



Quinault Indian Nation: Living on The Edge

By Steve Robinson (Photos courtesy of Larry Workman, Quinault Nation)

Background

It is a long held tribal belief that every generation must protect the environment and sustain all life dependent on it for the next seven generations, and to heed the lessons passed on by the past seven generations.

But population expansion, and all of its impacts, have created massive environmental challenges, even beyond the expectations of tribal ancestors. Foremost of these challenges is Climate Change, a monstrosity that affects all people everywhere—no one more than tribal members. Anyone looking for a prime example of this need look no further than the Quinault Indian Nation.



Quinault Nation, which consists of the Quinault and Queets Tribes as well as descendants of the Quileute, Hoh, Chehalis, Chinook and Cowlitz Tribes, is located in a land



of swift-flowing rivers, brilliant lakes and 23 miles of unspoiled coastline. Its reservation contains more than 208,000 acres of some of the most productive conifer forests anywhere, including western redcedar, western hemlock, Sitka spruce, Douglas-fir, Pacific silver fir and lodgepole pine. There are extensive stands of hardwoods, such as red alder and Pacific cottonwood, in the river valleys. Roosevelt elk, black bear, blacktail deer, bald eagle, cougar, and many other animals make these forests their home.

Long ago Quinault people lived in family groups in long houses up and down the river. They lived well, sustained by the land and by trade with neighboring Tribes. Superb salmon runs, abundant sea mammals, wildlife, and forests provided substantial material and spiritual wealth to Quinault ancestors.

A great store of knowledge about plants and their uses have helped provide for the people through the generations. These are Canoe People, people of the cedar tree. People who have been masters of ocean waters in whaling and hunting canoes, whose lives were resplendent with abundant resources that the Creator provided for them, since time immemorial. They remember their past while employing modern principles in a marriage that helps bring hope and promise to the people, now and for the future. Quinault's whaling and hunting canoes masters of ocean waters to harvest and hunt the abundant resources that the creator provided for them, since time immemorial.

The Challenge

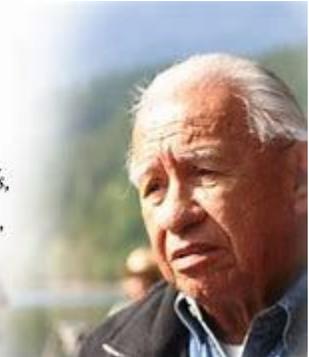
But as the climate changes it becomes far more difficult to find hope. It is hard to hope when the fish runs diminish and those whose entire lives have centered around fishing, clamming and gathering must settle for less and less. It gets harder to be optimistic about what will be left for future generations. Last year, Quinaults saw salmon and shellfish die before their eyes as a result of record-breaking temperatures in the Pacific Northwest. Yes, it is a hard thing for tribal members to see their Mother Ocean being poisoned with plastics and other human waste; it's hard to witness massive fish kills due to temperature increases in the water, to experience drought-related low flows in the rivers and to be deprived of their essential fishing opportunities. But regardless of how hard things get, these are people who have experienced every form of oppression non-tribal governments could throw at them, yet they are still here. They still exist, and still connect with their culture. They have, in fact, carried on the fight to restore and protect the fish, and other wildlife, and continue to be the foremost campaigners and workers in that fight.

In her last written words before she passed away in 2021, NWIFC Chairperson Lorraine Loomis of the Swinomish Tribe wrote: "We're all paying the price of a steady decline in the ecosystems that sustain us and our economies. Tribes are facing immediate loss of our treaty-protected rights to fish, hunt and gather."

But her hope never truly waned. Her life's work—like that of the late, great Billy Frank Jr. and like current Northwest Indian Fisheries Commission Chairman Ed Johnstone of the Quinault Tribe has been to fight to protect those treaty rights. Loomis, Frank and Johnstone have been fierce advocates for the restoration of salmon and shellfish populations to harvestable levels for all tribes...always with the hope that fish and wildlife will one day return and provide consistent sustenance and opportunities to prosper for people today and the generations to come.

Such tribal leaders have pushed hard for the acceptance of tribal culture, science and Traditional Ecological Knowledge (TEK) to be accepted and to provide a solid foundation for all fish and wildlife management. They have, in fact, pushed tribal leadership to the top level of action and achievement in that management.

All realistic action plans must begin with honest realization of existing conditions. Billy Frank's assessment of those conditions might be best summed up in the language on his tombstone:



*"As the salmon
disappear, so do
our tribal cultures
and treaty rights.
We are at a crossroads,
and we are
running out of time."
- Billy Frank Jr.
1931-2014*

"We are running out of time." Ominous assessment from a very famous Nisqually leader. But realistic. The words should be taken as a warning rather than a form of defeatism, a point from which better things can be achieved. Why else would this great man devote his full measure to the fight for the salmon through most of his life? He inspired men and women of all races and vocations, and that inspiration was certainly felt by the Quinault.

For many Tribes across the country the marginalized land they were forced onto in the name of "manifest destiny" made them uniquely vulnerable to the impacts of climate change. Quinaults were more fortunate to a degree in that the land that has comprised their reservation as well as their U&A (Usual and Accustomed lands and waters) has been less "marginal" through the years than other Tribes. But that hasn't made the Quinault invulnerable to the impacts climate change has wrought on an international scale. The New York Times quoted a study by the University of California in February of 2019, saying "The World Is Losing Fish to Eat as Oceans Warm" and that climate change is already having a serious impact on seafood. Fisheries have diminished or even disappeared all across the United States, from 10 bygone fisheries on the Great Lakes to severely diminished crab populations in Alaskan waters...and climate change is the primary culprit. In all cases the greatest suffering has been by the Tribes. Yet it's a fact: Native American Tribes are at the forefront of responding the climate crisis, from sea to shining sea, even though it is a crisis they did not create. That being said, the Tribes have known they can't solve the crisis alone. It must be a collective, government-to-government effort.

In a 2021 interview with *Yale Environment 360*, NCAI President Fawn Sharp said Indigenous people all across the country are imperiled by the impacts of climate change – including megafires, floods and extreme storms, heat waves, major drought, landslides, you name it. Quinault Nation, where she has served five terms as president and now serves as vice president, is certainly no exception.

According to the Union of Concerned Scientists, "Climate change is dangerously supercharging extreme weather, with deadly and costly consequences for millions of people worldwide. This reality has been starkly prominent in 2022, which has, in fact, brought extreme floods, persistent drought, severe wildfires and intense heatwaves around the globe. Slower-onset climate impacts also continue to worsen, including sea level rise, desertification and food and water insecurity. While we are all affected, these harms are not being experienced equally. Low-income nations and marginalized communities—which have contributed the least to the (cause

of) climate crisis—are disproportionately facing losses and damages including dire economic losses, harms to critical ecosystems and the devastation of cultural heritage.”

Rising oceans and villages on lands adjacent to those oceans do not mix, especially when they are also located on river estuaries. That describes the lower village of Taholah to a t.

Quinault Nation had little choice. To avoid further flooding and loss of life, relocation has been the only option.

In March 2014, the seawall that protects the village was breached by storm surge, flooding it. “We have been experiencing an increasingly dangerous situation with sea level rise and intensified storms,” said Sharp. “Our people must be protected. We will take whatever measures are necessary to see that they are.” The QIN declared a state of emergency, and the seawall was repaired by the U.S. Army Corps of Engineers—as a temporary measure. But the impacts continued.

In January 2015, an intense storm washed out the main road to Taholah at Moclips, located at the southern edge of the Quinault Reservation, closing it off from the rest of the world. On January 5, 2015, the QIN declared another state of emergency after intense rains caused flooding, landslides, culvert failures, and washouts, closing roads and threatening village sewage treatment plants.

These events served as forerunners of the ever-present threat of tsunamis as well as the growing risk from climate change. They also served as stark reminders of the critical importance of proactively investigating measures to preserve the safety of the nearly 700 people, about 20 percent of tribal membership. At risk include nearly 100 elders, 150 children, 175 homes, the Quinault School, businesses, the Quinault police and fire stations, health and community facilities, administrative offices, and the infrastructure for water, sanitation, communications, and transportation.

The latest Intergovernmental Panel on Climate Change (IPCC) Special Report, which included input provided by Fawn Sharp, also highlights the urgent need to prioritize ambitious, coordinated action to address unprecedented and enduring changes in the ocean (and cryosphere—the frozen parts of the planet). The report reveals the benefits of ambitious and effective adaptation for sustainable development and the ever-increasing risks of delayed action.

Global warming has already reached 1°C above the pre-industrial level, due to past and current greenhouse gas emissions. According to the IPCC, there’s overwhelming evidence that the rising temperature is resulting in extensive consequences for ecosystems and people. The ocean is warmer, more acidic and less productive. Melting glaciers and ice sheets are causing sea level rise, and coastal extreme events are becoming more severe.

“The open sea, the Arctic, the Antarctic and the high mountains may seem far away to many people,” said Hoesung Lee, Chair of the IPCC. “But we all depend on them and are influenced by them directly and indirectly in many ways – for weather and climate, for food and water, for energy, trade, transport, recreation and tourism, for health and wellbeing, and for culture and identity. If we reduce emissions sharply, consequences for people and their livelihoods will still be challenging, but potentially more manageable for those who are most vulnerable,” Lee said.

The report outlines climate-related risks and challenges that people around the world are exposed to today and that future generations will face. It presents options to adapt to environmental changes that can no longer be avoided, respond to current challenges and build resilience for a sustainable future. The report was based on extensive research done by leaders and scientists from 36 countries. It has been an uphill challenge for Tribes to gain representation

in such research and reports, but that is beginning to change, thanks to the persistence of tribal leaders like Sharp. It is a very important ongoing effort, because credibility is fundamental to the achievement of needed funding, acknowledgment of particular tribal needs and the recognition of the importance of tribal science, based on TEK. The report provides key scientific input for world leaders gathering in climate and environment negotiations, such as the UN Framework Convention on Climate Change Conference (COP25), which also need to include tribal input.

“The world’s ocean and cryosphere have been ‘taking the heat’ from climate change for decades, and consequences for nature and humanity are sweeping and severe,” said Ko Barrett, Vice-Chair of the IPCC. “The rapid changes to the ocean and the frozen parts of our planet are forcing people from coastal cities to remote Arctic communities to fundamentally alter their ways of life,” she added. Glaciers and ice sheets in polar and mountain regions are losing mass, contributing to an increasing rate of sea level rise, together with expansion of the warmer ocean.



Being located by the Pacific Ocean can be a blessing...it can also be a curse. The lower village of Taholah, Quinalt, is about to be flooded, January, 2015 (left). The aftermath is seen (left and above). The glacier on Mt. Andersen is gone due to climate change (above).



While sea level rose globally by around 15 cm during the 20th century, it is currently rising more than twice as fast – 3.6 mm per year – and accelerating, the report showed. Sea level will continue to rise for centuries. It could reach nearly two feet by 2100 even if greenhouse gas emissions are sharply reduced and global warming is limited to well below 2°C, but around more than three feet if greenhouse gas emissions continue to increase strongly.

“In recent decades the rate of sea level rise has accelerated, due to growing water inputs from ice sheets in Greenland and Antarctica, in addition to the contribution of meltwater from glaciers and the expansion of warmer sea waters,” said Valérie Masson-Delmotte, Co-Chair of IPCC Working Group I.

Sea level rise will increase the frequency of extreme sea level events, which occur during high tides and intense storms. Indications are that with any degree of additional warming, events that occurred once per century in the past will occur every year by mid-century in many regions, increasing risks for many low-lying coastal towns and cities, including Quinault. Without major investments in adaptation, these areas will experience escalating flood risks, according to Masson-Delmotte.

Quinault Nation’s decision to relocate due to flooding and tsunami risks is a prime example of adaptation, deemed necessary for saving lives and preventing damage to property.

Too Much Heat, Too Little Oxygen

Warming and changes in ocean chemistry are already disrupting species throughout the ocean food web, with impacts on marine ecosystems and people that depend on them. According to IPCC, the ocean absorbs more than 90% of the excess heat in the air. By 2100, it will absorb up to 2 to 4 times more heat than between the year 1970 and the present—if global warming is limited to 2°C, and up to 5 to 7 times more at higher emissions. Ocean warming reduces mixing between water layers and the supply of oxygen and nutrients for marine life. Marine heatwaves have doubled in frequency since 1982 and are increasing in intensity. They’re projected to further increase in frequency, duration, extent and intensity. Their frequency will be 20 times higher at 2°C warming, compared to pre-industrial levels. They would occur up to 50 times more often if emissions continue to increase.

Too much heat and too little oxygen in the water create a witch’s brew for fish.

For Quinault Nation, these factors contribute mightily to wise but painful management decisions, i.e., major fishing and clamming cutbacks and closures. For the fishers that can mean severe cuts in income, painful challenges in the ability to feed their families, pay bills, maintain good health, practice their cultural lifestyles and retain (their Tribe’s) treaty-protected rights.

The ocean has absorbed between 20 to 30% of human-induced carbon dioxide emissions since the 1980s, causing ocean acidification, according to IPCC. Continued carbon uptake by the ocean by 2100 will make ocean acidification even worse. Shifts in the distribution of fish populations have reduced the global catch potential. Communities and Tribes that depend highly on seafood, such as Quinault, will face even more risks to health and food security. “Cutting greenhouse gas emissions will limit impacts on ocean ecosystems that provide us with food, support our health and shape our cultures,” said Hans-Otto Pörtner, Co-Chair of IPCC Working Group II. “Reducing other pressures such as pollution will further help marine life deal with changes in their environment, while enabling a more resilient ocean.”

The 2022 IPCC report agreed that countries across the globe must strongly reduce greenhouse gas emissions, as well as protect and restore ecosystems, and carefully manage the use of natural resources to make it possible to preserve the health of the ocean and the cryosphere and thus limit the risk to livelihoods and offer multiple additional benefits to society.

The Quinault Nation was way ahead of them on that one.

“We will only be able to keep global warming to well below 2°C above pre-industrial levels if we effect unprecedented transitions in all aspects of society, including energy, land and ecosystems, urban and infrastructure as well as industry. The ambitious climate policies and

emissions reductions required to deliver the Paris Agreement will also protect the ocean and cryosphere – and ultimately sustain all life on Earth,” said Debra Roberts, Co-Chair of IPCC Working Group II.

Roberts was speaking the Tribes’ language.

The report gave clear evidence of the benefits of combining scientific with Tribal Environmental Knowledge (TEK) to develop options to meet the climate change challenge. Surprisingly, it was the first IPCC report that highlighted the importance of education to improve literacy about climate change.

“The more decisively and the earlier we act, the more able we will be to address unavoidable changes, manage risks, improve our lives and achieve sustainability for ecosystems and people around the world – today and in the future,” Roberts said.

Finally, it appeared the pleas the Tribes had been making for generations were being heard on an international level. Whether or not the words will be heard, and listened to, and acted upon, at the national, state and local level remains to be seen, but there are promising signs.

For example, President Biden has included key appointments of tribal members in his administration. In a March, 2021 article, Lynda Mapes of The Seattle Times wrote, “There’s a saying in Indian Country: either you are at the table, or you are on the menu. Appointments by the Biden Administration now in the works would put American Indian and Alaska Native people very much at the table, including posts where Native people have never before served, with enormous influence over lands and waters and environmental policy across the U.S. The appointments are a redemptive moment for federal agencies that in the past terminated the federal relationship with Tribes, destroyed tribal fisheries and worked hard to eliminate tribal cultures. The biggest appointment is that of U.S. Rep. Deb Haaland, of New Mexico and a member of the Laguna Pueblo tribe, to serve as Secretary of the Department of the Interior. Other appointments include Robert Anderson, who would be one of Haaland’s top lawyers, and Jaime Pinkham, a Nez Perce tribal member, to a top post at the U.S. Army Corps of Engineers.”

In addition, Chuck Sams III, Umatilla, was appointed to direct the National Park Service in December, 2021. David Z. Bean, Puyallup Tribal Council member for the Puyallup Tribe of Indians, called the appointments “both historic and exciting. It is going to change the conversation, and right the wrong of so many wrongs through the years.” Also, on October 6, 2022, U.S. Transportation Secretary Pete Buttigieg has announced that the Department’s Federal Highway Administration (FHWA), in close coordination with the U.S. Fish & Wildlife Service and the National Ocean and Atmospheric Administration, has opened applications for Tribal, state, and local governments to access a total of \$1 billion over five years from the new National Culvert Removal, Replacement and Restoration-Culvert Aquatic Organism Passage Program established by President Biden’s Bipartisan Infrastructure Law. This grant program builds on the over \$2 billion eligible to support fish passage under the Bipartisan Infrastructure Law and will specifically help communities remove and repair culverts found under roads that can prevent fish passage and are especially problematic for coastal and tribal communities for whom thriving fish populations are critical to the regional economy and way of life. Secretary Buttigieg made the announcement alongside Senators Patty Murray and Maria Cantwell, Congresswoman Kim Schrier, Congressman Rick Larsen and Tribal leaders.

Nonetheless, there is no doubt that high corporate profits made through natural resource depletion at the expense of sustainability will continue. It’s an ongoing fight by tribal leaders like Sharp to get corporations to deprioritize such efforts, or adopt green approaches, for the sake of both this and future generations.

The greed which has driven societal over-exploitation and amassed fortunes for the few through the years must be tempered by the need to exist. It's as simple as that. Yet there are very high hurdles to overcome for that to become a reality, i.e., elected officials depend on votes to gain office, and even those who might actually understand the need for clean air and water sometimes prioritize strictly financial benefits, especially during elections...also, QAnon, Posse Comitatus, Proud Boys and similarly misguided Trump-related cults have gained threatening power in America and fight against the very recognition that climate change even exists.

It certainly does exist, and it is upon us.

The 1999 IPCC [*Special Report on the Ocean and Cryosphere in a Changing Climate*](#), highlights the urgency of prioritizing timely, ambitious and coordinated action to address unprecedented and enduring changes in the ocean and cryosphere. (The word “cryosphere” – from the Greek *kryos*, meaning cold or ice – describes the frozen components of the Earth, components which are rapidly melting). The report states that the ocean and the cryosphere play a critical role for life on Earth, that a total of 670 million people in high mountain regions and 680 million people in low-lying coastal zones depend directly on these systems—no one more than Tribes like Quinault.

But, as per the report, there is overwhelming evidence that greenhouse gas emissions are resulting in profound consequences for ecosystems and people. The ocean is warmer, more acidic and less productive. Melting glaciers and ice sheets are causing sea level rise, and coastal extreme events are becoming more severe. The 195 IPCC member governments from around the world supported the report, which provides “new evidence” for the benefits of limiting global warming to the lowest possible level – in line with the goal that governments set themselves in the 2015 Paris Agreement. Urgently reducing greenhouse gas emissions limits the scale of ocean and cryosphere changes. Ecosystems and the livelihoods that depend on them can be preserved.

“The open sea, the Arctic and the Antarctic may seem far away to many people,” said Hoesung Lee, Chair of the IPCC. “But we (all) depend on them and are influenced by them directly and indirectly in many ways – for weather and climate, for food and water, for energy, trade, transport, recreation and tourism, for health and wellbeing, for culture and identity. If we reduce emissions sharply, consequences for people and their livelihoods will still be challenging, but potentially more manageable for those who are most vulnerable,” Lee said. “We increase our ability to build resilience and there will be more benefits for sustainable development.”

Once again it appears that this high-ranking organization of countries is taking its language straight from the Quinault playbook.

Glaciers, snow, ice and permafrost are declining and will continue to do so. This is projected to increase hazards for people, for example through landslides, avalanches, rockfalls and floods, such as those which have been occurring at Quinault.

Panmao Zhai, Co-Chair of an IPCC Working Group says sea level rise will increase the frequency of extreme sea level events, which occur for example during high tides and intense storms. Without major investments in adaptation, such as relocation, Quinault Nation, and other locations, will be exposed to escalating flood risks. The lower village area is likely to become uninhabitable due to climate-related ocean and cryosphere change. It is hard to assess how high the water will rise, but the IPCC report estimates it could be as high as three feet by mid-century. That would exceed the ability of the Tribe's breakwater to stop it, especially during the more frequent and more extreme storms.

Ocean heatwaves have doubled in frequency since 1982 and are increasing in intensity. The ocean has taken up between 20 to 30% of human-induced carbon dioxide emissions since

the 1980s, causing the acidification. Continued carbon uptake by the ocean by 2100 will worsen it. Ocean warming and acidification, loss of oxygen and changes in nutrient supplies, are already affecting the distribution and abundance of marine life in coastal areas, in the open ocean and at the sea floor.

“Cutting greenhouse gas emissions will limit impacts on ocean ecosystems that provide us with food, support our health and shape our cultures,” said Hans-Otto Pörtner, Co-Chair of IPCC Working Group II. “Reducing other pressures such as pollution will further help marine life deal with changes in their environment, while enabling a more resilient ocean.”

The report finds that strongly reducing greenhouse gas emissions, protecting and restoring ecosystems, and carefully managing the use of natural resources would make it possible to preserve the ocean and cryosphere as a source of opportunities that support adaptation to future changes, limit risks to livelihoods and offer multiple additional societal benefits. “We will only be able to keep global warming to well below 2°C above pre-industrial levels if we effect unprecedented transitions in all aspects of society, including energy, land and ecosystems, urban and infrastructure as well as industry. The ambitious climate policies and emissions reductions required to deliver the Paris Agreement will also protect the ocean and cryosphere – and ultimately sustain all life on Earth,” said Debra Roberts, Co-Chair of IPCC Working Group II.

The report gives evidence of the benefits of combining scientific with local and indigenous knowledge to develop suitable options to manage climate change risks and enhance resilience. This is the first IPCC report that highlights the importance of education to enhance climate change, ocean and cryosphere literacy.

“The more decisively and the earlier we act, the more able we will be to address unavoidable changes, manage risks, improve our lives and achieve sustainability for ecosystems and people around the world – today and in the future,” Roberts said.

Note: IPCC assessments provide governments, at all levels, with scientific information that they can use to develop climate policies. They are a key input into the international negotiations to tackle climate change. IPCC reports are drafted and reviewed in several stages, thus guaranteeing objectivity and transparency.

Quinault Planning

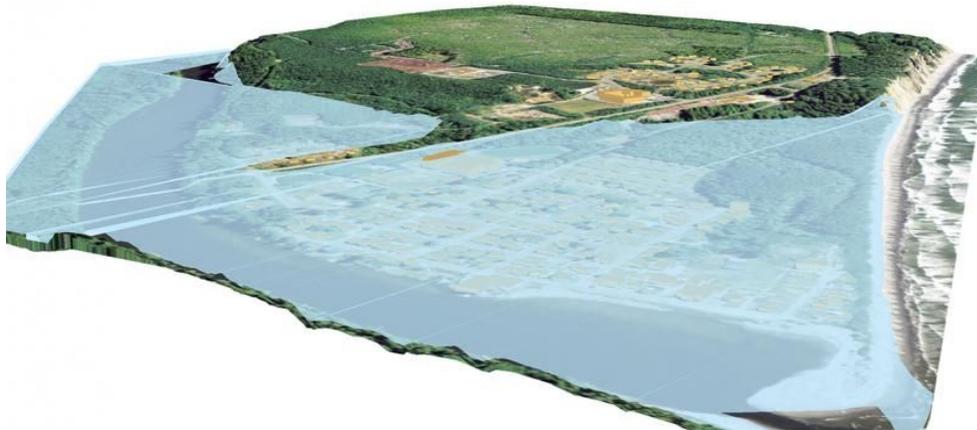
National Congress of American Indians President Fawn Sharp’s five terms as Quinault Nation President, her current role as Vice President, her service on Governor Jay Inslee’s Climate Change Response Committee, her position of President of the Affiliated Tribes of Northwest Indians and her current service at NCAI have all provided opportunity for her to be engaged in climate change response at the international, national, state and tribal levels.

Her concerns are reflected in her following statement:

“I cannot emphasize enough the importance of indigenous input to the research and consideration of climate change causes, impacts and response,” said President Sharp. “We are the people, beyond all others, who have witnessed it and been impacted by it. Our TEK must be an integral part of responding to it. Our culture and experience provide the perspectives needed to protect and restore native habitat and harmony with the Earth. We are gratified that IPCC reports are beginning to reflect these values and that the Biden Administration has been making positive changes and appointments. I wish to emphasize the need to have indigenous voices fully engaged in these efforts to the fullest degree possible.”



Existing village of Lower Taholah and depiction of the location of the new Upper Village, outlined in yellow.



At risk, the area of the village in danger of inundation from sea level rise..

The Quinault Nation’s vulnerability to climate change was underscored in 2014 and 2015 when storm surge and intense rains caused flooding, landslides and culvert failures in its lower Taholah Village.

Then Quinault President Fawn Sharp and the Tribal Council acquired a Social & Economic Development Strategies grant from the federal Administration for Native Americans to conduct the research needed to determine a path forward. As a result it was determined that the best way to commence a tribal response would be to develop a master plan. Village-wide meetings were convened, along with completion of door-to-door and online surveys, to gain an understanding of conditions, community aspirations, and perceptions of risk. A major result of the research was one that would be painful to the Tribe, but necessary to save lives—relocation of the lower village to a part of the reservation well above the height needed to assure safety.

Masterplan for Relocation

Relocation of a village requires many things: community engagement; thoughtful, detailed deliberation and planning; hard decisions; and resources. The new upper village was designed to provide ready access to a shared community center for all ages, with sidewalks, trails, and facilities located within a 5- to 10-minute walk of the majority of housing. Low-impact design best practices would be used to treat stormwater runoff. Advisory guidelines for energy efficiency in homes and public buildings were assembled, and streets laid out in an east-west manner to encourage passive solar design.

The plan was designed to maintain the integrity of the community by incorporating needs for housing, infrastructure, business, administration, public health and safety, transportation, utilities, schools, and recreational facilities. The plan was responsive to all land use restrictions, codes and regulations to provide for public health and safety. It also included schedules needed to provide continuity in essential governmental services.

The Tribe has pursued, and begun to achieve, the funding needed for the move itself, from the state and federal agencies, as well as tribal money. With the rebirth of the White House Council on Native American Affairs in the Biden Administration, as well as the appointment of Deb Haaland, Laguna Pueblo member, to lead the Department of the Interior—the first Native American to do so—hope has been restored. President Sharp has said, “We are going to be able to ensure that tribal sovereignty is not only respected, but implemented in a way that will allow us to effectively adapt and mitigate the impacts of climate change.

Although Tribes have been first to speak out about the dangers of climate change, and taken the steps they could afford, most are ill-equipped to adapt their reservations to increasing threats from storms, flooding, drought and wildfires because their communities are typically poor and because federal programs have historically offered scant support. The Interior Department’s Bureau of Indian Affairs provides \$10 million a year for tribal climate resilience planning nationwide, and the Federal Emergency Management Agency provides another \$20 million to tribes under a fund to protect communities from natural disasters.

That’s not much when spread among more than 500 tribes, said Sharp, who has made climate change the top issue in her role as president of the National Congress of American Indians, which represents 535 registered Tribes nationwide.

In addition to lobbying for more federal support, Sharp has set her sights on industries that contribute to climate damage. To finance a relocation of some tribal members, she plans to propose a carbon tax for companies doing business on the reservation, which features rich timberlands and a port. The measure would make it the first tribe in the United States to price carbon.

She’s also considering a lawsuit against big oil companies she believes should help pay the tab for climate-damage mitigation.

“Those who are directly responsible for causing the damage should be paying,” she said, for “generations of exploitation.”

The Western States Petroleum Association industry group has declined to comment on potential lawsuits, saying only that oil companies and Tribes should be “working with each other and not against each other.”

Working together has been a tribal trait, and not a common characteristic among industries. Tribes are often the first to suggest it. But, for such relationships to be effective, there must be

ground rules, and with respect to the polluters, they must first make legitimate moves to clean up their act.

The Fish Runs

Fish returns to Quinault River in the past few years can vary from “okay” to “hell no.” Shane Underwood, Manager of the Quinault fish processing plant in Taholah, can get as frustrated as those who bring him their catch. There are times when fishers bring him four or five fish after a full day out on the water, and, yes, that can be pretty frustrating.

“We used to process 40,000 to 50,000 pounds of fish a day. Now we’re lucky to see 1,000,” Underwood said. Some years are better than others, but the overall trend is dismal.

After the steelhead season comes the sockeye Blueback run. Blueback is a salmon unique, and sacred, to the Quinault Nation that has often returned in such low numbers that the fishery for it has been shut down. It’s a special treat when there are enough of them to enable a harvest, but that opportunity has been rare.

The salmon resource is so precious to Quinaults that it is heavily featured on totem poles, other carvings and artwork as well as in ceremonies. It’s also a traditional meal at family gatherings. Now it’s a primary objective in the fight against climate damage.

With the melting of the Mt. Andersen glacier, one of the primary sources of cool water in the Quinault River system, and with the onslaught of low flows and drought, the river water has often been too warm for the fish. Combine that with the warming, acidified, deoxygenated and polluted ocean conditions, and the once ample fish runs are often severely distressed.

The Tribe has done many things in an effort to remedy the situation, such as the establishment of its Salmon Habitat Restoration Program, buffering streams, repairing culverts and roads near the river, planting trees and brush to restore riparian habitat, restoring the floodplain and placing log jams in the mainstem to help restore it to its natural condition. It’s been deeply involved with education and political efforts at the local, state, national and even international levels. It is the work the Tribe has determined is necessary to have some level of impact on the climate change challenge.

Declines in the returns have often forced the Tribe’s fishers to take “temporary” jobs doing whatever they could find, sprucing up homes of tribal elders, dealing cards...anything to pay their bills and feed their families. The fishers were often heard to say, “It doesn’t feel right.” Their history and their culture...their entire lives and those of their ancestors has been fishing. It just doesn’t feel right.

Tsunami/Earthquake Threat

Quinault Nation is wedged between the Pacific and steep, forested hills. The lower village lies in the Cascadia Subduction Zone. All these factors contribute to the danger of inundation from a major earthquake and subsequent tsunami. It’s not a question of “if” but “when”. There have been and there will be earthquakes and there will be a tsunami at some point, and its impact will be exacerbated by climate change. As the ocean water temperature continues to rise, the frequency and the duration of each storm intensifies and pounds onto the coastal shoreline. Instruments designed to measure elevation have determined the lower village is now a mere foot above sea level near the Tribe’s post office. Just ten years ago that post office was more than six feet above sea level. Also, the lower village is in a liquefaction zone, meaning a local earthquake could cause the ground to suddenly drop below sea level, allowing ocean water to pour into the village en masse, making the roads useless and walking impossible—more signs that, due to

global warming and glacial melt, the Quinault must move away from the marginal shoreline to higher ground.

In 2017, the Quinault signed off to move nearly 700 residents and key buildings most at risk — including the school, senior center, food market and gas station — to higher ground. The whole relocation project would cost up to \$150 million.

Some construction has already begun in the new village, using \$15 million worth of tribal funds. But finishing the entire relocation project is more than the tribe can afford and complicated by the fact some nontribal members own land in the area designated for the relocation, officials say.

One of the best options that the tribe had to pay for the project was a Washington state bill that would have funded climate-related projects with a \$15 per ton fee on industrial carbon emissions. But that measure was defeated in 2018 amid a multi-million dollar campaign led by the oil industry.

“That was probably the lowest point I had hit in all my years of this climate struggle,” said Sharp, who lobbied hard for the bill. “But it was a battle in a bigger war. Losing this land is simply not an option.

It was all the reason she needed to commence her expansive effort to fight climate change at all levels and to secure the funding needed to keep her fellow tribal members safe.

Another priority was, of course, the fight to save the salmon, especially the Blue Back.

But the inescapable fact is that the main enemy in the fight is climate change, a prodigious enemy that knows no borders. No single Tribe, other government, or entity can stop climate change on their own. But a clear and powerful voice, e.g. such as the voice of Quinault Nation can go a long way in supporting the communication and encouraging the investment and action which is absolutely required to meet this huge challenge head-on.

Climate Change Knows No Borders

Two centuries of forced removal and relocation onto often-marginalized lands have left Native Americans uniquely vulnerable to climate change. From northern Arizona, where the Hopi are facing a megadrought that is withering crops and killing livestock, to southern Louisiana, where the Biloxi-Chitimacha-Choctaw are seeing their ancestral lands succumb to rising seas, Native American tribes are at the forefront of the climate crisis.

Quinault Nation is a leader in seeking greater support to help tribes, locally and across the U.S., cope with climate change. Federal and state officials are being urged to seek the consent of tribes when building new mines, pipelines, highways, and other infrastructure that impact tribal lands, sacred sites, and burial grounds, key to empowering tribes to tackle climate change.

With President Biden restarting the White House Council on Native American Affairs and appointing Deb Haaland to lead the Department of the Interior, the first Native American to do so, there can be renewed optimism that tribes can more effectively ensure that tribal sovereignty is implemented in a way that will allow them to effectively adapt and mitigate the impacts of climate change.



Breaking ground. Quinault Nation has broken ground on its relocation site, 200 feet higher than the current location of the lower village of Taholah. Completion will require \$150 million... It will take time for this plan to see full fruition.

Quinault Nation's Natural Resource Department, comprised of highly experienced scientists and support staff reported in 2006 that an overlay of spikes in ocean temperatures align perfectly with sharp declines in salmon runs. A 60-year University of Washington study confirmed what the Tribe already knew—that warming temperatures had melted the Mt. Andersen glacier and were having similar impacts on other glaciers. The glaciers have fed rivers and streams with cool water for millennia. Now they are melting away due to increased heat. It's an impact that's widespread. Across the country. Across the seas. The same extended droughts impacting Quinault waters are also causing low instream flows in watersheds across the planet. Salmon that call Quinault waters home sometimes die by the hundreds when they fail to navigate upstream in low-run, oxygen-starved rivers and streams. And the acidification killing off shellfish is ocean-wide, with impacts virtually everywhere where they exist.

This summer temperatures at Lake Quinault reached as high as 109°F. With this heat and with water levels in the rivers inadequate to cover their bodies, there was massive fish kill. Reports were that in the same window of the same hot four days Mount Rainier lost three feet of snowpack. Other forms of wildlife also suffer in prolonged drought and lack of salmon to feed on. Also, forest fires have raged in many places across the west and the fire danger in the Quinault U&A is very real.

Then there's the other side of the coin. Climate change impelled storms have not only brought forceful waves from the Pacific down upon the village, washed out roads and caused landslides, intensified storms have interrupted most aspects of daily life.

Climate change is a scourge, affecting all of Indian country. The tribes in the Great Lakes area, for example, are seeing impacts to their rice fields caused by rising temperatures as well as extreme rainfall. Tribes in the Northeast are facing impacts of climate change on their traditional foods and medicines. In the Amazon climate change is contributing to deforestation, forest fires and fresh water shortages. Indigenous peoples in the Arctic are facing critical changes in the species they depend on for their survival. And even in Scandinavian countries, extensive rain and warmer weather in the winter are causing massive losses in the reindeer population due to loss of feed, deeply impacting Saami communities. Not to forget: Indigenous peoples across the globe are the first to face the direct consequences of climate change, due to their dependence on, and close relationship with the environment and its resources.

The Dam

To complicate things even more, a 250-foot tall dam has been proposed on the upper Chehalis River, which would flood 850 feet of forestland, and have a devastating impact on key salmon runs. The Quinault Nation has treaty-protected rights on the entire Chehalis River system, meaning the Tribe has co-management, treaty-protected rights related to this issue. The dam, proposed to be constructed near the town of Pe Ell, would supposedly only hold back water during floods and would include tunnels for salmon to swim through. Nonetheless, the environmental impact statement prepared for the project concluded it would have an impact on fish migration and water quality. The Tribe has proposed alternate solutions to the flooding problems that have, on rare occasions, closed down I-5 and impacted farms and other properties. The solution to the problem is to restore the floodplain, relocate certain buildings and roadways, restore natural trees and vegetation, and protect the forest.

It's an issue that, from one perspective, involves the protection of treaty rights vs. development. From another perspective it involves the introduction of solutions, in this case related to very real flood problems—primarily caused by the hand of man's over-development

and unwise deforestation—which are based more on natural solutions than “quick fixes.”

It is important to note that this kind of problem, as well as other habitat destructive challenges, are important considerations in the fight against climate change, because a key objective in that fight is to protect fish and wildlife at a level needed to sustain tribal lifeways and the needs of future generations.

Conclusion

Tribes are, in fact, leaders in climate science. As in-place witnesses of its development it is integral with their traditional knowledge. When Tribes speak out about it, and engage in the response to it, people everywhere should listen and learn. They should hear what is being said, as well as engage in support. It is a critically important example of connecting with tribal heritage that benefits everyone.

Tribes have responded to the climate change challenge in many ways, and at all levels. During the lowest low tides of the hottest days of the 2021 heat dome, tribal shellfish biologists were among the first to report the deadly impacts—shellfish were being cooked alive on the beaches.

Larry Ralston of the Quinault Tribal Council, points out that the encroachment of the ocean has wiped out the tidepools. The underwater forests of kelp have been destroyed, and the big waves have caused irreparable damage to “88 corner”, the Tribes only access from Taholah.

It is such challenges that underscore the fact that climate change is a huge problem, particularly at Quinault, one that cannot be ignored.

–Citations and credits:

More than 100 authors from 36 countries contributed to the 2022 Intergovernmental Panel on Climate Change (IPCC) Special Report on the Ocean and Cryosphere in a Changing Climate (IPCC Special Reports provide key scientific input to world leaders gathering in climate and environment negotiations, such as the UN Framework Convention on Climate Change Conference (COP25), IPCC Press Office ipcc-media@wmo.int, IPCC Working Group II Technical Support Unit tsu@ipcc-wg2.awi.de, Maike Nicolai maike.nicolai@ipcc-wg2.awi.de, Quotations/information from National Congress of American Indians, Northwest Indian Fisheries Commission (“Being Frank” column, Summer 2022 edition), 2016 Climate Change report by the Union of Concerned Scientists, Yale School of the Environment (“Why Protecting Tribal Rights is Key to Fighting Climate Change” October, 2021), The New York Times re: a University of California study February 2019, The Nation, Popular Science, Scientific American, The Washington Post, the New York Times/Science Magazine/2019 University of California study, Adapted from www.Quinaultindiannation.com, “Taholah Village Relocation Master Plan Project” and Indiancountrytodaymedianetwork.com, “Deluge Causes Flooding, Mudslides, State of Emergency on Quinault Reservation”, United Nations Department of Economic and Social Affairs/Session 7 of the UN Permanent Forum on Indigenous Issues 2008, Personal interviews and experiences by Steve Robinson and articles provided by Larry Workman, Editor of Nugguam, Quinault Newsletter, 2022.

About the author: Steve Robinson is a journalism graduate of the University of Oregon with 50 years experience as a newspaper reporter and public relations expert serving the Washington State Department of Natural Resources, select corporate entities, the Northwest Indian Fisheries Commission and his own public relations/lobbying company. Currently he is active in extensive volunteer work. His experience through the years has included award-winning writing, publication production and filmmaking. The preponderance of his career has been dedicated to service to the Native American Tribes, particularly the Treaty Tribes in Western Washington, mostly focused on environmental protection/restoration and natural resource management. One of numerous boards he serves on in “THIS IS INDIAN COUNTRY, (www.thisisindiancountry.org). Another is Washington Wild (<https://wawild.org>). He joined the efforts of these two non-profit organizations in a video oral history project capturing the insights of numerous tribal elders regarding climate change. This project will make these 3-5 minute videos available to all via the TIIC website and others. The videos will also be used to develop a feature-length documentary for broadcast and distribution to statewide schools with a new climate change curriculum. Contact Steve at Water4fish@comcast.net.

"Our ancestors foretold of a time where there will be a day of reckoning. Humanity cannot continue to live the way it's been living and survive."

-Fawn Sharp, Quinault

