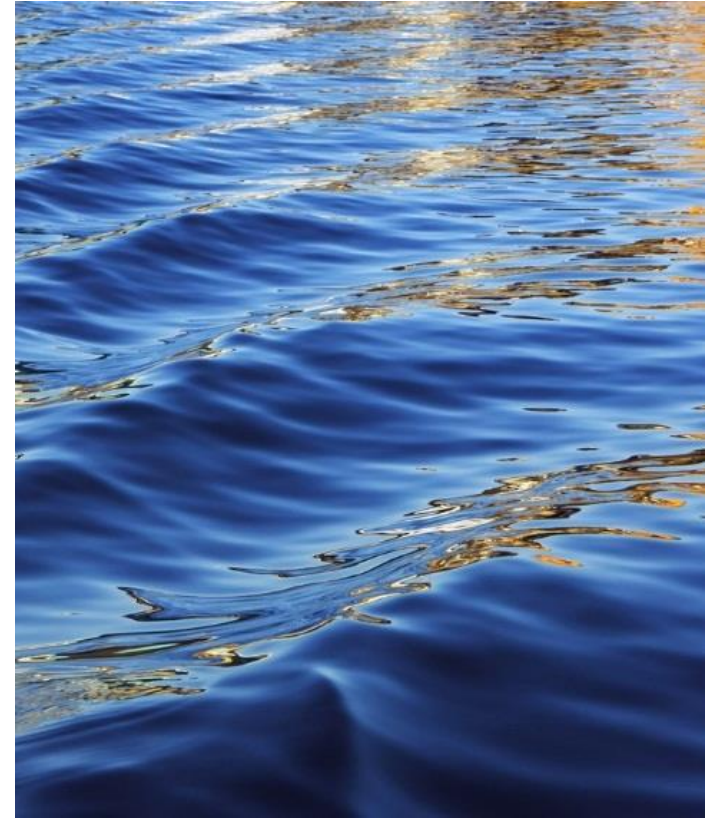




TRIBAL CLIMATE
HEALTH PROJECT

Implement, Evaluate and Update Adaptation Plan

Tribal Climate and Health Adaptation Webinar #8



Since Last Webinar

Suggested Reading

- Chemshúun Pe'ícháachuqeli (When our Hearts are Happy): A Tribal Psychosocial Climate Resilience Framework (Pala)

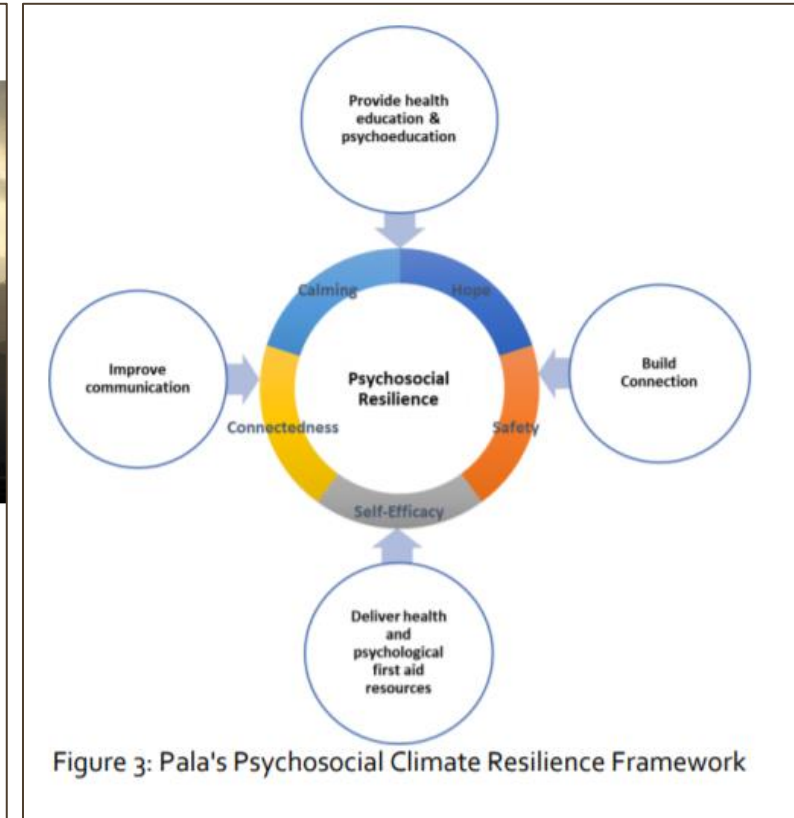
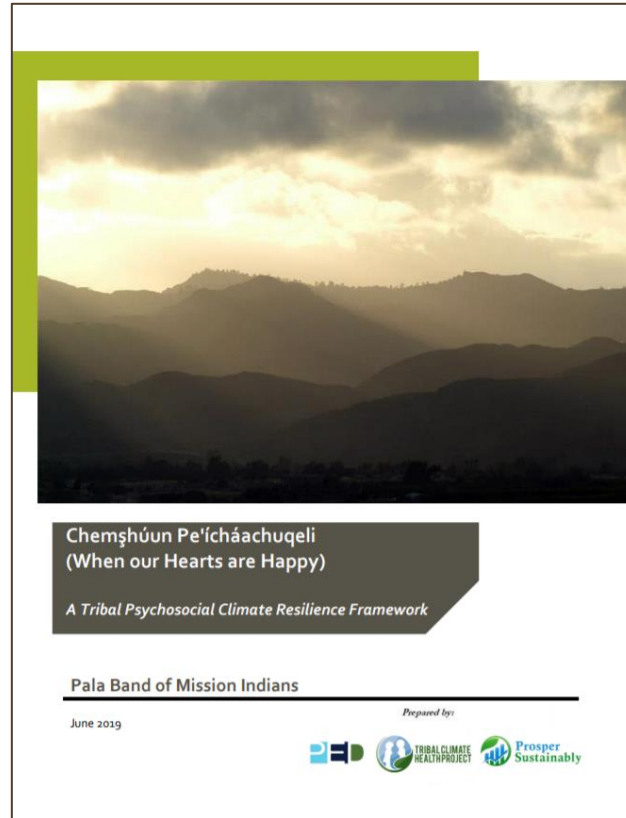


Figure 3: Pala's Psychosocial Climate Resilience Framework

Chat Discussion:
What strategies stood out?

Recap: Set Up Your Adaptation Plan with Implementation in Mind

Steps

1. Determine Objectives and Scope
2. Compile “long list” of adaptation strategies
3. Evaluate and Prioritize “Short List” of Adaptation Strategies
- 4. Organize Selected Strategies into an Action Plan**
5. Synthesize and Present Results

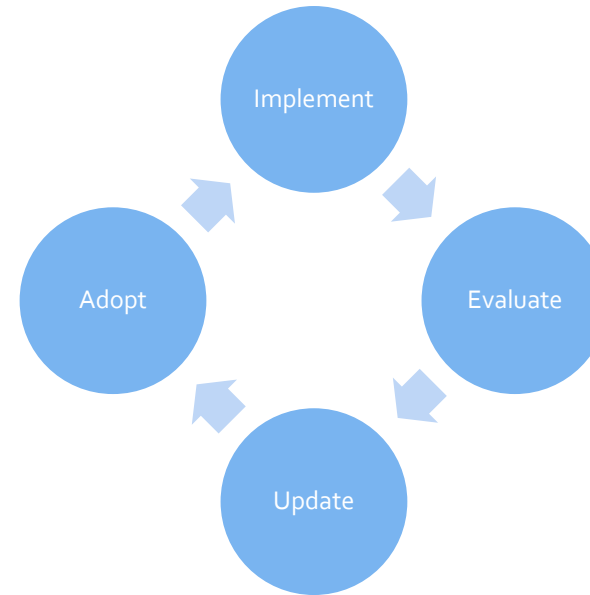
Step 4. Organize selected strategies into an Action Plan

- Outlines how your community will roll out its implementation of selected strategies
 - Responsible departments
 - Timeframe
 - Status
 - Partners/resources (including funding opportunities)
- TCHP’s Exposures, Impacts, and Strategies Inventory (EISI) tool can help (DEMO)
- See Pala’s Adaptation Plan for an example (DEMO)
- Also outlines rules governing how the plan will be evaluated and updated
 - What metrics will you continue to track?
 - Will you complete progress reports?
 - Who will oversee implementation?
 - When will you update the plan?

What to Implement First?

- IPCC: basic health measures
- TCAG: Fewest barriers, highest chance of success and greatest resilience value
- Studies: Social capital and trauma coping skills

TCHP Framework and Tools



- The process doesn't end once the plan is adopted
- BRACE framework: "preparing for climate change is a cyclical and continuous process"
- You're now in good position to pursue funds for your strategies

Companion Tools

- **Fact Sheet Examples**
- **Exposures, Impacts, and Strategies Inventory (EISI) tool**

Steps

1. Implement
2. Evaluate
3. Update

Group Discussion:

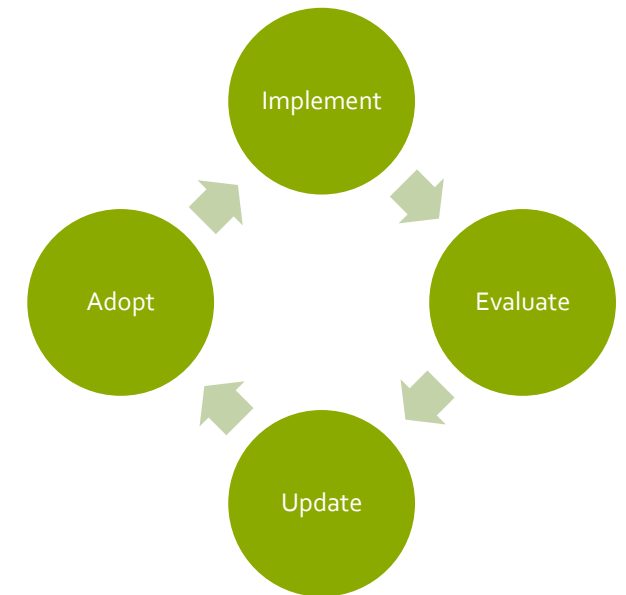
Words of wisdom from those that have begun implementing an adaptation plan.

Implement and Evaluate Your Adaptation Strategies

Steps after Adoption

1. Implement

- Use your Action Plan as a road map, but even the best laid plans may need adjusting along the way
- Lead staff continue engaging stakeholders, especially those with ongoing responsibilities
- Responsible departments take ownership of the timely implementation of each strategy assigned to them.
 - Pala's Climate and Health Fact Sheets provide examples of how to educate your community on the risks and actions you're taking



Adaptation Planning Tool – [Exposures, Impacts, and Strategies Inventory \(EISI\) tool](#) (Updated October 2, 2019 BETA VERSION). This is a draft of a customizable companion tool that can support communities that are conducting adaptation planning. Information and data sources are compiled and organized to present information needed at several decision-making steps to help your community prepare to take the most effective actions. We are continuing to build functionality and improve information. The latest update includes more indicators and data sources (national and California specific). Please send questions or comments to ahacker@prospersustainably.com.

Survey Template – [Climate Vulnerability Experiences and Priorities Survey](#) for gathering initial community input. If you have a Google account, you can use [this link](#) to create and save a copy of this template to customize for your tribe.

Sample Reports – [Pala Band of Mission Indians Climate Change Vulnerability Assessment](#) and [Climate Change Adaptation Plan](#). These reports incorporate health impacts and strategies. This Word version allows others to modify for their own community.

Fact Sheets – Pala Band of Mission Indian produced the following fact sheets to help their community understand high-risk climate exposures and how to recognize and prepare for climate threats:

- [Extreme Heat \(Elevated Temperatures\)](#)
- [Wildfires](#)
- [Flooding and Storms](#)
- [Drought](#)

Other Relevant Training Materials not Produced by the Tribal Climate Health Project

Tribal Resolution Template – [ITEP's Tribal Climate Change Resolution Template](#)

Pala Educational Fact Sheet Example

CLIMATE CHANGE PREPAREDNESS



EXTREME HEAT & PALA

EXTREME HEAT CAN BE DEADLY FOR ELDERS, 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

Cal OES

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

PALA'S HIGH-RISK HEALTH IMPACTS

Below are health impacts considered high or medium risk for residents of Pala.

- Heat-related stress, illness, and death
- Consequences for mental, behavioral and cognitive wellbeing
- Decline of culturally important plants and animals
- Lost work, school, or business days
- Decrease in fitness activity level
- Disruptions of community functions or ceremonies
- Carbon monoxide poisoning (e.g. from generators during a power outage)
- Respiratory and cardiovascular illness
- Worsened allergies
- Food shortage due to global production and price fluctuations
- Illness and death caused by Lyme, West Nile Virus, and Zika

WHAT IS PALA DOING TO ADAPT AND PREPARE?

Pala completed an Adaptation Plan with a full list of strategies to help safeguard the health and wellbeing of the Pala community. Below are a few examples of ways we plan to address elevated temperature threats.

- Build alternative power supplies e.g. building or community-scale battery storage and microgrids incorporating renewables to avoid power outages for critical facilities during exposure-event
- Conduct education to encourage community members to prepare for exposure

TIPS FOR STAYING SAFE DURING EXTREME HEAT

- Get inside. Pala's cooling centers at located at the Pala Resort and Casino and the Fitness Center
- Stay hydrated and rested
- Never leave anyone in a closed vehicle
- Check on elders and other vulnerable neighbors
- Don't forget your pets!
- Take advantage of medical and emotional care services
- [Recognize the symptoms of heat stroke.](#)
- [Set up a family emergency plan](#)
- Follow [Pala Environmental Department on Facebook](#) for climate updates and information.
- Sign up for [San Diego County's Alert System](#)

Real World Implementation Experiences



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

Group Discussion:

Please share lessons learned and unexpected experiences related to implementing adaptation strategies.

Implement and Evaluate Your Adaptation Strategies

Steps after Adoption

2. Evaluate

- Lead staff coordinate regular monitoring and reporting of indicators and progress amongst responsible departments
 - TCHP's EISI tool is built to allow communities to continue tracking key indicators over time (DEMO)
 - See Pala's Adaptation Plan for an example (DEMO)

3. Update the plan as needed to account for change

- You can save time by re-evaluating, updating and prioritizing from your last iteration

Implement and Evaluate Your Adaptation Strategies

Example: Nez Perce Tribe The Nez Perce Tribe Clearwater River Subbasin (ID) Climate Change Adaptation Plan identifies a number of metrics to track progress in implementing their adaptation actions:

- Number of attendees at each meeting, and quality of information provided
- Inclusion of Tribal concerns and adaptation strategies into updated US Forest Service Forest management plans;
- Number of presentations given to regional officials;
- Documentation of changes made to existing ordinances;
- Completion of floodplain modeling scenarios;
- Development of site-specific restoration plans;
- Development and distribution of educational materials; and • Number of road miles and crossings improved.

Implement and Evaluate Your Adaptation Strategies

Sharing your community's story

- If you've made it this far, your community is on the forefront of climate adaptation
- Communicate your activities and progress to your community
 - Progress reports
 - Dashboards
 - Community meetings
- Others can benefit from your experience
 - Document the process and results
 - Case study
 - Academic or scientific journals
 - Articles
 - Share it broadly
 - Other tribes or consortiums
 - Federal agencies
 - Tribal-serving programs and databases, such as:
 - [Tribal Climate Health Project](#)
 - [U.S. Climate Resilience Toolkit](#)
 - [BIA Tribal Resilience](#)
 - ITEP

docs.google.com/spreadsheets/d/1bPjedYNWROap3sUehqbwPv-pvXtDOcOh4T5kTlcQgPc/pubhtml

Makah Tribe CC Project Activity Description : Sheet1

All active projects reported by this organization are categorized by status and include a description of the project.

In Planning	In Process	Completed			
E-2: Incorporate climate change more explicitly into comprehensive plans and Shoreline Master Programs (SMP)	E-11: Increase funding for harmful algae bloom monitoring	E-7: Develop graphic tool to illustrate climate impacts			
E-3: Enhance promotion of agricultural best management practices to include future climate conditions	E-12: Complete survey of sensitive submerged habitats and the species that utilize them	E-14: Strengthen enforcement on illegal shoreline uses			
E-10: Utilize low cost citizen science monitoring and analysis approaches and technologies	E-19: Monitor and analyze climate change impacts at salmon stream restoration sites	E-18: Support and enhance watershed and nearshore habitat restoration			
E-16: Develop community climate action plans (if not already in place)	E-27: Identify and monetize environmental services	WS-4: Identify monitoring needs and enhance water supply monitoring			
	E-28: Inventory and then prioritize shoreline and watershed areas appropriate for defense and retreat				
E-17: Add climate impact overlays to existing Critical Areas	E-23: Develop a funding program appropriate for acquisition of high-risk structures in coastal or riverine flood zones	E-29: Re-energize efforts to reduce stressors to salmon stream habitats			
E-26: Integrate climate change projections into salmon hatchery planning	E-31: Reduce local land-based pollutants that enhance acidification in marine waters				
	WS-1: Enhance				

CATEGORY LEGEND

E = Ecosystem

WS = Water Supplies

CI = Critical Infrastructure

Example: Makah's Climate Adaptation Dashboard

Makah Tribe CC Project Activity Description : Sheet1

All active projects reported by this organization are categorized by status and include a description of the project.

In Planning	In Process	Completed			
E-2: Incorporate climate change more explicitly into comprehensive plans and Shoreline Master Programs (SMP)	E-11: Increase funding for harmful algae bloom monitoring	E-7: Develop graphic tool to illustrate climate impacts		CATEGORY LEGEND	
E-3: Enhance promotion of agricultural best management practices to include future climate conditions	E-12: Complete survey of sensitive submerged habitats and the species that utilize them	E-14: Strengthen enforcement on illegal shoreline uses		E = Ecosystem	
E-10: Utilize low cost citizen science monitoring and analysis approaches and technologies	E-19: Monitor and analyze climate change impacts at salmon stream restoration sites	E-18: Support and enhance watershed and nearshore habitat restoration		WS = Water Supplies	
E-16: Develop community climate action plans (if not already in place)	E-27: Identify and monetize environmental services	WS-4: Identify monitoring needs and enhance water supply monitoring		CI = Critical Infrastructure	
E-17: Add climate impact overlays to existing Critical Areas	E-28: Inventory and then prioritize shoreline and watershed areas appropriate for defense and retreat				
E-23: Develop a funding program appropriate for acquisition of high-risk structures in coastal or riverine flood zones	E-29: Re-energize efforts to reduce stressors to salmon stream habitats				
E-26: Integrate climate change projections into salmon hatchery planning	E-31: Reduce local land-based pollutants that enhance acidification in marine waters				
	WS-4: Enhance				

Implement and Evaluate Your Adaptation Strategies

Example: Makah's climate adaptation dashboard

Closing

Thank you sincerely for
participating in our second
webinar series



Group Discussion:

How has this training enabled you to return home and get to work?

Any closing thoughts or well wishes for the group before we close our series?

Closing

What's Next?

- Please fill out final assessment and evaluation
<https://www.surveymonkey.com/r/QKJCS6>
- Feel free to revisit training materials online
<http://tribalclimatehealth.org/training-materials/>
- As an alum, continue engaging in TCHP's ongoing Peer Learning Community
- Help us spread the word about future trainings currently being developed
 - Tribal Lands and Environment Forum – today!
 - Tribal Pollution Prevention Action
 - Psychosocial mini-series



Free Online Training

Prevent Pollution and Save Money
with
TribalP2Action National Webinars
and Roundtable Meetings

August 25 - September 22, 2020

The Tribal Pollution Prevention Action team (TribalP2Action) presents a series of online events focusing on helping tribal businesses and other organizations prevent pollution and save money in the areas of hazardous substances, water, wastewater, and energy. From Aug. 25 through Sept. 22, this series of 90-minute webinars and roundtable meetings will provide P2 planning and implementation guidance and resources, best practices, case studies from tribal businesses, roundtable discussions on experiences and solutions, and more.

Get info and REGISTER:

tribalp2action.org/webinar-roundtable-series

Learn more and CONTACT US:

www.tribalp2action.org



Shasta Gaughen
760-891-3515
sgaughen@palatribe.com



Angie Hacker
805-234-5131
ahacker@prospersustainably.com



Thank You

Acknowledgements

- US Environmental Protection Agency
- US Bureau of Indian Affairs
- Members of the TCHP Advisory Group
- National Indian Health Board



Implement, Evaluate, and Update – Key Resources

Guidance

- Oregon Climate Change Research Institute - [Tribal Climate Adaptation Guidebook](#) (Steps 4 and 5)
- [U.S. Climate Resilience Toolkit](#)
- [BIA Tribal Resilience](#)

Tools and Templates

- TCHP - [Exposures, Impacts, Strategies Inventory \(EISI\) tool – Beta Version](#)
- Pala Band of Mission Indians - [Climate Change Adaptation Plan](#)
- Pala Band of Mission Indians Climate Change Fact Sheets -
 - [Extreme Heat](#) (Elevated Temperatures)
 - [Wildfires](#)
 - [Flooding and Storms](#)
 - [Drought](#)

Examples

Progress Reports

- US Bureau of Reclamation - [Climate Change Adaptation Strategy: 2016 Progress Report](#)
- Makah Tribe: [Climate Adaptation Dashboard](#)