

EXTREME HEAT VULNERABILITY

Southern Nevada has been identified as one of the fastest warming regions in the U.S., and recent research indicates a substantial risk of heat-related deaths from an increasing number of extreme heat events in the valley.

Despite the history of adverse health impacts associated with extreme heat in our region, experts hold that many of these outcomes are preventable. Reducing future adverse outcomes will require developing effective and coordinated responses, as well as improving the awareness of public health officials and the general public about the health risks associated with extreme heat. This is especially critical in areas with high concentrations of those most vulnerable during extreme heat events.

WHAT WE'RE DOING:

- Identifying local demographic and environmental factors that increase vulnerability to extreme heat
- Analyzing relevant data to pinpoint areas in Southern Nevada with high concentrations of at-risk populations
- Identifying targeted responses and interventions that could help save lives during extreme heat events

WHAT DOES THE SNS REGIONAL PLAN SAY ABOUT THIS ISSUE?

The SNS Regional Plan provides a few recommendations for mitigating the negative impacts of our region's high temperatures, including:



Include shade and other design features in transit stops that provide relief from extreme heat



Invest in streetscape amenities that provide respite from the heat in neighborhoods with higher transit ridership and pedestrian rates



Encourage new development to incorporate design features that mitigate heat impacts

568

Heat-related deaths in Southern Nevada between 2009 and 2018

104°F

Average daytime high during summer months in Southern Nevada between 2015 and 2019

23

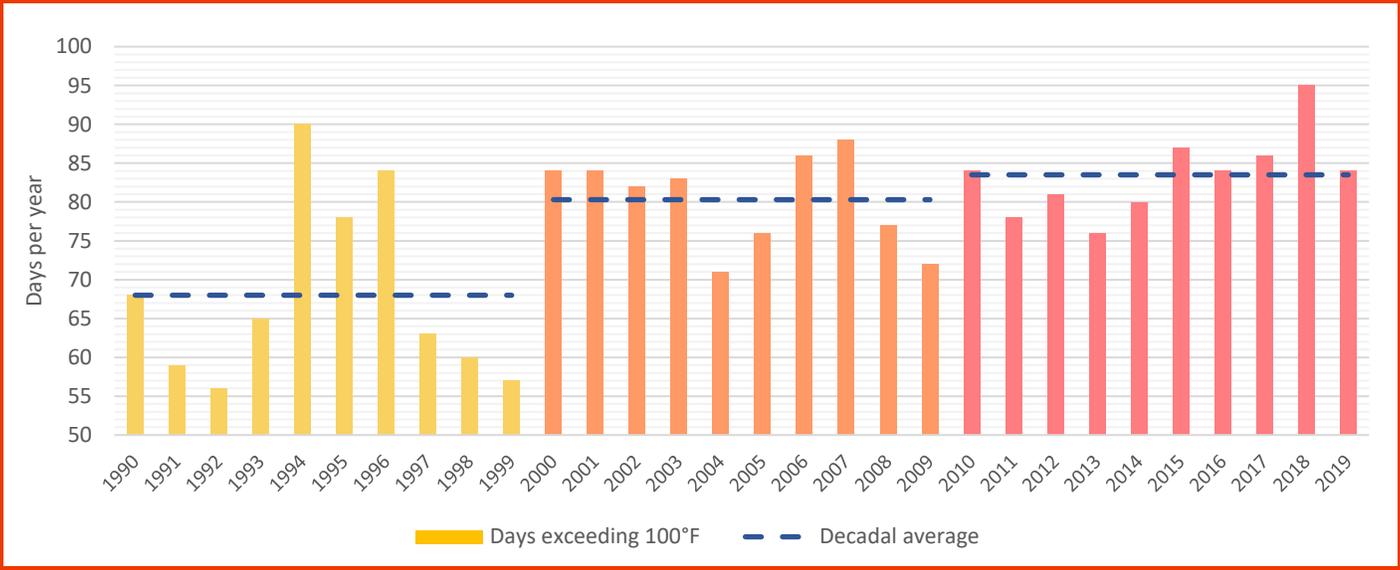
Excessive heat warnings issued in Southern Nevada between 2015 and 2019

84

Days exceeding 100°F in Southern Nevada in 2019

IT'S GETTING HOTTER IN SOUTHERN NEVADA

Southern Nevada is the fastest warming region in the U.S., with temperatures increasing more than 5°F since 1970, according to recent research. The number of days exceeding 100°F has also been on the rise in recent decades, as shown in the chart below.



ASPECTS OF EXTREME HEAT VULNERABILITY

While all Southern Nevadans are impacted during extreme heat events, impacts are not evenly distributed. Certain communities in our region will be particularly affected based on:

- **LEVEL OF EXPOSURE** – Weather patterns, and both the natural and built environments can influence levels of exposure to extreme heat
- **SENSITIVITY TO EXPOSURE** – Demographic, physiological, and health factors may predispose individuals to greater risk during extreme heat events
- **ADAPTIVE CAPACITY** – The ability to prepare for or cope with high temperatures – whether through economic, political, or social resources – plays an important role in extreme heat vulnerability

HEALTH CONDITIONS, especially diabetes and heart disease, can be greatly exacerbated by extreme heat events. High temperatures can also negatively impact glucose metabolism.

AMBIENT TEMPERATURE above 90°F can be dangerous to the human body.

DEVELOPED LAND retains heat and takes longer to cool, and can create urban heat islands.

OLDER ADULTS, especially those who are socially isolated, are among the most vulnerable during extreme heat events.

VEHICLELESS HOUSEHOLDS may have a more difficult time accessing cooled locations and other mitigation resources. And walking, bicycling, or utilizing public transit can increase exposure.

DEMOGRAPHIC FACTORS – such as race, income, language, education level, and disability – can impact vulnerability to extreme heat.

UNSHeltered HOMELESS lack many of the resources needed to prepare for and endure extreme heat, and are among the most exposed and vulnerable.

VEGETATED LANDCOVER can be a source of shade and facilitates evaporation, which results in a cooling effect.