# Southeast Alaska

### Central Council of the Tlingit & Haida Indian Tribes of Alaska

### Aaní, More Than Land

Central Council of Tlingit & Haida Indian Tribes of Alaska (Tlingit & Haida or Tribe) is one of the largest and most remote tribes in Southeastern Alaska. The Haida Nation and the Tlingit Nation have existed as two separate and distinct people since time immemorial, but have shared ancestral lands since the last ice age over 11,000 years ago. Their ancestral lands include over 43,000 square miles in what is known as the Alaska Panhandle. Only accessible by boat or plane, the land is a collection of hundreds of



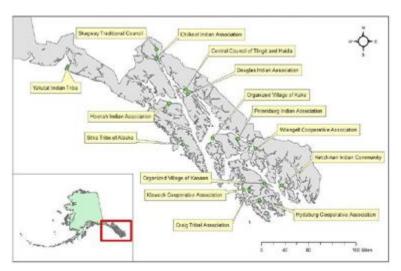
islands that make up the Alexander Archipelago as well as a thin strip of mainland. The region is a stunning mountainous landscape crisscrossed by miles of rivers, streams, fjords, and shoreline. It is also host to one of the few temperate rainforests in the world.



In Tlingit, the word Aaní means homeland. But, as Kenneth Weitzel explains, "Aaní includes a lot more than just land, more than just property. Aaní is songs, it's regalia, it's rivers, it's salmon."

Weitzel is the Natural Resource Specialist for the Tlingit & Haida. During his lifetime, he can point to changes in the land, changes to the Aaní. He recounts that after returning from his years in the Navy, his family described how the bears had started acting 'crazy'. Spring temperatures had come early and the bears had begun emerging from hibernation. Hungry, the bears went to the rivers to feed, but the salmon hadn't arrived yet. So the bears were hungry and more aggressive, 'acting crazy'

This is one of the many changes the Tribe had begun to notice, changes triggered by climate change.



Sixteen federally recognized Southeast Alaska Tribes concurrently approved resolutions for the need for a Climate Change Adaptation Plan and Template.

#### A Unified Call for Data

Rising sea levels and eroding shorelines are common topics when discussing climate change. These issues are pressing, especially in the northern regions of Alaska where entire villages are considering relocating. The State of Alaska, however, is larger than the three states of Texas, California and Montana combined, and its terrain is vast and diverse. Impacts of climate change in one region are not replicated in others.

Tlingit & Haida was acutely aware that a changing climate was affecting the traditions and cultural practices of their tribal citizens. Subsistence living - hunting, fishing and wild foraging - are essential to the way of life for the Tlingit and Haida. In addition, the Tribe has long relied on natural materials to construct baskets, canoes and shelter. Richard J. Peterson, Tlingit & Haida President, writes, "Southeast Alaska Natives are reaffirming their culture every time a subsistence species is harvested, consumed or otherwise used by tribal members."1 A warming climate results in economic, health, and spiritual concerns for the Tribe.

The Tribe began to seek out data to better understand the effects of climate change on their land but came up empty-handed. While much has been researched in northern Alaska, little was known about the impacts of climate change on this unique ecosystem to the south. Without data to understand the problem, the Tribe could not effectively plan for and protect the natural resources central to their lifestyle.

Tlingit & Haida hosts an annual environmental conference open to all of the tribes across Southeast Alaska. As they came together and discussed concerns, the tribes voiced the need for more climate change research. Ultimately, their conversations culminated with 16 tribes passing resolutions calling for more climate change research specific to Southeastern Alaska.

Weitzel notes, "It's quite an achievement to have 16 federally recognized tribes unified in one voice."

## **Partnering with ITEP: Identifying Vulnerable Resources**

Environmental Coordinator for Tlingit & Haida, Raymond Paddock, began reaching out to tribes in the state of Washington where ecosystems were comparable to Southeast Alaska. Some of the tribes had written and adopted Climate Change Adaptation Plans (CAP) and they encouraged Tlingit & Haida to take this route. Out of a CAP, actionable items would evolve. The Jamestown S'Klallam tribe generously contributed their plan as a possible blueprint for Central Council. Even so, the first steps felt daunting and Paddock recalls that they initially felt like they were, "writing in the dark."

Tlingit & Haida and the Sitka Tribe of Alaska reached out to the Institute for Tribal Environmental Professionals (ITEP). Along with trainers from the North Pacific Landscape Conservation Cooperative (NPLCC), they developed a workshop specific to tribes in Southeast Alaska. The workshop provided a jumpstart as well as a long term path for writing a CAPs for the region.



Yellow Cedar was considered highly valuable to the tribe and vulnerable to climate change.

Workshop participants began by identifying the large scale impacts of climate change on the region. Annual temperatures were on the rise, warming both oceans and land. Overall precipitation was increasing, however more of it came as rain resulting in less snowpack and earlier snowmelt. These warmer temps and changing precipitation patterns were creating

opportunities for non-native plant species to proliferate. Warmer temperatures were also accelerating glacial melt. Increased melt was causing a two-fold effect. First, the chemical characteristics of glacial melt in Prince William Sound combined with a semi-confined circulation pattern during the glacial melt season make the Sound susceptible to seasonally exacerbated ocean acidification (for more details see Evans et al. 2014). Second, increased melt was triggering a unique impact on the region called isostatic adjustment. While northern Alaska was losing shoreline, isostatic adjustment caused the land in Southeast Alaska to rise as the weight of glaciers melted away.

The workshop participants then identified resources that were both highly valuable to the Tribe and vulnerable to climate change. They identified several areas of concern. Many of the areas were food sources: salmon, shellfish, berries, forage fish, herring eggs, halibut, crabs, seals and seaweed. Yellow Cedar, a tree the Tribe harvests for building materials, was included, and both invasive species and harmful algal blooms (HAB) were identified as additional areas of concern. Once the tribes had identified these vulnerabilities, they were ready to head home and write an action plan.

## Writing the Action Plan and Sharing Results

Paddock wrote a second grant to hire a Climate Specialist. The position would entail prioritizing the areas of concern identified at the training and then generating a list of actions to increase resilience in each area.

Weitzel applied for and accepted the position. He immediately began reading any related material he could get his hands on. He also attended the ITEP Climate Change Adaptation Course in Presque Isle, Maine. "One of the most daunting things was the flood of data. There was so much data that I was sometimes overwhelmed and would forget what I was trying to focus on." But he chipped away at it bit by bit. He assigned a vulnerability ranking for each area of concern based on levels of sensitivity and adaptive capacity.

## Three categories emerged:

- Very high priority areas of concern: salmon, shellfish, HAB, and cedar.
- High priority areas of concern: forage fish, herring eggs, halibut, and berries.
- Medium priority areas of concern: invasive species, crab, seals, and seaweed.

Vulnerability Rankin	_						
Potential Opportunity  Low vulnerability							
Medium – Low vulnerability							
Medium vulnerability			ensitivity	Low	→ He		
Medium - High vulnerability			ensitivity	Low	- 10		
High vulnerability		50	51	52	53	54	
Adaptive	AC0					5	
Capacity	AC1		CB	FF-HE		SF-HAB	
Low	AC2			94	н	С	
High	AC3				SW	8	
	AC4					15	
S Salmon			F Forage Fi	Forage Fish		Invasive Species	
SF Shellfish		н	E Herring E	Herring Eggs		Crab	
HAB Shellfish Biotoxins - HAB			Halibut	Halibut		Seal	
C Cedar			Berries	Berries		weed	

For each area of concern he then outlined actions that would lead to increased resilience. For some areas direct actions could be specified. For example, to increase salmon resiliency, actions included 'reducing stressors to salmon habitats' and 'removing barriers for salmon passage'. Other areas of concern required data collection to better understand current conditions. For example, actions for the Yellow Cedar included, 'Create a monitoring and reporting system to track how red and yellow cedar yields are changing'.

Weitzel recommended 32 actions to address the threats faced by the areas of concern. For each recommendation, he detailed out estimated costs, ease of implementation, whether there was political/community support, if timing was critical, and whether partnerships were required to implement the action. As it was delivered, the CAP provides Tlingit & Haida the information summarized in a way that will allow them to decide how to implement the plan and which areas to prioritize.

While Weitzel had other responsibilities during this time, it took nearly a year and a half to research and write the first draft of the CAP. However, when it finally went before Tlingit & Haida, it was quickly approved. While Weitzel was pleased that Tlingit & Haida voted to adopt the plan, he was even more pleased that he could now share the <u>CAP</u> with neighboring Southeast Alaska tribes.

Weitzel created a version of the CAP that could be used as a <u>template</u> by the other tribes. The first section outlines the existing data on the effects of climate change in Southeast Alaska, and the second section contains the 32 step action plan. Weitzel and a team have begun hosting workshops for interested tribes, where they are distributing the template and sharing lessons learned. Weitzel says enthusiastically, "I've gained quite a bit of knowledge, and it feels good to be able to share the knowledge base I've gained. This knowledge is sought after and I am happy to provide it."

Weitzel acknowledges that writing a CAP is a major project. "It's daunting and it's intimidating, but you're going to be better for it." In the grant he wrote to fund Weitzel's position, Paddock points out that climate change is already shifting the landscape and adaptation plans will help tribes prepare. He writes, "The process of adaptation will not return us to the way things have been before, but it will assist us in making choices in the face of uncertainty and change."

For tribes considering drafting their own CAP, Weitzel encourages them to look to others who have completed the process. "There's a big network of people. There are so many resources. You just take it one day at a time and reach out." He adds, "Put my name down, they can call me."

#### **Resources and References**

- Calcium carbonate corrosivity in an Alaskan inland sea. Evans, et al, 2014. https://www.biogeosciences.net/11/365/2014/bg-11-365-2014.html
- Central Council of the Tlingit & Haida Indian Tribes of Alaska website <a href="http://www.ccthita-nsn.gov/">http://www.ccthita-nsn.gov/</a>
- Central Council of the Tlingit & Haida Indian Tribes of Alaska Climate Change Adaptation Plan Proposal
- Central Council of the Tlingit & Haida Indian Tribes of Alaska Climate Change Adaptation
   Plan

http://www.ccthita-

<u>nsn.gov/services/community/environmental/documents/T&HClimateChangeAdaptation</u> Plan.pdf

 Central Council of the Tlingit & Haida Indian Tribes of Alaska Climate Change Adaptation Plan Template

http://www.ccthita-

 $\underline{nsn.gov/services/community/environmental/documents/ClimateChangeAdaptationTemplate.pdf$ 

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Bureau of Indian Affairs Tribal Resilience Program. The profile is available on the Tribes & Climate Change website: <a href="www7.nau.edu/itep/main/tcc/Tribes/">www7.nau.edu/itep/main/tcc/Tribes/</a>. The tribal climate change profiles featured on the website are intended to be a pathway to increasing knowledge among tribal and non-tribal organizations interested in learning about climate change mitigation and adaptation efforts.

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