



The California Nevada Adaptation Program (CNAP) work focuses on research that supports decision makers and local and regional scales to prepare communities for local-level actions to address extreme weather and natural hazards. This emphasis on preparedness provides opportunities to reduce costly damages from weather extremes that can devastate communities and economies.

IMPACTS

California and Nevada will be increasingly impacted by extreme heat, wildfire and smoke, flooding, drought, and coastal flooding. These climate impacts intersect and will strain the region's communities and economies. CNAP is working to create a network of scientists, local institutions and community members to help create a resilient and prosperous region.

APPROACH

CNAP's approach to climate resilience is built on three key pathways — convening and connecting, co-produced research, and catalyzing solutions. These pathways are supported by four core tenets: knowledge-to-action partnerships, mental/physical health, extreme weather preparedness, and regional resiliency.

PARTNERING INSTITUTIONS:

- DRI
- Scripps Institution of Oceanography, UCSD
- University of California, Merced
- University of Nevada, Reno
- University of Nevada, Las Vegas
- Kern Community College District
- Climate Science Alliance

PROJECTS

Our multi-disciplinary team focuses on the region's acute natural hazard impacts: extreme heat, wildfire smoke, coastal flooding, and water scarcity. Six core research projects work with community partners to leverage local knowledge to promote adaptation approaches:

MISSION

To improve weather preparedness in California and Nevada by providing decision makers usable research through integrating cutting-edge physical and social science.



KNOWLEDGE-TO-ACTION PARTNERSHIPS



We will convene and connect our researchers, community partners, and collaborators across CNAP to find adaption pathways and solutions for our present and future natural hazard risks.

GOAL: Utilize traditional engagement strategies and advance new strategies and tools to create knowledge-to-action partnerships.

MENTAL & PHYSICAL HEALTH



We will evolve our understanding of natural hazard and extreme weather risks on physical and mental health.

GOAL: Advance integrated scientific research at the intersection of compounding natural hazards and social stressors.

WEATHER PREPAREDNESS



We will build capacity in our communities to use weather information and research to develop risk mitigation strategies to compounding natural hazards and social stressors that incorporate local and indigenous knowledge.

GOAL: Coproduce engagement strategies with our partners designed to reduce impacts from extreme weather events.

REGIONAL RESILIENCY



We will use our research process and engagement strategies to directly support actions and plans that respond to regional and local natural hazard impacts and are regionally relevant.

GOAL: Develop decision support research that can be used to promote regional resiliency to extreme weather events.

The Southern Nevada Heat Resilience Lab (SNHRL)

- SNHRL will grow the capacity for Southern Nevada to increase heat resilience in communities by implementing effective and just adaptation.
- Brings together local agencies and community organizations with researchers who assist in designing potential solutions.

Building Water Resiliency through Climate Information and Workforce Development in the San Joaquin Valley

- Addresses the variability of California’s water supply and the changing water policy landscape in one of the nation’s most agriculturally productive regions.
- This project centers local technical and educational staff from the Kern Community College District and the Central Mother Lode Regional Consortium of community colleges in creating a local knowledge-to-action pathway for water resource use, management, and adaptation.

Evaluating Nature-Based Solutions for Coastal Adaptation in Southern California

- Explores how solutions and Dynamic Adaptation Pathway Planning can reduce coastal flooding and erosion that threatens some of the West Coast’s most heavily accessed beaches.
- Indigenous communities maintain their connection to these coastal places and resources and are leading dialogue about coastal resources stewardship.
- This project will demonstrate how interdisciplinary knowledge can better support coastal cities and agencies to start making investments in adaptation actions.

Supporting Household Health Adaptation to the Compound Events of Extreme Heat and Wildfire Smoke

- Addresses household tradeoffs between cooling and wildfire smoke exposure in communities that lack or are financially unable to operate traditional air conditioning.
- This project will increase the opportunities for achieving optimal household health outcomes in Northern Nevada and California related to the compound events of extreme heat and wildfire smoke.

Adaptive Mind

- Confronts the increasing mental health challenges associated with extreme weather and natural hazards, including extreme heat, flooding, and wildfires.

Building Capacity through Reciprocity with Tribal Communities

- Through the Climate Science Alliance’s Tribal Working Group, support Indigenous involvement in CNAP activities by identifying Tribal research priorities and center the co-production of that research through fellowships, compensation for Indigenous science consultants, and funding for Tribal-led projects
- Bring together researchers and partners to address local adaptation challenges and solutions. All projects recognize the critical importance of incorporating local and traditional knowledge in project processes, outputs, and outcomes.

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