

Agenda

- Meet the panel
- TAP scope + questions
- Heat Resilience Framework
- Leadership + governance
- Land use + urban design
- Partnerships + innovation
- Next steps
- Q&A



Shade structure over playground equipment at Sunset Park in Las Vegas, Nevada



Panelists +
Support Team

- **Marissa Aho**
Chief Resilience Officer // Office of the Commissioner of
Public Lands State of Washington
- **William (Bill) Anderson**
Founder // CITECON
- **Julia Chase**
Climate Resilience Associate // The Cadmus Group
- **Jill (Allen) Dixon**
Associate Principal // Sasaki
- **Carey Fernandes**
Principal/Practice Director // Dudek
- **Brooke Peterson**
Principal/Director of Planning // Rick Engineering
- **Diego Velasco**
Founder & Principal // City Thinkers

Chris Clark, ULI San Diego-Tijuana
Nick Johnston, Dudek
Victoria Oestreich, ULI Centers & Initiatives



TAP Scope + Questions

- What are the **building and site-scale landscape design heat resilience strategies** that, if implemented more widely, have the potential to help the region achieve its extreme heat resilience goals?
- What are relevant **best practices / case studies** of implementing heat adaptation projects across the country and state that the county should consider?
- Given the health impacts of urban heat island and extended heat waves, how can the San Diego region ensure that heat adaptation **measures are implemented in an equitable manner** and to advance environmental, social, and racial equity?
- What relevant/**current regulations and potential financing mechanisms** / programs can be leveraged to support extreme temperature mitigation retrofits and create a market for resilient buildings in the region?
- How could future county policy **encourage local property owners and developers** to mitigate extreme heat in their projects and open spaces?

Here's what we heard:

- County is large, diverse, and complex
- There's an urgent need for heat resilience and mitigation
- This is a good time: change in leadership priorities
- Multiple competing opportunities/challenges to meet various policy goals (housing, equity, VMT, climate, transportation)
- Need to better define measurable standards
- County wants to be innovative and think big
- Huge opportunity to improve the adaptive capacity of infrastructure – especially w/r/t the energy grid
- Desire for an integrated approach to comprehensive planning

Stakeholder Interviews

- Billie Jo Jannen, Campo – Lake Morena Planning Group Chair
- Tarik Benmarhnia, Ph.D, Researcher at Scripps Institute of Oceanography, Environmental Epidemiology
- Adam Day Chief Administrative Officer (CAO) · Sycuan Band of Kumeyaay Nation
- Rebecca Falk, Chairperson Borrego Springs Community Sponsor Group
- Bob Leiter, Stay Cool for Grandkids Advisor
- Neal Driscoll, Geophysics, Scripps Institute of Oceanography, Wildfire Center
- Hannah Gbeh, San Diego County Farm Bureau Executive Director
- Jim Whalen, local land-use consultant
- Ladd Keith Ph.D, Professor of Landscape Architecture and Planning at The University of Arizona

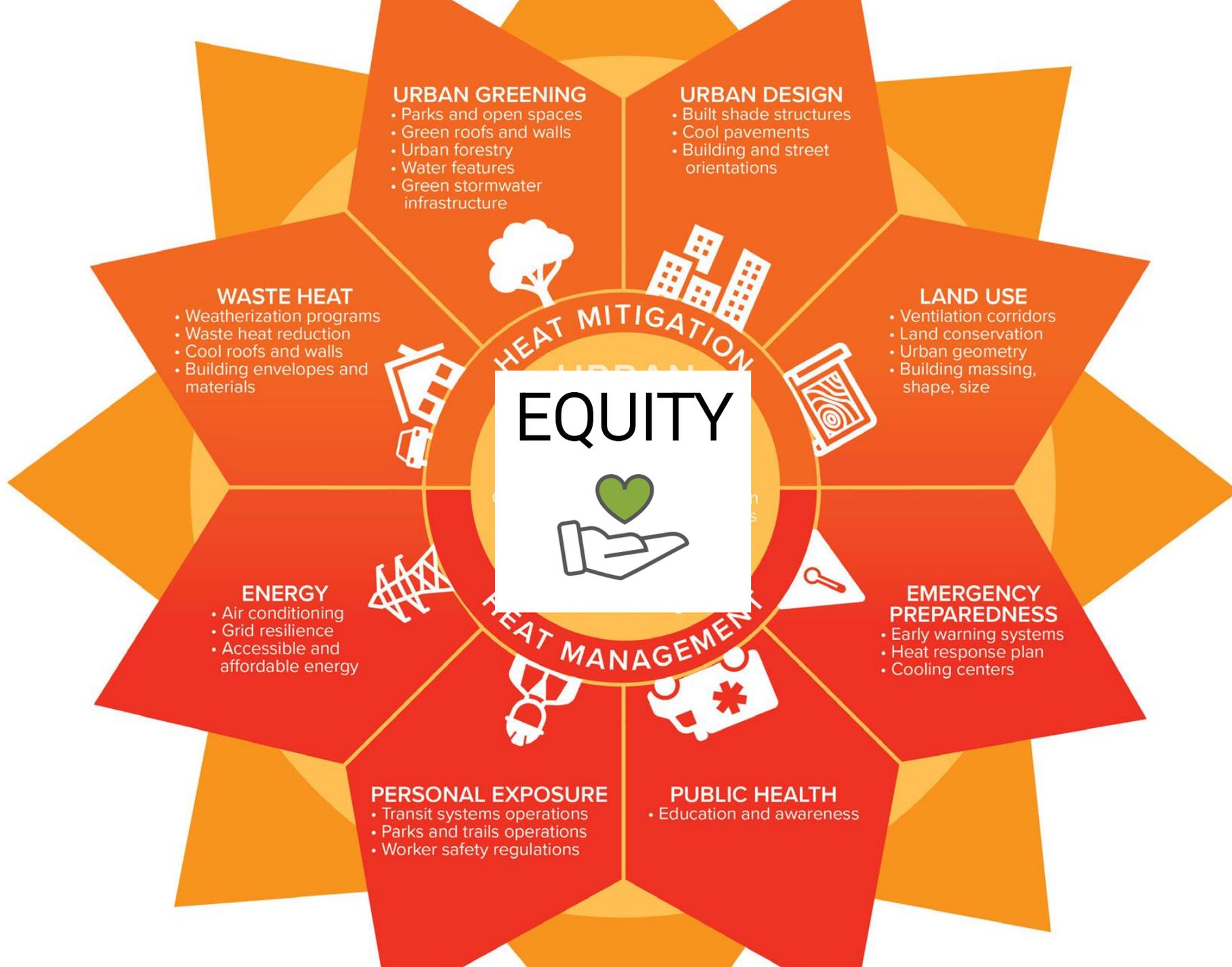
- Need for better, more robust communication around heat resilience
 - Consideration for language barriers; need to work with CBOs to get message to vulnerable populations
- Need to address disconnected efforts
- Leverage current research and data
 - Innovation is happening in the region
- Need for tailored approach (urban, suburban, rural)
- Why so slow?



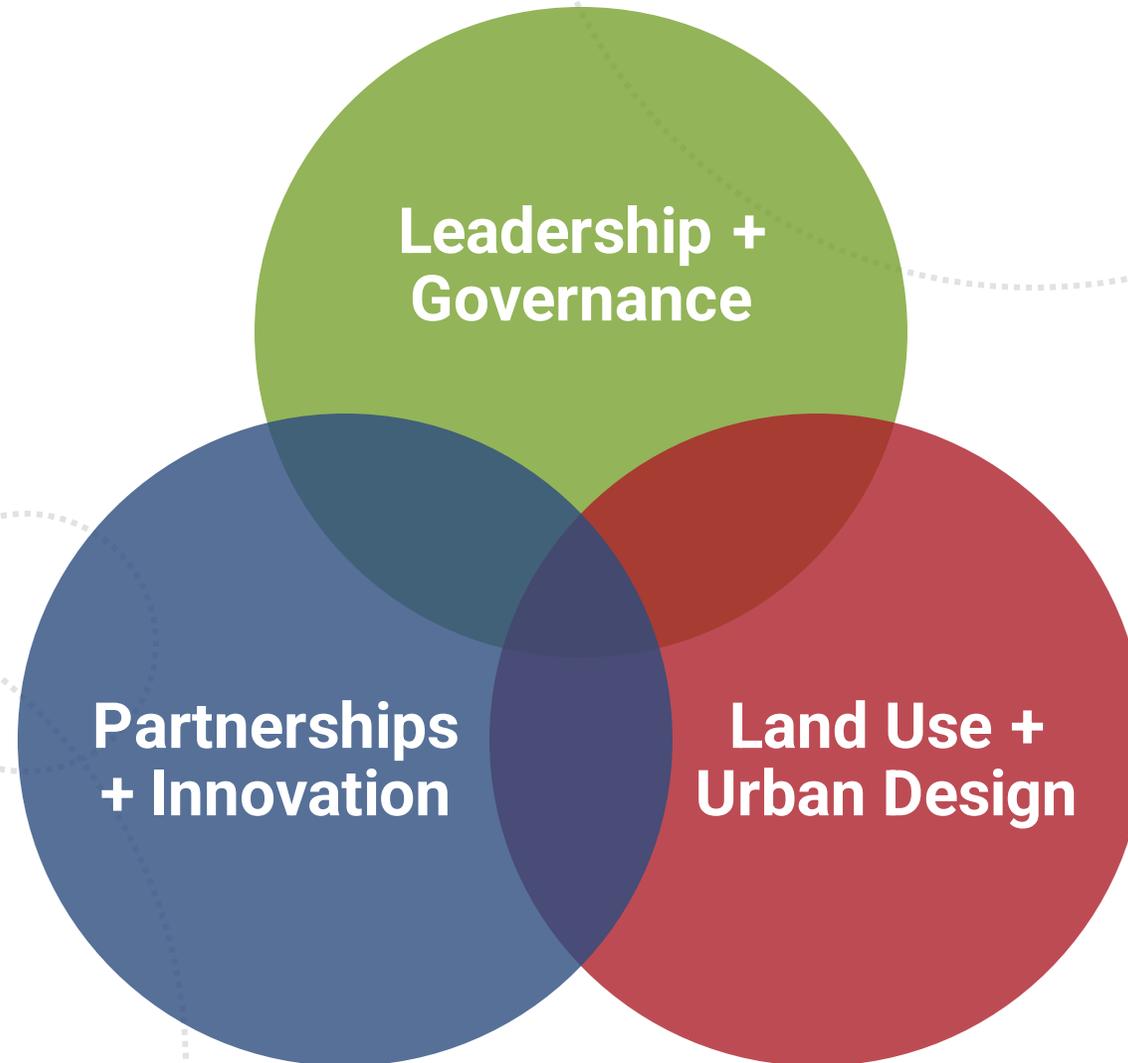
A city skyline is visible in the background, silhouetted against a bright, hazy orange and yellow sky at sunset. The buildings are of various heights and are partially obscured by a large white rectangular text box in the center of the image. The overall atmosphere is warm and serene.

1

Heat Resilience Framework



Heat Resilience Framework



SAKURA NOODLE INC

Rock St
SHERIDAN
FAIR PRICE
FRESH PRODUCE
BY THE POUND
BLEMS

TIJUANA

Extreme heat is one of the deadliest consequences of climate change.



A background image of a city skyline at sunset, with buildings silhouetted against a warm, orange and yellow sky. The foreground shows a residential area with houses and palm trees.

2

Leadership + Governance

Recommendations

- County should lead heat resilience efforts regionally
 - Systems in place that can be leveraged (ex. COVID warning systems)
 - Public health authority
 - Emergency response operation
- Identify a point person (ex. chief heat officer)
- Establish framework for coordination:
 - Between departments (emergency management, parks & rec., etc.)
 - Other governments & agencies (tribes, etc.)
 - Non-profit & private sectors
- Identify and funnel funding streams
 - Federal infrastructure
 - State climate
 - Foundation support (ex. through ULI!)

3

Land Use + Urban Design

Recommendations

- Integrate extreme heat risk & exposure into long-range planning and development
- Align housing, VMT and resiliency goals
- Policy changes:
 - Provide incentives for land use and building design strategies that address extreme heat
 - Update site design strategies in county land use codes
 - Revise current ordinances that contribute to extreme heat effect
- Create a developer toolkit to support private investment in heat resilience
 - Identify local champions
- Leveraging county-owned properties to showcase heat resilience strategies
- Consider strategies to preserve and enhance agricultural lands in the county

4

Partnerships + Innovation

Recommendations

- Demonstration projects:
 - Urban: in partnership with a city
 - Suburban
 - Rural
 - Manufactured housing/low income
- Resilience Hubs/Cooling Centers
 - Make cool centers more cool
- Urban Forestry
 - Community greening programs
 - Community gardens
- Partnership and collaboration with SDG&E
 - Microgrids
 - Retrofit and weatherization programs
- Community Awareness & Engagement
 - Websites, one-pagers
 - Robust translation program for outreach
 - Community based organizations and *promotoras*
- Workforce Development & Education
 - K-12 → trade schools
 - University partnerships – student competition
 - Unions
- Integrate arts & culture to build awareness and engage community
 - Storytelling
 - Example: Houston

5

Next Steps



A3.1 Prioritize the implementation of existing policies to increase parking lot shading, greening and landscaping, installation of cool roofs and cool pavement technologies in EJs and areas where high concentrations of vulnerable populations reside.	Land Use	Urban Design	Urban Greening	Waste Heat	Emergency Preparedness	Public Health	Personal Exposure	Energy	Equity & EJ
Implementation: <ul style="list-style-type: none">Investment in Cool Roof, Cool Pavement, Green Stormwater Infrastructure, Shade Structures, Cool Corridors and Cooler Neighborhoods.Start with pilots that co-locate these measures.Work with stakeholders to set goals in each area.									
Recommended Goals and Outcomes: <ul style="list-style-type: none"># of Cool Roofs# of Cool Pavement Miles# of Green Stormwater Infrastructure projects, dollars invested% of shaded areas on a site, in the public realm									
Resources and Case Studies: <ul style="list-style-type: none">Cool Roofs<ul style="list-style-type: none">NYC CoolRoofs - NYC BusinessHeat Island Related Links US EPACool Pavement<ul style="list-style-type: none">Street Transportation Cool Pavement Pilot Program (phoenix.gov)Cool LA Neighborhoods Bureau of Street Services (lacity.org)Green Stormwater Infrastructure<ul style="list-style-type: none">Incentives for Green Infrastructure igd-report-final.pdf (houstontx.gov)Green Schoolyards - Paris Oasis Program https://oppla.eu/casestudy/18474Shade Structures<ul style="list-style-type: none">Borrego Springs Library - site design, including solar panels shading parking (see google street view)https://coolsandiegosights.com/2020/08/15/the-cool-uc-san-diego-solar-chill/Solar Trees - Energy Innovation Center - Solar Trees @ San Diego Gas & Electric (sdge.com)Cool Corridors<ul style="list-style-type: none">https://www.phoenix.gov/oepsite/Documents/Cool%20Corridors%20Policy%20Recommendations%20for%20Phoenix%20UHITS%2021%20Apr%2008.pdfCooler Neighborhoods<ul style="list-style-type: none">Nature's Cooling Systems Program, Phoenix (links here and here)Phoenix - Virtual Urban Heat Leadership AcademyResilience Accelerator Workshop Report TelAviv WEB.pdf (columbia.edu)									

Escondido Palomar Hospital – 1.5 Acre Green Roof



