

# Climate Vulnerability Assessment Progress

June 26, 2025

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# Climate Vulnerability Assessment (CVA)

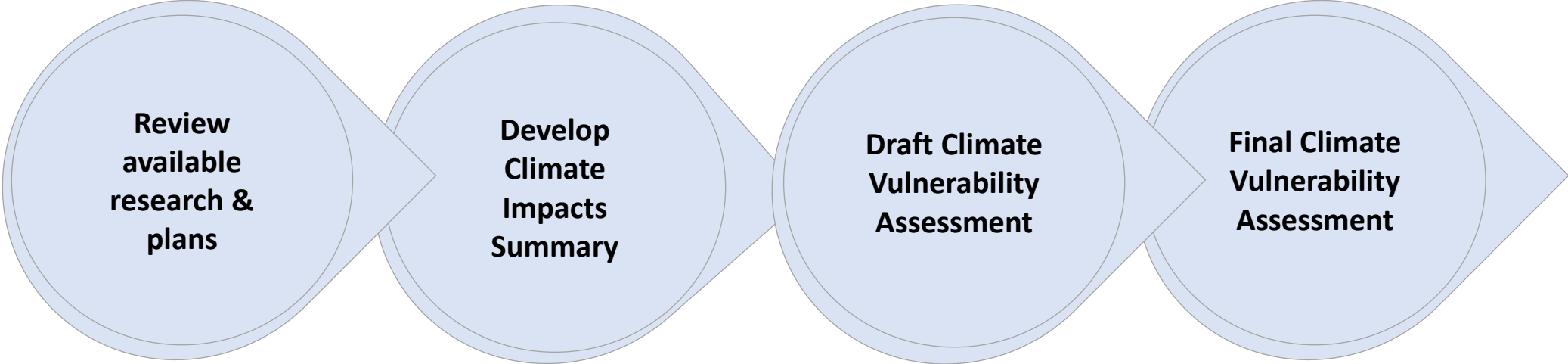


- **November 19, 2024:** City Council approved scope of work to undertake a Climate Vulnerability Assessment (CVA) with Cascadia Consulting Group
- **April 29, 2025:** Council Sustainability Committee (CSC) approved the framework, deliverables, and focus areas for the CVA
- **June 26, 2025: Project team presents CVA progress to the CSC that includes preliminary results and impacts of extreme heat data for Mountain View**
- **By end of 2025:** Present draft CVA to the CSC for feedback
- **Quarter 1 of 2026:** Present CVA to the City Council

# CVA Progress Update



We are here!



- Literature review
- Develop maps
- Staff consultation
- Staff review draft CVA
- Finalize CVA
- **Present to CSC**



Spring 2025 to Winter 2025

# Climate Vulnerability Assessment Goals



**Identify local climate vulnerabilities.** Use existing resources to assess risks to key infrastructure and communities.

**Inform future climate strategies.** Provide a foundation for policies tailored to Mountain View's specific vulnerabilities.

**Support cross-sector planning.** Highlight gaps in current plans and programs and promote collaboration with public, private, and community-based partners for long-term resilience.



# Top Climate Hazards in Mountain View



<b>Extreme Heat</b>	<p>Up to <b>23 extreme heat days/year</b> by late century (↑18 days) Up to <b>78 warm nights/year</b> (↑70 nights), increasing heat stress Elevated risk for outdoor workers, older adults, residents without AC <b>Poor air quality</b> during extreme heat days</p>
<b>Extreme Storm Events</b>	<p><b>Heavier, more intense storms</b>—even with modest total rainfall changes Flash <b>flooding risk in urbanized, low-lying areas</b> like North Bayshore Stormwater systems overflow and infrastructure stress <b>Stronger windstorms</b> driven by pressure shifts and atmospheric instability</p>
<b>Wildfire and Smoke</b>	<p><b>Wildfire activity increasing</b> regionally Continued frequent <b>air quality impacts</b> from smoke transport Health risks for youth, elderly, outdoor workers, and those with asthma</p>
<b>Sea Level Rise</b>	<p>Mountain View plan is for 3.5 feet by 2070 North Bayshore especially vulnerable to inundation and storm surge Risks to infrastructure, housing, and emergency access</p>

# CVA Focus Areas For Each Climate Hazard



Health & Wellbeing

Emergency Management

Economic Impact

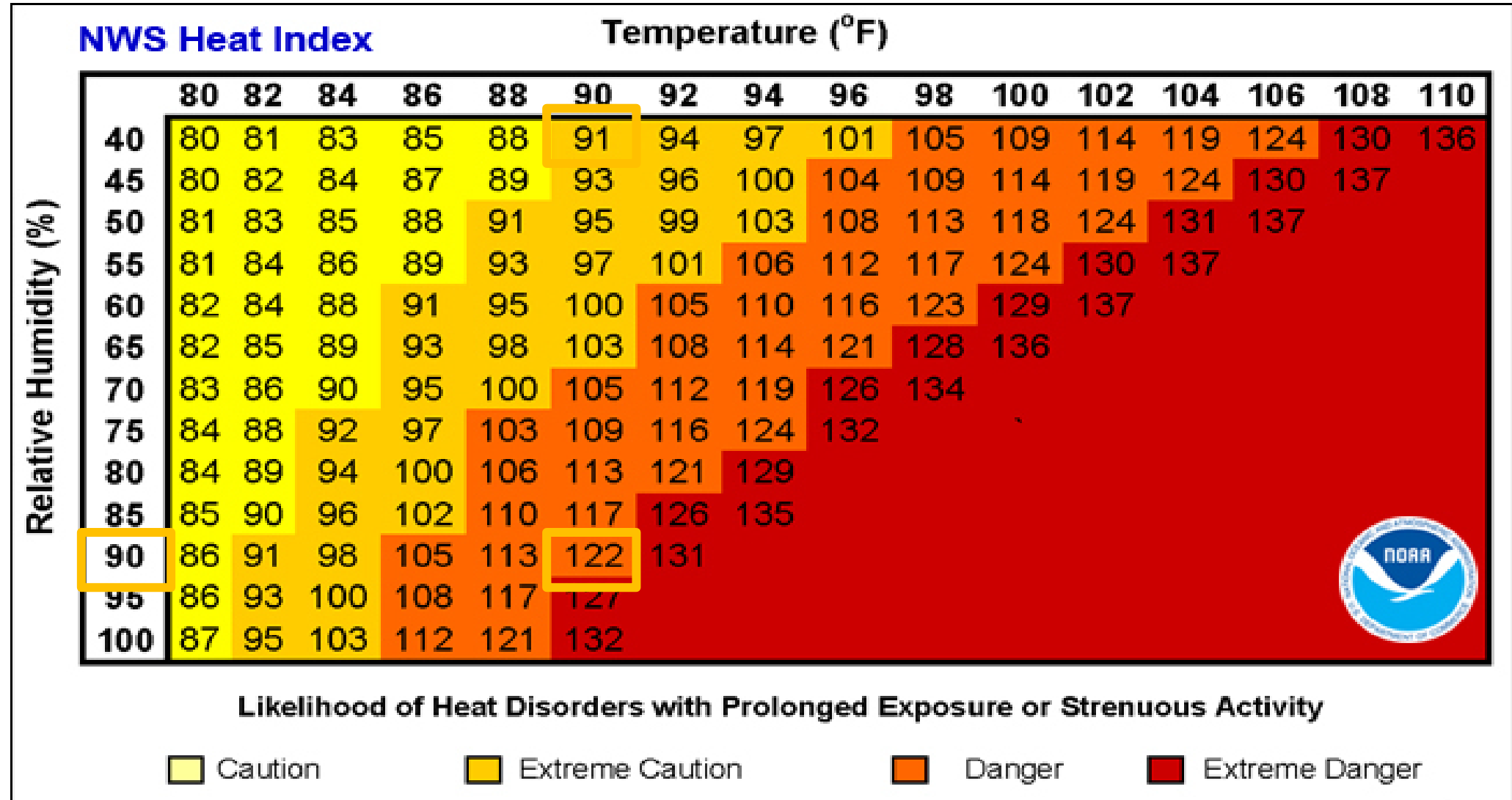
Building & Infrastructure



# Extreme Heat



# MV Extreme Heat day: 91 °F

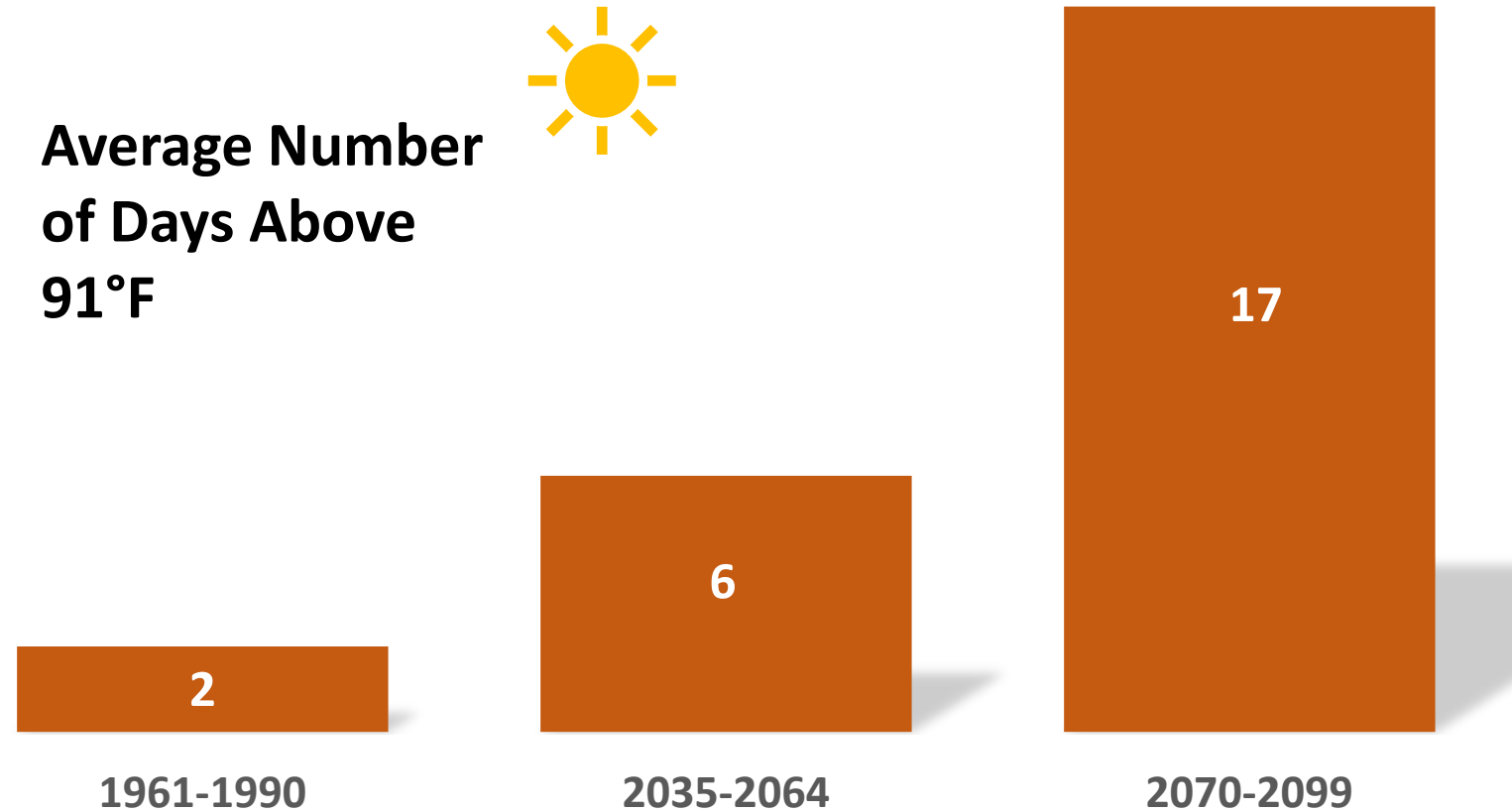


# Extreme Heat in Mountain View – What the Data Tells Us



## Average Annual Extreme Heat Days in Mountain View

Average Number of Days Above 91°F

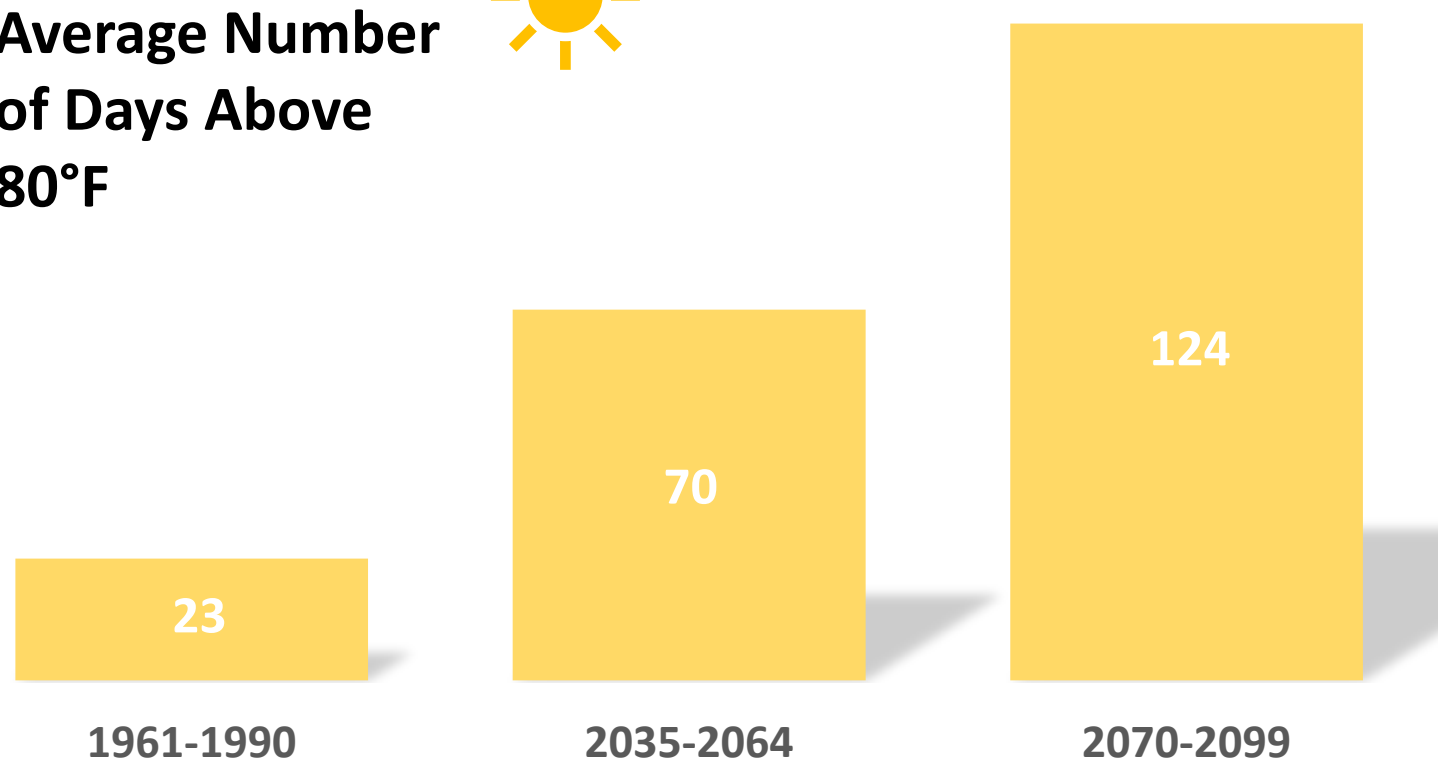


# Extreme Heat in Mountain View – What the Data Tells Us



**Average  
Number of Days  
over 80°F in  
Mountain View**

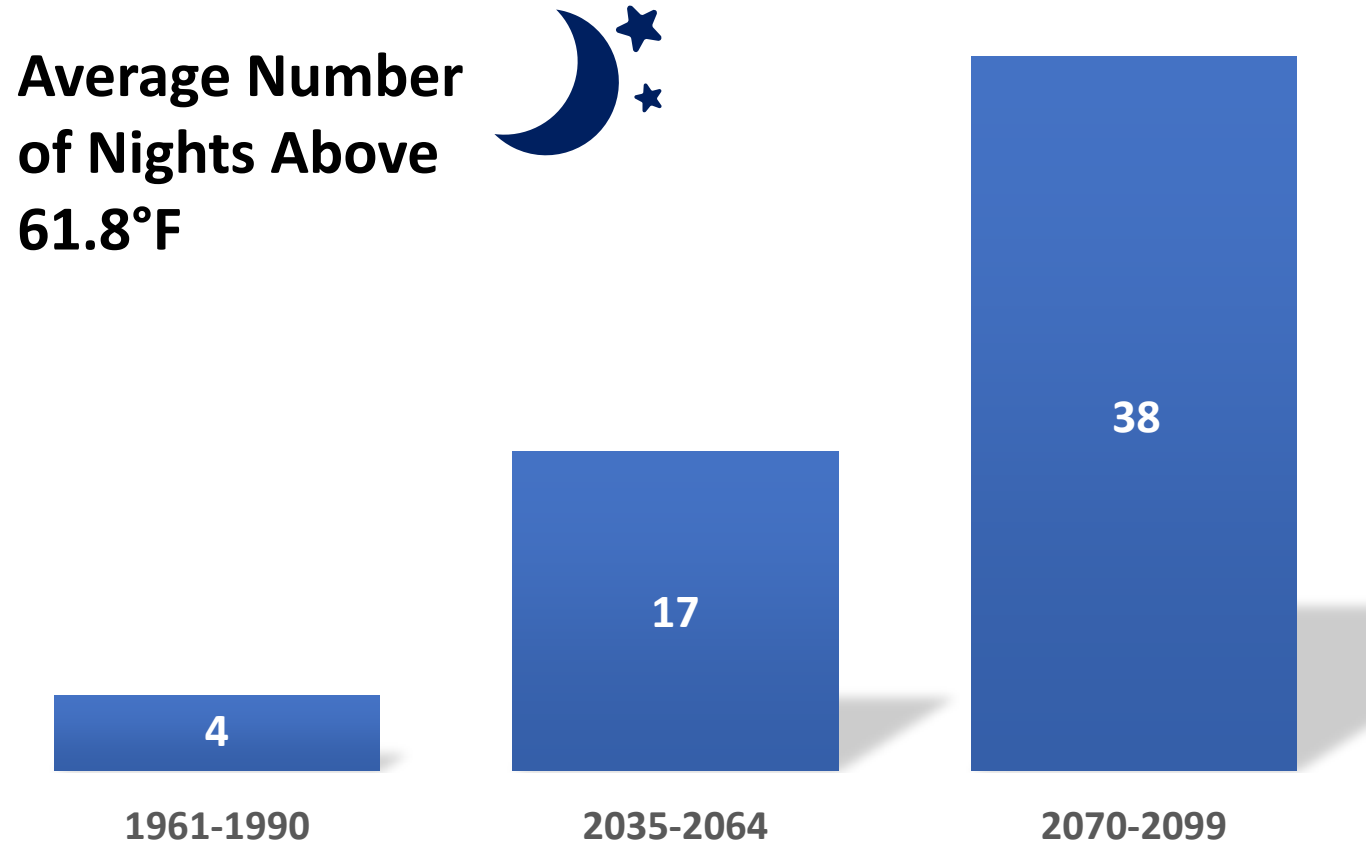
**Average Number  
of Days Above  
80°F**



# Extreme Heat in Mountain View – What the Data Tells Us



**Average Annual Warm Nights in Mountain View**





## Who is most vulnerable to extreme heat?



Older adults  
(9,567 in 2023)



Unhoused and  
individuals living in  
vehicles  
(562 counted in  
2023)



Children under 5  
(4,907 in 2023)



Outdoor workers



Low-income  
residents and  
those **without** air  
conditioning

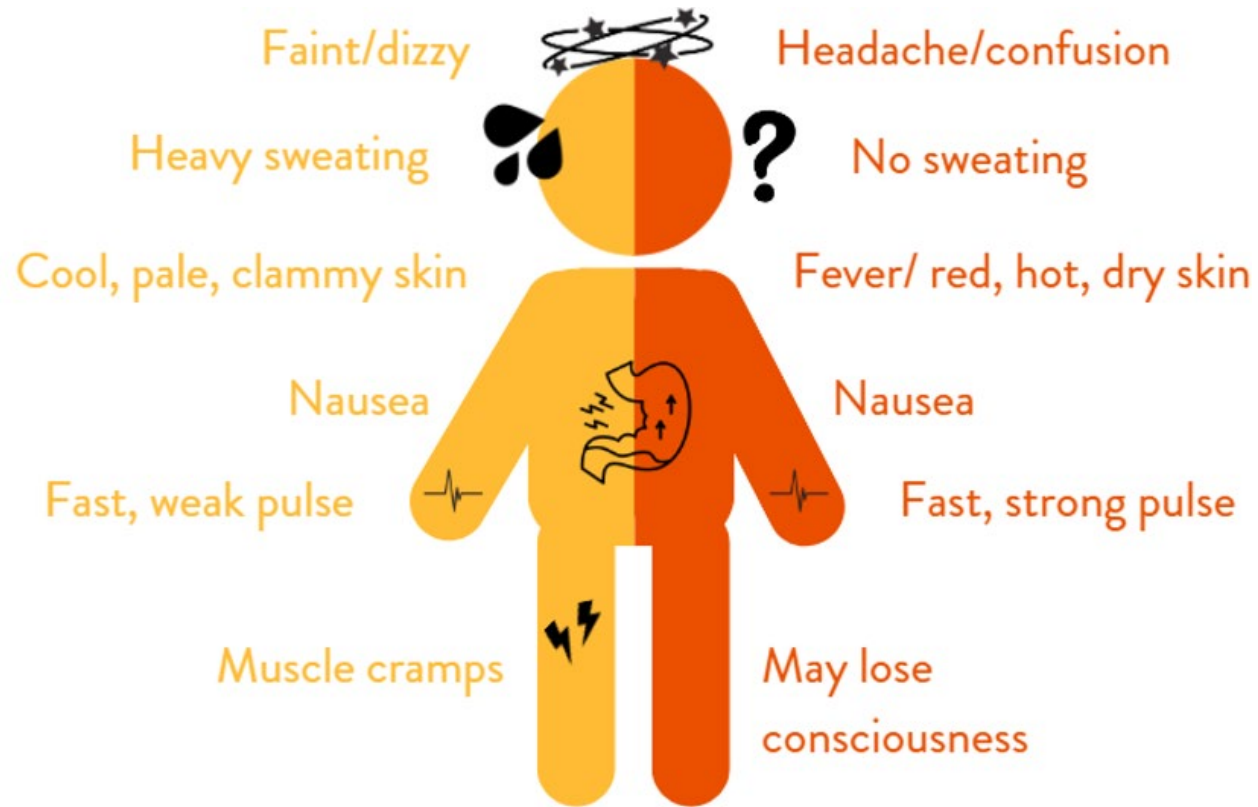
# What does extreme heat do to health and wellbeing?



Extreme heat can directly and indirectly lead to illness and death

## Heat Exhaustion

Heat Exhaustion can lead to Heat Stroke



## Heat Stroke

Heat Stroke is potentially life threatening



**437 heat-related hospitalizations in Santa Clara County (2000–2020)**

**1,808 emergency room visits for heat-related illness in the county (2005–2020)**



- **Increased demand on police and fire department to respond to conflicts and or accidents:**
  - Studies suggest that heat can contribute to an increase in traffic accidents due to cognitive impairment from extreme heat
  - Research indicates a link between higher temperatures and increased crime rates, especially violent crimes
  - Extreme heat can agitate those suffering from mental health conditions
- Higher need for ambulance services to respond to heat related illnesses



- **Reduced productivity:** Extreme heat makes it difficult for workers, especially those in physically demanding jobs like construction and agriculture, to work effectively. This can lead to decreased output and income for both workers and businesses.
- **Increased energy demand:** Rising temperatures increase the need for cooling, leading to higher energy consumption and potentially straining the power grid, sometimes resulting in blackouts
- **Increased health care costs:** Heat-related illnesses, such as heatstroke and dehydration, can lead to increased healthcare costs and strain on medical resources

# Building and Infrastructure Impacts



- **Damage to infrastructure:** High temperatures can damage roads, railways, and other infrastructure, require costly repairs and cause disruptions to transportation and other essential services
- **Material Degradation:** Prolonged exposure to high temperatures can cause concrete, asphalt, roofing materials, and even metal components to expand and contract repeatedly. This thermal stress weakens the building's integrity, leading to cracks, fractures, and potential structural failure

# Continued Analysis



- Projections/impacts for all four climate hazards
- Implications for city operations and services
- Existing City efforts
- Potential resilience opportunities



- **Create maps and conduct spatial analysis** to visualize exposure and vulnerability specific to areas of Mountain View
- **Review draft CVA findings by City staff and partner organizations** and incorporate feedback
- **Present draft CVA to the CSC** by the end of 2025
- **Present final draft to the City Council** by Quarter 1 of 2026



*Thank you!*

**Any questions?**

