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?
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Heat Resilience Framework
Heat Resilience Framework

- Leadership + Governance
- Partnerships + Innovation
- Land Use + Urban Design
Extreme heat is one of the deadliest consequences of climate change.
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
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
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 EJCs and Areas Where High Concentrations of Vulnerable Populations Reside

|----------|--------------|----------------|------------|------------------------|---------------|-------------------|--------|------------|

**Implementation:**
- 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:**
- # 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:**
- **Cool Roofs**
  - NYC CoolRoofs - NYC Business
  - Heat Island Related Links | US EPA
- **Cool Pavement**
  - Street Transportation Cool Pavement Pilot Program (phoenix.gov)
  - Cool LA Neighborhoods | Bureau of Street Services (laacity.org)
- **Green Stormwater Infrastructure**
  - Incentives for Green Infrastructure | gpt-report-final.pdf (houstontx.gov)
  - Green Schoolyards - Paris Oasis Program | https://oppla.eu/casesudy/18474
- **Shade Structures**
  - Borrego Springs Library - site design, including solar panels shading parking (see google street view)
  - Solar Trees - Energy Innovation Center | Solar Trees @ | San Diego Gas & Electric (sdge.com)
- **Cool Corridors**
- **Cooler Neighborhoods**
  - Nature's Cooling Systems Program, Phoenix (links here and here)
  - Phoenix - Virtual Urban Heat Leadership Academy
  - Resilience Accelerator Workshop Report | TelAviv WEB.pdf (columbia.edu)
Escondido Palomar Hospital – 1.5 Acre Green Roof