

Climate Change, Health, and California's Indian Nations

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Exploring California Climate Change Connections
CA Office of Health Hazard Assessment
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**TRIBAL CLIMATE
HEALTH PROJECT**



**PALA
ENVIRONMENTAL
DEPARTMENT**

Pala Band of Mission Indians (Northern San Diego, CA)

National collaboration and leadership on climate and health adaptation



Collaborative Climate Adaptation for Tribal Community Wellbeing

- Pala Adaptation
- Intertribal Sharing

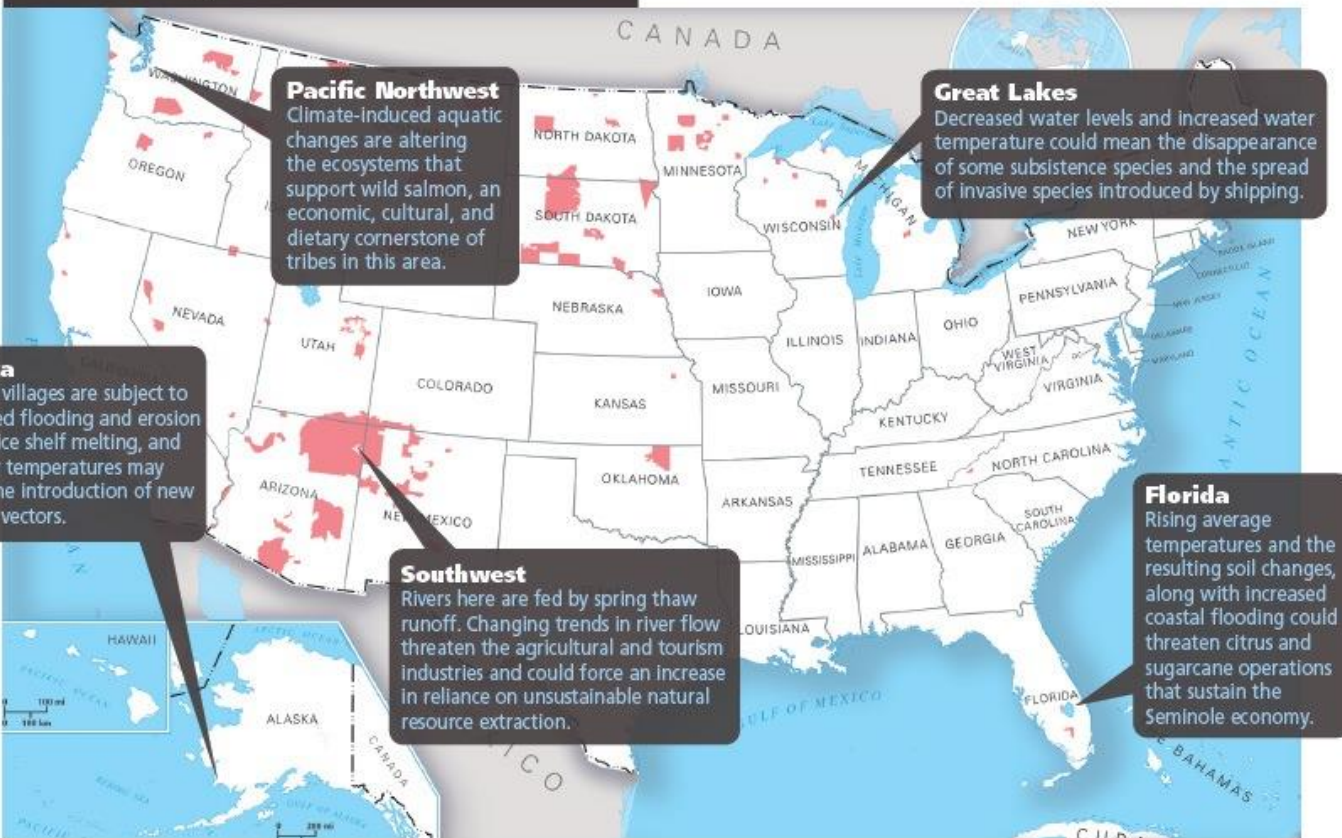
Capacity Building

- Website & Resource Clearinghouse
- Trainings & companion tools
- Assessment/Plan/Survey Templates



Climate changes wellbeing differently in different places

Climate Change Affects Tribes Nationwide



Tribal lands are indicated in pink. Sources: map—www.nationalatlas.gov; climate change effect predictions—Hanna JM. 2007. Native communities and climate change: protecting tribal resources as part of national climate policy. Boulder, CO: Natural Resources Law Center / NWF. 2007. Overview of recent research: effects of global warming on the Great Lakes [fact sheet]. Ann Arbor, MI: National Wildlife Federation.

Tribal examples:

- ***Pacific Northwest and Great Lakes tribes:*** fish, food, and forests
- ***Alaska coastal tribes:*** thawing, erosion and hunting
- ***Navajo:*** heat and water insecurity
- ***Mojave:*** shrinking river (spirituality)
- ***Seminole Tribe of Florida:*** hurricanes and sea-level rise
- ***Lakota (South Dakota):*** Bomb cyclone and flooding

What Climate Change Means for Tribes & Indigenous Peoples

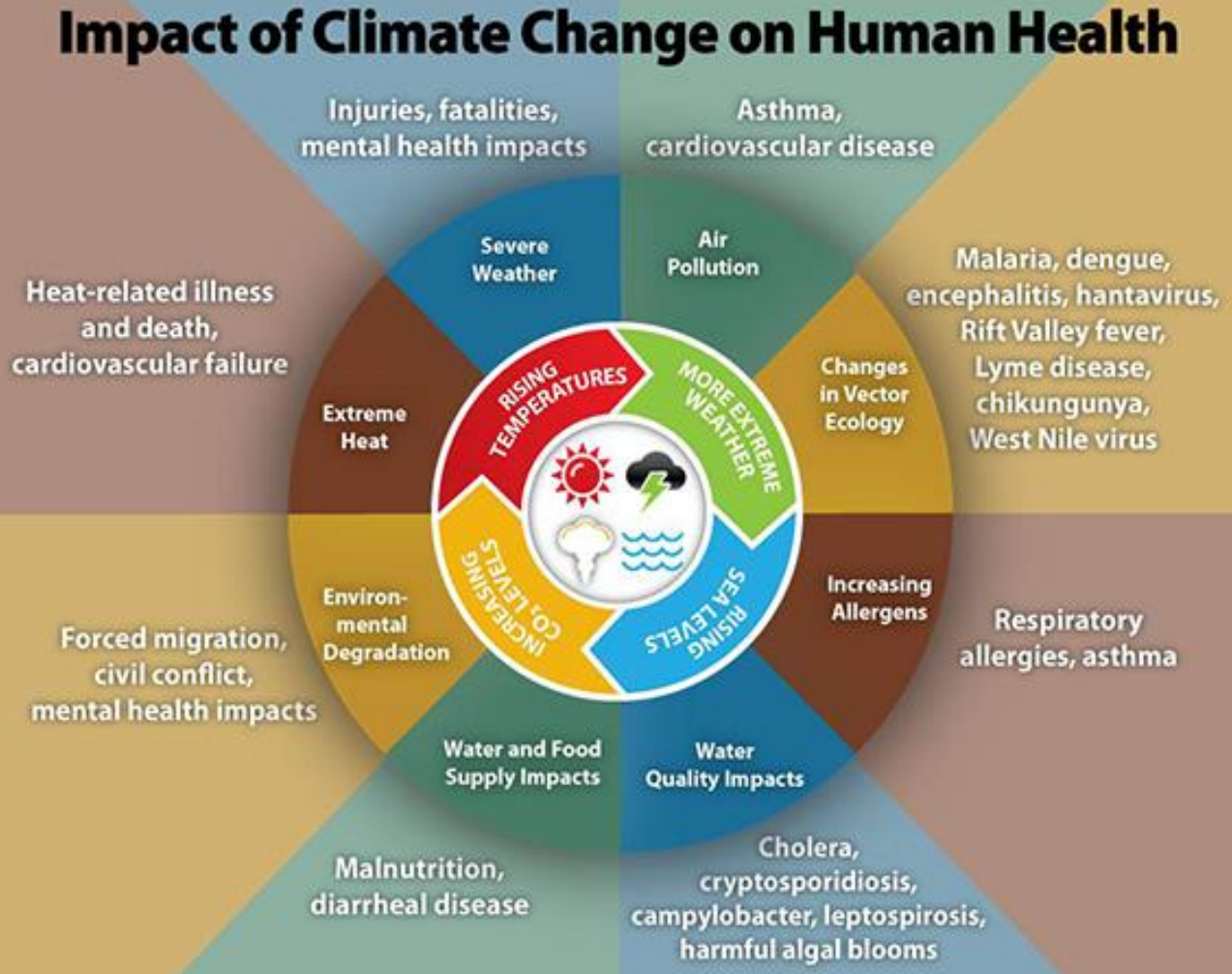
Tribes face unique climate challenges



- Each tribal community is **unique**
- Climate change exacerbates **disproportionate health outcomes**
- Water and food **insecurity**
- Displacement/relocating may mean **loss of culture, community, sovereignty, and rights**
- Loss of ecological health can mean **loss of livelihoods**
- Underfunded public **health services**
- Adaptation involves navigation of **complex federal laws, treaty rights, and true engagement, consultation, and consent**

Climate Change and Human Health

Climate change is increasing the number of people at greater risk of human health threats such as **illness, injury, death, trauma and other mental and psychosocial consequences**



USGCRP Climate and Health Assessment Key Findings

- Increased exposure to extreme events and coastal flooding will effect health
- Disruptions to essential infrastructure can limit access to healthcare and emergency response services

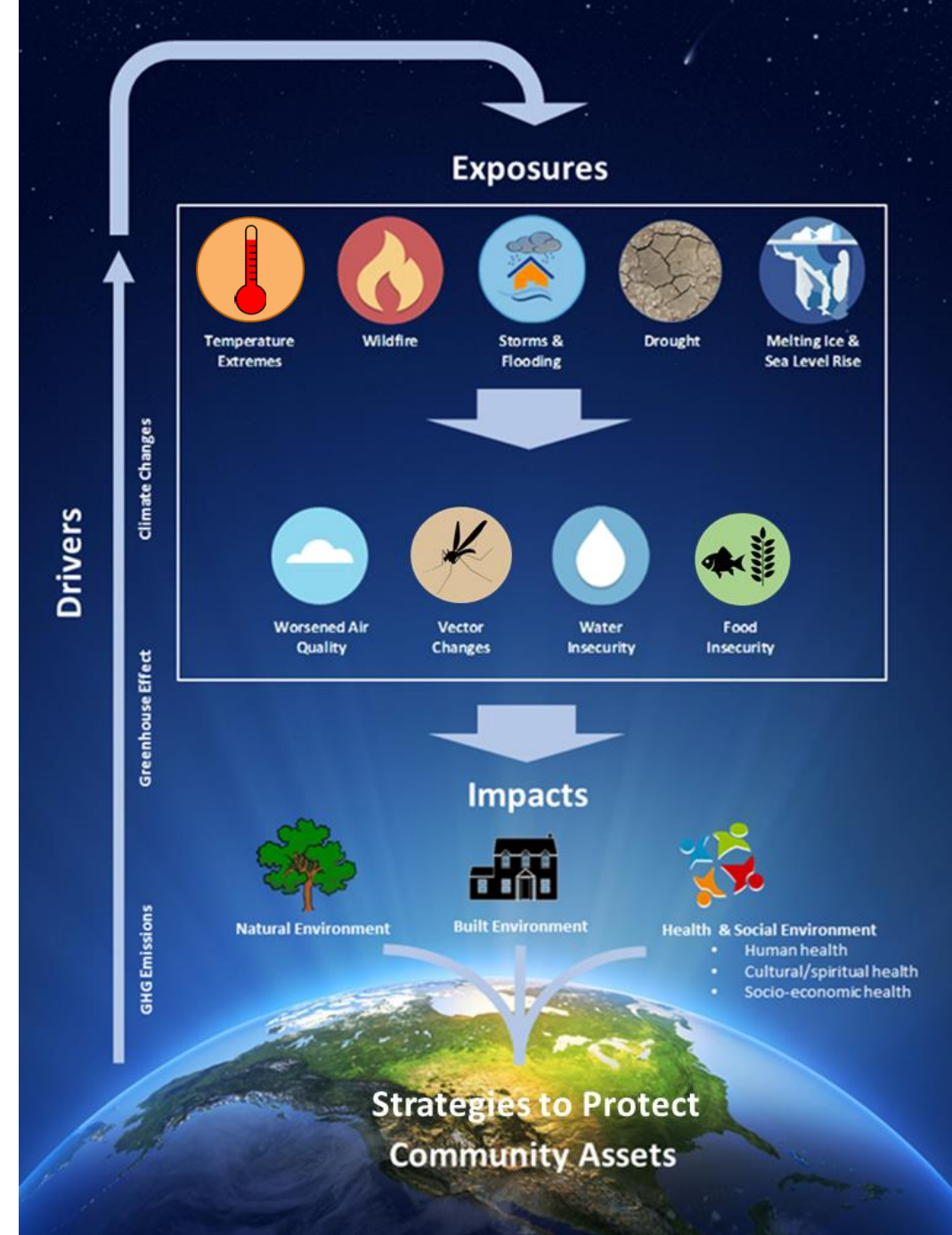
“It does take an emotional toll, but I have to remember that [the] people keep going, and have been going since the colonial settler stepped foot on this land.”

Nikki Cooley, Diné

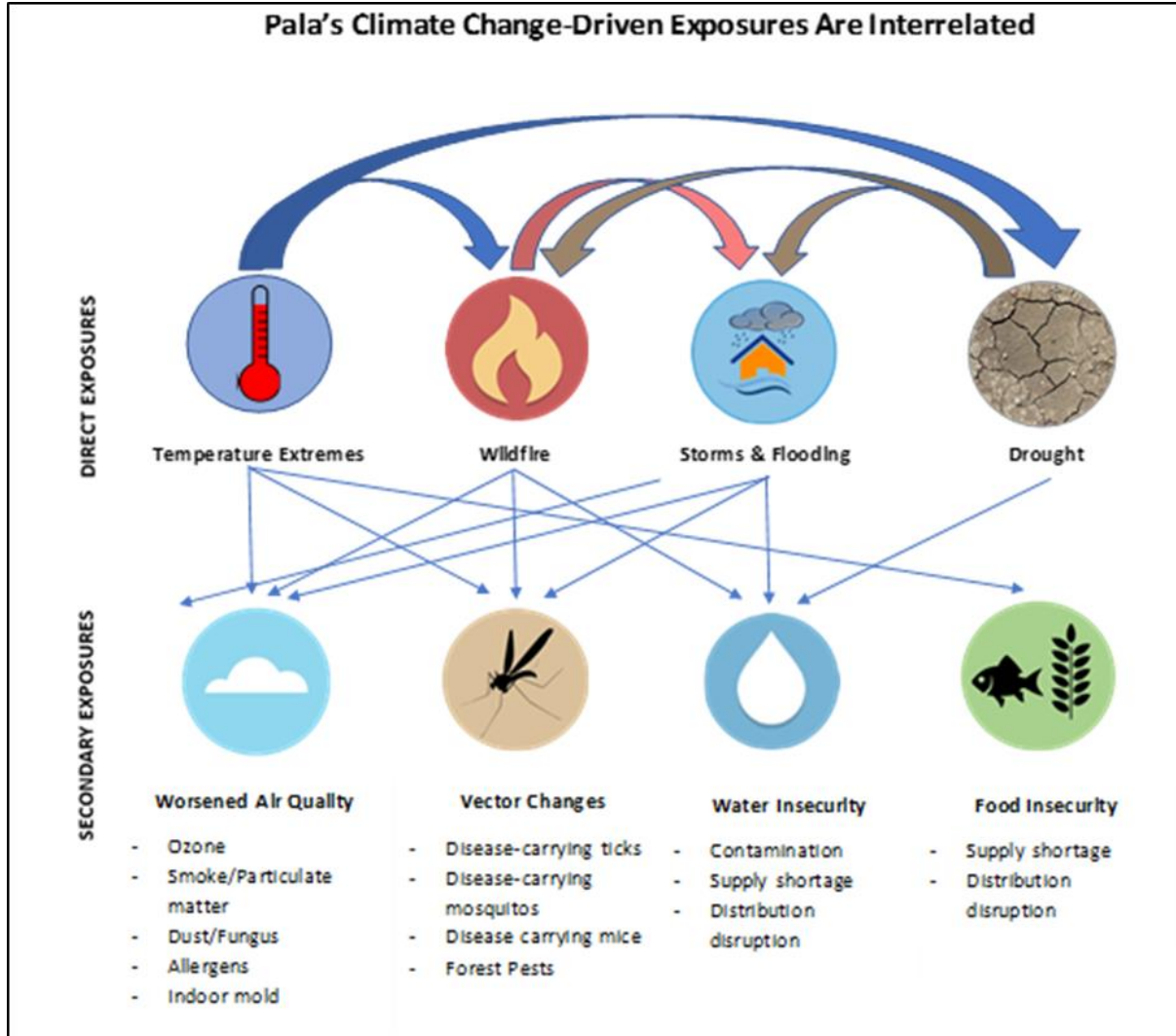
Tribal Climate Health Project Framework

The Tribal Climate Health Project defines health more broadly than the absence of medical disease.

- **Human health:** physical and psychological
- **Spiritual and cultural health**
- **Socio-economic health**



Tribal Example: Pala Band of Mission Indians



CLIMATE CHANGE PREPAREDNESS

EXTREME HEAT & PALA

EXTREME HEAT CAN BE DEADLY FOR ELDERLY, YOUTH AND PETS

The State of California projects that days over 99.9 degrees at Pala will increase by 750% by 2070-2099. That means Pala residents will experience extreme heat days 1 out of every 10 days.

TEMPERATURES in the US are projected to increase 2.8 - 7.3 degrees Fahrenheit on average by 2071 - 2100.

BEAT the HEAT

Heat waves are a leading cause of extreme weather-related deaths in the U.S.

Who's at RISK in EXTREME HEAT?


- Adults over 65, children under 4, people with existing medical conditions, and those without access to air conditioning.

What can you DO?

- Stay Cool**
 - Find an air-conditioned shelter
 - Avoid direct sunlight
 - Wear lightweight, light-colored clothing
 - Take cool showers or baths
- Stay Hydrated**
 - Drink more water than usual
 - Don't wait until you're thirsty to hydrate
 - Avoid alcohol or liquids containing large amounts of sugar
 - Remind others to drink enough water throughout the day
- Stay Informed**
 - Visit Cal OES's Heat Resources page to learn more about how you can protect yourself and your loved ones in extreme heat at www.caloes.ca.gov
- Heat Safety for Pets**
 - Don't leave pets in vehicles
 - Keep water bowls filled and fresh
 - Limit outdoor activities
 - Keep paws off hot surfaces

VISIT PALA ENVIRONMENTAL DEPARTMENT'S WEBSITE FOR MORE INFO: <http://ped.palatribe.com>

Psycho-Social-Spiritual Resilience Strategies



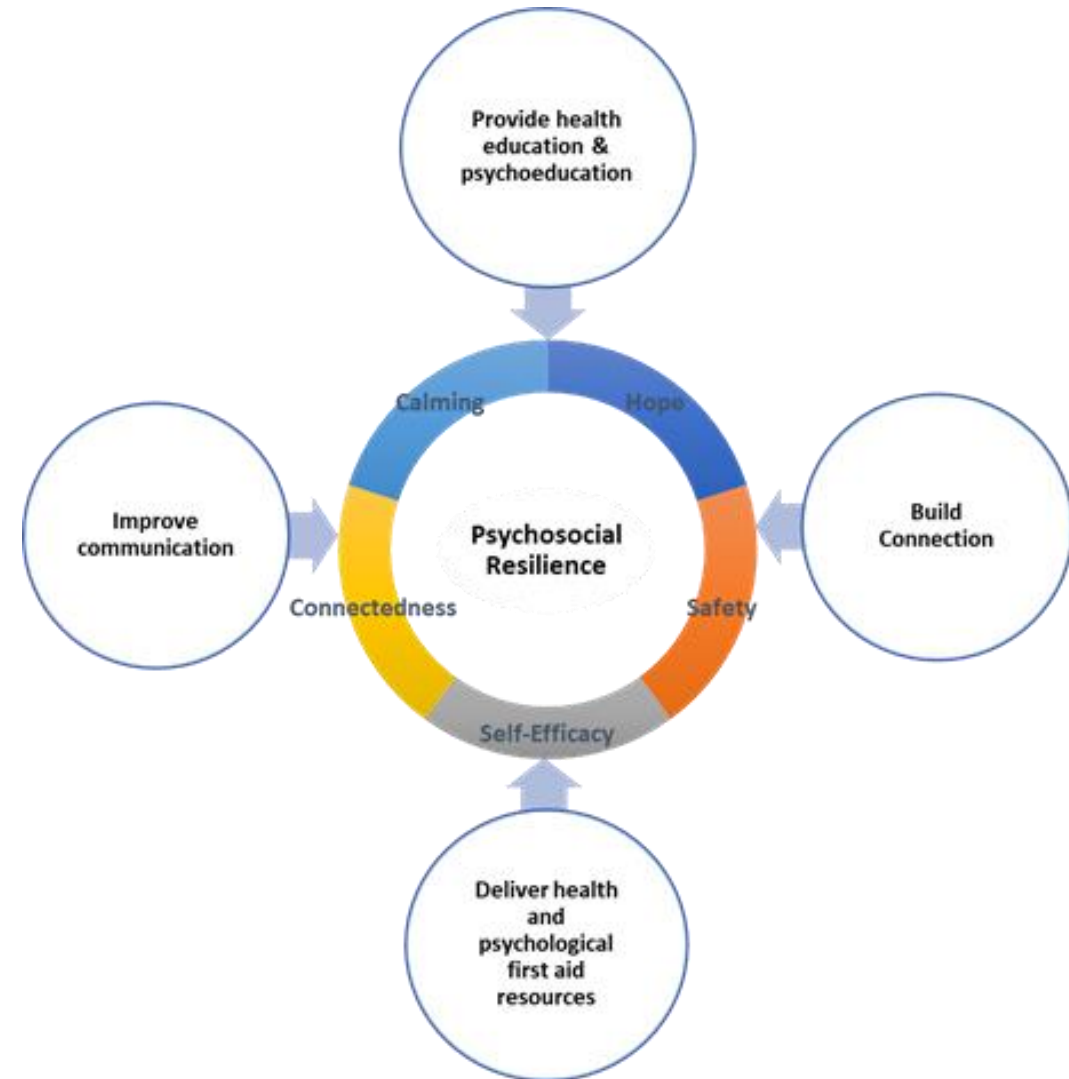

Chemshúun Pe'icháachuqeli
(When our Hearts are Happy)

A Tribal Psychosocial Climate Resilience Framework

Pala Band of Mission Indians

June 2019

Prepared by:



For information, tools, and resources:

- [Tribal Climate Health Project](#)
- [Pala Environmental Department – Climate Change](#)
- [National Indian Health Board – Climate Ready Tribes](#)
- [Institute for Tribal Environmental Professionals – Tribes and Climate Change Program](#)
- [USGS – Southwest Climate Adaptation Science Center](#)



**TRIBAL CLIMATE
HEALTH PROJECT**

Thank You

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