

Public Review Draft



LA COUNTY HEAT ACTION PLAN

Beat the LA Heat



September 2025

Public Review Draft

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LA County Chief Sustainability Office
Environment • Economy • Equity

September 2025

Land Acknowledgment



Land Acknowledgment for the County of Los Angeles

The County of Los Angeles recognizes that we occupy land originally and still inhabited and cared for by the Tongva, Tataviam, Serrano, Kizh, and Chumash Peoples. We honor and pay respect to their elders and descendants — past, present, and emerging — as they continue their stewardship of these lands and waters. We acknowledge that settler colonization resulted in land seizure, disease, subjugation, slavery, relocation, broken promises, genocide, and multi-generational trauma.

This acknowledgment demonstrates our responsibility and commitment to truth, healing, and reconciliation and to elevating the stories, culture, and community of the original inhabitants of Los Angeles County. We are grateful to have the opportunity to live and work on these ancestral lands. We are dedicated to growing and sustaining relationships with Native peoples and local tribal governments, including (in no particular order) the

- Fernandefño Tataviam
Band of Mission Indians
- Gabrielino Tongva Indians
of California Tribal Council
- Gabrieleño/Tongva San Gabriel
Band of Mission Indians
- Gabrieleño Band of Mission Indians -
Kizh Nation
- San Manuel Band of Mission Indians
- San Fernando Band of Mission Indians

To learn more about the First Peoples of Los Angeles County, please visit the Los Angeles City/County Native American Indian Commission (LANAIC) website at lanaic.lacounty.gov.



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Executive Summary

Why This Plan, Why Now

Los Angeles County (LA County) is experiencing longer, hotter, and more frequent heat waves due to climate change. Average temperatures are rising and extreme heat events are becoming more frequent, with the number of extreme heat days in LA County projected to more than double by 2050. These periods of extreme heat and the corresponding rise in average temperatures exacerbate health risks, economic burdens, and infrastructure strain, especially in historically underserved communities. The LA County Heat Action Plan (CHAP) provides a coordinated, cross-agency roadmap for becoming more resilient to these changes and delivering tangible cooling benefits in the communities that need it most.

The urgency for action is clear when considering the scale of the challenge ahead. Inland areas of the County such as Lake Los Angeles and Pacoima are increasingly experiencing temperatures over 100°F, and even our coastal areas are starting to reach the triple digits; for example, Long Beach hit a record-breaking 109°F during the September 2024 heatwave. These extreme temperatures increase emergency room visits, reduce access to safe outdoor spaces, and place financial strain on households already struggling with high utility bills.

Plan Purpose and Scope

The CHAP represents Los Angeles County's first multisector plan solely focused on addressing the risks associated with rising temperatures and extreme heat. Developed with input from hundreds of partners, the CHAP provides a strategic coordination framework to unite County departments, other local and regional government agencies, community organizations and businesses to take action on both outdoor and indoor heat risks. At its core, the CHAP is designed to drive implementation through a set of three comprehensive goals, each supported by targeted strategies and measurable actions aimed at equity-centered outcomes.

The CHAP is grounded in climate science, public health evidence, and the lived experiences of residents most affected by extreme heat. The finalized plan will include overarching indicators and targets for reducing heat health impacts, expanding cooling infrastructure, and improving access to cool spaces.

The CHAP is intended to guide and align policy, planning, and investment decisions that reduce heat exposure and improve resilience. While comprehensive in scope, the CHAP is not a regulatory document. It does **not** replace existing capital improvement plans, zoning ordinances, or building codes, nor does it mandate specific construction projects or retrofits. However, it is designed to inform and complement these processes. The CHAP also does not impose city-level regulations, but instead, supports municipalities by providing planning resources and regional coordination to amplify local efforts. As the primary government serving

over one million residents in unincorporated areas of Los Angeles County, the County has direct municipal-level jurisdiction to implement CHAP strategies and actions in these communities, while many County policies and programs also extend into incorporated areas. Additionally, the County serves as a model and resource for the 88 cities within its borders.

CHAP Framework

The CHAP framework centers on three interconnected goals designed to address heat resilience comprehensively:

- **Goal 1, “Cool Outdoor Spaces,”** focuses on preventing harm to County residents, built and natural resources, domestic animals, and plants and wildlife from excess outdoor heat and the urban heat effect.
- **Goal 2, “Create Heat-Resilient Indoor Spaces,”** emphasizes efforts to ensure people are not exposed to harmful levels of heat in homes, schools, and other critical facilities, especially for renters and vulnerable groups.
- **Goal 3, “Expand Heat Safety Communications and Programs,”** strengthens emergency response and public awareness by expanding outreach, access to cooling centers, and various services during extreme heat events.

Each goal contains multiple strategies and more than fifteen coordinated actions, creating a comprehensive roadmap for implementation. The framework is designed to be phased, with short-, mid-, and long-term targets that allow for adaptive management and sustained progress over time.

Equity has been, and will be, woven throughout every aspect of the CHAP, from its development process to implementation steps. This commitment is operationalized through a comprehensive equity framework that addresses four interconnected dimensions of equity: procedural, distributional, structural, and transgenerational equity. For detailed information about how these dimensions guide all strategies and actions throughout the CHAP, see the CHAP Equity Framework discussion on page 12.

Table 1. Goals and Strategies at a Glance

Goal	Strategies
Goal 1 “Cool Outdoor Spaces”: Create cooler, more livable outdoor environments through strategic shade, green infrastructure, and heat-reducing surfaces that protect residents and ecosystems while fostering vibrant community spaces.	Strategy 1.1: Improve shade equity in the public right-of-way to reduce overexposure to heat and promote vibrant street life. Strategy 1.2: Alleviate chronic heat burden in highly paved urban areas through urban greening, design, and smart surfaces. Strategy 1.3: Integrate cooling features into outdoor recreational and gathering spaces. Strategy 1.4: Ensure that County assets, especially trees and vegetation that provide cooling benefits in public corridors and gathering spaces, can thrive long-term in the face of rising temperatures.
Goal 2 “Create Heat-Resilient Indoor Spaces”: Promote safe, efficient design and operations for the buildings where County residents live, work, and learn, ensuring equitable access to cooling during extreme heat.	Strategy 2.1: Protect renters from harmful levels of heat in the home environment. Strategy 2.2: Maximize the adoption and use of passive cooling strategies and energy-efficient operations in both public and private buildings. Strategy 2.3: Implement and support installation of energy-efficient cooling equipment in sensitive facilities serving heat-vulnerable populations. Strategy 2.4: In coordination with utilities, promote electricity affordability, clean energy access, and energy resilience for heat-vulnerable communities.
Goal 3 “Expand Heat Safety Communications and Programs”: Build robust community networks and emergency management operations that promote heat safety and connect vulnerable people to cooling resources.	Strategy 3.1: Improve access to, and utilization of, cool refuges during extreme heat. Strategy 3.2: Build the capacity of community organizations and other implementation partners to support resident and worker heat safety. Strategy 3.3: Increase public awareness of heat risk and personal strategies for staying cool and safe. Strategy 3.4: Improve the capacity of the health system to mitigate, prepare for, and respond to heat risk.

The County’s Chief Sustainability Office (CSO) is inviting public comment on this draft Plan through October 6, 2025. Your feedback will help us refine and strengthen the proposed strategies and actions so that the final plan truly rises to meet the challenge of a hotter future.

Introduction

Los Angeles County stands at a critical juncture. Rising average temperatures and increasingly frequent extreme heat events are fundamentally changing what it means to live, work, and thrive in our region. Extreme heat is more than an inconvenience, it is a serious public health threat – and some communities are more burdened by it than others. For example, areas with limited tree canopy, extensive pavement, or older housing stock face more intense heat exposure. These disadvantages are concentrated in communities that have experienced decades of disinvestment in infrastructure and public amenities like parks.

The scale and complexity of heat-related risks requires a comprehensive, coordinated response that brings together all sectors and jurisdictions. Community advocates and health experts have increasingly called for coordinated action that matches the scope of this challenge.

Vision for a Heat-Resilient Region

Los Angeles County envisions a future where every resident is protected from the dangers of extreme heat: children can play outside safely on hot summer days, and neighborhoods thrive with shaded streets and energy-efficient, heat-safe homes and workplaces. In this future, heat-related illness and suffering are dramatically reduced, economic and health costs are avoided, and communities most affected by historical disinvestment are prioritized for investment and protection.



By investing in heat resilience, we not only prevent emergency room visits and lost productivity—estimated to cost the region billions each year^{1,2}—we also create vibrant public spaces, strengthen community bonds, and build healthier, more equitable neighborhoods. This is the vision that guides the CHAP: a cooler, safer, and more connected Los Angeles County. Achieving this vision brings a wide range of environmental, health, equity, and economic benefits, including as shown in the following graphic:

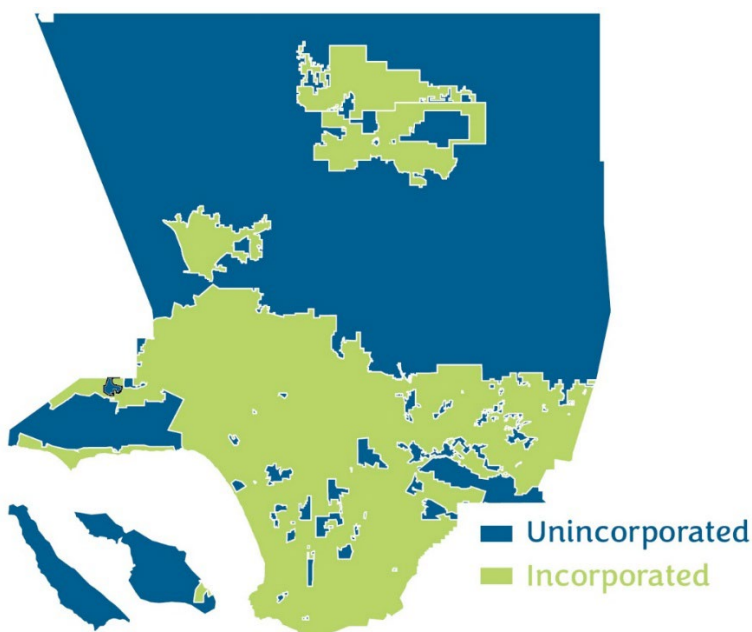


Purpose and Foundations

The CHAP represents LA County's first comprehensive, multisector strategy dedicated exclusively to protecting communities from extreme heat and rising average temperatures. Unlike emergency response plans that activate only during extreme heat events, or building codes that address individual structures, the CHAP takes a holistic view of heat resilience that spans outdoor cooling, indoor safety, emergency preparedness, and community empowerment.

The CHAP is fundamentally designed to drive collective action across LA County while establishing clear commitments from County government for advancing heat resilience goals. As a countywide framework, the CHAP will provide strategies, tools, and resources that can be adapted and implemented by all 88 cities within LA County, as well as school districts, community-based organizations, and regional partners. Heat doesn't respect jurisdictional boundaries, and effective resilience requires coordination across municipal lines.

At the same time, the CHAP establishes specific commitments from LA County government to lead by example and leverage its unique authorities and resources. The County operates primarily in unincorporated areas, serving over one million residents, where it has municipal-level authority over land use, infrastructure, and services. As the region's largest public entity, LA County also operates extensive infrastructure and services that span jurisdictional boundaries: the public health system, regional parks, major transportation corridors, and emergency response networks.



Strengthening Regional Coordination: LA County as a Model and Partner

Extreme heat impacts extend beyond jurisdictional boundaries. Every day, people travel across LA County for work, school, and other obligations—and heat exposure across those different settings can have a cumulative impact on the body. Furthermore, the design and performance of the built environment in one jurisdiction can influence conditions in another, especially as urban heat is shaped by wind patterns, infrastructure, and cumulative land use decisions.






The CHAP is designed to support coordinated regional action by providing a flexible framework that cities and other partners can adopt or adapt to meet their unique needs and context. In this way, the County aims to serve as both a leader and a resource for the 88 cities within its borders.

Several actions in the CHAP explicitly identify opportunities for city–county collaboration. For example, cities that adopt local renter heat safety ordinances may choose to contract with the County for enforcement and inspection services, streamlining administration and ensuring consistency across jurisdictions. The County will also develop resources such as design standards and procurement agreements to help Cities implement cooling infrastructure more efficiently. These shared approaches will reduce duplication and lower costs while allowing cities to tailor interventions to local needs.

A regionwide approach to heat resilience amplifies collective impact. Coordinated investments in tree canopy, cool roofs, shade structures, and heat-reflective materials can reduce regional air temperatures and improve public health outcomes across multiple communities. By aligning strategies and sharing resources, the County and its partners can achieve results that are greater than the sum of their individual efforts.

Guiding Principles

The CHAP follows five guiding principles:

Guiding Principles		
	Equity-Driven	The CHAP has been developed, and will be implemented, with equity at the fore.*
	Action-Oriented	Every strategy in the CHAP is built around implementable actions with clear timelines, responsible agencies, and resource needs identified.
	Integrative	Rather than addressing heat as a single-issue problem, the CHAP recognizes the interconnected nature of our physical infrastructure and social and economic systems. Our evidence-informed strategies draw from research across multiple disciplines.
	Collaborative	The CHAP promotes cross-agency and cross-jurisdictional collaboration. Strategies are designed to align with County initiatives, state mandates, and community priorities, supporting shared ownership and regional impact.
	Adaptive	The CHAP will incorporate new science, respond to changing conditions, and integrate lessons learned as community needs and opportunities evolve during implementation.

* See page 12 for more information about our equity framework.

Intersection with Broader Hazards

Advancing heat resilience means grappling with a range of intersecting environmental and social challenges. Rising temperatures intensify existing hazards while creating new vulnerabilities across multiple systems.

Climate-related hazards compound one another in dangerous ways:

- Extreme heat increases wildfire risk and worsens air quality when combined with ground-level ozone formation.
- Drought conditions, made more severe by higher temperatures, limit water availability for cooling strategies and stress urban vegetation that provides natural cooling.
- Higher electricity usage during extreme heat may increase climate pollution and make it more difficult to stem the global rise in temperatures.
- Power outages during heat events eliminate access to air conditioning precisely when it is most needed.



Heat also amplifies social and economic vulnerabilities in ways that extend far beyond climate impacts:

- Families struggling with housing insecurity may be forced to choose between rent and utility bills during expensive cooling months.
- Limited access to healthcare can turn heat stress into a life-threatening emergency.
- Language barriers can prevent residents from receiving critical heat warnings or accessing cooling resources.

The CHAP recognizes these intersecting risks and is designed to strengthen resilience across both physical and social systems.

While developing strategies to mitigate the impacts of heat, the County must be sensitive to these intersecting issues. We will do this by using a balanced mix of strategies, accounting for potential constraints to heat resilience resources such as water and power, and avoiding overreliance on strategies that can become maladaptive, such as the use of air conditioning or fire-prone vegetation.

Building on a Decade of Climate Action

The CHAP did not develop in a vacuum. Sustained advocacy and grassroots leadership from community-based organizations throughout LA County have already driven policy development for heat resilience and established a strong foundation for comprehensive heat action, positioning the County to implement an ambitious heat resilience agenda that is connected to broader sustainability and equity goals.



The **Cool Roof Ordinance**, adopted in 2018, established requirements for reflective roofing materials on new construction and major roof replacements in unincorporated areas, lowering indoor temperatures, reducing cooling demand, and laying an early regulatory foundation for heat resilience.

The **OurCounty Sustainability Plan**, adopted in 2019 and being updated in 2025, has established environmental justice and health equity as central organizing principles for County operations and investments toward addressing our region's sustainability challenges. OurCounty's commitment to centering frontline communities in this work created the political and programmatic foundation for the CHAP's equity-driven approach.

The **Climate Vulnerability Assessment (CVA)**, completed in 2021, provided the first comprehensive analysis of heat risks across LA County. The CVA Mapping Tool has helped to identify heat-vulnerable communities and create a shared understanding of the intersection of climate hazards with social vulnerabilities.

The **Safety Element of the County General Plan**, updated in 2022, aligned land use planning with climate resilience goals, creating regulatory mechanisms for incorporating heat and other climate considerations into development decisions.

The **Los Angeles County Community Forest Management Plan**, adopted in 2024, advanced a strategic vision for managing the County’s urban forest as critical green infrastructure. By identifying priority areas for canopy expansion and emphasizing equitable tree planting in heat-vulnerable neighborhoods, the plan laid a foundation for long-term shade equity and biodiversity goals.

The **All-Hazards Mitigation Plan** update in 2025 expanded the County’s hazard planning framework to include climate change as a recognized threat, incorporating extreme heat into disaster preparedness through measures such as cooling centers, urban greening, and heat-resilient building practices.

The Los Angeles County **Indoor Maximum Temperature Ordinance**, adopted in 2025, established a threshold of 82°F for rental units, creating a regulatory framework to protect tenants from extreme indoor heat and advance housing-related climate resilience.

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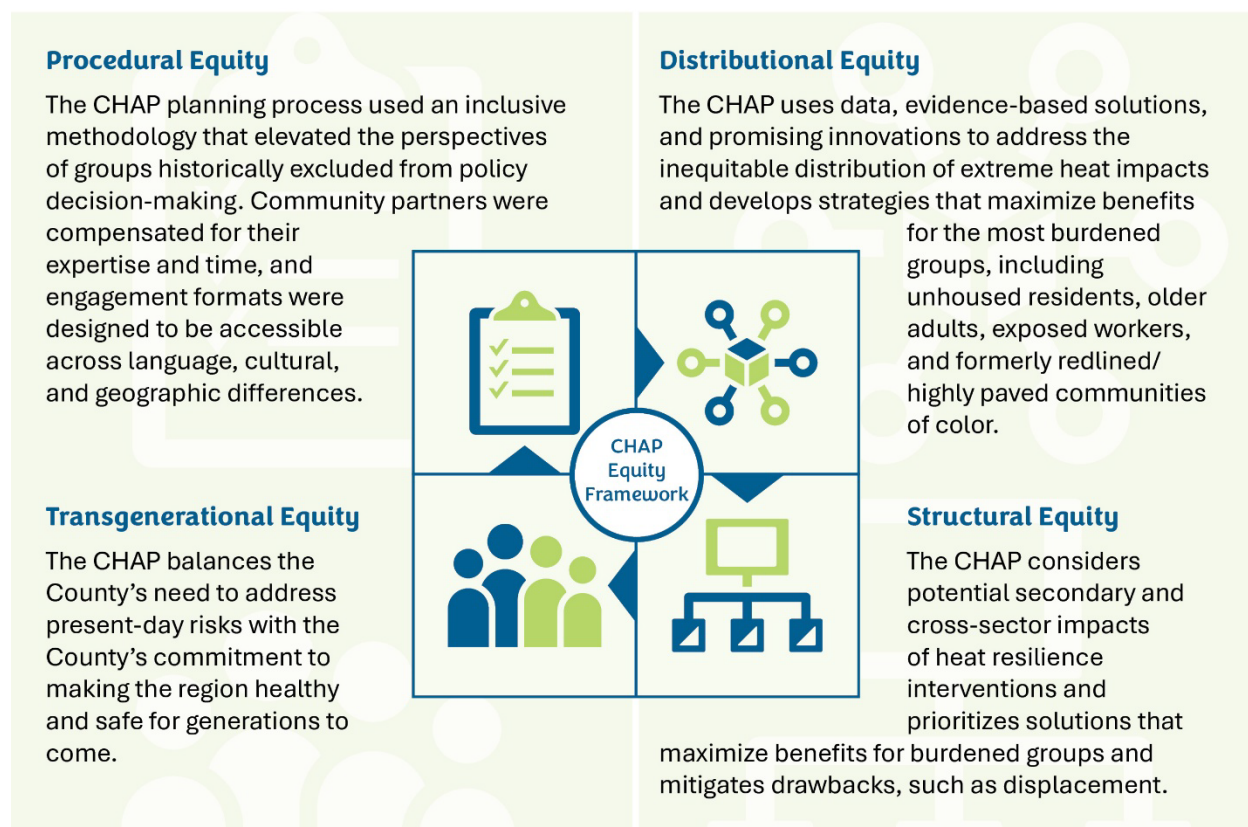
Since the 2021 release of the CVA, CSO has benefitted from many opportunities to partner with research institutions to further inform County heat resilience efforts. We have participated in, commissioned, or advised on a range of research projects, including:

- An ongoing climatological study by the Jet Propulsion Laboratory to create a more precise understanding of heat exposure now and into the future
- A RAND statistical analysis of heat impacts to County operations, and the development of a software tool that will enable similar analyses to be replicated with future data
- A RAND examination of the draft renter heat safety policy
- ShadeLA, a recently-launched initiative jointly led by USC and UCLA that will include research on solutions to technical and bureaucratic barriers to shade installation
- UCLA spatial analyses of shade locations and pedestrian activity, aimed at identifying where new shade installations should be placed for maximal cooling benefits

We also engage with researchers developing heat-related resources at the state and national levels and facilitate collaborations among our research partners. We will continue these efforts to advance the field of heat research as we implement the CHAP, not only to benefit our own work but also that of agencies across the world who are seeking to adapt to a hotter future.

The CHAP Equity Framework

The entire CHAP planning process was intentionally designed to advance procedural equity from the outset, ensuring meaningful participation and shared decision-making throughout plan development. Further, the County is committed to operationalizing equity through the below framework that addresses multiple dimensions of fairness and inclusion. This framework is aligned with the OurCounty Sustainability Plan and demonstrated at the Goal, Strategy, and Action level of the CHAP.



Planning Process

The CHAP development process began with a motion from the LA County Board of Supervisors in July 2023, directing the Chief Sustainability Office (CSO) to work with nine other County Departments to draft a framework for addressing the risks of increasing heat. During the subsequent 12 months, CSO and County partners assessed heat resilience opportunities and gaps, identified potential goals, and secured consultant support to conduct a more formal planning process with broad, inclusive engagement.

From there, the planning process was designed to center the expertise and priorities of communities most affected by extreme heat while building the technical and political foundation for sustained implementation. The planning team engaged hundreds of

stakeholders through multiple formats designed to reach different constituencies and capture diverse forms of knowledge. This engagement reflected a fundamental belief that effective heat resilience strategies must be grounded in both technical expertise and lived experience of heat vulnerability.

Figure 1. Engagement Timeline

	2024						2025									
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Steering Committee	★	★		★		★					★		★			★
Goal 1 Workgroup				◆		◆							◆			
Goal 2 Workgroup				◆					◆			◆				
Goal 3 Workgroup			◆		◆							◆				
Partner Workshops		●●													●●	
Resident Engagement																

Building the Foundation: Steering Committee Leadership

External engagement began with the July 2024 formation of a Steering Committee composed of regional implementation partners, academic and technical experts, and community representatives who provided high-level guidance throughout the planning process. The 20-person committee advised on the overall scope, process, and direction of the CHAP, bringing diverse perspectives on heat resilience while ensuring that the CHAP remained accountable to broader regional goals and maintained focus on actionable outcomes.

Steering Committee members represented the full spectrum of heat resilience, with participation from the following organizations:

- Antelope Valley Partners for Health
- Climate Resolve
- Gateway Cities Council of Governments
- LA City Climate Emergency Mobilization Office
- LA County Department of Public Health, Office of Environmental Justice and Climate Health
- LA County Public Works, Sustainability Office
- LA Metro
- LEAP-LA Coalition, represented by Physicians for Social Responsibility Los Angeles and Pacoima Beautiful
- Los Angeles Regional Collaborative for Climate Action and Sustainability



In-person workshop

- ReDesignLA, represented by the Council for Watershed Health
- San Gabriel Valley Council of Governments
- South Bay Cities Council of Governments
- Southern California Association of Governments
- UCLA Institute of the Environment and Sustainability
- UCLA Luskin Center for Innovation

The Committee has met six times so far throughout the planning process, providing input on engagement strategies and reviewing draft content. The Committee’s guidance was particularly valuable to ensuring that the broader engagement process was inclusive and equitable. The Committee also helped project staff navigate tensions between ambitious vision and practical implementation, ensuring that the final CHAP would be both transformative and achievable.

Deep-Dive Expertise: Goal-Specific Workgroups

Three goal-specific **Workgroups** each included County department staff, technical experts, and regional implementation partners with multifaceted expertise. The full list of workgroup member agencies can be found in the Acknowledgements section of this plan. Each workgroup met three times over several months, allowing for iterative feedback as initial ideas for how to advance each goal evolved into specific and detailed strategies and actions:

- **Members of the workgroup for Goal 1 (Cool Outdoor Spaces)** included infrastructure and environmental experts, community organizations, and urban planners.
- **Members of the workgroup for Goal 2 (Create Heat-Resilient Indoor Spaces)** included energy efficiency and building science experts, community and environmental justice organizations, and housing providers.
- **Members of the workgroup for Goal 3 (Expand Heat Safety Communications and Programs)** included emergency management professionals, community and worker organizations, and healthcare providers.

Workgroup meetings focused on reviewing and refining potential strategies and actions, identifying implementation opportunities and challenges, and developing targets for tracking the CHAP’s progress. The iterative nature of these discussions allowed participants to learn from and build on each other’s expertise while ensuring that goal content reflected both best practices and feasibility.



Workshop poster comments

Partner and Resident Engagement

The County engaged a broader set of organizations from across the region through **partner workshops**. Two workshops were held at the beginning of the process to gather input on potential actions for heat resilience and hear about community experiences of heat; two additional workshops being held during the public comment period will be an opportunity to get feedback on draft actions, identify areas of alignment between CHAP actions and current initiatives at participating organizations, and identify opportunities to strengthen collaboration for implementation.

The workshops took place at different times and in different formats to accommodate a diversity of participants. They were designed to be accessible to participants with varying levels of familiarity with policy and planning processes. These participants represented the diversity of heat-vulnerable residents across LA County: from renters living in older housing without air conditioning, outdoor workers exposed to extreme temperatures, older adults with limited mobility, parents concerned about children's safety during heat events, to residents of neighborhoods with minimal tree canopy or green space. Their contributions shaped the direction of the CHAP, and their continued partnership in the CHAP's implementation will be essential to its success.



In-person workshop

In August–September 2025, the CSO team is conducting **resident engagement** at community events in heat-vulnerable communities using materials from the Public Engagement Toolkit (more information in callout box below). We will use input gathered at these events to identify 5 to 6 priority actions, for which we will outline specific implementation steps in the final version of the plan.

Additionally, CSO has engaged directly with cities and tribes, gathering input through forums such as Councils of Governments meetings.

Technical Integration: One-on-One Consultations

Dozens of one-on-one consultations with County departments, utility companies, tribes, cities, and advocacy organizations ensured that the CHAP reflected existing capacity and aligned with ongoing initiatives rather than creating duplicative or conflicting requirements. These conversations were essential for understanding the practical constraints and opportunities that would shape implementation while identifying potential partnerships and resource-sharing arrangements.

Departmental consultations revealed both the extensive heat-related work already underway across County agencies and the coordination challenges that the CHAP could help to address. For example, Public Works shared insights about tree planting and shade structure programs, Public Health provided data on heat-related emergency department visits, Parks and Recreation described cooling strategies in recreational facilities, and Regional Planning explained how heat considerations could be integrated into land use decisions.

Consultations with utilities like Southern California Edison provided crucial information about electricity grid constraints during heat events, energy efficiency programs that could support indoor cooling, and infrastructure investments that could improve system reliability. These conversations helped ensure that CHAP strategies would complement rather than conflict with utility planning and investment priorities.

Integrating Diverse Knowledge Systems

The CHAP planning process has treated community knowledge and technical expertise as equally valuable and mutually reinforcing rather than competing sources of information. Partner workshops and community tabling added nuance that cannot come from technical analyses, while departmental consultations surfaced implementation pathways and resource ideas that community advocates might not access independently.

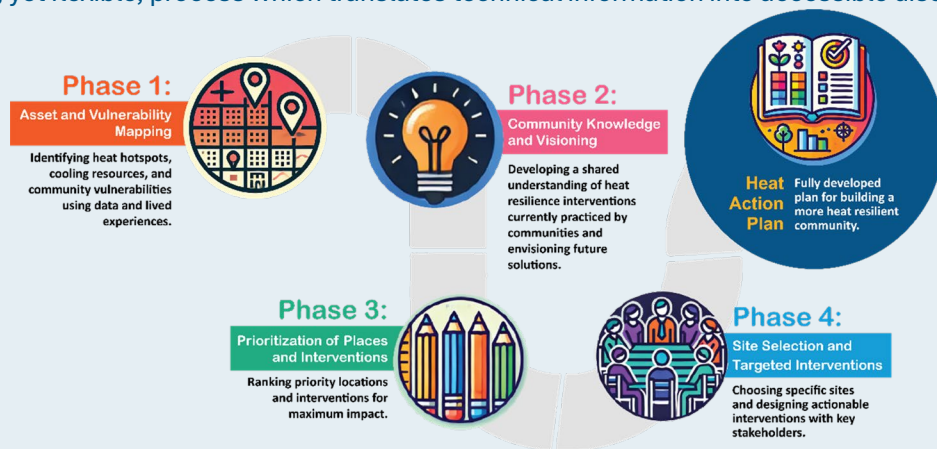
The result is a plan that reflects a sophisticated approach to heat resilience that emerges only when community experience and technical analysis inform each other. Strategies are grounded in the daily realities of residents who navigate extreme heat while also incorporating the systems knowledge needed for effective implementation and sustained impact.

Public Engagement Toolkit for Heat Action Planning

As part of the CHAP planning process, CSO collaborated with community leaders, government partners, and experts to develop a Public Engagement Toolkit for Heat Action Planning. The toolkit is designed to support frontline communities, government agencies, and others with engaging community residents in identifying and developing solutions to risks posed by extreme heat and rising temperatures. While the CHAP itself can serve as a model for other heat resilience plans, this toolkit reinforces and supports the principle that Cities should also engage their own residents in their planning processes.

The Public Engagement Toolkit equips its users with structured, ready-to-use resources to guide meaningful community engagement around extreme heat and rising temperatures. It provides everything needed to run an effective workshop: sample **agendas and event flyers**, **presentations**, detailed **facilitator's guides**, step-by-step **activity instructions**, and **visuals and templates** designed to accompany the suggested activities. These activity materials can be modified for use in engagement formats beyond a structured workshop, such as tabling at community events. Presentations, activity materials, and event flyers have been translated into Spanish.

The toolkit is organized into four phases: **(1) Asset and Vulnerability Mapping**, **(2) Community Visioning**, **(3) Prioritization of Interventions**, and **(4) Site-Specific Planning**. It is designed to offer a structured, yet flexible, process which translates technical information into accessible discussions.



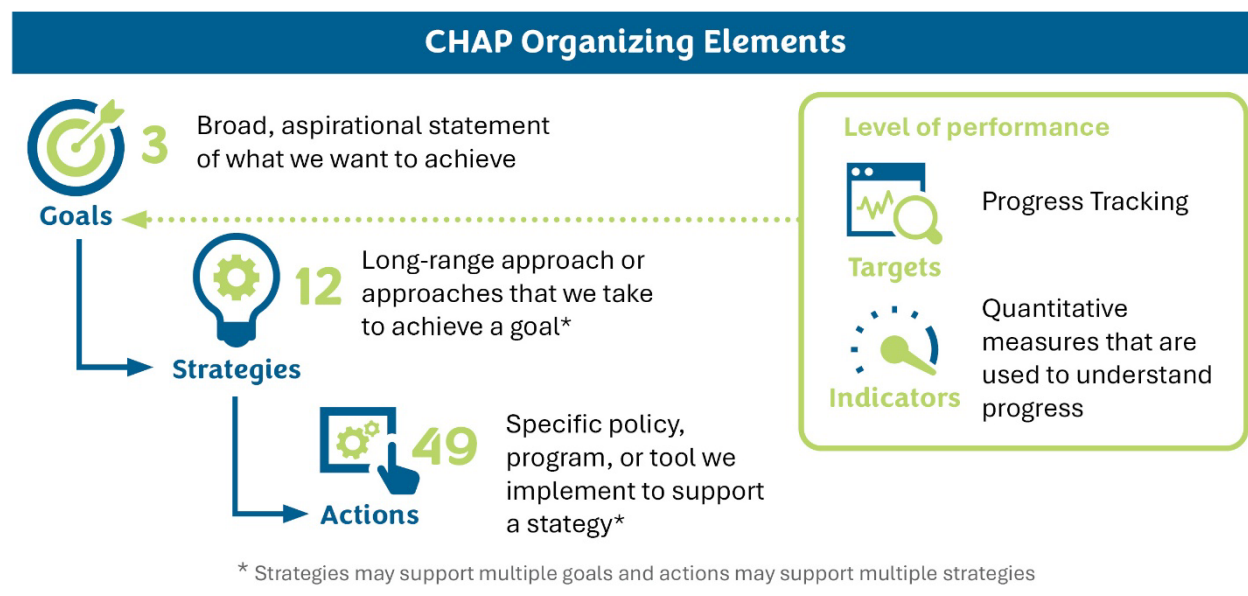
Equity is embedded throughout. The Toolkit provides practical guidance for creating inclusive engagement spaces, such as using plain-language materials, and hosting activities in familiar and trusted community venues. It emphasizes culturally relevant facilitation, accessible meeting formats, and targeted outreach to residents who are often left out of planning processes, including older adults, youth, renters, and low-income households. Facilitators are encouraged to acknowledge systemic inequities, and to ensure that the voices of disproportionately heat-burdened communities shape decisions about interventions.

Additional resources in the toolkit include **reference materials**—to help facilitators develop more detailed plans for local engagement activities and establish additional context and **pre-existing informational materials**—such as flyers on how to stay safe during extreme heat and tree planting guidelines, which may be helpful to share with event participants. All elements of the toolkit are available on [CSO's website](#).

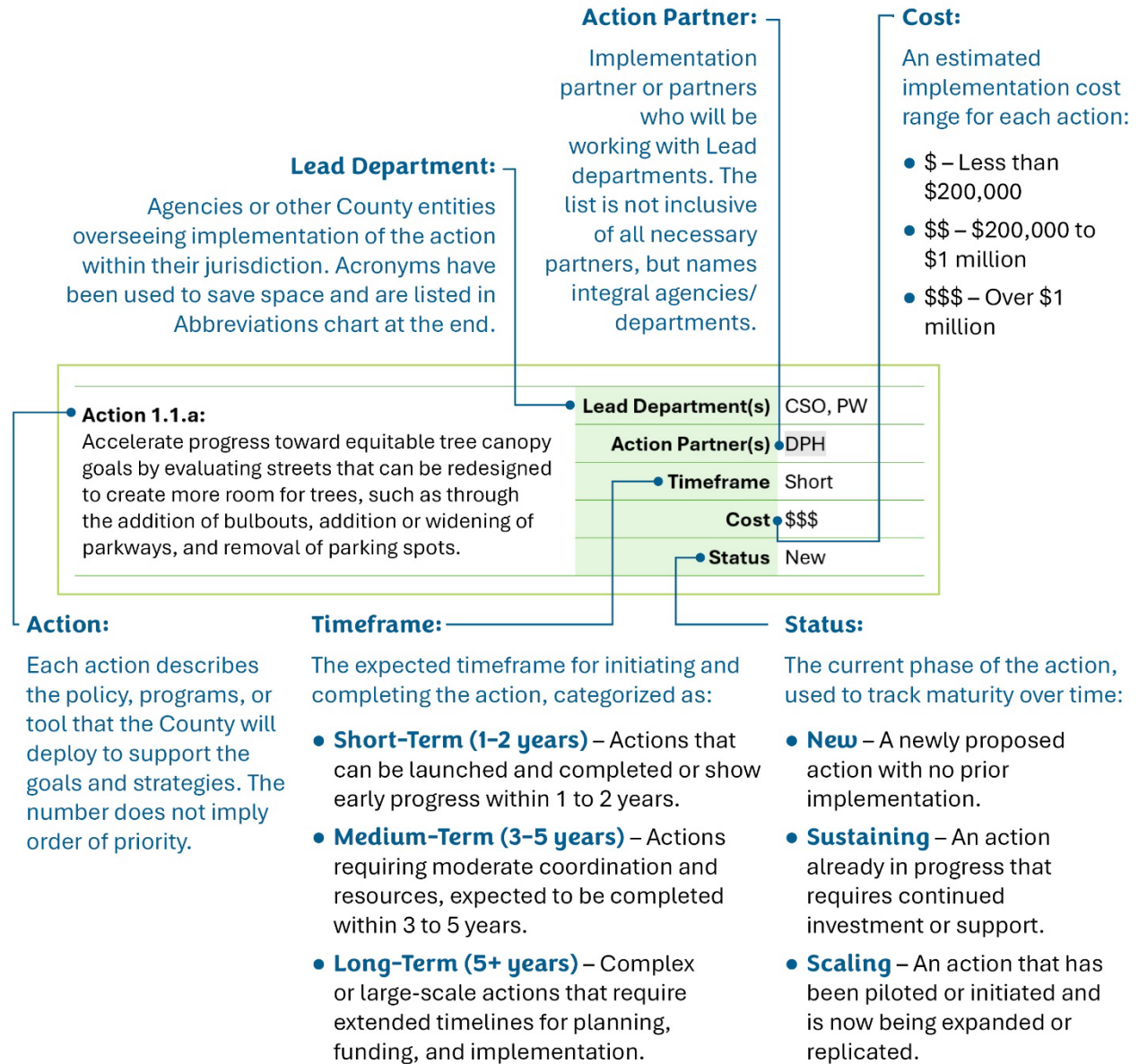
How to Use the CHAP

The CHAP is designed as a policy and coordination tool for agencies, organizations, and institutions working on heat resilience across LA County. County departments can use the plan to align capital investments, policy development, and program design with shared heat resilience goals. Cities can adapt strategies and actions to local conditions while contributing to regional coordination. Community-based organizations can use the plan to identify advocacy priorities, develop grant proposals, and hold government partners accountable for implementation commitments.

The plan is organized around three **Goals** that define the outcomes LA County aims to achieve. Each goal is implemented through multiple **Strategies** that outline the County's core approaches. These strategies are operationalized through specific **Actions** with designated leads and timelines. **Targets** to be included in the final version of the plan will provide measurable benchmarks for tracking progress toward each goal, with indicators designed to be ambitious but achievable. This structure allows users to engage at multiple levels: reviewing high-level goals for strategic alignment, identifying relevant strategies for program development, selecting specific actions for implementation, or accessing monitoring frameworks for accountability and evaluation.



The following graphic illustrates how to read the Actions under each Strategy.



Measuring Impact through Targets

The CHAP's success will ultimately be determined by its ability to tangibly improve the lives and safety of LA County residents, particularly those who have historically borne the greatest burden of environmental hazards. To ensure accountability, transparency, and continuous improvement, the final CHAP will include overarching indicators and Goal-level targets. These targets will focus on Countywide outcomes that depend on action by both County government and regional partners following a 5-, 10-, and 20-year timeline (2030, 2035, and 2045).

Focus areas for the overarching indicators include health outcomes, shade coverage, building design, and access to cool spots. Targets are being developed using a consistent set of criteria:

- **Outcome-Based**—focused on results that matter for residents.
- **Data Availability and Trackability**—based on data that exists or can be realistically developed with County, State, or partner data sources.
- **Alignment with Existing County Goals and Plans**—aligned with previously adopted County and regional goals to ensure consistency and integration across departments.
- **Cross-Sectoral Relevance**—relevant across multiple agencies and program areas, encouraging collaboration and breaking down silos. For example, goals related to shade, cooling, and water access can engage public health, public works, and parks agencies simultaneously.
- **Actionability**—ambitious and achievable, reflecting available implementation tools, budget considerations, and political realities. Each is grounded in an understanding of current baselines and the scale of investment required to make progress.
- **Clarity and Communicability**—conceptually accessible and framed in plain language so progress can be understood and shared broadly with the public.

Heat Impacts and Vulnerabilities

Rising temperatures pose serious and escalating threats to human health, community wellbeing, and the systems that support daily life in LA County.

Extreme heat exacerbates chronic conditions like cardiovascular and respiratory disease, increases emotional distress, and can lead to heat exhaustion and life-threatening heat stroke. National data show that hundreds of people die from heat-related causes each year, and the actual toll is likely much higher due to underreporting and misclassification.^{3,4} Furthermore, heat impairs cognitive function, affecting student learning and diminishing worker productivity -- particularly in outdoor industries like construction. These economic consequences ripple through communities, with costs estimated in the billions annually for the Los Angeles region.

Our built and natural infrastructure are also affected; high temperatures degrade roadways and reduce the efficiency of the electrical grid.⁵ Parks and other green spaces become less effective at cooling when they lose plants and trees due to heat stress.

The following sections discuss these interconnected impacts in greater detail, underscoring the importance of cross-sector collaboration for heat resilience.

Understanding Heat Exposure

LA County is warming: Countywide temperature trends show a clear increase in average and extreme heat over the past several decades,⁶ driven by global climate change and local land use patterns. These rising temperatures are reshaping daily life, health risks, and infrastructure performance in communities across the region.

Since the 1980s, LA County has seen average summer temperatures rise by 2°F to 3°F in many inland and valley areas.⁷ Climate projections suggest this warming will accelerate in the

³ California Environmental Protection Agency, “CalEnviroScreen 4.0: A Screening Method for Assessing Cumulative Pollution Burden and Population Vulnerability” [webpage] (2021), <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.

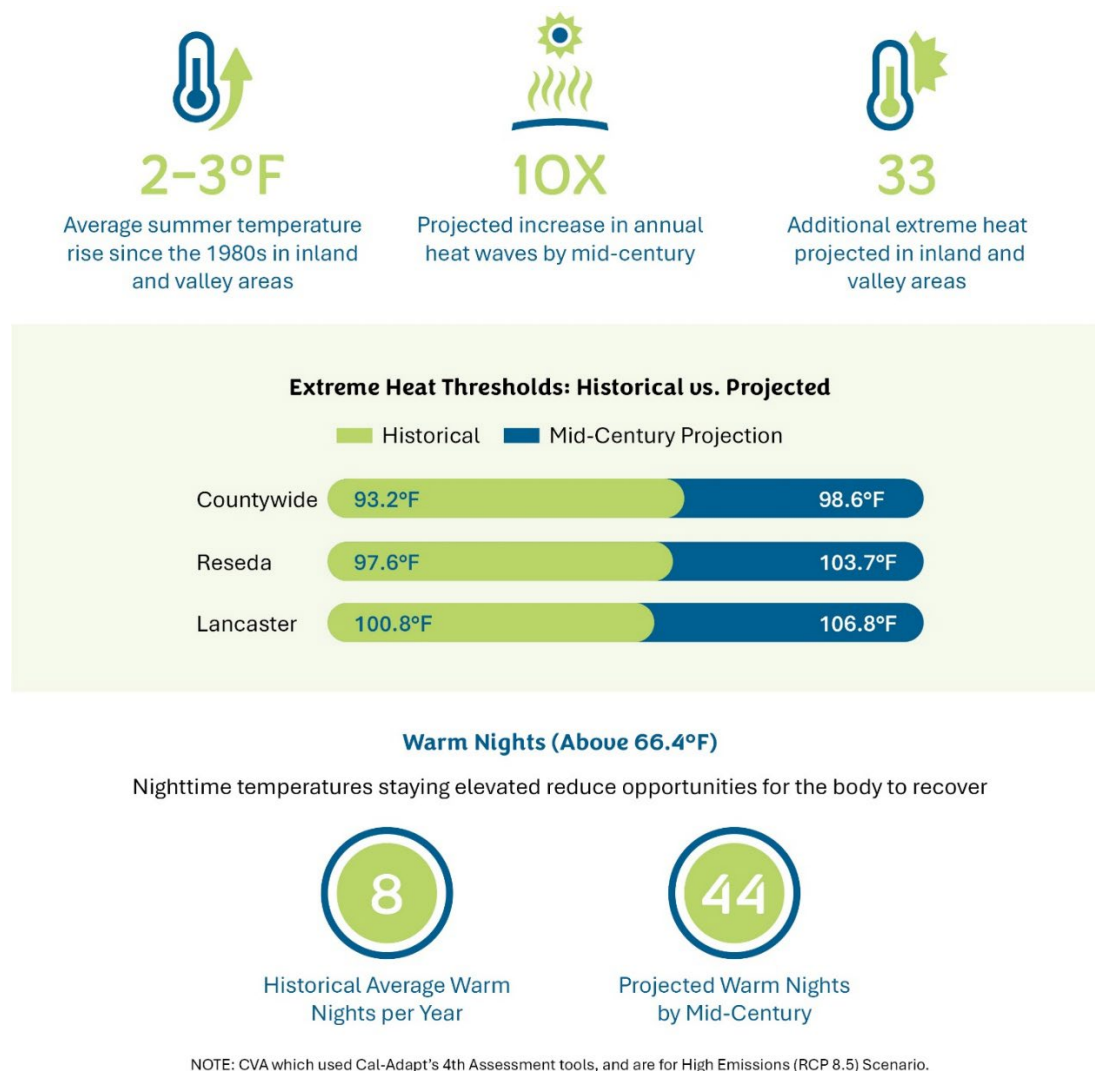
⁴ Vaidyanathan, A., J. Malilay, P. Schramm, and S. Saha. “Heat-related deaths — United States, 2004–2018.” *Morbidity and Mortality Weekly Report* 69, no. 24 (2020): 729–734. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6924a1.htm>

⁵ California Energy Commission. (2018, August). Climate Change in Los Angeles County: Grid vulnerability to extreme heat (California’s Fourth Climate Change Assessment, CCCA4-CEC-2018-013). https://www.energy.ca.gov/sites/default/files/2019-11/Energy_CCCA4-CEC-2018-013_ADA.pdf.

⁶ Cal-Adapt, “Extreme heat projections for Los Angeles County” [webpage] (California Energy Commission, 2018), <https://cal-adapt.org/dashboard/data-explorer>.

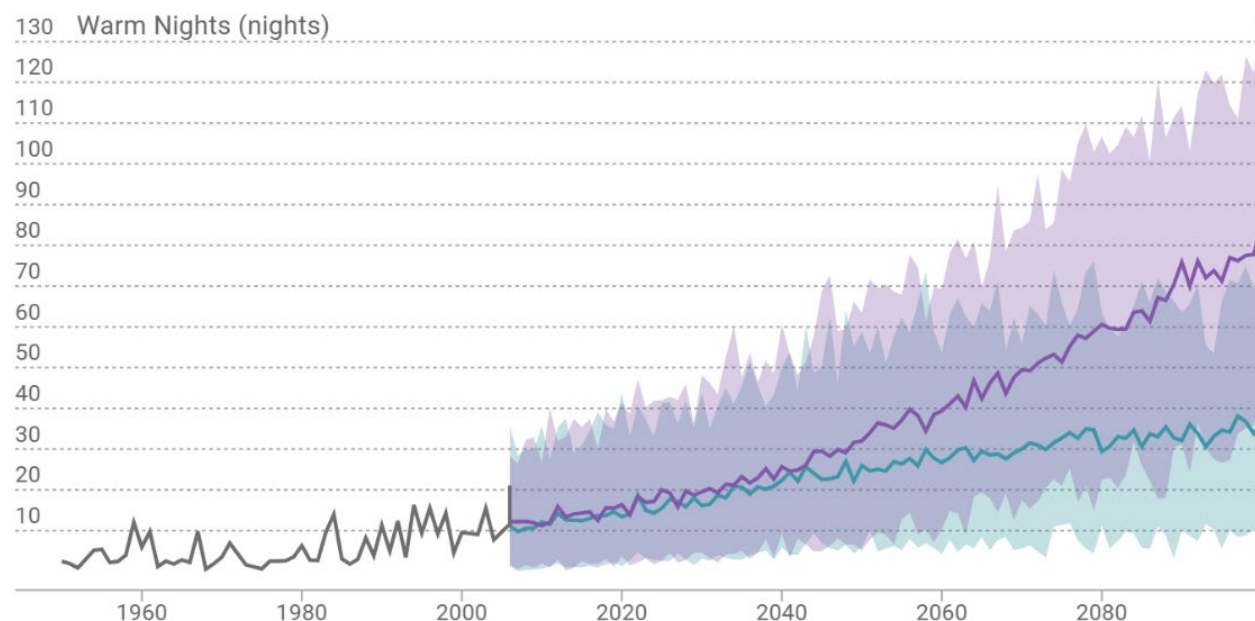
⁷ National Oceanic and Atmospheric Administration, “Climate at a Glance: County Mapping Tool” [webpage] (2022), <https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/mapping>.

coming decades under moderate to high emissions scenarios, resulting in more-frequent and prolonged heat events across the region.



Nighttime temperatures are rising even faster than daytime temperatures, eliminating crucial recovery periods. This projected increase is illustrated in **Figure 2**, which shows the modeled trend in warm nights through the end of the century. The rising trajectory underscores the growing risk to residents, particularly those without access to air conditioning who rely on passive cooling. Sustained warm nights are associated with elevated risks of heat illness, cardiovascular stress, and occupational injury the following day.

Figure 2. Warm Nights for LA County



Source: Cal-Adapt, “Extreme heat projections for Los Angeles County” [webpage] (California Energy Commission 2018), <https://cal-adapt.org/tools/extreme-heat/>.

The elimination of cool nights poses particular dangers because the human body relies on nighttime temperature drops to recover from daytime heat stress. When nights remain warm, the cumulative health impacts compound, especially affecting vulnerable populations in communities like Willowbrook, East Rancho Dominguez, and other areas identified in the County’s community engagement efforts. Sustained warm nights are associated with elevated risks of heat illness, cardiovascular stress, and occupational injury the following day.⁸

Regional Variations in Heat Exposure

Inland communities face the biggest temperature increases, with areas like the Antelope Valley and San Gabriel Valley showing warming projections of up to 8°F by the end of the century. During recent heatwaves, pavement temperatures of inland communities such as Pacoima exceeded 120°F.

Coastal areas, while historically protected, are also warming. Communities such as Venice and Malibu—historically buffered by marine influence—are projected to warm significantly, potentially catching residents unprepared due to historically milder climates and limited heat adaptation infrastructure. Even with marine influence, these areas may see temperature increases of several degrees, representing a substantial shift from historical norms.

⁸ Centers for Disease Control and Prevention, “Climate Effects on Health” [webpage] (2023), <https://www.cdc.gov/climate-health/php/regions/>.

Built Environment and the Urban Heat Effect

Temperatures across the County are not only changing as a result of global climate change, but also through local development patterns. The urban heat effect occurs when buildings, pavement, and other heat-absorbing surfaces trap and re-radiate heat. These materials absorb solar radiation during the day and release it slowly at night, raising air and surface temperatures.⁹ As a result, parts of LA County with lots of impermeable surfaces and limited vegetation can be up to 10°F hotter than nearby neighborhoods with more natural cover.¹⁰

These temperature differences closely reflect patterns of disinvestment and structural inequity. The urban heat effect is pronounced in neighborhoods that were historically excluded from public and private investment.¹¹ Research shows that formerly redlined areas in LA County consistently experience higher daytime surface temperatures than adjacent neighborhoods with similar geography but different historical land use decisions.¹²

These disparities are the legacy of discriminatory land use policies, including the placement of freeways, industrial zones, and underinvestment in green infrastructure in communities of color. Those decisions continue to shape who is most exposed to dangerous heat today.

The Scale of Pavement in LA County

- Over **290,000 acres** of pavement exist across Los Angeles County—equivalent to **465 square miles**, which makes it the **second-largest city** in California by land area.
- **Residential land** accounts for the largest share, with **61,388 acres** of pavement, **79%** of which is located on **single-family parcels**.
- These vast expanses of heat-retaining surfaces significantly amplify the **urban heat effect**, especially in communities with low tree canopy and limited green space.

Source: *DepaveLA Report 2025*

How Heat Affects Health and Wellbeing

Extreme heat affects health, safety, productivity, and community wellbeing. As temperatures continue to rise across LA County, heat's physiological, social, and economic impacts are expected to intensify, especially for communities with limited access to cooling, health care, and financial resources. By mid-century, about 2.2 million people may live in areas within LA

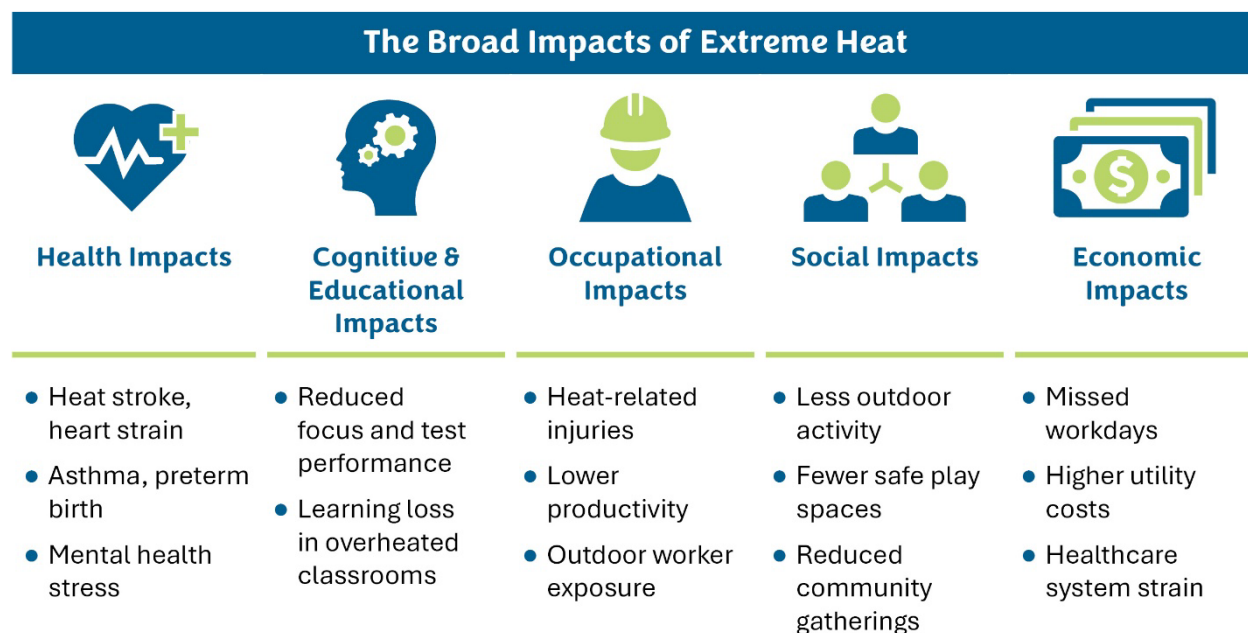
⁹ U.S. Environmental Protection Agency, "Urban Heat Island Mapping Campaigns: Los Angeles County" [webpage] (2025), <https://www.epa.gov/heatislands>.

¹⁰ Climate Central, *Los Angeles and the Urban Heat Effect* (2024). <https://www.climatecentral.org/climate-matters/urban-heat-islands-2024>

¹¹ National Community Reinvestment Coalition. (2022, July 7). *The temperature of disinvestment: Examining urban heat islands and historically redlined communities*. Retrieved September 6, 2025, from <https://ncrc.org/the-temperature-of-disinvestment-examining-urban-heat-islands-and-historically-redlined-communities/>

¹² Science Advances. (2023, April 28). Unequal exposure to heatwaves in Los Angeles: Impact of uneven green spaces. *Science Advances*, 9(17), eade8501. <https://www.science.org/doi/10.1126/sciadv.ade8501>

County with high heat exposure and elevated social vulnerability, underscoring the urgency of coordinated action to reduce heat-related harm.¹³



Extreme heat can quickly overwhelm the body’s ability to regulate temperature, leading to dehydration, heat exhaustion, or life-threatening heat stroke. It can also trigger cardiovascular and respiratory problems and cause preterm births.

In LA County, heat waves have led to measurable increases in emergency department visits. Between 2005 and 2020, heat-related emergency room visits rose by more than 25% in some parts of the County, with inland and historically underserved neighborhoods experiencing the highest rates.¹⁴

Populations at High Risk of Heat-Related Impacts

People can face elevated risk of heat impacts for different reasons, including physiological sensitivities that affect how their bodies respond to heat, and living conditions or circumstances that increase heat exposure or limit access to cooling resources during extreme heat events. For example:

- Young children and older adults are less able to regulate their internal temperatures

¹³ [LA County Climate Vulnerability Assessment 2021](#)

¹⁴ UCLA Heat & Health Dashboard. “Heat-Related Emergency Department Visits by Neighborhood: 2005–2022” [webpage]. Luskin Center for Innovation. 2023. <https://experience.arcgis.com/experience/4c158842b5c94857a06c3a85c7aa02de/page/Map>.

- People with disabilities or chronic health conditions such as cardiovascular disease and asthma may experience acute health episodes triggered by extreme heat
- People experiencing homelessness and outdoor workers face direct, prolonged heat exposure
- Communities of color have limited cooling resources (e.g., tree canopy) due to historical disinvestment
- People with limited English proficiency, undocumented status, or no health insurance may avoid seeking cooling services or medical care due to language barriers, deportation fears, or cost concerns

Mental and Social Wellbeing

Prolonged heat waves can also disrupt mental health and community wellbeing. In California, a study found that a 10°F increase in same-day mean apparent temperature during warm seasons was associated with a 4.8% increase in emergency room visits for mental health disorders, a 5.8% increase in self-injury and suicide, and a 7.9% increase in intentional injury or homicide.¹⁵ Lack of nighttime cooling affects sleep quality and cognitive function, particularly for children and older adults.

Social cohesion and physical activity also decline during hot weather. Residents are less likely to use public parks—especially those that lack trees, shade structures, or indoor facilities—during extreme heat events, reducing opportunities for exercise, social connection, and outdoor activity. This effect is most pronounced in neighborhoods lacking shade or cooling infrastructure, contributing to isolation and reduced quality of life.

Economic Impacts of Extreme Heat

Heat-related costs extend across household budgets, workplaces, and public systems. Energy use rises sharply during heatwaves, particularly among households that rely on air conditioning to maintain safe indoor temperatures. In disadvantaged communities, residents may spend more than 10% of their income on summer utility bills, meeting the threshold for “energy burden.”¹⁶

¹⁵ Office of Environmental Health Hazard Assessment. (2017, September 26). *Study suggests link between temperature increases and mental health-related emergency room visits*. Retrieved September 6, 2025, from <https://oehha.ca.gov/air/press-release/press-release-air/study-suggests-link-between-temperature-increases-and-mental-health-related-emergency-room-visits>

¹⁶ U.S. Department of Energy. (2022, October). *How high are household energy burdens?* [PDF]. Retrieved September 6, 2025, from https://www.energy.gov/sites/default/files/2022-10/16.%20How%20high%20are%20household%20energy%20burdens_ds_0.pdf

Extreme heat disrupts the ability to work, particularly for those in outdoor or high-exertion roles. In Los Angeles, heat and humidity are estimated to cost the metro region nearly \$5 billion annually in lost worker productivity, with projected losses rising to \$11 billion by 2050.¹⁷ These impacts are most pronounced in sectors such as construction and utilities, where a large share of labor occurs outdoors and is highly sensitive to temperature extremes. Studies have shown that extreme heat can impair cognitive function, reduce learning outcomes for students, and affect academic performance—especially in under-resourced schools lacking adequate cooling.¹⁸

Increased use of emergency services and healthcare systems during heatwaves strains our public resources. A study that looked at emergency medical service calls over 10 years in LA County found that calls increased by an estimated 15% during extreme heat (defined as days that reach the Extreme HeatRisk designation of the National Weather Service). The economic impact is substantial: the September 2022 heatwave alone generated an estimated \$1.76 million in additional emergency medical service expenses for LA County Fire Department and \$2.28 million in additional emergency room costs.

Community Heat Vulnerability

Heat resilience planning is a relatively new field of practice, with research on heat vulnerability, heat impacts, and relevant interventions still emerging and evolving rapidly. Many researchers have developed heat vulnerability indices to try and predict which parts of a geographic region will be more prone to health and social impacts due to the cumulative burden of increased heat exposure, population susceptibility, and environmental characteristics – however, most indices have only moderate predictive power.

Because of world-class research taking place locally, the LA region is able to draw on real-world outcomes rather than relying solely on predictions; UCLA analyses of health records has revealed which local areas are already disproportionately burdened by heat health impacts. Darker colors in the below map indicate where residents had worse health outcomes during extreme heat in recent history. When we implement our heat resilience strategies, we can advance equity in the near term by targeting investments toward these heat-vulnerable communities.

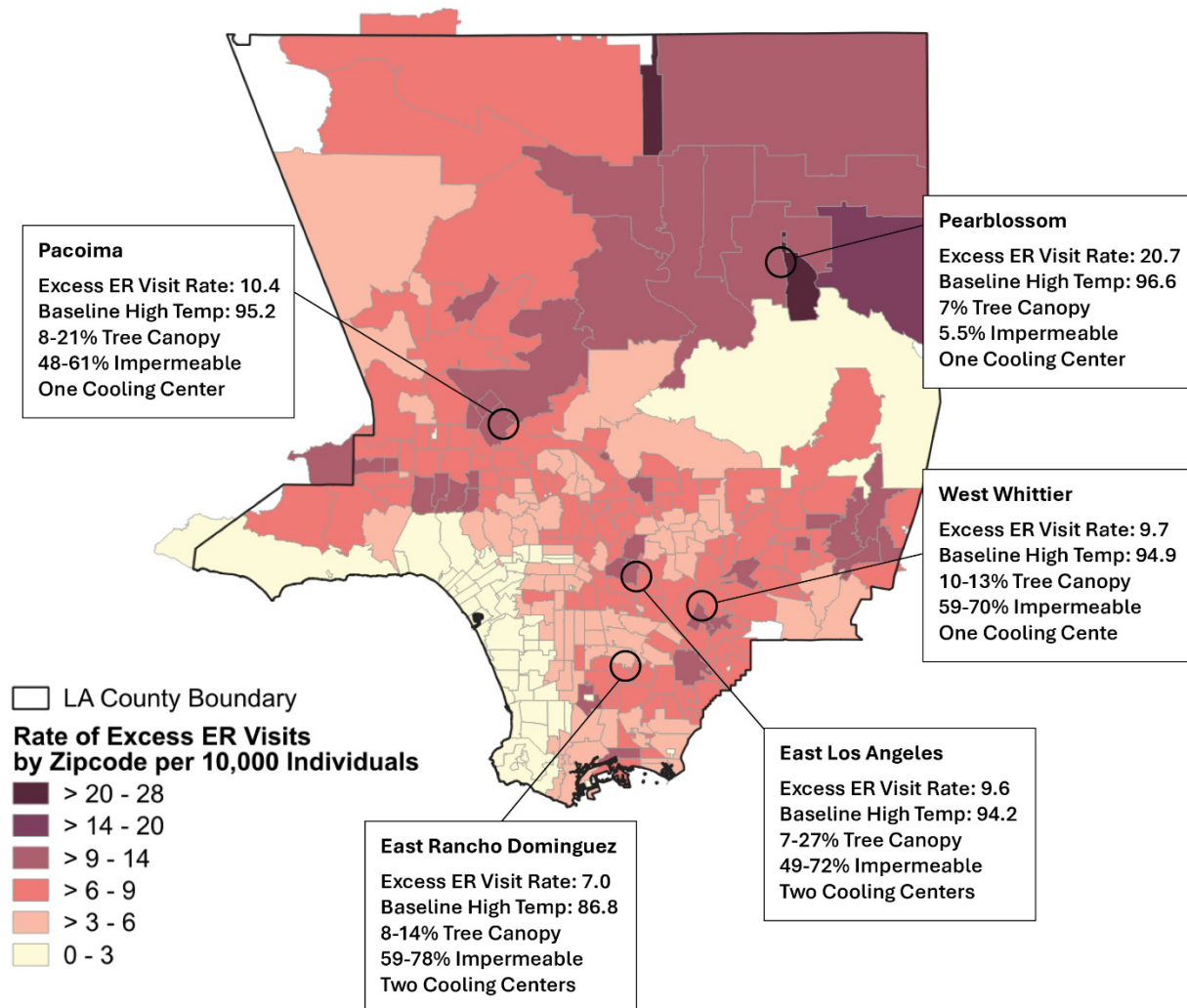
We must also leverage other data sources to assess variation in heat vulnerability at a more granular spatial scale, understand how residents may be exposed to heat as they travel across

¹⁷ One Billion People More Resilient. (n.d.). *Hot Cities, Chilled Economies: Los Angeles, United States*. Retrieved [today's date], from <https://onebillionresilient.org/hot-cities-chilled-economies-los-angeles/>

¹⁸ UCLA Luskin Center for Innovation. (2025, August 4). *Rising temperatures cause students to underperform across the world*. Retrieved September 6, 2025, from <https://luskin.ucla.edu/rising-temperatures-cause-students-to-underperform-across-the-world>

the region (e.g., while waiting at bus stops outside their home neighborhood), predict changes in heat vulnerability over time, and identify infrastructure gaps and intervention opportunities. We will continue to monitor and engage with research throughout CHAP implementation so that we can execute and adjust our interventions based on the best available evidence.

Figure 3. Community Heat Vulnerability



How Heat Impacts Infrastructure and Ecosystems

Extreme heat does not just threaten people, it strains the infrastructure and systems that communities depend on daily. These impacts are the most severe in neighborhoods that already face service inequities and aging infrastructure.

Nearly 96% of LA County's high-voltage transmission lines face moderate to high heat increases. When temperatures soar, electricity demand spikes while heat stress can cause transmission lines to lose carrying capacity. Transportation networks may also face challenges such as buckling roads and warping of railway tracks.

Higher temperatures can lead to eutrophication of streams and rivers, impacting water quality as well as plant and animal life. Even LA County's parks and open spaces, which serve as vital cooling refuges, are vulnerable to heat stress. Vegetation loss, inadequate irrigation, and wildfire risk can reduce their effectiveness just when communities need them most. Without drought- and heat-resilient species and long-term plans and funding for maintenance, parks and open spaces may no longer function as effective cooling infrastructure during extreme heat events.

The interconnected nature of these systems means that a single event can trigger a cascade of disruptions. If power goes out, transportation options may become limited, communications systems may fail, and access to cooling spaces may be reduced simultaneously, precisely when reliable infrastructure is most critical to protect vulnerable communities.

Goal 1: Cool Outdoor Spaces

Goal Statement

Goal 1

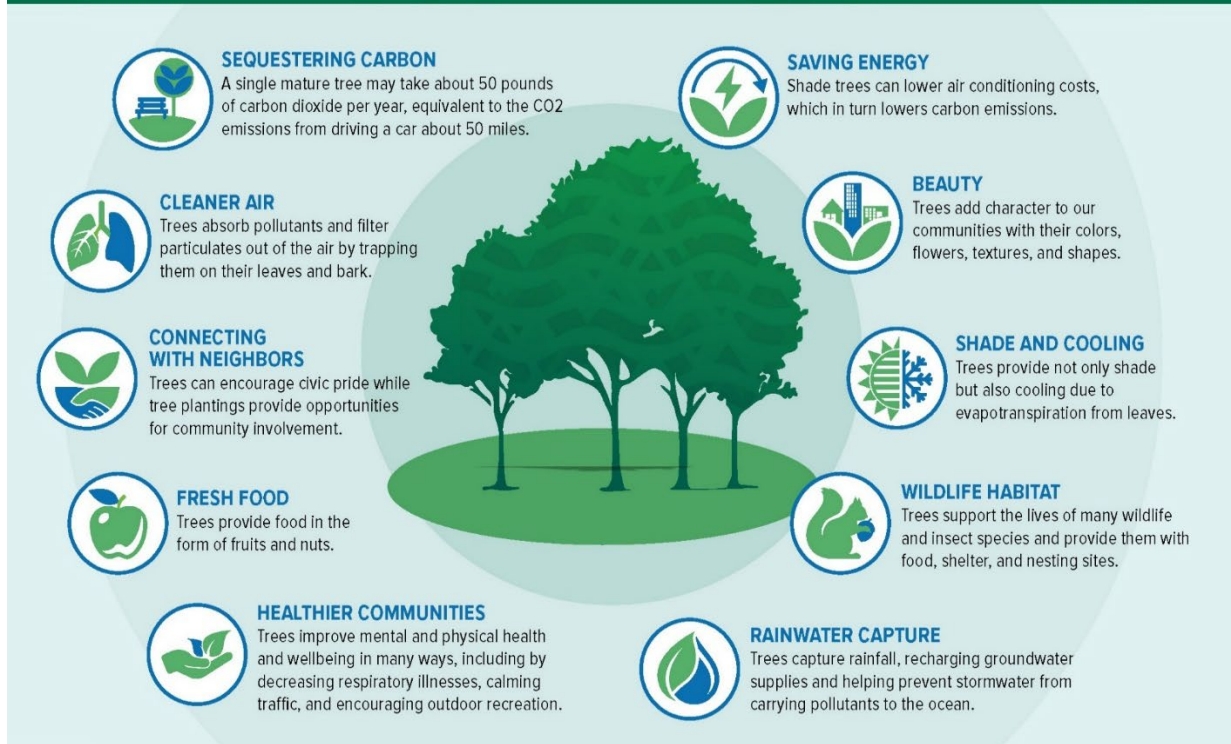
Create cooler, more livable outdoor environments through strategic shade, green infrastructure, and heat-reducing surfaces that protect residents and ecosystems while fostering vibrant community spaces.

Rising temperatures are making outdoor experiences less safe and less enjoyable for residents in every community. These challenges are compounded by the urban heat effect, which can make neighborhoods with little tree canopy and high concentrations of pavement significantly hotter than other areas. The result is not only discomfort but hazardous conditions for people, infrastructure, and ecosystems. Outdoor spaces where residents walk, wait for transit, work, shop, and gather often lack adequate shade or cooling infrastructure, and local ecosystems—from street trees to wildlife habitat—are strained by prolonged heat stress. Addressing these challenges means rethinking the design of streets, sidewalks, and public spaces; removing unnecessary barriers in codes, guidelines, and permitting; and investing in a broader range of cooling interventions that include, but are not limited to, trees and landscaping.

This goal builds on the LA County *Room to Grow* Community Forest Management Plan, which provides a comprehensive roadmap for expanding tree canopy in ways that maximize environmental and social co-benefits, while also outlining strategies for long-term maintenance, ecological resilience, and climate adaptation. (See more information in the callout box below.) Additional and innovative approaches are also necessary for making outdoor spaces safer and more livable; these include expanding shade at transit stops through bus shelters, prototyping space-efficient shade structures for constrained sites, and piloting innovative designs that can cool outdoor gathering areas, recreation facilities, and other high-use spaces. Across these efforts, the County will balance water conservation with greening needs, prioritizing drought-tolerant and native vegetation that supports ecosystem health and urban wildlife while providing meaningful temperature relief.

Community voices will be central to shaping these interventions so they meet local needs, reflect cultural values, and create spaces where people want to spend time. The County will work with residents, cities, and partner agencies to integrate natural systems alongside built solutions, providing habitat, beauty, and comfort. Investments will be paired with the County's existing tenant protections and anti-displacement measures so that the residents who most need cooling improvements are able to remain in their neighborhoods as those neighborhoods become healthier and more livable.

Benefits of Trees



The Los Angeles County “Room to Grow” Community Forest Management Plan (CFMP), published in 2024, maps out how the County will maintain, protect, and expand the tree canopy in unincorporated communities. The plan sets a target to increase tree canopy equity by achieving at least 15% canopy cover in every unincorporated community and 20% coverage across all unincorporated areas in total.

The CFMP emphasizes selecting trees for long-term health, biodiversity value, climate resilience, and compatibility with site conditions. It outlines a commitment to protect existing tree canopy through a balanced approach that takes into consideration factors such as fire safety, equity and access, and regional coordination. It also identifies maintenance best practices, such as establishment watering for the first three years after planting, to maximize sustained cooling benefits and reduce risks from tree canopy.

The plan also emphasizes building local capacity through multiple workforce actions. This includes expanding career pathways for priority populations and youth while increasing staff capacity for current best management practices with adequate training and equipment.

Strategies

Strategy 1.1: Improve shade equity in the public right-of-way to reduce overexposure to heat and promote vibrant street life.

Residents and workers navigating County streets and sidewalks outside the comfort of an air-conditioned vehicle must often contend with a high level of direct sun exposure due to limited shade. When people are exposed to direct sunlight, radiant heat from the sun can make them feel significantly hotter than the actual air temperature—sometimes more than 20 degrees hotter. This direct solar exposure poses immediate health risks and makes outdoor spaces uncomfortable or dangerous during heat events. Shade equity is not just a comfort issue; it is a matter of health, safety, and climate resilience.

This strategy prioritizes expanding shade in high-use, high-heat pedestrian areas through a range of approaches. Shade can come from trees, awnings, architectural projections (such as building overhangs, canopies, or awning extensions), or purpose-built structures such as pergolas and solar canopies. In dense corridors or narrow sidewalks where tree planting is not feasible, the County will explore innovative solutions like modular shade elements and bifacial solar panels, which offer both cooling and energy co-benefits.



Many of the County’s hottest streets were designed in ways that limit greening potential, such as limited planting zones or utility conflicts. The CHAP acknowledges these barriers and calls for flexible design strategies, paired with permitting reform. The County seeks to streamline its own approval processes, develop model templates for local adaptation, and pursue regional coordination to simplify permitting across jurisdictions.

Equity in Implementation: This strategy’s focus on increasing capital investments in under-resourced areas, such as neighborhoods with low tree canopy, will advance distributional equity.

Outcomes Anticipated: Cooler, safer pedestrian environments that promote walkability and community life. Enhanced shade at transit stops, faster implementation of shade interventions, and expanded access to public space for heat-vulnerable residents.

Action 1.1.a: Accelerate progress toward equitable tree canopy goals by evaluating streets that can be redesigned to create more room for trees, such as through the addition of bulb-outs, addition or widening of parkways, and removal of parking spots.	Lead Department(s)	CSO, PW
	Action Partner(s)	DPH
	Timeframe	Short
	Cost	\$\$\$
	Status	New
Action 1.1.b: Install bus shelters that provide shade at bus stops and coordinate with transit agencies to work toward providing real-time information on arrivals.	Lead Department(s)	PW
	Action Partner(s)	Metro
	Timeframe	Short
	Cost	\$\$\$\$
	Status	Sustaining
Action 1.1.c: Prototype and pilot innovative, space-efficient shade structure designs for locations where trees and standard shelters are infeasible.	Lead Department(s)	PW
	Action Partner(s)	CSO, Arts & Culture
	Timeframe	Short
	Cost	\$\$\$
	Status	New
Action 1.1.d: Remove barriers to tree planting and shade installation such as by updating infrastructure spacing guidelines and revising codes and permit requirements/processes.	Lead Department(s)	CSO
	Action Partner(s)	PW, FIRE, DRP, SCAG
	Timeframe	Medium
	Cost	\$
	Status	New
Action 1.1.e: Support Cities and partner agencies in implementing cooling infrastructure by creating County-approved design templates, performance standards, and expedited permitting pathways for shade structures, parklets, and other innovative cooling investments.	Lead Department(s)	CSO, PW
	Action Partner(s)	SCAG, Cities
	Timeframe	Medium
	Cost	\$\$
	Status	New

Strategy 1.2: Alleviate chronic heat burden in highly paved urban areas through urban greening, design, and smart surfaces.

In many LA County neighborhoods, expanses of asphalt and concrete intensify urban heat and cause it to persist after sunset. These temperature disparities often reflect a legacy of redlining and disinvestment, where historically marginalized communities lack trees and natural cooling features. Urban greening, design, and surface conversion approaches can undo this urban heat effect and lower air temperatures by up to 10 degrees with or without shade.

The County will pursue de-paving and surface conversion projects based on opportunity assessments, particularly in heat-vulnerable communities where surface temperature reductions can have the greatest benefits. We will also explore vertical greening solutions, such as climbing vines, which can offer cooling benefits in constrained spaces. These interventions offer multiple co-benefits in addition to outdoor cooling, such as improved stormwater management, biodiversity, and reduced greenhouse gas emissions. Furthermore, urban design strategies that promote passive cooling through building orientation, wind flow patterns, and reflective materials can be integrated into development review processes without requiring major regulatory changes.

The County will balance immediate opportunities with long-term sustainability goals, ensuring that all interventions reflect community priorities and consider maintenance requirements, fire safety, and water conservation needs.



Photo credit: LA CEO

Equity in Implementation: The County will practice procedural equity by involving impacted communities in decision-making about, and operation of, public spaces.

Outcomes Anticipated: Reduced surface and ambient air temperatures, ecological connectivity, stormwater management, and overall livability of public spaces.

Heat Absorption and Cooling: Comparing Surface Materials

Material	Heat Retention	Cooling Potential	Notes
Native Vegetation	Low	High	Supports evapotranspiration and biodiversity
Permeable Pavement	Low	Moderate–High	Allows water infiltration and evapotranspiration
Climbing Vines	Low	Moderate	Can cool vertical surfaces with minimal footprint and water needs
Cool Pavement	Low–Medium	Moderate	Reflective surfaces lower temperature and energy use
Concrete	Medium–High	Low	Light-colored concrete may have higher albedo
Asphalt	High	None	Absorbs and radiates heat long after sunset
Artificial Turf	Very High	None	Can reach 160°F+ on hot days

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Action 1.2.a:

Seek opportunities to repurpose vacant property into green spaces for community use, including through innovative ownership and stewardship models.

Lead Department(s) DPR

Action Partner(s) CSO

Timeframe Medium

Cost \$\$\$\$

Status Sustaining

Action 1.2.b:

Promote urban design strategies that reduce heat retention such as climate-appropriate building orientation, passive cooling through wind flow, reflective or porous materials, and vegetative features in public and private development.

Lead Department(s) DRP

Action Partner(s) —

Timeframe Short

Cost \$

Status New

Action 1.2.c: Explore opportunities to replace asphalt, concrete, artificial turf, and rubberized areas with permeable, cool, or vegetated surfaces in strategic locations such as parking lots and playgrounds.	Lead Department(s)	DPH, CSO
	Action Partner(s)	All Departments
	Timeframe	Medium
	Cost	\$\$\$\$
	Status	Scaling
Action 1.2.d: Evaluate potential sites and designs for vertical greening, including elements such as climbing vines and vegetation walls, in public facilities and infrastructure.	Lead Department(s)	PW, CSO
	Action Partner(s)	All departments
	Timeframe	Short
	Cost	\$
	Status	New

Strategy 1.3: Integrate cooling features into outdoor recreational and gathering spaces.

Parks, schoolyards, transit hubs, and commercial corridors serve as critical gathering spaces for LA County residents, but too often, these places lack the shade, hydration, and cooling infrastructure needed to keep people safe during extreme heat. This strategy focuses on transforming these everyday environments into community cooling assets by expanding access to shade structures, drinking water, and nature-based design.

The County will develop inventories and maps to assess existing conditions and guide equitable investments. It will be important to monitor not only where cooling resources exist, but whether they are operational—and to plan for their long-term maintenance.

To further extend cooling access, the County will establish guidelines to promote heat safety at large outdoor events and coordinate with local businesses, tenants, and street vendors to expand shade coverage in commercial areas. The County will facilitate greater use of pop-up canopies, trees, parklets, and awnings such as through technical assistance and maintenance support. These investments will support the County’s economic development goals as the region prepares to host global events like the 2026 FIFA World Cup and 2028 Summer Olympics and Paralympics.

Together, these efforts aim to make public and quasi-public spaces safer and more comfortable, especially in areas where heat risks are greatest and cooling amenities have historically been lacking.



Picture credit: LA CEO

Equity in Implementation: Effective, equitable implementation of actions involving multiple sectors will require monitoring of potential unintended outcomes to optimize structural equity.

Outcomes Anticipated: Improved hydration, shade access and increased use of public spaces on hot days, especially among children, older adults, and underserved communities.

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Action 1.3.a:
Develop inventories and maps of public access to drinking water and shade.

Lead Department(s)	CSO
Action Partner(s)	ISD
Timeframe	Short
Cost	\$
Status	New

Action 1.3.b: Install and maintain additional shade structures and hydration stations at parks, publicly accessible facilities, and transit hubs.	Lead Department(s)	DPR
	Action Partner(s)	DBH, DPH, Libraries, Aging & Disabilities, DPSS, DHS, ISD, Metro, LACMA, NHM, PW, DMH
	Timeframe	Medium
	Cost	\$\$\$\$
	Status	Scaling
Action 1.3.c: Support schools with incorporation of shade and nature-based features into their campuses and formation of agreements to expand community access to green spaces and water recreational facilities.	Lead Department(s)	CSO, LACOE
	Action Partner(s)	DPH, DPR, School districts
	Timeframe	Medium
	Cost	\$
	Status	Scaling
Action 1.3.d: Develop emergency cooling, shade and water provision, and heat safety guidelines for outdoor events.	Lead Department(s)	DPH, CSO
	Action Partner(s)	Metro
	Timeframe	Short
	Cost	\$
	Status	New
Action 1.3.e: Explore partnerships with commercial landlords and tenants, street vendors, and business associations to support installation and maintenance of awnings, pop-up shade structures, trees, parklets, and other cooling amenities.	Lead Department(s)	DEO
	Action Partner(s)	PW, CSO
	Timeframe	Medium
	Cost	\$\$\$
	Status	New

Strategy 1.4: Ensure that County assets, especially trees and vegetation that provide cooling benefits in public corridors and gathering spaces, can thrive long-term in the face of rising temperatures.

Trees and vegetation across County-managed corridors, parks, and facilities serve as essential green infrastructure, delivering shade, reducing ambient temperatures, improving air quality, and enhancing the livability of public spaces. However, as climate change intensifies, these assets are increasingly vulnerable to drought stress, storms and flooding, pests, extreme heat, and wildfire exposure.

This strategy prioritizes long-term resilience of County vegetation through proactive management and thoughtful design. The County will implement emergency watering protocols to safeguard high-value vegetation during prolonged heat events, while expanding the use of drought-tolerant,

fire-resilient, and native species that can thrive under changing climate conditions. The use of native and drought-tolerant vegetation helps to ensure that our landscapes can continue to thrive in hotter and drier weather. Coordination with the LA County Fire Department Forestry Unit will guide integration of heat resilience and fire safety, including solutions that comply with “Zone Zero” defensible space guidelines while maximizing canopy benefits in parks and corridors.

To support ecosystem function and connectivity, the County will scale up nature-based solutions such as green streets, green alleys, and restored urban waterways. These approaches are supported by existing Public Works master plans and will be embedded into capital improvement programs, ensuring ecological benefits are incorporated throughout County infrastructure. Maintaining park landscapes during heat and drought will remain water-intensive, which underscores the importance of conservation in other areas, such as limiting reliance on high-water features like misting tents. Landscaping strategies will also include pollinator habitat, soil health improvements, and increased use of recycled water and smart irrigation systems.

Equity in Implementation: By ensuring that County vegetation assets can thrive for decades to come, this strategy supports transgenerational equity.

Outcomes Anticipated: Increased resilience and survivability of County-managed tree canopy and vegetation, enhanced fire safety compliance, and ecological connectivity.



Picture credit: LA CEO

Action 1.4.a: Develop an equitable watering strategy to support tree and vegetation health during extreme heat.	Lead Department(s)	PW, DPR
	Action Partner(s)	—
	Timeframe	Medium
	Cost	\$\$\$
	Status	New
Action 1.4.b: Evaluate opportunities to improve ecological connectivity between fragmented green spaces and ecosystems by incorporating nature-based solutions into infrastructure projects, such as green alleys and waterways.	Lead Department(s)	PW
	Action Partner(s)	—
	Timeframe	Short
	Cost	\$\$\$\$
	Status	Sustaining
Action 1.4.c: Increase the number of native plants, trees, and pollinator/bird friendly landscapes on public properties.	Lead Department(s)	ISD, DPR
	Action Partner(s)	CSO, DBH, Libraries, NHM
	Timeframe	Short
	Cost	\$
	Status	New

Goal 2: Create Heat-Resilient Indoor Spaces

Goal Statement

Goal 2 Promote safe, efficient design and operations for the buildings where County residents live, work, and learn, ensuring equitable access to cooling during extreme heat.

This goal focuses on protecting people from excessive indoor heat exposure while also minimizing overall energy use. Exposure to harmful levels of heat in the buildings where people spend most of their time, such as their homes, schools, and workplaces, can be just as harmful as outdoor heat exposure. Research has found that, nationwide, between 2003 and 2023, nearly half of all heat-related deaths occur at home.¹⁹ Renters, in particular, face multiple challenges; they often reside in buildings that lack modern cooling systems and have limited ability to modify or upgrade their units.

Effective heat resilience requires a balance between keeping people safe and avoiding increased emissions that contribute to the problem. Many buildings can be kept cooler without the use of expensive mechanical systems. Passive cooling strategies such as reflective surfaces, better insulation, and enhanced natural ventilation help reduce indoor temperatures while lowering energy costs. Higher-income communities, which tend to have greater energy use intensity, have an opportunity to lead by adopting energy-efficient solutions that relieve pressure on the power grid and demonstrate sustainable indoor cooling approaches. Energy-efficient air conditioning will be important for facilities serving sensitive populations, such as daycares, nursing homes, and hospitals, where active cooling may be critical.

A reliable and resilient energy system is crucial to advancing this goal, given that active cooling requires electricity. LA County does not operate its own public utility; County residents are served by a combination of the Clean Power Alliance and investor-owned and municipal utilities, including Southern California Edison and the Los Angeles Department of Water and Power. The County must partner with these agencies to ensure equitable access to clean, affordable, and reliable energy. Similarly, while the County does not directly own most residential housing, it plays an important role in the housing landscape through building codes, zoning regulations, and landlord-tenant protections that can establish heat safety standards and support vulnerable renters.

¹⁹ E.B. Kim, “Heat waves in the US kill more people in their homes than anywhere else,” *Cincinnati Enquirer*, June 19, 2024, <https://www.cincinnati.com/story/news/2024/06/19/heat-advisory-risk-dying-at-home-or-in-cars/74130082007>.

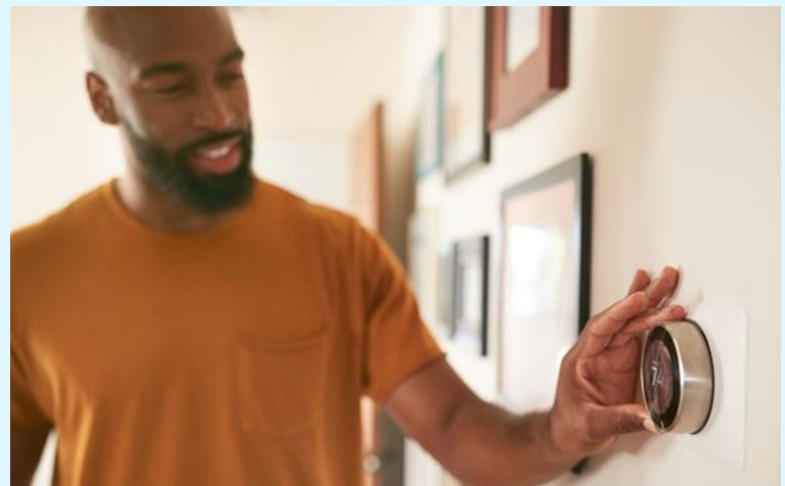
Strategies

Strategy 2.1: Protect renters from harmful levels of heat in the home environment.

Many renters in Los Angeles County live in older buildings that were not built to withstand extreme heat. Due to the changing climate, they may face increasingly unsafe indoor temperatures that pose serious health risks. A recent study found that renters are more likely than homeowners to require medical attention due to hot indoor temperatures.²⁰ To address these risks, the County has expanded its Health and Safety Code. Beginning in September of 2025, landlords in unincorporated areas of the County are required to maintain indoor temperature at or below 82°F for rental units, the first policy of its kind to address indoor heat as a public health issue.

Developed through a process that included, and was informed by, stakeholder engagement, the ordinance promotes compliance through passive cooling strategies and does not mandate air conditioning. Tenants are also allowed to install portable cooling devices, after providing written notice, with protections from eviction, cost pass-throughs, additional charges, or retaliation. To promote equity and feasibility, the County will provide educational materials and resources, and links to technical guidance and

financial assistance for both tenants and landlords. A new web platform designed to help landlords and tenants identify available cooling resources will feature new and existing assistance programs such as Clean Power Alliance rebates for energy-efficient air conditioners. Enforcement will be phased in over time through the Public Health's Rental Housing Habitability Program.



Picture credit: LA Department of Water and Power Energy Save Program

²⁰ C.J. Gabbe and Gregory Pierce, “The Roles of Housing and Household Characteristics in U.S. Residential Heat Risk,” *Findings*, April 2024, <https://doi.org/10.32866/001c.116607>,

Equity in Implementation: This strategy supports distributional equity by ensuring that a specific vulnerable population – renters – have the same cooling opportunities as the rest of the population.

Outcomes Anticipated: Safer indoor environments, reduced heat-related health risks, and expanded access to energy-efficient cooling resources without an increased risk of displacement.

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Action 2.1.a: Respond to reports of violation of the indoor maximum temperature ordinance using an education-first approach.	Lead Department(s) DPH
	Action Partner(s) —
	Timeframe Short
	Cost \$\$
	Status New
Action 2.1.b: Advise landlords on strategies and resources available for compliance with the Indoor Maximum Temperature Threshold Ordinance.	Lead Department(s) ISD
	Action Partner(s) —
	Timeframe Short
	Cost \$
	Status New
Action 2.1.c: Support residents with navigating and accessing energy assistance and energy-efficient cooling resources.	Lead Department(s) ISD
	Action Partner(s) —
	Timeframe Short
	Cost \$\$
	Status Scaling
Action 2.1.d: Ensure tenant protections ordinances enacting rent stabilization and evictions protections, including anti-harassment and retaliation protections, are honored for tenants exercising their rights under the Indoor Maximum Temperature Threshold Ordinance.	Lead Department(s) DCBA
	Action Partner(s) —
	Timeframe Short
	Cost \$
	Status Sustaining

Strategy 2.2: Maximize the adoption and use of passive cooling strategies and energy-efficient operations in both public and private buildings.

Buildings can achieve substantial cooling through passive design and improved energy operations. Cool materials, reflective coatings, ventilation upgrades, and building operation improvements reduce indoor temperatures and lower energy demand. These approaches are particularly valuable in reducing electricity costs and preserving electrical grid capacity during high heat days.

County-owned buildings will serve as implementation models, integrating high-reflectivity surfaces, efficient window films, and optimized HVAC operations to reduce thermal loads. Reducing energy use at large public facilities plays a critical role in balancing regional demand and helps prevent brownouts or blackouts so vulnerable populations can safely rely on air conditioning during heat emergencies.



Cool roof materials

Although these approaches are generally cost-efficient and can generate savings over time, they require upfront capital investments and training for the maintenance and operation workforce. The County will invest in not only its buildings, but its people, through workforce development and training that uplifts passive cooling and resilient operations.

Equity in Implementation: This strategy advances structural equity by balancing the dual goals to create workforce development opportunities for disadvantaged workers and improve energy efficiency.

Outcomes Anticipated: Cooler indoor environments, lower energy bills, reduced peak load on the grid, and expanded job opportunities in climate-resilient construction.

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Action 2.2.a:

Support the upskilling of public facility managers and contractors to build capacity for maintaining energy efficient buildings and resilient landscaping.

Lead Department(s) ISD, DPR, DEO

Action Partner(s) All departments

Timeframe Short

Cost \$\$

Status New

Action 2.2.b: Apply cool materials and features, such as high-albedo coatings and window film, at public buildings and facilities.	Lead Department(s) All departments
	Action Partner(s) —
	Timeframe Medium
	Cost \$\$\$
	Status Scaling
Action 2.2.c: Update building operations and controls to ensure energy-efficient thermal regulation that accounts for the needs of both staff and visitors, such as through air movement, regularly updated HVAC scheduling, and load flexibility.	Lead Department(s) ISD
	Action Partner(s) All departments
	Timeframe Short
	Cost \$\$
	Status Scaling
Action 2.2.d: Pilot a cool surfaces program that provides paid training to disadvantaged workers while increasing reflectivity of roofs, walls, and pavements.	Lead Department(s) DEO
	Action Partner(s) CSO
	Timeframe Short
	Cost \$
	Status New
Action 2.2.e: Promote maximal impact of the cool roof ordinance by sharing market and product changes.	Lead Department(s) PW
	Action Partner(s) —
	Timeframe Long
	Cost \$
	Status New

Strategy 2.3: Implement and support installation of energy-efficient cooling equipment in sensitive facilities serving heat-vulnerable populations.

Some buildings, such as assisted living facilities and daycares, primarily serve residents that are highly susceptible to heat impacts; for these sensitive facilities, cooling equipment may be necessary to maintain safe indoor temperatures during extreme heat. This strategy focuses on improving cooling capacity through the installation of energy-efficient equipment and upgrades to existing systems.

Recognizing that many privately owned facilities, such as licensed care centers, operate on narrow margins and often lack the resources to implement large-scale upgrades, the County will explore targeted support programs and partnerships to help overcome financial and logistical barriers. This may include technical assistance, funding alignment, and deployment of mobile or backup cooling systems in high-risk situations. To help ensure that buildings constructed today are prepared for the heat we will experience in the decades to come, the

County will coordinate with state and national efforts to promote heat resilience for newly constructed sensitive use buildings, such as the California Department of Housing and Community Development’s policy recommendations regarding residential construction.

Equity in Implementation: By directing cooling upgrades to facilities serving seniors, medically fragile residents, and other heat-vulnerable communities, this strategy advances distributional equity.	Outcomes Anticipated: Increased cooling reliability in high-risk settings, reduced health incidents during heat waves, and stronger performance standards for future facility development.
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Action 2.3.a: Install energy-efficient cooling equipment and retro-commission existing equipment in sensitive government buildings.	Lead Department(s)	ISD, LACDA, LASD, PD, LACOE, DACC
	Action Partner(s)	—
	Timeframe	Medium
	Cost	\$\$\$
	Status	Scaling
Action 2.3.b: Support the installation of new or improved cooling features in heat-vulnerable privately owned buildings such as assisted living facilities.	Lead Department(s)	ISD
	Action Partner(s)	CSO, Utilities
	Timeframe	Medium
	Cost	\$\$
	Status	New

Strategy 2.4: In coordination with utilities, promote electricity affordability, clean energy access, and energy resilience for heat-vulnerable communities.

Rising temperatures are increasingly forcing residents to choose between cooling their homes and covering other basic needs. This strategy focuses on enhancing the reliability of cooling resources in County facilities in heat burdened communities and working with utilities and regulators to improve electricity affordability, grid reliability, and cooling accessibility. The County will support clean energy infrastructure at community-serving facilities by advancing the installation of solar panels paired with backup battery storage. This helps ensure uninterrupted service during outages or times of peak demand, which most frequently occur in conjunction with extreme heat events.

At the household level, the County will expand programs such as the Equitable Building Decarbonization initiative. These efforts help low-income residents access energy-efficient

cooling technologies while also reducing utility bills, improving indoor comfort, lowering greenhouse gas emissions, and supporting job creation in the clean energy sector.

In parallel, the County will coordinate with utility providers to enhance demand management, identify priority areas for mobile backup power, and explore policy options to prevent service disconnections during heat emergencies. At the state level, the County will advocate for programs that account for the broader public health, housing stability, and equity benefits of energy upgrades, not just their energy savings.

Equity in Implementation: This strategy will advance structural equity by balancing efforts to address the economic and infrastructural challenges of increased energy usage with the need for active cooling.

Outcomes Anticipated: Greater access to safe indoor temperatures, stronger local energy resilience, increased adoption of clean energy in critical areas, and better alignment between energy policies and public health outcomes.

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Action 2.4.a: Support installation of onsite solar with back-up batteries in spaces that serve as cool community refuges.	Lead Department(s)	ISD
	Action Partner(s)	CSO, Libraries, Parks, Utilities
	Timeframe	Medium
	Cost	\$\$
	Status	Scaling
Action 2.4.b: Expand the use of energy-efficient cooling strategies in low-income homes through the Equitable Building Decarbonization program.	Lead Department(s)	ISD
	Action Partner(s)	—
	Timeframe	Short
	Cost	\$
	Status	Sustaining
Action 2.4.c: Support improvements to energy systems to manage demand during heatwaves.	Lead Department(s)	ISD
	Action Partner(s)	All departments, Utilities
	Timeframe	Short
	Cost	\$
	Status	Scaling
Action 2.4.d: Explore partnerships with electricity providers to pilot new emergency heat relief strategies, such as suspension of disconnections for non-payment during extreme heat or development of joint protocol for back-up power deployment.	Lead Department(s)	CSO, ISD
	Action Partner(s)	Utilities
	Timeframe	Short
	Cost	\$
	Status	New

Action 2.4.e: Advocate for State regulators to account for health and social impacts related to heat vulnerability and affordable cooling needs in the design of utility regulations and programming.	Lead Department(s)	ISD, CSO, CEO
	Action Partner(s)	—
	Timeframe	Short
	Cost	\$
	Status	New

Goal 3: Expand Heat Safety Communications and Programs

Goal Statement

Goal 3

Build robust community networks and emergency management operations that promote heat safety and connect vulnerable people to cooling resources.

Relative to disasters such as flooding or fire, extreme heat receives far less public attention despite its serious health and safety consequences. In LA County, extreme heat increases mortality, emergency calls, and hospital visits, particularly among unhoused residents and older adults. With extreme heat events becoming more frequent and severe, improving emergency response and community preparedness is critical.

The strategies for Goal 3 build on existing County initiatives and efforts. The Department of Public Health (DPH) and Office of Emergency Management (OEM) coordinate the County's operational response during heat events, using the National Weather Service's HeatRisk tool to issue heat advisories and warnings. OEM also works with cities and Disaster Management Area Coordinators (DMACs), an important part of the County's ecosystem of coordinated efforts for disaster and preparedness, to open cooling centers and provide services throughout the County.

While cooling centers, libraries, and other facilities provide lifesaving relief, many residents face barriers such as limited hours, transportation, or low trust. This goal expands access to cooling through community-run and mobile options, while ensuring spaces feel welcoming and safe.

Equally important is culturally relevant heat safety messaging and services. Multilingual communications, shared through trusted channels such as healthcare workers and mutual aid groups, can help ensure vulnerable residents are able to stay safe. Training, resources, and coordination among community organizations and other partners will expand the collective capacity for protecting communities.

What is Heat Risk?

- Developed by the National Weather Service to communicate heat risk in five color-coded categories.
- HeatRisk considers forecasted temperatures, historic temperatures, the duration of heat, and data from the Centers for Disease Control and Prevention to determine level of health risk and issue community-specific risk warnings.
- Explore HeatRisk here: www.wpc.ncep.noaa.gov/heatrisk/

LA's 1st Extreme Heat Tabletop Exercise

On June 26, 2025, the County of Los Angeles's Chief Sustainability Office, City of LA's Climate Emergency Mobilization Office, and the LEAP-LA Coalition hosted the first LA Regional Extreme Heat Tabletop Exercise. Over 45 partners across local and regional government agencies, community organizations, services providers, academic groups, and other stakeholders, joined together to identify gaps and opportunities in mitigating and responding to the impacts of extreme heat on the most vulnerable communities across LA County.



Participants in the Extreme Heat Tabletop Exercise

During a three-part scenario exercise simulating cascading impacts from an extreme heat event, participants highlighted critical areas for improvement across communication, mobilization of resources, outreach and preparedness to better protect communities across LA. Information and ideas for action generated by this exercise will directly inform implementation of the CHAP. The full Summary Report from this tabletop exercise is currently in development and is expected to be released October 2025.

Strategies

Strategy 3.1: Improve access to, and utilization of, cool refuges during extreme heat.

As temperatures rise, so does the urgency to provide community members access to safe, climate-controlled spaces. This strategy focuses on improving the experience at County-owned cooling centers and activating trusted, familiar places as cooling alternatives. To strengthen equitable access, the County will explore transit and mobility options to help residents reach cooling centers, swimming pools, beaches, and other spaces.

Beyond physical infrastructure, this strategy will strengthen heat response capacity by enabling rapid resource deployment through a dedicated heat emergency activation fund. Cooling centers will integrate programming and wraparound services (which could potentially include utility assistance, medical/first aid support, and food/grocery assistance), supplemented by free admission to cultural and recreational facilities. Other actions, such as expanding weather shelter vouchers and mobile cooling centers and pet-friendly pop-up misting tents, will extend relief to unhoused populations and offer flexible, accessible protection.

Equity in Implementation: This strategy supports distributional equity by ensuring that every vulnerable group has access to some form of heat relief.

Outcomes Anticipated: Increased use of cooling refuges, coordinated services, and a reduction in heat-related health incidents.

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Action 3.1.a: Create an emergency activation fund to cover expenses associated with emergency response efforts and facilitate the testing of new ideas to prevent extreme heat impacts.	Lead Department(s)	CSO
	Action Partner(s)	OEM
	Timeframe	Medium
	Cost	\$\$
	Status	New
Action 3.1.b: Explore partnerships to incorporate programming into cooling centers, including health services, resources such as housing and utility programs, youth and senior programming, and other social services both during and prior to activations.	Lead Department(s)	Libraries, DPR, Aging & Disabilities, CSO, Utilities
	Action Partner(s)	—
	Timeframe	Long
	Cost	\$\$
	Status	New

Action 3.1.c: Support and promote the use of trusted community spaces as cool refuges.	Lead Department(s)	OEM
	Action Partner(s)	CSO, HI, ISD, Aging & Disabilities
	Timeframe	Short
	Cost	\$
	Status	New
Action 3.1.d: Assess options for promoting and expanding free admission to cultural and recreational facilities that are cool and safe during extreme heat.	Lead Department(s)	CSO, LACMA, NHM, Arts & Culture
	Action Partner(s)	—
	Timeframe	Short
	Cost	\$
	Status	New
Action 3.1.e: Expand accessible transportation options to cooling centers and other cool recreational spaces such as pools and beaches during extreme heat.	Lead Department(s)	Aging & Disabilities, HI, CSO, DBH, DPR, PW, Metro
	Action Partner(s)	—
	Timeframe	Medium
	Cost	\$\$
	Status	Scaling
Action 3.1.f: Pilot outdoor, pet-friendly cooling options for the unhoused population such as misting tents or mobile cooling services.	Lead Department(s)	HI
	Action Partner(s)	DACC, Metro
	Timeframe	Short
	Cost	\$\$
	Status	New
Action 3.1.g: Expand the availability and use of inclement weather shelter vouchers as a heat safety option for the unhoused population.	Lead Department(s)	HI
	Action Partner(s)	—
	Timeframe	Short
	Cost	\$\$\$
	Status	Scaling

Strategy 3.2: Build the capacity of community organizations and other implementation partners to support resident and worker heat safety.

Extreme heat presents a distinct challenge for emergency response systems. Unlike other climate-related disasters such as floods or wildfires, heat events often unfold quietly, without

dramatic damage. However, during heat emergencies, gaps in coordination, training, or resource delivery can result in preventable harm.

This strategy strengthens communitywide capacity to respond quickly, equitably, and effectively to extreme heat. Training is a central component of this strategy. Heat safety training for promotores—community-based health workers who offer healthcare education and facilitate access to health resources, often in historically underserved communities—home visiting programs, neighborhood groups, and staff at cooling refuges equips frontline networks to recognize and respond to heat-related risks. Schools and childcare providers can adopt best practices to protect children and staff during high-heat days, strengthening preparedness to reduce heat-related illness at a population level. Protection for workers is also critical. Occupational safety is regulated at the federal and state levels, with the state of California recently adopting indoor heat safety protections in 2024 to augment existing protections for outdoor workers. The County can support these broader regulations and efforts through education, support for workers’ rights, and County-led operations and initiatives focused on worker safety.

For all actions within this strategy, collaboration with other jurisdictions will share information and resources across the County and help to align and coordinate a more effective response effort. In addition, public agencies and community-based networks will be linked through shared communication channels and supply chains to ensure cohesive and comprehensive support during heat emergencies.



Equity in Implementation: This strategy advances procedural equity by supporting the involvement of non-governmental partners in emergency preparedness and response.

Outcomes Anticipated: Quicker response to heat impacts; improved coordination between government and community organizations during emergencies.

Action 3.2.a: Support schools and childcare providers with adoption of best practices for heat safety.	Lead Department(s)	DPH
	Action Partner(s)	LACOE
	Timeframe	Short
	Cost	\$
	Status	Sustaining
Action 3.2.b: Develop a heat safety training, based on existing information for general audiences, that can be adapted for and delivered to promotores, home-visiting programs, neighborhood groups, staff at cool refuges, and other networks of community service providers.	Lead Department(s)	DPH
	Action Partner(s)	Aging & Disabilities, FIRE, CEO, OEM, Libraries, DPR, DBH, DPSS, DCFS, DMH
	Timeframe	Short
	Cost	\$\$
	Status	New
Action 3.2.c: Develop a system for coordinating outreach services and resources among public agencies and community response groups before and during extreme heat events to ensure cohesive and comprehensive response and distribution support.	Lead Department(s)	OEM
	Action Partner(s)	HI, DPH, FIRE, Cities
	Timeframe	Medium
	Cost	\$
	Status	New
Action 3.2.d: Assess the feasibility of enabling adjusted work schedules during extreme heat to prevent worker injury and illness.	Lead Department(s)	CSO
	Action Partner(s)	—
	Timeframe	Medium
	Cost	\$
	Status	New

Strategy 3.3: Increase public awareness of heat risk and personal strategies for staying cool and safe.

Clear, timely, and inclusive communication is a critical component of public safety during extreme heat events. Many LA County residents may be unaware of dangerous heat conditions or lack information to protect themselves and their families. Communication gaps increase the risk of delayed action, prolonged exposure, and preventable health impacts, particularly for older adults, socially isolated individuals, and those who speak languages other than English—who may be harder to reach through traditional outreach methods.

Coordinated public education and emergency communication is essential. Effective messaging about heat-related risks and protective actions can save lives. This strategy builds a proactive and responsive communication infrastructure that can reach marginalized and vulnerable residents. Evidence-based communication practices, integrated within systems like HeatRisk and CalHeatScore, are the foundation of this approach. Multi-modal outreach including digital alerts, television and radio messaging, signage at transit stops, and direct community engagement enhance broad and layered coverage.

Outreach to employers and at-risk workers—those who work outdoors, or who labor in warehouses or other non-air conditioned buildings—strengthens awareness of heat safety regulations and available protections. At the same time, advocacy at the state and federal levels elevates the importance of extreme heat and may unlock additional support for public communication and response.



Photo credit: South Bay Councils of Governments



Photo credit: Public Interest Research Group

Equity in Implementation: This strategy supports procedural equity through tailored, multi-lingual, culturally relevant communication campaigns to reach historically underserved and heat-vulnerable communities.

Outcomes Anticipated: Increased public awareness of heat safety risks and resources and more individual action to stay safe during extreme heat.

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Action 3.3.a: Utilize additional channels and methods of communication to maximize reach and effectiveness of heat safety communications.	Lead Department(s)	DPH, CSO
	Action Partner(s)	OEM, DPSS, DCFS, ISD, CEO-Comms, DACC
	Timeframe	Short
	Cost	\$\$
	Status	New
Action 3.3.b: Conduct outreach and education to at-risk workers and small, person of color-owned, and immigrant-owned businesses regarding heat safety regulations & resources.	Lead Department(s)	DPH
	Action Partner(s)	State agencies
	Timeframe	Medium
	Cost	\$\$\$
	Status	New
Action 3.3.c: Update the County's Heat Event Protocol with information about newly developed response activities and make it publicly available.	Lead Department(s)	OEM
	Action Partner(s)	—
	Timeframe	Short
	Cost	\$
	Status	Sustaining
Action 3.3.d: Coordinate with 211 and Public Health Infoline to ensure that the services and information they provide is aligned with County Heat Event Protocol.	Lead Department(s)	OEM
	Action Partner(s)	DPH, HI
	Timeframe	Short
	Cost	\$
	Status	Sustaining
Action 3.3.e: Advocate for state and federal resources to be made available for extreme heat disasters.	Lead Department(s)	CSO, CEO
	Action Partner(s)	OEM, Fire
	Timeframe	Medium
	Cost	\$
	Status	New

Action 3.3.f: Improve public signage and wayfinding information for heat safety resources such as hydration stations.	Lead Department(s)	PW, DPR, Metro
	Action Partner(s)	—
	Timeframe	Medium
	Cost	\$\$
	Status	New

Strategy 3.4: Improve the capacity of the health system to mitigate, prepare for, and respond to heat risk.

Extreme heat presents an escalating threat to public health, particularly for vulnerable populations. Healthcare workers, including street and other outreach workers, are trusted messengers with a unique capacity in reaching at-risk residents and assessing their vulnerabilities and needs. By equipping frontline staff with training to recognize heat-related health risks, the health system can support earlier interventions and promote safer outcomes during heat events.

This strategy strengthens the health system’s ability to prevent and identify heat-related illness through improved data, training, outreach, and coordination. Equipping healthcare providers, emergency responders, and care networks with the protocols needed to respond to heat risk will ensure more-effective healthcare response to heat impacts. Tracking heat-related health



Photo caption: Healthcare on wheels mobile clinic (Photo credit: Homeless Initiative)

incidents and system performance during heat events enables continuous improvement and targeted interventions. Heat safety trainings and emergency protocols tailored for health service providers support recognition of symptoms, risk, and appropriate response.

These efforts are designed to operate across care settings, from hospitals and clinics to community-based programs and mobile units. Integrating data-driven planning, targeted training, and wider outreach improves the health system’s ability to respond to extreme heat events.

Equity in Implementation: This strategy advances structural equity through collaborations between emergency response and healthcare sectors to reach vulnerable communities.	Outcomes Anticipated: Earlier identification of heat-related illness, more effective care for vulnerable populations, and a stronger, more coordinated public health response across Los Angeles County.
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Action 3.4.a: Collect and analyze data on extreme heat events to improve future planning and response efforts.	Lead Department(s)	DPH
	Action Partner(s)	CSO
	Timeframe	Short
	Cost	\$\$
	Status	Scaling
Action 3.4.b: Support the development of heat safety trainings and emergency heat protocol for health service providers, EMTs, in-home and adult care programs.	Lead Department(s)	DPH
	Action Partner(s)	DMH
	Timeframe	Short
	Cost	\$
	Status	New
Action 3.4.c: Increase street medicine outreach during extreme heat.	Lead Department(s)	DHS, LA CARE, HI
	Action Partner(s)	DPH
	Timeframe	Medium
	Cost	\$\$
	Status	Scaling
Action 3.4.d: Develop protocol for notifying clients/patients of heat risk and personal safety practices based on pre-existing conditions and medications.	Lead Department(s)	DPH
	Action Partner(s)	DHS, LA Care
	Timeframe	Medium
	Cost	\$
	Status	New

Implementation Monitoring Plan

The CHAP is designed as a living framework for long-term implementation, accountability, and adaptive learning. This section outlines how the County and its partners can operationalize the CHAP, track progress, and adjust course over time.

Implementation Framework

The CHAP is not a one-time publication—it is a living framework designed to guide sustained, coordinated action across Los Angeles County. It clarifies County departmental leadership roles, outlines actionable next steps for priority items, and aligns policy, capital, operational, and programmatic investments across County agencies. It also establishes a shared implementation roadmap for regional and cross-sector partners. This structure enables transparency, supports coordinated decision-making, and serves as a foundational reference point for tracking progress and managing implementation across County departments and jurisdictions.

The CHAP is intentionally designed to go beyond County-led implementation. It sets out to provide easily accessible technical resources such as strategies, policy and design templates, guidance, and data. Local governments, tribes, school districts, and regional partners can use these resources to streamline and strengthen their heat resilience efforts.

Climate conditions, funding landscapes, and community needs will evolve over time. To ensure the CHAP remains relevant and actionable, the County will implement an adaptive management approach:

- **Annual Progress Monitoring:** In alignment with the annual OurCounty reporting process, the County will provide yearly updates on the status of each CHAP action and a description of implementation progress for priority CHAP actions. The County will modify implementation steps based on monitoring and emerging research to ensure the CHAP adapts to new information and changing circumstances while maintaining long-term consistency in goals and direction.
- **5-Year Strategic Reassessment:** The County will calculate progress toward overarching and goal-level targets, and conduct a formal review and potential update of CHAP goals, strategies, actions, and data resources to ensure the CHAP remains aligned with changing conditions and emerging best practices.



Combined Action Summary Tables

This final section provides a single integrated reference for all CHAP actions, including:

- **Implementing Agencies**

The lead and supporting County departments or public agencies responsible for carrying out the identified action. These entities are accountable for planning, funding, and overseeing implementation.

* **Note:** Implementing Agency abbreviations are used for brevity. Full agency names are provided in the Glossary under “Abbreviations.”

- **Timelines**

The expected timeframe for initiating and completing the action, categorized as:

- **Short-Term (1–2 years)** – Actions that can be launched and completed or show progress within 1 to 2 years.
- **Medium-Term (3–5 years)** – Actions requiring moderate coordination and resources, expected to be completed within 3 to 5 years.
- **Long-Term (5+ years)** – Complex or large-scale actions that require extended timelines (over 5 years) for planning, funding, and implementation.

- **Status**

The current phase of the action, used to track maturity over time:

- **New** – A newly proposed action with no prior implementation.
- **Sustaining** – An action already in progress that requires continued investment or support.
- **Scaling** – An action that has been piloted or initiated and is now being expanded or replicated.

- **Cost**

An estimated implementation cost range for each action:

- **\$** – Less than \$200,000
- **\$\$** – \$200,000 to \$1 million
- **\$\$\$** – \$1 million to \$10 million
- **\$\$\$\$** – Over \$10 million

- **Priority Designation**

Indicates actions that have been selected for focused implementation. In the final CHAP, priority actions will be identified by a bold star.

Table 2 serves as a shared working tool for County staff, partners, and decision-makers to track implementation progress over time.

Table 2. Combined Action Summary Table

Action		Implementing Agency	Timeline	Status	Cost	Priority Designation
Goal 1	Cool and protect outdoor spaces by increasing shade, vegetation, and access to cooling features, especially in heat-burdened communities.					
Strategy 1.1: Improve shade equity in the public right-of-way to reduce overexposure to heat and promote vibrant street life.						
Alignment with existing initiatives <ul style="list-style-type: none">LA County Community Forest Management Plan: Calls for expanded tree canopy in high-need communities.						
Action 1.1.a: Accelerate progress toward equitable tree canopy goals by evaluating streets that can be redesigned to create more room for trees, such as through the addition of bulb-outs, addition or widening of parkways, and removal of parking spots.		Lead(s): CSO,PW Partner(s): DPH	Short	New	\$\$\$	
Action 1.1.b: Install bus shelters that provide shade at bus stops and coordinate with transit agencies to work toward providing real-time information on arrivals.		Lead(s): PW Partner(s): Metro	Short	Sustaining	\$\$\$\$	
Action 1.1.c: Prototype and pilot innovative, space-efficient shade structure designs for locations where trees and standard shelters are infeasible.		Lead(s): PW Partner(s): CSO, Arts & Culture	Short	New	\$\$\$	
Action 1.1.d: Remove barriers to tree planting and shade installation such as by updating infrastructure spacing guidelines and revising codes and permit requirements/processes.		Lead(s): CSO Partner(s): PW, FIRE, DRP, SCAG	Medium	New	\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 1.1.e: Support Cities and partner agencies in implementing cooling infrastructure by creating County-approved design templates, performance standards, and expedited permitting pathways for shade structures, parklets, and other innovative cooling investment projects.	Lead(s): CSO, PW Partner(s): SCAG, Cities	Medium	New	\$\$	
Strategy 1.2: Alleviate chronic heat burden in highly paved urban areas through urban greening, design, and smart surfaces.					
Alignment with existing initiatives <ul style="list-style-type: none"> PW Safe, Clean Water Program (Measure W): Funds stormwater initiatives that improve water quality, increase our local water supply, and provide community benefits such as green spaces and parks. 					
Action 1.2.a: Seek opportunities to repurpose vacant property into green spaces for community use, including through innovative ownership and stewardship models.	Lead(s): DPR Partner(s): CSO	Medium	Sustaining	\$\$\$\$	
Action 1.2.b: Promote urban design strategies that reduce heat retention such as climate-appropriate building orientation, passive cooling through wind flow, reflective or porous materials, and vegetative features in public and private development.	Lead(s): DRP Partner(s): —	Short	New	\$	
Action 1.2.c: Explore opportunities to replace asphalt, concrete, artificial turf, and rubberized areas with permeable, cool, or vegetated surfaces in strategic locations such as parking lots and playgrounds.	Lead(s): DPH, CSO Partner(s): All Departments	Medium	Scaling	\$\$\$\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 1.2.d: Evaluate potential sites and designs for vertical greening, including elements such as climbing vines and vegetation walls, in public facilities and infrastructure.	Lead(s): PW, CSO Partner(s): All Departments	Short	New	\$\$	
Strategy 1.3: Integrate cooling features into outdoor recreational and gathering spaces.					
Alignment with existing initiatives <ul style="list-style-type: none"> Park Needs Assessment Plus (PNA+): Identifies gaps in shaded, safe recreational spaces and prioritizes investments in high-need communities. 					
Action 1.3.a: Develop inventories and maps of public access to drinking water and shade.	Lead(s): CSO Partner(s): ISD	Short	New	\$	
Action 1.3.b: Install and maintain additional shade structures and hydration stations at parks, publicly accessible facilities, and transit hubs.	Lead(s): DPR Partner(s): DBH, DPH, Libraries, Aging & Disabilities, DPSS, DHS, ISD, Metro, LACMA, NHM, PW, DMH	Medium	Scaling	\$\$\$\$	
Action 1.3.c: Support schools with incorporation of shade and nature-based features into their campuses and formation of agreements to expand community access to green spaces and water recreational facilities.	Lead(s): CSO, LACOE Partner(s): DPH, DPR, School districts	Medium	Scaling	\$	
Action 1.3.d: Develop emergency cooling, shade and water provisions, and heat safety guidelines for outdoor events.	Lead(s): DPH, CSO Partner(s): Metro	Short	New	\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 1.3.e: Explore partnerships with commercial landlords and tenants, street vendors, and business associations to support installation and maintenance of awnings, pop-up shade structures, trees, parklets, and other cooling amenities.	Lead(s): DEO Partner(s): PW, CSO	Medium	New	\$\$\$	
Strategy 1.4: Ensure that County assets, especially trees and vegetation that provide cooling benefits in public corridors and gathering spaces, can thrive long-term in the face of rising temperatures.					
Alignment with existing initiatives <ul style="list-style-type: none"> LA County Community Forest Management Plan: Provides a climate-adaptive roadmap for tree selection, emergency irrigation, and long-term stewardship. 					
Action 1.4.a: Develop an equitable watering strategy to support tree and vegetation health during extreme heat.	Lead(s): PW, DPR Partner(s): —	Medium	New	\$\$\$	
Action 1.4.b: Evaluate opportunities to improve ecological connectivity between fragmented green spaces and ecosystems by incorporating nature-based solutions into infrastructure, such as green alleys and waterways.	Lead(s): PW Partner(s): —	Short	Sustaining	\$\$\$\$	
Action 1.4.c: Increase the number of native plants, trees, and pollinator/bird friendly landscapes on public properties.	Lead(s): ISD, DPR Partner(s): CSO, DBH, Libraries, NHM	Short	New	\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Goal 2	Improve cooling in homes, schools, and critical facilities, especially for renters and vulnerable groups.				
Strategy 2.1: Protect renters from harmful levels of heat in the home environment.					
Alignment with existing initiatives <ul style="list-style-type: none">ISD Energy and Retrofit Programs: Support passive and active cooling measures in County-led housing and retrofit initiatives.DPH Rental Housing Habitability Program: Ensures rental units comply with habitability standards, supports property owners in maintaining property values, and promotes safe living conditions.					
Action 2.1.a: Respond to reports of violation of the indoor maximum temperature ordinance using an education-first approach.	Lead(s): DPH Partner(s): —	Short	New	\$\$	
Action 2.1.b: Advise landlords on strategies and resources available for compliance with the Indoor Maximum Temperature Threshold Ordinance.	Lead(s): ISD Partner(s): —	Short	New	\$	
Action 2.1.c: Support residents with navigating and accessing energy assistance and energy-efficient cooling resources.	Lead(s): ISD Partner(s): —	Short	Scaling	\$\$	
Action 2.1.d: Ensure tenant protections ordinances enacting rent stabilization and evictions protections, including anti-harassment and retaliation protections, are honored for tenants exercising their rights under the Indoor Maximum Temperature Threshold Ordinance.	Lead(s): DCBA Partner(s): —	Short	Sustaining	\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Strategy 2.2: Maximize the adoption and use of passive cooling strategies and energy-efficient operations in both public and private buildings.					
Alignment with existing initiatives <ul style="list-style-type: none"> ISD Energy and Retrofit Programs: Support passive and active cooling measures in County-led housing and retrofit initiatives. Cool Roof Ordinance: Requires reflective roofing materials on new and retrofitted buildings to reduce heat absorption. 					
Action 2.2.a: Support the upskilling of public facility managers and contractors to build capacity for maintaining energy efficient buildings and resilient landscaping.	Lead(s): ISD, DPR, DEO Partner(s): All departments	Short	New	\$\$	
Action 2.2.b: Apply cool materials and features, such as high-albedo coatings and window film, at public buildings and facilities.	Lead(s): All Departments Partner(s): —	Medium	Scaling	\$\$\$	
Action 2.2.c: Update building operations and controls to ensure energy-efficient thermal regulation that accounts for the needs of both staff and visitors, such as through air movement, regularly updated HVAC scheduling, and load flexibility.	Lead(s): ISD Partner(s): All Departments	Short	Scaling	\$\$	
Action 2.2.d: Pilot a cool surfaces program that provides paid training to disadvantaged workers while increasing reflectivity of roofs, walls, and pavements.	Lead(s): DEO Partner(s): CSO	Short	New	\$\$	
Action 2.2.e: Promote maximal impact of the cool roof ordinance by sharing market and product changes.	Lead(s): PW Partner(s): —	Long	New	\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Strategy 2.3: Implement and support installation of energy-efficient cooling equipment in sensitive facilities serving heat-vulnerable populations.					
Alignment with existing initiatives <ul style="list-style-type: none"> ISD Energy and Retrofit Programs: Support passive and active cooling measures in County-led housing and retrofit initiatives. 					
Action 2.3.a: Install energy-efficient cooling equipment and retro-commission existing equipment in sensitive government buildings.	Lead(s): ISD, LACDA, LASD, PD, LACOE, DACC Partner(s): —	Medium	Scaling	\$\$\$	
Action 2.3.b: Support the installation of new or improved cooling features in heat-vulnerable privately owned buildings such as assisted living facilities.	Lead(s): ISD Partner(s): CSO, Utilities	Medium	New	\$\$	
Strategy 2.4: In coordination with utilities, promote electricity affordability, clean energy access, and energy resilience for heat-vulnerable communities.					
Action 2.4.a: Support installation of onsite solar with back-up batteries in spaces that serve as cool community refuges.	Lead(s): ISD Partner(s): CSO, Libraries, Parks, Utilities	Medium	Scaling	\$\$	
Action 2.4.b: Expand the use of energy-efficient cooling strategies in low-income homes through the Equitable Building Decarbonization program.	Lead(s): ISD Partner(s): —	Short	Sustaining	\$	
Action 2.4.c: Support improvements to energy systems to manage demand during heatwaves.	Lead(s): ISD Partner(s): All departments, Utilities	Short	Scaling	\$	

Action		Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 2.4.d: Explore partnerships with electricity providers to pilot new emergency heat relief strategies, such as suspension of disconnections for non-payment during extreme heat or development of joint protocol for back-up power deployment.		Lead(s): CSO, ISD Partner(s): Utilities	Short	New	\$	
Action 2.4.e: Advocate for State regulators to account for health and social impacts related to heat vulnerability and affordable cooling needs in the design of utility regulations and programming.		Lead(s): ISD, CSO, CEO Partner(s): —	Short	New	\$	
Goal 3	Improve preparedness for, and emergency response to, extreme heat and heat waves, especially for residents, workers, and communities that are most impacted and whose health has been compromised.					
Strategy 3.1: Improve access to, and utilization of, cool refuges during extreme heat.						
Alignment with existing initiatives <ul style="list-style-type: none">Ready LA County “Excessive Heat” Cooling Center interactive map: an online tool that can be used to easily reference where County cooling centers are located with links to additional heat action resources including pools, splash pads, and educational materials.						
Action 3.1.a: Create an emergency activation fund to cover expenses associated with emergency response efforts and facilitate the testing of new ideas to prevent extreme heat impacts.		Lead(s): CSO Partner(s): OEM	Medium	New	\$\$	
Action 3.1.b: Explore partnerships to incorporate programming into cooling centers, including health services, resources such as housing and utility programs, youth and senior programming, and other social services both during and prior to activations.		Lead(s): Libraries, DPR, CSO, Utilities, Aging & Disabilities Partner(s): —	Long	New	\$\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 3.1.c: Support and promote the use of trusted community spaces as cool refuges.	Lead(s): OEM Partner(s): CSO, HI, ISD, Aging & Disabilities	Short	New	\$	
Action 3.1.d: Assess options for promoting and expanding free admission to cool cultural and recreational facilities during extreme heat.	Lead(s): CSO, LACMA, NHM, Arts & Culture Partner(s): —	Short	New	\$	
Action 3.1.e: Expand accessible transportation options to cooling centers and other cool recreational spaces such as pools and beaches during extreme heat.	Lead(s): Aging & Disabilities, HI, CSO, DBH, DPR, PW, Metro Partner(s): —	Medium	Scaling	\$\$	
Action 3.1.f: Pilot outdoor, pet-friendly cooling options for the unhoused population such as misting tents or mobile cooling services.	Lead(s): HI Partner(s): DACC, Metro	Short	New	\$\$	
Action 3.1.g: Expand the availability and use of inclement weather shelter vouchers as a heat safety option for the unhoused population.	Lead(s): HI Partner(s): —	Short	Scaling	\$\$\$	
Strategy 3.2: Build the capacity of community organizations and other implementation partners to support resident and worker heat safety.					
Alignment with existing initiatives <ul style="list-style-type: none"> Health Education, Ambassadors and Training: A 30-month collaboration between DPH, the LA Regional Collaborative for Climate Action and Sustainability, Rising Communities, and the Fernandeano Tataviam Band of Mission Indians to train community health workers to provide heat education and resources through door-to-door outreach and community engagement. DPH Extreme Heat Toolkit for School Campuses: Offers resources and strategies to reference related to extreme heat. 					
Action 3.2.a: Support schools and childcare providers with adoption of best practices for heat safety.	Lead(s): DPH Partner(s): LACOE	Short	Sustaining	\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 3.2.b: Develop a heat safety training, based on existing information for general audiences, that can be adapted for and delivered to promotores, home-visiting programs, neighborhood groups, staff at cool refuges, and other networks of community service providers.	Lead(s): DPH Partner(s): Aging & Disabilities, FIRE, CEO, OEM, Libraries, DPR, DBH, DPSS, DCFS, DMH	Short	New	\$\$	
Action 3.2.c: Develop a system for coordinating outreach services and resources before and during extreme heat events among public agencies and community response groups to ensure cohesive and comprehensive response and distribution support.	Lead(s): OEM Partner(s): HI, DPH, FIRE, Cities	Medium	New	\$	
Action 3.2.d: Assess the feasibility of enabling adjusted work schedules during extreme heat to prevent worker injury and illness.	Lead(s): CSO Partner(s): —	Medium	New	\$	
Strategy 3.3: Increase public awareness of heat risk and personal strategies for staying cool and safe.					
Action 3.3.a: Utilize additional channels and methods of communication to maximize reach and effectiveness of heat safety communications.	Lead(s): DPH, CSO Partner(s): OEM, DPSS, DCFS, ISD, CEO-Comms, DACC	Short	New	\$\$	
Action 3.3.b: Conduct outreach and education to at-risk workers and small, person of color-owned, and immigrant-owned businesses regarding heat safety regulations & resources.	Lead(s): DPH Partner(s): State agencies	Medium	New	\$\$\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 3.3.c: Update the County's Heat Event Protocol with information about newly developed response activities and make it publicly available.	Lead(s): OEM Partner(s): —	Short	Sustaining	\$	
Action 3.3.d: Coordinate with 211 and Public Health Infoline to ensure that the services and information they provide is aligned with County Heat Event Protocol.	Lead(s): OEM Partner(s): DPH, HI	Short	Sustaining	\$	
Action 3.3.e: Advocate for state and federal resources to be made available for extreme heat disasters.	Lead(s): CSO, CEO Partner(s): OEM, Fire	Medium	New	\$	
Action 3.3.f: Improve public signage and wayfinding information for heat safety resources such as hydration stations.	Lead(s): PW, DPR, Metro Partner(s): —	Medium	New	\$\$	
Strategy 3.4: Improve the capacity of the health system to mitigate, prepare for, and respond to heat risk.					
Alignment with existing initiatives <ul style="list-style-type: none"> Los Angeles County Department of Health multi-disciplinary teams and street medicine program supports physical and mental health, substance abuse, and case management. DPH Heat Preparedness Guide: A resource being developed and piloted with healthcare partners in three high-risk communities in the eastern, northwest, and southern parts of the County. 					
Action 3.4.a: Collect and analyze data on extreme heat events to improve future planning and response efforts.	Lead(s): DPH Partner(s): CSO	Short	Scaling	\$\$	
Action 3.4.b: Support the development of heat safety trainings and emergency heat protocol for health service providers, EMTs, in-home and adult care programs.	Lead(s): DPH Partner(s): DMH	Short	New	\$	

Action	Implementing Agency	Timeline	Status	Cost	Priority Designation
Action 3.4.c: Increase street medicine outreach during extreme heat.	Lead(s): DHS, LA CARE, HI Partner(s): DPH	Medium	Scaling	\$\$	
Action 3.4.d: Develop protocol for notifying clients/patients of heat risk and personal safety practices based on pre-existing conditions and medications.	Lead(s): DPH Partner(s): DHS, LA Care	Medium	New	\$	

Appendices

Appendix A: Acknowledgements

Appendix B: Glossary and of Terms and Abbreviations

Appendix C: Bibliography

Appendix A: Acknowledgements

Developing the Los Angeles County Heat Action Plan would not have been possible without the leadership, dedication, and collaboration of numerous individuals and organizations throughout Los Angeles County. We are grateful to the members of the Board of Supervisors for their commitment to advancing climate resilience and ensuring that the protection of residents from extreme heat remains a County priority.

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Board of Supervisors

Supervisor Hilda L. Solis / Supervisor Holly J. Mitchell / Supervisor Lindsey P. Horvath / Supervisor Janice Hahn / Supervisor Kathryn Barger

Chief Sustainability Office

Rita Kampalath, Chief Sustainability Officer / Raj Dhillon / Rebecca Ferdman / Ali Frazzini / Matt Gonser / Julie Gomez / Andres Gonzalez / Clement Lau / Jaida Nabayan / Victoria Simon / Martha Velasco

Steering Committee and Workgroup Members

Steering Committee

Antelope Valley Partners for Health / Climate Resolve / Gateway Cities Council of Governments / LA City Climate Emergency Mobilization Office / LA County Department of Public Health / LA County Public Works / LA Metro / LEAP-LA Coalition, represented by Physicians for Social Responsibility Los Angeles and Pacoima Beautiful / Los Angeles Regional Collaborative for Climate Action and Sustainability / ReDesignLA, represented by the Council for Watershed Health / San Gabriel Valley Council of Governments / South Bay Cities Council of Governments / Southern

California Association of Governments / UCLA Institute of the Environment and Sustainability /
UCLA Luskin Center for Innovation

Goal 1 Workgroup

Active San Gabriel Valley / Antelope Valley Partners for Health / City of Pomona / Climate Resolve /
Council for Watershed Health / LA County Department of Regional Planning / LA County Public
Works / LA Metro / LA Waterkeeper on behalf of Infrastructure Justice LA / LA City Climate
Emergency Mobilization Office / Longcore Lab at UCLA Institute of the Environment and
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Goal 2 Workgroup

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Public Health / LA County Medical Association / Los Angeles Regional Collaborative for Climate
Action and Sustainability / UCLA Center for Healthy Climate Solutions / Voces Unides en Pacoima

Consultant Team

Paradigm / AECOM / Environmental Science Associates

Appendix B: Glossary of Terms and Abbreviations

Key Heat Resilience Terms

Adaptive Capacity: The ability to adjust to climate change, to moderate potential damages, to take advantage of opportunities, or to cope with consequences.

Air Temperature: The temperature of the air as measured by a thermometer in a shaded and ventilated location. Influenced by wind flow, humidity, and surrounding surfaces.

Extreme Heat: A prolonged period of very hot weather, often with high humidity. There are many different approaches for identifying when heat has become extreme, including specific temperatures (e.g., 95+ degrees Fahrenheit) or heat index equivalent; LA County uses the National Weather Service HeatRisk tool, which identifies daily thresholds that are unique for each location and date to account for local climatic differences and acclimation.

Heat Exposure: The amount of heat that people, systems, or environments experience—factoring in both intensity and duration.

Heat Exhaustion: A heat-related illness where blood flow to vital organs decreases, leading to dizziness, weakness, and dehydration.

Heat Risk: The potential for adverse health effects and other impacts resulting from exposure to extreme heat. It encompasses a range of factors, including the severity and duration of heat, individual vulnerability, and the environment.

Heat-Related Illness: Illnesses triggered by high temperatures and humidity, including heat rash, heat cramps, exhaustion, and heat stroke.

Heat Sensitivity: The degree to which people or systems are affected by exposure to heat.

Heat Stress: Physical strain caused by heat exposure. Prolonged heat stress increases the risk of illness or injury.

Heat Stroke: A life-threatening condition where the body's temperature regulation fails, potentially leading to death if untreated.

Heat Vulnerability: Likelihood that a person, group, or system will experience impacts from heat, based on exposure, sensitivity, and adaptive capacity.

Passive Cooling Strategies: Building design techniques and practices that reduce indoor temperatures and improve thermal comfort without relying on mechanical air conditioning systems. Examples include reflective roofing materials, improved insulation, enhanced natural ventilation, strategic window treatments, shading devices, and building orientation that minimizes heat gain.

Radiant Heat: Heat emitted in the form of infrared radiation, which travels through the air and warms objects and people directly without needing to heat the surrounding air. Common sources of radiant heat in outdoor environments include sunlight, asphalt, buildings, and other surfaces that absorb and re-radiate solar energy. Radiant heat can significantly increase perceived heat exposure even when air temperatures remain constant.

Urban Heat Effect: Urban areas that experience higher temperatures than surrounding rural areas due to heat-absorbing surfaces like asphalt and concrete that increase levels of radiant heat at ground level, especially at nighttime.

Abbreviations

Abbreviation	Definition
CEO	Chief Executive Office
CSO	Chief Sustainability Office
DACC	Department of Animal Care and Control
DBH	Department of Beaches and Harbors
DCBA	Department of Consumer and Business Affairs
DCFS	Department of Children and Family Services
DEO	Department of Economic Opportunity
DHS	Department of Health Services
DMH	Department of Mental Health
DPH	Department of Public Health
DPR	Department of Parks and Recreation
DPSS	Department of Public Social Services
DRP	Department of Regional Planning
HI	Homeless Initiative
ISD	Internal Services Department
LACDA	Los Angeles County Development Authority
LACMA	Los Angeles County Museum of Art
LACOE	Los Angeles County Office of Education
LASD	Los Angeles County Sheriff's Department
NHM	Natural History Museum of Los Angeles County
OEM	Office of Emergency Management
PD	Probation Department
PW	Department of Public Works

Appendix C: Bibliography

- Agency for Healthcare Research and Quality (AHRQ). “Medical Expenditures for Emergency Room Visits” [webpage]. 2021. https://meps.ahrq.gov/data_stats/download_data/pufs/h229e/h229edoc.pdf.
- American Planning Association (APA). *PAS Report 596: Planning for Urban Heat Resilience*. 2022. https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/PAS-Report-600-r1.pdf.
- Arsht-Rockefeller Foundation Resilience Center. 2021. <https://onebillionresilient.org/>
- Baker, Lawrence, and Roland Sturm. *Mortality in Extreme Heat Events: An Analysis of Los Angeles County Medical Examiner Data*. RAND. *Public Health* 236: 290–296 (November 2024). <https://doi.org/10.1016/j.puhe.2024.08.008>.
- Basu, Rupa, et al. “Temperature and Term Low Birth Weight in California.” *American Journal of Epidemiology* 187, no. 11 (November 2018): 2306–2314. Accessed September 10, 2021. <https://doi.org/10.1093/aje/kwy116>.
- Cal-Adapt. “Extreme heat projections for Los Angeles County” [webpage]. California Energy Commission. 2018. <https://cal-adapt.org/dashboard/data-explorer>.
- California Department of Public Health. *Climate Change and Health Equity Section: Climate Change in California*. <https://www.cdph.ca.gov/Programs/OHE/pages/CCHEP.aspx>.
- California Energy Commission. (2018, August). *Climate Change in Los Angeles County: Grid vulnerability to extreme heat* (California’s Fourth Climate Change Assessment, CCCA4-CEC-2018-013). https://www.energy.ca.gov/sites/default/files/2019-11/Energy_CCCA4-CEC-2018-013_ADA.pdf.
- California Environmental Protection Agency. “CalEnviroScreen 4.0: A Screening Method for Assessing Cumulative Pollution Burden and Population Vulnerability” [webpage]. 2021. <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.
- Centers for Disease Control and Prevention. “Climate Effects on Health” [webpage]. 2023. [Regional Climate Change Effects on Health | Climate and Health | CDC](https://www.cdc.gov/climateandhealth/effects/index.html)
- Chief Sustainability Office. 2025. *DepaveLA: Reimagining Impervious Surfaces in Los Angeles County*. Los Angeles County. [USGR-20250123-Depave-LA-SS.pdf](https://www.usgr.org/2025/01/23/depave-la-ss/)
- Climate Central. *Los Angeles and the Urban Heat Effect*. 2022. <https://www.climatecentral.org/climate-matters/urban-heat-islands-2024>.
- Gabbe, C.J., and Gregory Pierce. “The Roles of Housing and Household Characteristics in U.S. Residential Heat Risk.” *Findings*. April 2024. <https://doi.org/10.32866/001c.116607>.
- Kim, E.B. “Heat waves in the US kill more people in their homes than anywhere else.” *Cincinnati Enquirer*. June 19, 2024. <https://www.cincinnati.com/story/news/2024/06/19/heat-advisory-risk-dying-at-home-or-in-cars/74130082007>.

- LACO Chief Sustainability Office. *Los Angeles County Climate Vulnerability Assessment*. 2021. <https://preview-assets-us-01.kc-usercontent.com/0234f496-d2b7-00b6-17a4-b43e949b70a2/5a0e0a91-02b5-4e90-995f-c47440c73001/LA-County-Climate-Vulnerability-Assessment-1.pdf>.
- Los Angeles Times*. “Blistering heat wave sets record temperatures across California” July 11, 2021. <https://www.latimes.com/california/story/2021-07-11/record-breaking-temperatures-set-as-heat-wave-continues-across-california>.
- National Community Reinvestment Coalition. (2022, July 7). *The temperature of disinvestment: Examining urban heat islands and historically redlined communities*. Retrieved September 6, 2025, from <https://ncrc.org/the-temperature-of-disinvestment-examining-urban-heat-islands-and-historically-redlined-communities/>
- National Oceanic and Atmospheric Administration. “Climate at a Glance: County Mapping Tool” [webpage]. 2022. <https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/mapping>.
- Office of Environmental Health Hazard Assessment. *Climate Indicators Report: 2024 Update*. 2024. <https://oehha.ca.gov/climate-change/general-info/human-health-impacts-climate-change>.
- . *Indicators of Climate Change in California*. Fourth edition. November 2022. <https://oehha.ca.gov/climate-change/2022-report-indicators-climate-change-california>.
- . *Study suggests link between temperature increases and mental health-related emergency room visits*. Retrieved September 6, 2025, from <https://oehha.ca.gov/air/press-release/press-release-air/study-suggests-link-between-temperature-increases-and-mental-health-related-emergency-room-visits>
- One Billion People More Resilient. (n.d.). *Hot Cities, Chilled Economies: Los Angeles, United States*. Retrieved [today’s date], from <https://onebillionresilient.org/hot-cities-chilled-economies-los-angeles/>
- RAND Corporation. 2022. https://www.rand.org/pubs/corporate_pubs/CPA1065-3.html
- Science Advances. (2023, April 28). Unequal exposure to heatwaves in Los Angeles: Impact of uneven green spaces. *Science Advances*, 9(17), eade8501. <https://www.science.org/doi/10.1126/sciadv.ade8501>
- Sturm, Roland, Lawrence Baker, and Avery Krovetz. *Health and Social Services During Heat Events: Demand for Services in Los Angeles County*. RAND. September 16, 2024. https://www.rand.org/pubs/research_reports/RR43406-1.html.
- U.S. Environmental Protection Agency. “Climate change and heat-related mortality” [webpage]. 2021. <https://www.epa.gov/climate-indicators/climate-change-indicators-heat-related-deaths>.
- . “Heat Island Effect” [webpage]. 2023. <https://www.epa.gov/heatislands>.
- UCLA Heat & Health Dashboard. “Heat-Related Emergency Department Visits by Neighborhood: 2005–2022” [webpage]. Luskin Center for Innovation. 2023. <https://experience.arcgis.com/experience/4c158842b5c94857a06c3a85c7aa02de/page/Maap>.

UCLA Luskin Center for Innovation. (2025, August 4). *Rising temperatures cause students to underperform across the world*. Retrieved September 6, 2025, from <https://luskin.ucla.edu/rising-temperatures-cause-students-to-underperform-across-the-world>

U.S. Department of Energy. (2022, October). *How high are household energy burdens?* [PDF]. Retrieved September 6, 2025, from https://www.energy.gov/sites/default/files/2022-10/16.%20How%20high%20are%20household%20energy%20burdens_ds_0.pdf

Vaidyanathan, A., J. Malilay, P. Schramm, and S. Saha. “Heat-related deaths — United States, 2004–2018.” *Morbidity and Mortality Weekly Report* 69, no. 24 (2020): 729–734. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6924a1.htm>