



Assembly Bill 96 Heat Mitigation Master Plan Integration

Regional Priorities and Considerations

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Executive Summary

Assembly Bill 96 (2025) was passed by the Nevada Legislature, with final passage in the Senate on May 22, 2025, then signed/enacted by the Governor on June 3, 2025, becoming Chapter 225. This bill requires Nevada Cities and Counties with over 100,000 residents to incorporate heat mitigation elements into their master plans by July 1, 2026.

In response, the Regional Climate Collaborative of Southern Nevada began convening in August to coordinate a regional approach, assess feasible implementation pathways, and support local governments in aligning their planning processes with the new statutory mandate. These collaborative efforts aim to ensure consistent, timely, and effective integration of heat resilience measures across the region's master planning frameworks.

This report summarizes themes, priorities, and considerations gathered to date across four major topic areas as identified in Assembly Bill 96:

1. Public Drinking Water
2. Public Cooling Spaces
3. Cool Building Practices and Green Infrastructure
4. Shade and Tree Canopy

This report serves as a tool and resource for jurisdictions by:

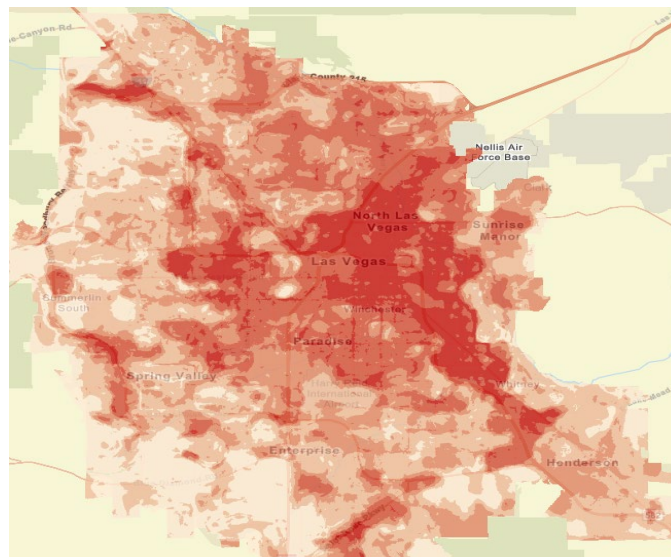
1. Providing a structured, easy-to-review summary of the language and other considerations to help shape regional alignment and implementation of AB96 into Master Planning.
2. Providing examples of related development code to help inform the transition from planning to implementation.
3. Highlighting cross-cutting issues and opportunities for regional alignment.
4. Including References and Resources to facilitate further collaboration.

Extreme Heat in Southern Nevada

Impacts of Extreme Heat in Southern Nevada

In recent years, Extreme heat has been an ongoing area of concern in Southern Nevada. For example, the Summer of 2023 set more than a dozen daily record highs and two dozen record warm lows—indicative of heat being trapped in the urban area exacerbated by the built environment. This trapping of heat, also known as the **Urban Heat Island Effect**, has a negative impact on the community and its health.

In July 2024 Southern Nevada experienced record high temperatures reaching 120 degrees Fahrenheit. July contained one of the hottest weeks on record with temperatures never dropping below 115 degrees. Overall, the Clark County Coroner and Southern Nevada Health District estimate there to be 2,963 heat-related illness visits to emergency rooms and 513 heat-associated deaths in 2024.¹



Southern Nevada Urban Heat Map

¹ Information provided in 2025 as part of the Southern Nevada Heat Lab's ongoing extreme heat response calls.

Recent Efforts to Address Heat in Southern Nevada

During the 2021-2022 State legislative interim, Dr Nancy Brune, Executive Director of the Guinn Center for Policy Priorities, gave a [full report](#) (see 6.16.22 hearing) on the impacts of extreme heat to the Joint Interim Committee on Natural Resources, the impact to workers, and the impacts on the environment, which led to the drafting of Senate Bill 169 for the 2023 session. Local governments and other entities that supported the findings during the interim went on to testify in favor of the bill.

While the bill was vetoed, the Environmental Justice Coalition pushed the interim committee to reintroduce the language of SB169 in the 2025 legislative session which would then become Assembly Bill 96. Throughout this period, local governments partnered and worked together statewide and regionally with the Desert Research Institute's Southern Nevada Heat lab, the Southern Nevada Health District, and the Regional Transportation Commission to do more extensive study and heat mapping.

Regional Climate Collaborative and AB96 Implementation

The Regional Climate Collaborative (RCC), formed by interlocal agreement in 2023, is an intergovernmental collaboration working together to safeguard long-term social, environmental, and economic resilience of the region. It consists of Clark County, Boulder City, City of Henderson, City of Las Vegas, City of Mesquite, City of North Las Vegas, The Regional Transportation Commission (RTC) and the Southern Nevada Water Authority.

In 2025 the RCC identified supporting regional resilience to urban heat as a key priority. As a result, an urban heat working group was formed with a specific short-term goal to support regional implementation of AB96. The working group convened planners from across Clark County to review AB96 requirements, discuss opportunities for regional alignment, and ultimately produce a resource to support AB96 implementation. This report is the outcome of the group's efforts.

Summary of Discussion Points Across Jurisdictions

Across all considerations for AB96 implementation, jurisdictions emphasized the need for:

Alignment Across Plans

- Frame master planning language and all related policies to be aligned with regional water conservation and climate-resilience goals.
 - Comprehensive plans signal intent; development codes should operationalize requirements.

Clarity

- Define terms (e.g., “cooling station,” “landscape greenbelt,” “public access point”).
- Avoid overly general language that may cause misinterpretation.

Public Health Framing

- Highlight shade, water access, and cooling spaces as essential public health infrastructure rather than amenities.
 - Shade
 - As the Arbor Day Foundation states², when planted strategically, trees can help cool neighborhoods, reducing the risk of heat-related illnesses and deaths. Access to shade is especially important among vulnerable populations like children, seniors, and people with pre-existing health conditions. Trees improve air quality by filtering pollutants, which can trigger asthma, heart disease, and other health problems. Trees also boost mental health; access to tree-lined streets, parks, and green spaces has been linked to improved mood.
 - Public Drinking Water
 - Research suggests there is a substantial need for expansion of free drinking water access in public spaces. A 2009 study of US adults who use parks and playgrounds found that only about half of respondents reported having access to

² The Cool Factor: How Trees Are Combatting Rising Temps | Arbor Day Foundation

water fountains.³ To promote plain water intake, free, safe drinking water should be more readily accessible to individuals in homes and public facilities such as parks, playgrounds, schools, public buildings, and worksites.⁴

³ Stormwater Best Management Practice, Municipal Landscaping

⁴ Community-Based Policies and Support for Free Drinking Water Access in Outdoor Areas and Building Standards in U.S. Municipalities - 2018 - Park et al.

Public Drinking Water

Planning Language Considerations

- Align master planning language and all associated strategies with regional water conservation and climate-resilience goals.
- Consider master plan language that communicates the provision for drinking fountains and bottle-fillers as essential health amenities in project design and capital programs.
- Ensure all stations provide potable water, have sufficient flow, and are publicly accessible.
- Promote more public access to drinking water in policies and/or strategies but avoid setting non-flexible obligations.
- Plan for long term maintenance of drinking fountains and bottle-fillers because they are vulnerable to vandalism.

Other Considerations

- Map existing drinking water access points and designate clear locations for future installation (rights-of-way, parks, public buildings).
- Consider financial responsibilities and coordination needs with utilities.
- Acknowledge data lags between facility inventory and new construction.

Public Cooling Spaces

Planning Language Considerations

- Establish a clear definition of “Cooling Station” for consistency across jurisdictions.
- Prioritize converting existing staffed facilities into cooling spaces over unstaffed parks.
- Replace “residents” with “community members” to be inclusive of all users.
- Incorporate research (e.g., Desert Research Institute [DR]), Regional Transportation Commission [RTC], etc.) to guide cooling-site location and design.
- Encourage policies that prevent power shutoffs during extreme heat.
- Use flexible, feasibility-oriented language rather than mandates.

Other Considerations

- Consider accessible infrastructure and staff to manage the site and address the needs of visitors as essential elements of cooling spaces.
- Address challenges posed by excessive use and vandalism that often result in facilities (like restrooms) being locked, which counterproductively removes cooling access during heat events.

Cool Building Practices

Planning Language Considerations

Hybrid Code Structure and Incentives

- Consider implementing a hybrid structure with baseline requirements (e.g., sustainability points) paired with incentives for exceeding them, such as density bonuses or landscaping swaps to incentivize developers to utilize cool building practices as stated in master planning language.
- Encourage the use of cool building practices via carefully worded planning language and associated policies as a good strategy to support and accelerate the use of cool building practices among developers. For instance, “a developer *may* select from appropriate cool building practices and available cool building technologies” or “developers are *strongly encouraged* to adopt cool building practices and invest in cool building technologies to meet heat mitigation requirements.”

Water Smart Green Infrastructure

- Calculate water use for green infrastructure to avoid conflicts with conservation mandates.
- Keep green infrastructure optional, not mandatory.

Urban Heat Island Reduction

- Encourage structured, underground, or street parking to reduce heat-radiating hardscape.
- Improve inefficient land use in urban cores by shifting to street-level parking, which frees space for infill and reduces the area consumed by surface asphalt.

Equity in the Built Environment

- Embed equity explicitly in Comprehensive Plans.
- Consider how to overcome the “split incentive” barrier when mentioning programs for community impact, where low-income renters cannot authorize necessary cooling improvements on properties they do not own.

Other Considerations

- Demonstrate that the requirements imposed on developers deliver proportionate, evidence-based benefits for heat mitigation and public health; ensure the requirements meet a two-part review standard set by Supreme Court precedent.⁵
- Consider developers' cost, maintenance, and water-use concerns when cool building practices are adopted (e.g. green roofs).
- Consider increase in construction costs of structural or underground parking in relation to the significant heat reduction benefits.
- Address split-incentive barriers in weatherization programs that leave many low-income renters unserved when designing equitable heat-mitigation initiatives.

⁵ "Under Supreme Court decisions in *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987), and *Dolan v. City of Tigard*, 512 U.S. 374 (1994), permit [and development] conditions must have both an "essential nexus" to the government's land use interest and "rough proportionality" to the development's impact on that interest."
Cited: Supreme Court Rules Legislative Permit Conditions Not Exempt From Nollan/Dolan Scrutiny | Perkins Coie, bracketed text is the author's insertion.

Shade and Tree Canopies

Planning Language Considerations

Water Conservation Alignment

- Ensure all proposed shade mitigation strategies align with regional water conservation goals.
- Align tree conservation and replacement mechanisms, such as rebates, with SNWA when planning to conserve existing shade trees and replace shade trees in the urban canopy.
- Confirm that master plan updates align with SNWA's water-conservation objectives and regulatory requirements.

Regional Connectivity and Public Health

- Define and operationalize "landscape greenbelts."
- Adopt shared regional language acknowledging heat as a public health hazard.
- Target shade interventions (meaning urban canopy expansion and built shade structures) in developed areas where vulnerable residents are concentrated.

Tree Canopy and Landscaping

- Explicitly state trees as multi-purpose infrastructure that includes heat mitigation, water conservation, stormwater management, and other elements.
- Replace vague phrases about shade in planning language with specific references to tree canopy.

Shade Structure and Pedestrian Zones

- Prioritize shade for non-motorized users, especially on sidewalks, trails, and routes to schools, work, and parks.
- Target shade infrastructure in areas with vulnerable populations.
- Keep materials specifications generic to allow for future innovation.
- Encourage more walkability and pedestrian access across neighborhoods.

Parking and Hardscape Reduction

- Revise street-level parking requirements to meet (but not exceed) community needs, update parking spot calculations in development codes, and encourage the use of cool pavement to address excess asphalt.

Other Considerations

- Review strength and applicability of transportation planning language.
- Note that neighborhoods with extensive block walls confine pedestrians to longer, winding routes that increase unnecessary heat exposure.
- Recognize that parking reform requires long-term effort due to existing infrastructure and cost.

Cross-Cutting Opportunities for Regional Alignment

Shared Definitions and Frameworks

- Define key terms (e.g., cooling centers, greenbelts) consistently to avoid policy ambiguity.

Integration of Water and Heat Policy

- Align shade, trees, green infrastructure, and cooling approaches with conservation rules and return-flow accounting.

Equity Embedded Across all Categories

- Focus on renters, seniors, children, and heat-vulnerable neighborhoods.
- Account for pedestrians, public transit users, and community members without housing because they bear disproportionate heat impacts.

Legal and Feasibility Review

- Consider the income constraints of property owners when proposing incentives in master plans.
- Account that some requirements (e.g., underground parking) may be cost-prohibitive.

Terms

Cooling Station:

A place to access fresh water and respite from unbearable heat, regardless of housing status. The National Weather Service, in partnership with the Clark County Coroner and Clark County Social Service, has developed a graduated heat index which defines when people are the most vulnerable. When the weather reaches these “Extreme Weather” thresholds, protocols require the opening of Cooling Stations. There are not enough shelters to house community members without homes during the extreme temperatures or weather conditions in the summer months, necessitating access to cooling stations. ¹

Cooling Center:

Indicates indoor locations offering relief from the heat with cooling, drinking fountains, or bottled water during daytime hours. ²

Landscape Greenbelt/ Open Spaces

Greenbelts and/or open spaces are natural, undeveloped, and/or agricultural lands that surround urban areas. These lands may include undeveloped spaces, parks, farms and ranches, wildlands, or a combination thereof—as designated by cities, counties, special districts, and other jurisdictions.

These are the places that act as natural buffers during wildfires, store essential groundwater, and offer health benefits. When it comes to wildfire, we’ve seen how greenbelts around towns have given firefighters room to better defend homes and lives. Preserving greenbelts prevents inefficient, unhealthy sprawl development—which increases driving and greenhouse gas emissions—from spreading into valuable natural and agricultural lands.³

Cool Building Practices:

This term encompasses numerous techniques to improve building energy efficiency and provide effective cooling outside of mechanical cooling. Options include passive cooling, building with airflow in mind, thermal mass flooring, cool roof surfaces, double-paned windows, window film, improved insulation, green roofs, and designing windows with seasonal shading in mind.⁵

Cool Roof Technology

Cool roofs are light colored roofs that reflect most heat—unlike conventional dark colored roofs. Cool roofs reflect more than 50% of solar radiation compared to traditional dark roofs, which reflect only about 15-20%.⁶

Low Carbon Concrete

Through the process of integrating CO₂ into new concrete, concrete can be carbon neutral or even carbon negative. Additionally, carbon-sequestering concrete has a relatively high albedo.⁶

Passive Cooling

Instead of directly generating cold air, passive cooling reduces the overall need for cooling by controlling how heat enters, moves through, and exits buildings. Passive cooling works through three key mechanisms: heat control (blocking heat before it enters), heat reduction (cooling the surrounding environment), and heat removal (releasing built-up heat).⁵

Reflective Pavement Technology

Reflective (or 'high albedo') pavements include light-colored roads, sidewalks, and parking lots. These pavements use a reflective sealant to bounce sunlight and heat away from cities to reduce surface temperatures. They also protect the pavement, extending its useful life.⁶

Evaporative Cooling System

A water-intensive cooling system that is currently banned for commercial use in Southern Nevada. The SNWA Board of Directors voted to pass a resolution supporting a moratorium on the installation and use of evaporative cooling mechanisms in new commercial and industrial buildings in the Las Vegas Valley. This restriction does not apply to single-family homes. Evaporative cooling mechanisms are highly water intensive and are Southern Nevada's second largest consumptive use of water, exhausting nearly 10 percent of Southern Nevada's Colorado River allocation annually.⁷

Hardscape

Hardscaping refers to the non-living, structural elements of landscape design. These are the permanent or semi-permanent features built from materials like stone, brick, concrete, rocks, or gravel. Common hardscape features are walkways and pathways, walls, patios, and outdoor seating.⁸

Green Roofs

Green roofs are covered in vegetation, which provides shading, reduces building energy use, cleans the air, and absorbs water to prevent flooding.⁶

Tree Canopy:

Trees and other vegetation, as well as soil, absorb and release moisture through a process called evapotranspiration. Evapotranspiration absorbs energy from the air to turn liquid water into vapor. This process cools the air because heat energy is used for evapotranspiration, similar to how sweating can help cool down the human body. Trees can also provide shade, leading to a cooling effect.⁹

Urban Heat Island:

The term “urban heat island” refers to the fact that cities tend to get much warmer than their surrounding rural landscapes, particularly during the summer. This temperature difference occurs when cities’ unshaded roads and buildings heat up during the day and radiate that heat into the surrounding air. As a result, highly developed urban areas can experience mid-afternoon temperatures that are 15°F to 20°F warmer than surrounding, vegetated areas.¹⁰

Citations

1. Edited: "community members without homes" in place of "homeless population":
[Get Help – Help Hope Home](#)
2. [Cooling Centers | Pima County, AZ](#)
3. [What is a Greenbelt? - Greenbelt Alliance](#)
4. [Community-Based Policies and Support for Free Drinking Water Access in Outdoor Areas and Building Standards in U.S. Municipalities - 2018 - Park et al.](#)
5. [Keeping it Cool: How Passive and Sustainable Cooling Are Taking on Hotter American Summers | Article | EESI](#)
6. [Smart Surfaces Coalition](#)
7. [Understand Laws & Ordinances – SNWA](#)
8. [Stormwater Best Management Practice, Municipal Landscaping](#)
9. [Benefits of Trees and Vegetation | US EPA](#)
10. [Urban Heat Islands - Heat.gov](#)

Appendices

Development Code Examples from Regional Jurisdictions

Access to Public Cooling Spaces

- City of Tempe's Resilience Hubs: [Tempe Resilience Hub Network | City of Tempe, AZ](#)
- Maricopa County's Heat Relief Sites: [Staying Safe in the Extreme Heat | Maricopa County, AZ](#)
- Pima County: [Cooling Centers | Pima County, AZ](#)
- City of Phoenix Heat Relief Locations: [City of Phoenix Opens Heat Relief Locations to Keep Residents Safe During Extreme Heat | City of Phoenix](#)

Example Development Code Language	
Phoenix: Heat Response Plan	The City of Phoenix will extend the hours of three Cooling Centers to 10pm each day of the week and add capacity from noon to 10pm on Sundays throughout the heat season
	To further address deficiencies in regional Heat Relief Network availability, the City of Phoenix will operate a 24/7 Heat Respite and Navigation Center for the entire heat season. This location will serve as a safe, cool indoor space for refuge from the heat and provide water.
Sacramento: Adopted 2040 General Plan	YPRO-3.8: The City shall continue to activate cooling centers at the community centers, aquatic centers, and water spray parks to help residents cope with higher temperatures. City parks shall be designed with materials and other strategies that offer cooling benefits to the residents.

Access to Free Public Drinking Water

- [Plan for a Healthy Los Angeles](#)

Example Development Code Language	
LA: Plan for a Healthy Los Angeles	2.8: Promote increased access to basic amenities, which include public restrooms and free drinking water in public spaces, to support active living and access to health-promoting resources.
	Require provision of drinking water access (fountains and bottle-fillers) in public parks, transit hubs, civic plazas, and major public buildings, treating these as essential health amenities in project design and capital programs
Phoenix: Heat Response Plan	Three water fountains were deployed in Downtown Phoenix in 2023 and 2024 that will continue to be monitored and evaluated throughout the 2025 heat season to inform future design, implementation, and operational needs.

Cool Building Practices

- Cool Roof Retrofits: [Under 1 Roof - City of San Antonio](#)
- Cool Pavements: [Cool Pavement Program - City of San Antonio](#)
- Cool Building Practices: [Green Building Code | City of Tempe, AZ](#)

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Shade Over Paved Surfaces

Built Shade

- [Sidewalk Shade Project | City of Phoenix](#)

Example Development Code Language	
<u>Phoenix: Shade Phoenix Plan</u>	1.1 Complete implementation of the Shade for Students program
	1.3 Integrate shade in new construction and renovation at municipal playgrounds
	1.5 Add natural and built shade to City facilities
	1.7 Expand Cool Corridors network
	1.8 Add shade structures at bus stops
	1.9 Construct Phoenix Sidewalk Shade installations in high-traffic public right-of-way

Urban Tree Canopies

- [Benefits of the Urban Forest - City of San Antonio](#)
- [Phoenix's Urban Forest | City of Phoenix](#)

Example Development Code Language	
<u>City of San Antonio: SA Tomorrow</u>	For growth and development to improve quality of life in the regional center, trees should be included with new private development and public investments in mixed-use areas.
<u>Phoenix: Shade Phoenix Plan</u>	1.2 Complete implementation of Canopy for Kids program
	1.5 Add natural and built shade to City facilities
	3.24 Re-establish cross-departmental working group on urban forestry and establish a new built shade working group
	3.28 Integrate tree and shade goals in all relevant City plans
	4.35 Develop neighborhood tree plans in partnership with local communities

Other Mitigation Measures to Address Heat

- Respite Centers, Cooling Centers, and Hydration Stations: [Heat Relief Network Partners](#)

Example Development Code Language	
King County Extreme Heat Mitigation Strategy	1.1.c. Work with the Washington State Department of Health and other state and local partners to find additional pathways for procuring affordable in-home cooling resources to those who need it most.
	3. Expand in-home heat safety support for low-income seniors, people with disabilities, and homebound individuals. In addition to helping at-risk individuals access residential cooling as described above, in-home heat safety can be supported via work with service providers and community-based organization
North Carolina Resilient Planning Communities Guide	The City of Raleigh Department of Transportation secured \$150,000 in supplemental funding in 2022 to apply a coating to streets in areas with high urban heat. The coating also extends the life of pavements, absorbs some emissions and reduces pollutants. Treated roads in Raleigh showed a 37% reduction in a common roadway pollutant.
	Raleigh merged the campaign's urban heat data with a 3D map of the city to use as a storytelling tool and to visualize neighborhood-level tree cover and urban heat impacts.
	Use public outreach and awareness campaigns to educate and inform the community about climate hazards and building resilience.

Links to Existing Master Planning Language in Southern Nevada

Access to Public Cooling Spaces

City of Las Vegas

- [IV.B HAZARDS](#): Prepare City facilities to be cooling centers (4-126)
- [IV.B HAZARDS](#): Set up cooling stations in advance of extreme heat (4-126)

Public Drinking Water

City of Mesquite

- [TL 1.6.5](#) Provide hydration stations or drinking water sources.
- [PK 1.10.4](#) Replace water fountains with hydration stations that allow filling of reusable containers

Cool Building Practices

City of Henderson

- [H 5.6](#) Encourage the use of alternative rooftop design materials and colors for roofing, including “cool” roofing materials and vegetated roofing, as well as solar panels that are integrated into the architecture
- [H 21.6](#) Develop a program to encourage the use of solar panels in commercial projects through rooftop solar, parking structures and shade structures.
- [H 25.1](#) Develop strategies, land use policies and design standards to reduce impacts of heat islands, especially in older parts of the city. Initial strategies include increasing tree canopy, open space, sustainable roof materials and porous surfaces; reducing hardscape surfaces and water runoff; allowing evaporative cooling; and promoting alternative modes of transportation.

City of Las Vegas

- [IV.B HAZARDS](#): Investment in cooling infrastructure and urban design to mitigate heat

City of North Las Vegas

- [4.2-1](#) Promote the inclusion of innovative design and practices such as green building design, water conserving landscape design, shading devices to reduce solar heat gain, and other environmentally efficient and friendly practices in all new development and redevelopment

Clark County

- [3.6.3](#) Green building practices, passive cooling

- [3.6.7](#) Green infrastructure, passive cooling

Shade Over Paved Surfaces

Built Shade

Boulder City

- [4-4 Land Use](#): Features shade for pedestrians (CBD 5) and porticos for shade (CDB 8)
- [VII-8: Urban Design Concepts](#): Increase shade

City of Henderson

- [H 17.6](#) Enhance shade on trails through tree canopy and structural shade features.
- [T 2.3](#) Prioritize structural shade in TOD areas to minimize exposure to transit riders, bicyclists and pedestrians.
- [T 5.3](#) Prioritize structural shade to minimize sun/heat exposure to trail users, pedestrians and bicyclists, making commute by walking or biking more viable in summer temperatures

City of Las Vegas

- [III C: URBAN FORESTRY](#): Designing structures and architectural features that provide shade.

City of Mesquite

- [TL 1.6.1](#) Provide trees, sunscreens, or other shade for benches and rest areas

City of North Las Vegas

- [3.1.2](#) Incorporate amenities such as benches, shelters, bike racks, wayfinding signage, shade structures, and crosswalks to facilitate the use of pedestrian, bicycle, and mass transit options.
- [4.2-1](#) Promote the inclusion of innovative design and practices such as green building design, water conserving landscape design, shading devices to reduce solar heat gain, and other environmentally efficient and friendly practices in all new development and redevelopment.

Clark County

- [3.6.1](#) Built shade to mitigate urban heat island effect
- [1.4.1, 3.6.5](#) - Built shade and tree canopies are addressed

Urban Tree Canopies

Boulder City

- [UD3: Urban Forestry](#) - The city should continue to support and expand its urban forestry programs, including its street tree planting and initiatives, and memorial tree fund. Incentives for tree replacement in historic residential neighborhoods should be considered to promote the restoration of Boulder City's original street tree canopy and to ensure that replacement species are disease resistant and are well-suited to a desert climate.
- [Historic Preservation 11-5](#): Preserve shade trees
- [Appendix VI – V1-1: Recommended Plant Materials](#)

City of Henderson

- [H 3.6](#) Encourage sustainable streets that include trees between traffic lanes and sidewalks to shield non-motorized users and drought-tolerant, low-maintenance landscaping, natural stormwater treatment areas and other sustainable features
- [H 8.6](#) Use trees to shield non-motorized users from motor vehicle lanes in landscape and sidewalk designs
- [H 17.6](#) Enhance shade on trails through tree canopy and structural shade features.

City of Las Vegas

- City of Las Vegas Urban Forestry Program: [R-43-2022 II C: URBAN FORESTRY](#)

City of Mesquite

- [TL 1.6.2](#) Incorporate shade trees along trail alignments

Clark County

- [1.4.1](#) Tree canopy
- [3.6.5](#) Native/ drought-tolerant trees
- [Clark County Master Plan – Appendix A, p. 62](#)

Other Heat Mitigation Measures

City of Henderson

- [H 9.10](#) Work to protect vulnerable populations from natural hazards through mitigation, prevention, response and recovery efforts that include preparedness activities like communication strategies and information sharing.
- [H 24.2](#) Develop strategies, in partnership with local and regional agencies, for adapting to and mitigating climate and disaster risk.
- [H 25.1](#) Develop strategies, land use policies and design standards to reduce impacts of heat islands, especially in older parts of the city. Initial strategies include increasing tree canopy, open space, sustainable roof materials and porous surfaces; reducing hardscape surfaces and water runoff; allowing evaporative cooling; and promoting alternative modes of transportation.
- [H 25.2](#) Create a pilot program to educate residents on the impacts of heat islands, which can include higher temperatures, greater pollution and negative health impacts.
- [H 25.3](#) Update the City's Development Code parking standards to improve design of parking lots and reduce hardscapes in order to reduce heat islands and free-up real estate for productive uses.

City of Las Vegas

- [IV. B HAZARDS](#): By 2050, no homes or critical infrastructure are located in high-risk hazard prone areas, unless appropriate mitigation, prevention, or adaptation measures are taken.
- [III. C Urban Forestry](#): Within each area of the city, especially those with vulnerable populations, and when temperatures exceed 100 degrees, prepare an adequate extreme heat response

Clark County

- [2.3.3](#) Preparedness for extreme heat in vulnerable groups

AB96 Compliance Summary by Kim Lundgren Associates

Background:

Assembly Bill 96 (AB96) mandates that cities and counties with a population of 100,000 or more in Nevada include a heat mitigation plan in their master plan's conservation element. This plan must address several key areas, as listed below.

While members of the Regional Climate Collaborative (RCC) already address some of these requirements in existing plans, not all requirements are explicitly stated or included in the respective master plans. The new requirements will also need to be in a heat mitigation plan section rather than included elsewhere in the plan. It was suggested that the RCC work together to draft a model heat mitigation plan for consideration by each of the jurisdictions for adoption to ensure there is county-wide buy-in for upcoming heat mitigation projects.

Plan Components:

The heat mitigation element of master plans must include a plan to develop heat mitigation strategies.

The plan to develop heat mitigation strategies may include, without limitation, such factors as:

- access to public cooling spaces
- public drinking water
- cool building practices
- shade over paved surfaces (this may include without limitation, shade structures and urban tree canopies, with preference for native tree or drought-tolerant species)
- other mitigation measures to address heat in the community

Heat Mitigation Takeaways:

Based on the review,

- Most jurisdictions did not include access to public drinking water.
- Shade is frequently mentioned in the comprehensive plans, but needs to be more specifically developed into actions. Very few plans specifically called out native and/or drought-tolerant species for tree canopies.
- Public cooling centers are often only included as a side mention in the parks sections of the plans; the cooling centers should be more intentionally built into actions.
- Most plans included mentions of the requirements across multiple sections of their plans; future plan updates should synthesize actions into one "Heat Mitigation" section as part of their larger conservation/environment sections.

Below is a list of actions and strategies in plans that are similar to those that are required by AB96:

Boulder City

- **Shade over paved surfaces:** UD 3: URBAN FORESTRY “The city should continue to support and expand its urban forestry programs, including its street tree planting and initiatives, and memorial tree fund. Incentives for tree replacement in historic residential neighborhoods should be considered to promote the restoration of Boulder City’s original street tree canopy and to ensure that replacement species are disease resistant and are well-suited to a desert climate”; UD 6: COMMUNITY AWARENESS AND EDUCATION “Continue to expand the street tree planting and replacement program and urban forestry education. Consider adopting incentives and requirements for tree conservation and replacement of trees removed for new development.”

Henderson

- **Cool building practices:** H 25.1 “Develop strategies, land use policies and design standards to reduce impacts of heat islands, especially in older parts of the city. Initial strategies include: increasing tree canopy, open space, sustainable roof materials and porous surfaces; reducing hardscape surfaces and water runoff; allowing evaporative cooling; and promoting alternative modes of transportation”; H 5.6 “Encourage the use of alternative rooftop design materials and colors for roofing, including “cool” roofing materials and vegetated roofing, as well as solar panels that are integrated into the architecture.”
- **Shade over paved surfaces:** T 5.3 “Prioritize structural shade to minimize sun/heat exposure to trail users, pedestrian and bicyclists, making commute by walking or biking more viable in summer temperatures”; T 2.3 “Prioritize structural shade in TOD areas to minimize exposure to transit riders, bicyclists and pedestrians”; H 17.6 “Enhance shade on trails through tree canopy and structural shade features”; H 8.6 “Use trees to shield non-motorized users from motor vehicle lanes in landscape and sidewalk designs”; H 3.6 “Encourage sustainable streets that include trees between traffic lanes and sidewalks to shield non-motorized users and drought-tolerant, low-maintenance landscaping, natural stormwater treatment areas and other sustainable features”.
- **Other mitigation measures to address heat in the community:** H 9.10 “Work to protect vulnerable populations from natural hazards through mitigation, prevention, response and recovery efforts that include preparedness activities like communication strategies and information sharing”; H 24.2 “Develop strategies, in partnership with local and regional agencies, for adapting to and mitigating climate and disaster risk”; H 25.2 “Create a pilot program to educate residents on the impacts of heat islands, which can include higher temperatures, greater pollution and negative health impacts”; H 25.3 “Update the City’s Development Code parking standards to improve design of parking lots and reduce hardscapes in order to reduce heat islands and free-up real estate for productive uses.”

Las Vegas

- **Cool building practices:** 4 IV.B Hazards: "Prepare for long-term, seasonal hazards such as extreme heat by investing in cooling infrastructure and developing urban design standards that mitigate the urban heat island effect"; III C: URBAN FORESTRY "Institute resilient best management urban design practices to ensure high quality landscape architecture for public facilities and private developments."
- **Shade over paved surfaces:** "In keeping with Tree City USA and urban forestry commitments, plant 60,000 high quality trees composed of a diverse list of native and adaptive species on public and private property that are tolerant of heat, cold, and wind; water efficient; low maintenance; non-invasive, and pest and disease resistant."
- **Other mitigation measures to address heat in the community:** III C: URBAN FORESTRY: "Within each area of the city, especially those with vulnerable populations, and when temperatures exceed 100 degrees, prepare an adequate extreme heat response; Increase outreach and education on trees and landscaping."

Mesquite

- **Public drinking water:** TL 1.6.5 "Provide hydration stations or other drinking water sources along trail alignments"; PK 1.10.4 "Replace water fountains in parks and recreation facilities with "hydration stations" that allow for efficient filling of reusable containers. Provide additional hydration stations along trails. Provide for chilled water where feasible"; OHV 1.3: "Provide strategy/parking areas for OHV users around the edge of the city with access to surrounding natural areas. Provide water and restrooms if possible."
- **Shade over paved surfaces:** TL 1.6.1 "Provide trees, sunscreens, or other shade for benches and rest areas. Utilize materials for furniture and fixtures that do not retain high heat levels"; TL 1.6.2 "Incorporate shade trees along trail alignments where appropriate."

North Las Vegas

- **Shade over paved surfaces:** CHAPTER 5: PRINCIPLES OF DESIGN AND RESIDENTIAL DENSITY EVALUATION CRITERIA, Principle 4: Mixed-Use Development Should Be Designed to Provide an Active and Inviting Pedestrian Environment; Residential Density Evaluation Criteria, Site Amenities

Clark County

- **Access to public cooling spaces:** Policy 2.1.7: SUSTAINABLE PARK DESIGN "Incorporate sustainable concepts such as water conservation, solar and energy efficient lighting, and cooling centers in new parks, as well as for park retrofits

and additions.”

- **Cool building practices:** Policy 3.6.3: GREEN BUILDING “Reduce energy consumption by encouraging the integration of passive heating and cooling principles, superior insulation, energy efficient windows, use of environmentally certified materials, and other techniques that improve energy efficiency in the design of new homes and buildings. Prioritize the use of incentives for net zero development”; Policy 3.6.1: URBAN HEAT ISLAND EFFECT “Mitigate the urban heat island effect in existing and new development through site and building features that provide shade, reduce the footprint of hardscaped areas, and otherwise help to reduce heat absorption by exterior surfaces.”
- **Shade over paved surfaces:** Policy 1.4.1: NEIGHBORHOOD IMPROVEMENTS “Support efforts to make neighborhood improvements (e.g., trail connections, increasing tree canopy, complete street improvements) that enhance neighborhood quality and pride, reduce crime, and improve climate resilience.”

Recommended Actions for the Heat Mitigation Plan:

Below are some best practice action examples that could be incorporated into the Heat Mitigation element of master and comprehensive plans:

- Develop new and expand access to existing cooling centers to protect vulnerable populations from the impacts of extreme heat.
- Establish widespread access to free and clean public drinking water.
- Design and implement standards to reduce cooling demand in buildings by incorporating elements such as sustainable roof materials, green roofs, and tinted windows.
- Build structural shade and tree canopies, with preference for native trees or drought-tolerant species, around paved surfaces to minimize sun/heat exposure to transit riders, bicyclists and pedestrians.
- Implement mitigation, prevention, response, and recovery efforts that include preparedness activities like communication strategies and information sharing to protect vulnerable populations from heat-related hazards.

Recommended Next Steps:

1. Host Working Group Session
 - a. Outcome: Develop RCC Commitments
 - b. Meeting overview:
 - i. Provide brief background on AB96 and overview of requirements
 - ii. Present recommended actions to the working group
 - iii. Discuss example measures for heat mitigation plan
 - iv. Discuss/vote with full RCC to decide model heat mitigation plan
2. Following the working group, each RCC entity will take model actions back to their jurisdiction to advocate for adoption.
3. Based on feedback from jurisdictions, refine/reframe actions as needed.