



May 5, 2025

Senate Committee on Government Affairs

Research in Support of the Proposition that Development is Causing Rising Temperatures in Nevada (Assembly Bill 96)

Dear Chair Flores and Members of the Government Affairs Committee,

My name is Jackie Spicer, and I am the Coalition Coordinator for the Nevada Environmental Justice Coalition. We are a statewide coalition of community organizations fighting for sustainability, justice, and equity in all levels of government decision making. Together, we build people power through grassroots organizing and policy advocacy.

While our Coalition testified in neutral for AB96 due to the proposed amendment, we support the concept of legislation allowing Clark and Washoe counties to include heat mitigation strategies into their master plans. This concept is not just about infrastructure but about protecting lives in the face of rising temperatures and extreme heat.

This concept was first proposed during the 2023 Nevada Legislative Session as SB 169. Despite passing in both the Senate and Assembly, Governor Lombardo vetoed this bill with the message, “there is no data definitively supporting the proposition that development is causing rising temperatures in either Washoe County or Clark County.”¹ Respectfully, I am writing to provide research and data to support the claim that Nevada temperatures are in fact rising due to development.

Background

Reno and Las Vegas are the fastest-warming cities in the United States.² Our cities are facing more frequent and intense heat waves that pose a serious threat to public health and safety. Heat waves are particularly dangerous for vulnerable populations such as the elderly, young children,

¹ Lombardo, J. (2023, May 31). Veto message for Senate Bill 169 of the 82nd Legislative Session. Office of the Governor of Nevada.

https://gov.nv.gov/uploadedFiles/gov2022nvgov/content/Newsroom/vetos/2023-5-31_Veto_SB%20169.pdf

² Climate Central. (2024). Earth Day: Fastest-Warming Cities and Record Clean Investment. <https://www.climatecentral.org/climate-matters/earth-day-fastest-warming-cities>.

the unsheltered and those with preexisting health conditions.³ Just last summer, Las Vegas experienced record-breaking temperatures, with 112 days over 100° in 2024 endangering countless lives.⁴ In Clark County alone, heat-related deaths surged by 78% over the past two years, reaching a staggering 526 fatalities in 2024.⁵ As our communities continue to expand and grow, it is important for cities to incorporate heat mitigation elements into their master plans. We cannot afford to stand by while more lives are put at risk.

Intersections of Heat and Development

Studies show that heat is exacerbated by the built environment and rising annual temperatures.⁶ Urban infrastructure such as pavement, roofing, and sidewalks can make Nevada's cities up to 24 degrees Fahrenheit (°F) hotter than rural areas.⁷ Urban areas, where asphalt roads and concrete buildings are highly concentrated and greenery is limited, become "islands" of higher temperatures relative to outlying areas. Concrete absorbs and retains the sun's heat, giving rise to urban heat islands.⁸ Las Vegas is ranked as the worst city with the most intense summer urban heat island effect in the U.S.⁹

Our community members living within urban heat islands need local governments to treat extreme heat as a systemic issue that requires systemic solutions. These heat islands, where approximately 85% of the U.S. population resides, are created by paved roads, parking lots, and buildings that absorb and radiate heat.¹⁰ In some cases, temperatures in these neighborhoods can be 15°F to 20°F higher than in tree-lined communities or rural areas. Urban planning must prioritize heat mitigation to save lives and improve health outcomes for our most vulnerable Nevadans.

³ Hsu, A., Sheriff, G., Chakraborty, T. et al. Disproportionate exposure to urban heat island intensity across major US cities. *Nat Commun* 12, 2721 (2021). <https://doi.org/10.1038/s41467-021-22799-5>

⁴ Zoltek, G. (2024, October 31). Las Vegas saw a record 112 days over 100° in 2024: What did we learn? KTNV 13 Action News. <https://www.ktnv.com/news/las-vegas-saw-a-record-112-days-over-100-in-2024-what-did-we-learn>

⁵ Hudspeth, C. (2025, February 5). Clark County reports 526 heat-related deaths for 2024, but the number could still grow. KTNV.

<https://www.ktnv.com/news/clark-county-reports-526-heat-related-deaths-for-2024-but-the-number-could-still-grow>

⁶ Hsu, A., Sheriff, G., Chakraborty, T. et al. Disproportionate exposure to urban heat island intensity across major US cities. *Nat Commun* 12, 2721 (2021). <https://www.nature.com/articles/s41467-021-22799-5>

⁷ Smith, E., Pattai, K., Saladino, C., & Brown, W. E. (2020). The urban heat island effect in Nevada (Environment Fact Sheet No. 1, pp. 1–5). The Lincy Institute and Brookings Mountain West.

https://digitalscholarship.unlv.edu/bmw_lincy_env/1/

⁸ U.S. Environmental Protection Agency. (n.d.). Learn about heat islands.

<https://www.epa.gov/heatislands/learn-about-heat-islands>

⁹ Climate Central. (2014, August 20). Hot and getting hotter: Heat islands cooking U.S. cities.

<https://www.climatecentral.org/news/urban-heat-islands-threaten-us-health-17919>

¹⁰ Climate Central. (2021). Hot Zones: Urban Heat Islands.

https://assets.ctfassets.net/cxgsgstp8r5d/1XZZjkLYwtcmKL5k3wEinl/5f8c9b5b2d8dd56e1bda7f51278fc3d2/2021_UHI_Report.pdf

Research shows that in many urban environments built from cement and asphalt, extreme heat disproportionately affects communities of color and low income communities.¹¹ East Las Vegas, a predominantly Latine community, suffers the greatest urban heat island effects. This area is disproportionately impacted due to a significantly lower tree canopy and older buildings that struggle to regulate heat efficiently.¹² In fact, the difference in temperatures between downtown and suburban areas, like parks, can be as high as 11.1°F.¹³ Areas that experience the hottest temperatures are mostly concentrated in downtown Las Vegas, North Las Vegas, the Historic Westside, and East Las Vegas, as documented in the RTC's Southern Nevada Urban Heat Mapping Campaign. The Clark County urban heat island map, produced by the RTC Urban Heat Mapping Project, highlights these trends.¹⁴

Economic Impacts

The higher temperatures experienced within cities can damage the local economy because tourists, laborers, and consumers are reluctant to go outside due to the heat.¹⁵ Heat islands also drive up demand for air conditioning which strains the power grid. This leads to more blackouts, higher electricity costs, and more pollution.¹⁶

Urban heat mitigation delivers measurable economic benefits by significantly reducing energy demand and generating direct savings for residents. Global research consistently demonstrates these advantages. U.S. studies show that maximizing tree canopy coverage can save households \$100 annually on cooling costs,¹⁷ while reflective "cool roofs" reduce energy consumption by 20-70% depending on climate conditions.¹⁸ Desert cities facing extreme heat waves such as

¹¹ Hsu, A., Sheriff, G., Chakraborty, T. et al. Disproportionate exposure to urban heat island intensity across major US cities. *Nat Commun* 12, 2721 (2021). <https://doi.org/10.1038/s41467-021-22799-5>

¹² Sebens, K. (2021, August 16). More trees may help East Las Vegas cool down from urban heat islands. *Las Vegas Review-Journal*.

<https://www.reviewjournal.com/local/local-las-vegas/more-trees-may-help-east-las-vegas-cool-down-from-urban-heat-islands-2416028/>

¹³ Regional Transportation Commission of Southern Nevada. (2023). Heat watch summary report.

<https://www.rtcnv.com/projects-initiatives/wp-content/uploads/sites/4/2023/02/Heat-Watch-Summary-Report.pdf>

¹⁴ Regional Transportation Commission of Southern Nevada. (2023). Southern Nevada Urban Heat Mapping Campaign.

<https://www.rtcnv.com/projects-initiatives/wp-content/uploads/sites/4/2023/04/UHI-Mapping-Project-Factsheet-3.3.0.23.pdf>

¹⁵ Smith, E., Pattni, K., Saladino, C. J., & Brown, W. E. (2020). The urban heat island effect in Nevada (Environment Fact Sheet No. 1, pp. 1–5). The Lincy Institute and Brookings Mountain West. https://digitalscholarship.unlv.edu/bmw_lincy_env/1/

¹⁶ U.S. Environmental Protection Agency. (n.d.). Learn about heat islands.

<https://www.epa.gov/heatislands/learn-about-heat-islands>

¹⁷ Akbari, H., Heat Island Group. (n.d.). Energy Saving Potentials and Air Quality Benefits of Urban Heat Island Mitigation. [Report]. Lawrence Berkeley National Laboratory. <https://www.osti.gov/servlets/purl/860475>.

¹⁸ Reduce heat Islands | US EPA. (2025, April 22). US EPA. <https://www.epa.gov/green-infrastructure/reduce-heat-islands>

Phoenix demonstrate the most dramatic cost savings from heat mitigation.¹⁹ Such proven returns make heat mitigation not just an environmental imperative, but a smart economic investment.

Heat mitigation offers life-saving solutions. By integrating heat mitigation into urban planning, we can directly address the heat island effect to create cooler, healthier communities by implementing measures such as drought-tolerant tree canopies over sidewalks and parking lots. These shaded areas will not only provide relief from scorching temperatures but also enhance the beauty and livability of our neighborhoods.

As temperatures continue to rise year after year, we face a stark choice: pay the consequences of future crises or act now to prevent them. Passing heat mitigation legislation is a declaration that we choose to act—that we value the health and well-being of our communities. This is about more than adapting to deadly rising temperatures; it is about keeping Nevada a place for us to still call home.

Thank you for your time and dedication to the people of our state.

Respectfully,

Jackie Spicer

Coalition Coordinator

Nevada Environmental Justice Coalition

¹⁹ Miner, M. J., Taylor, R. A., Jones, C., & Phelan, P. E. (2016). Efficiency, economics, and the urban heat island. *Environment & Urbanization*, 29(1), 183-194. <https://doi.org/10.1177/0956247816655676>