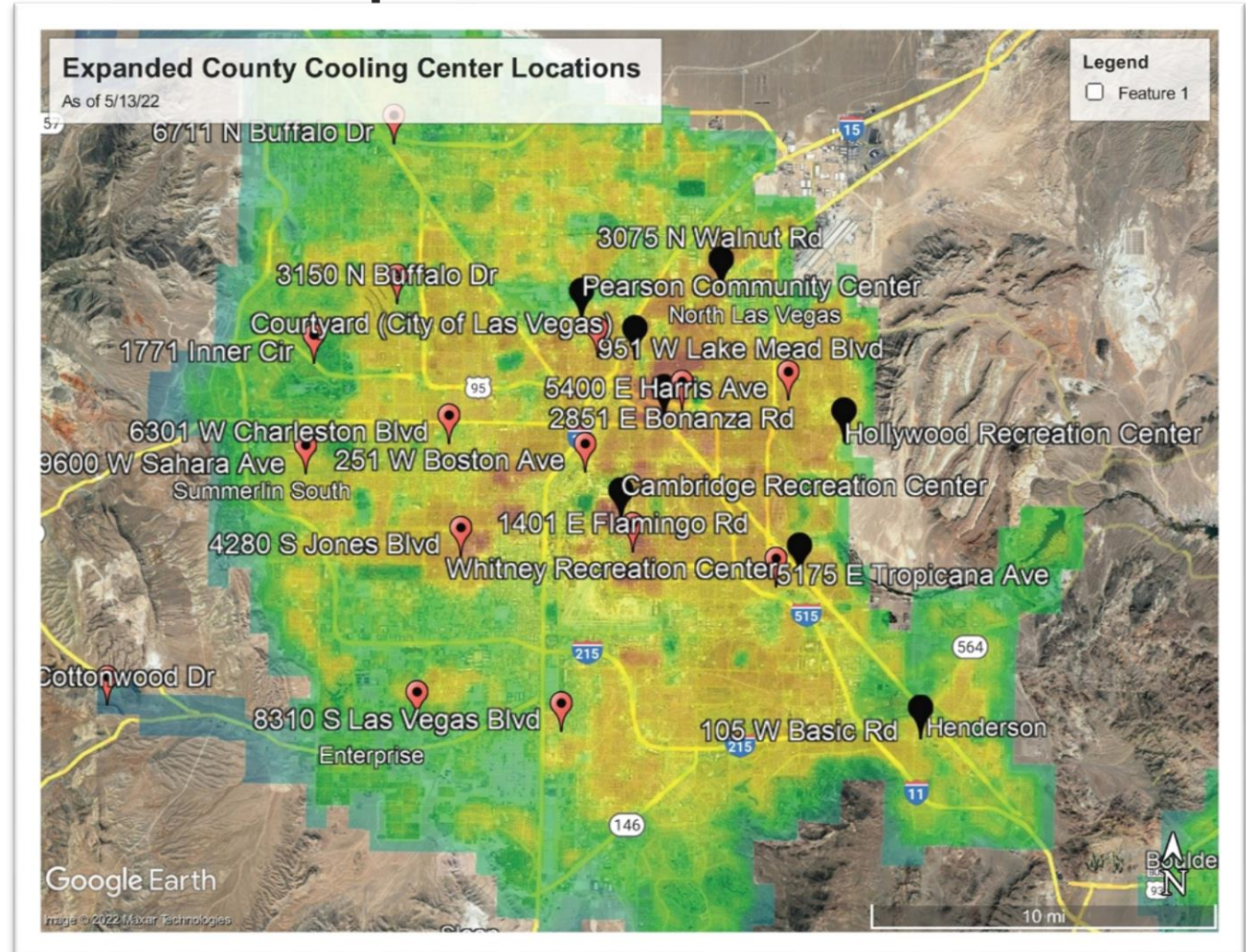


Source: Clark County Coroner's Office

Las Vegas Review-Journal

# County Cooling Center Response

- Cooling Center expansion success
- Locations
  - 13 total, 9 in the metro area
- Challenges with Cooling Centers



# StayCoolClarkCounty.com



Las Vegas-Clark County  
**LIBRARY  
DISTRICT**  
LVCCLD.org



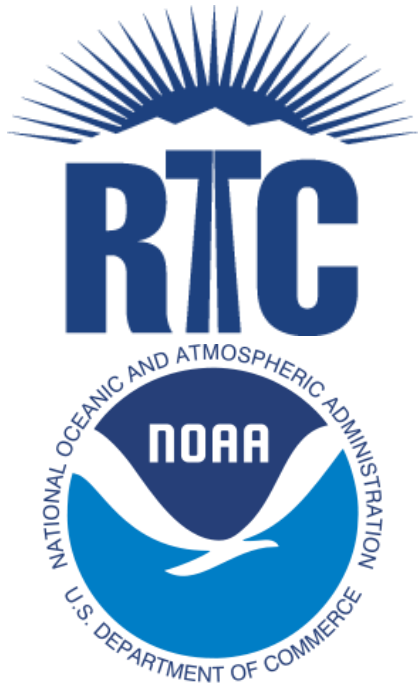
- Helps to communicate resources and heat risk
- Public facing resource
  - Communication challenges
    - General vs regional heat health language
    - Identifying audiences
    - UHI Communities
    - Occupational Heat Risk/OSHA
- Collaborative effort
- Room to grow



HENDERSON



UNLV

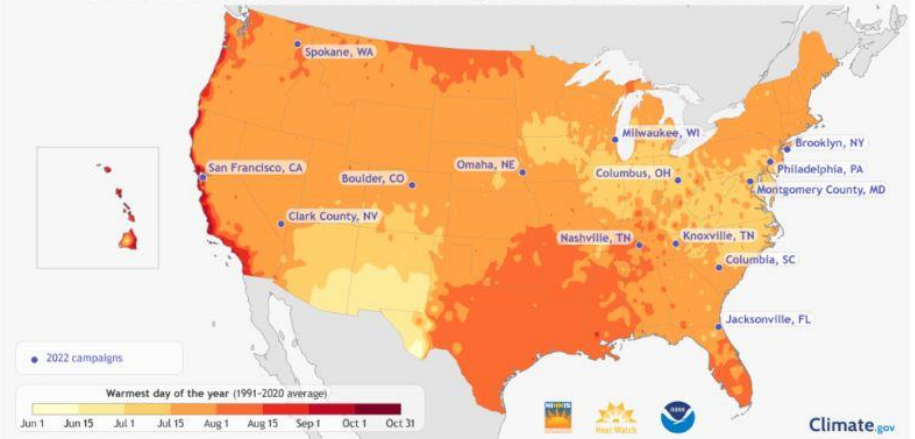


## Southern Nevada Urban Heat Mapping Project

This summer, local experts, nonprofits, and researchers will team with citizen scientists to capture temperature and humidity data across our region during a one-day heat mapping campaign. As part of the National Oceanic and Atmospheric Organization's (NOAA) Urban Heat Island Mapping Project, the data will reveal in which neighborhoods it's hottest in our region and help inform policies and projects that address heat-related health issues, lower the risk of heat stress, and aim to mitigate heat islands.

- Citizen Science in partnership with RTC and NOAA
- Tentative date of August 6
- You can volunteer at [rtcshv.com/projects](https://rtcshv.com/projects)

### NOAA Urban Heat Island Mapping Campaigns: 2022 Locations



This opportunity will allow our region to study the impacts of extreme heat and inform local strategies to alleviate the impacts of heat across the community. The Southern Nevada Urban Heat Mapping Project builds on previous and ongoing heat-related work conducted in our region, including:

# Helping Communities Prepare



- Stay cool, stay hydrated, stay informed!
- Encourage folks to make a plan for their household
- Check on neighbors
- Check the backseat
- Know and share resources



- Questions?
- Suggestions?

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