

LIDAC and Census Tracts

Nez Perce Tribe CPRG Implementation Grant General Competition

LIDAC* BENEFITS ANALYSIS:

Climate change acts as a threat multiplier compounding health and economic hardships on top of existing inequities. Communities already experiencing economic and health disparities experience greater impacts from climate change.

The Nez Perce Tribe is a federally recognized Indian tribe, and, as such, is considered a disadvantaged community for the purposes of the Justice40 Initiative. The Tribe included a LIDAC analysis in its PCAP that identifies the census tracts on the reservation that are considered disadvantaged. One of the proposed projects is in the ICC but off reservation in Joseph, OR, and not in an EJ census tract, however, most of the tribal staff and members that would benefit from the project are in EJ census tracts. In addition, the census tracts that are adjacent to the reservation including communities where many staff live in Asotin County, WA, Wallowa County, OR, Valley, Lewis, Nez Perce, Idaho, and Latah County are disadvantaged because they meet the socioeconomic threshold and at least one burden threshold which include transportation barriers, unemployment, health (asthma, heart disease), population loss rate, building loss rate, wildfire risk, flood risk, high school education, lack of indoor plumbing, and proximity to risk management facilities.

EJ Census Tracts

According to the Climate and Economic Justice Screening Tool ([CEJST](#)) all four census tracts within the Nez Perce Reservation are listed as disadvantaged and are above the 65th percentile for people in households where income is less than or equal to twice the federal poverty level, not including students enrolled in higher education.

Tract Number: **16069940000**

County: Nez Perce County State: Idaho

Population: 4,866

Low Income: 74th percentile Projected Flood Risk: 91st percentile

Tract Number: **16035940000** County: Clearwater County State: Idaho

Population: 5,742

Low Income: 72nd percentile

Expected Population Loss Rate: 97th percentile Projected Flood Risk: 92nd percentile

Tract Number: **16061940002**

County: Lewis County State: Idaho Population: 2,117

Low Income: 65th percentile

Tract Number: **16049940000**

County: Idaho County State: Idaho Population: 4,831

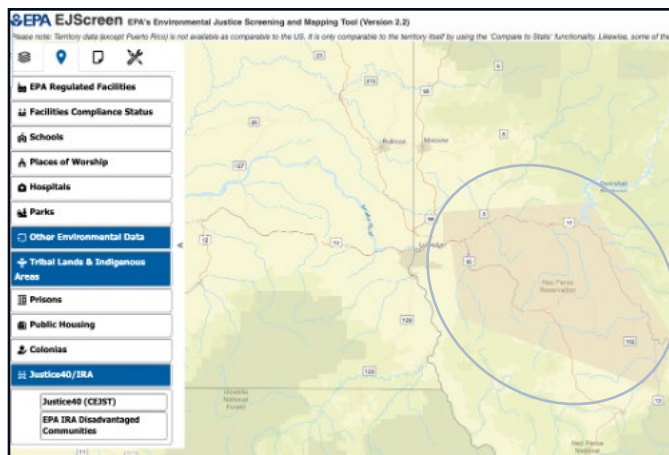
Low Income: 78th percentile

Expected Building Loss Rate: 92nd percentile Heart Disease: 92nd percentile

Education, Less Than High School Diploma: 11percent

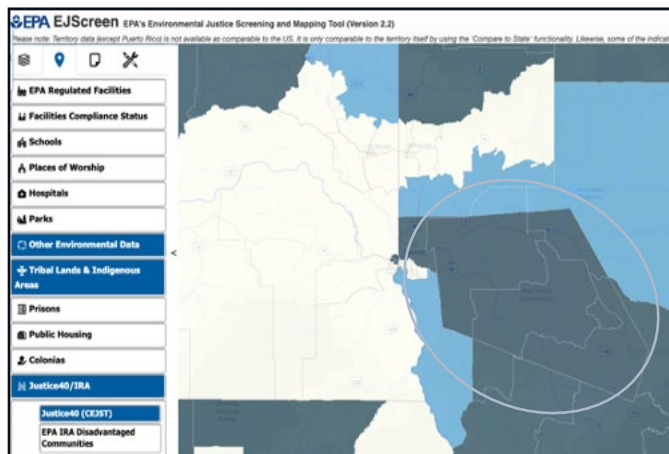
Two of the proposed actions are off the reservation but at tribal facilities within the Tribe's ICC that are important for increasing resilience and/or for helping the Tribe, tribal staff, and tribal members transition to electric vehicles. Those tracts are not EJ census tracts, however, they are adjacent to or surrounded by EJ census tracts, and would service tribal operations, staff, and members who live in EJ census tracts. For instance, while the Joseph, Oregon Fisheries office is not in an EJ Census track, tribal staff and residents live and commute from Enterprise, which is an EJ census tract. The closest census tract is: 41063960300, County: Wallowa, State Oregon.

Screenshots from the EPA Environmental Justice Screening and Mapping Tool (EJ Screen)



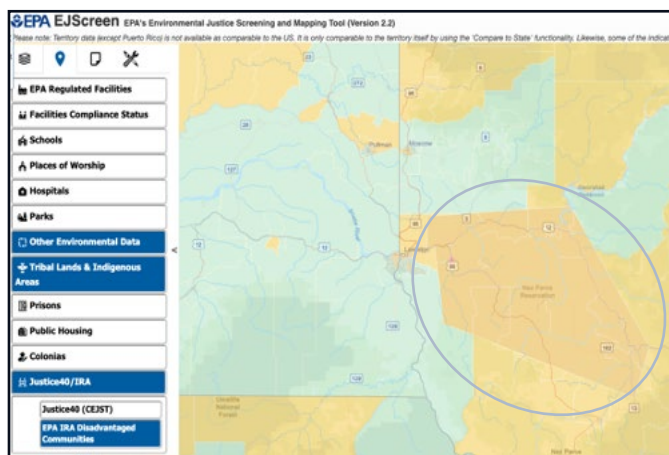
EPA EJ Screen

Nez Perce Reservation in orange



EPA EJ Screen with Justice 40 overlay

Nez Perce Reservation in dark gray



EPA EJ Screen with IRA Disadvantaged Communities overlay

Nez Perce Reservation in dark orange

LIDAC Narrative

Tribal governments are at the forefront of engaging with their communities and providing resources to support the social, environmental, spiritual, and emotional needs of their members. Not only does the Tribe intimately understand the needs of their community, but they also provide services and programs to support the needs of their members.

The Tribe is experiencing increasing severity and frequency of wildfires, drought, heatwaves, extreme precipitation, floods, and erosion. This cycle of extremes has impacted the health, well-being, and lifeways of the *Nimíipuu* in tangible and intangible ways. In addition, it has had a wide range of social and economic impacts including public health impacts, losses to key subsistence resources (fish, game, wetlands, and native plants), and economic impacts on Tribal enterprises and the regional and local economy.

The Reservation is a series of dissected river canyons with steep slopes and large topographical gradients, and open areas where wind spreads fires rapidly. Critical infrastructure such as power lines, roads, bridges, fish hatcheries, and housing is located within, adjacent to, or passes through floodplains. In addition, fish acclimation facilities are near the rivers within floodplains. Housing is in forested areas

Within the Nez Perce Tribe's area of traditional use, extreme precipitation events have caused exceptional floods, heavy winter snowstorms, mudslides, and landslides. These events have damaged and washed-out roads, culverts, bridges, houses, telecommunications and power infrastructure, farms, and businesses. In addition, extreme events have occurred during salmon spawning seasons, burying salmon eggs in sediment, scouring gravel beds, washing eggs downstream, eroding banks, and destroying riparian habitat, including restoration projects. Events that have been declared federal disasters for the Tribe have been the result of rain on snow events that have caused flooding and landslides.

As the climate crisis has accelerated, wildfires started by power infrastructure have become an acute concern of the Tribe. Most of the electrical transmission infrastructure on the reservation is located in the areas with the highest fire risks. According to the [USDA Forest Service Wildfire Risk to Communities](#), the Nez Perce Reservation is one of the highest risk communities in the United States for wildfire likelihood, exposure, and risk to homes. Wildfire starts and urban fires have been started by wind events blowing up transformers in our area. These events have demonstrated a need for off-grid solar or micro-hydro power generation.

Wildfire complexes have swept through homes, businesses, and communities on the Reservation, and smoke events have affected public health. Fire risk, and the intensity, duration, and frequency of smoke events, heatwaves, and droughts are projected to increase in the future. In addition, this region has started experiencing temperatures in the mid to high 70s at night during heatwaves where daytime temperatures range from the high 90s to 122°F multiple days and nights in a row increasing the risk of heat stress, heat exhaustion, and excess heat related deaths. (Note that although the official high temperature at the airport during the 2021 June heatwave was 115°F, temperatures in the canyon bottom several hundred feet lower in elevation rose to 122°F. While we don't have an official excess death rate for that period of time in our area, we know that livestock, pets, and elders succumbed to the heat). Higher overnight temperatures have reduced the efficacy of opening windows to cool homes overnight even when the air quality is healthy enough to do so. Average summer temperatures have already risen and are projected to increase another 7 to 10 degrees Fahrenheit by 2100. Homes that did

not need air conditioning in the past now require air conditioning to cope with higher summer temperatures.

Communities on the Nez Perce Reservation have faced severe wildfire smoke incursions during both summer and fall for the last 12 years. During these episodes, data from the Tribe's outdoor monitoring stations showed air quality often ranging from the Unhealthy to the Hazardous Category of the Air Quality Index (AQI) for 24-hour averages of fine particulate matter (PM_{2.5}). Americans spend about 90% of their time indoors and even more so during wildfire smoke events. Current tribal housing allows for outdoor smoke to seep inside, making the indoor environment similar to or many times often worse than outside conditions. Dangerous indoor air quality results in negative immediate and long-term health outcomes for Nez Perce people. Native Americans, on average, suffer from asthma and other respiratory diseases more than other racial groups in the United States (NTAA Whitepaper).

Only a few homes on the Reservation have air conditioning, and extreme heat is a hazard. As stated in *Idaho Climate-Economy Impacts Assessment*, "statewide warming trends in Idaho mirror those of the northwestern United States, featuring a long-term warming of 1.8°F since 1895. While the warmest year in Idaho was 1934 during the Dust Bowl, seven of the 10 warmest years from 1895 to 2020 have occurred since 1990. In recent years, daily high temperatures during the summer often range from mid-90s to over 110 degrees. In addition, this region is already experiencing deadly summer heatwaves, and heatwaves are projected to become more frequent, longer in duration, and extreme. In the 2021 PNW heatwave, a period of sustained high daytime and overnight low temperatures set multiday records, with 10 days over 100 degrees and record high temperatures ranging from 104 to 115 degrees. Overnight low temperatures in the high 70s offered little reprieve or opportunity to cool off homes without air conditioning overnight. "The regional average daily maximum temperature was nearly 30°F hotter than the mean of the hottest 3 months in the previous decade, and the highest temperature was 61°F hotter." As the heatwave receded, high winds and thunderstorms ignited thousands of fires across California, Washington, and Idaho, including large fires near Lewiston and Lenore, Idaho. Poor air quality limited the ability of residents without air conditioning units to cool their homes overnight once temperatures returned to normal ranges.

Extreme cold events and power outages are also common. Climate change is expected to increase the frequency and severity of polar vortex events. Many Nez Perce families heat with inefficient electric baseboards or portable space heaters to warm their homes. The electrical costs are very high resulting in families making difficult choices between having heat or paying other necessary bills. Families with wood stoves can use their stove for heat and cooking. Extreme temperature events increase risks for people with health conditions such as asthma, diabetes, COPD, and heart disease, and for youth, pregnant women, and elders.

Additionally, the Reservation is a high risk/high priority fire shed in the National Wildfire Crisis Strategy (citation). With plans underway for increased fuels reduction planned in nearby forests in the coming years, using locally sourced firewood through the Tribe's firewood bank program to utilize locally sourced firewood and replacing uncertified stoves with certified stoves is a way to reduce fuel in forests and reduce emissions by promoting the use of EPA-certified wood stoves, wood burns more efficiently, thereby reducing the having wood burn more efficiently in an EPA-certified wood stove instead of in a wildfire.

We would strongly encourage the reader to look at the images we shared in our PCAP and draft vulnerability assessment which were chosen to intentionally try to show what we are experiencing.

There are impacts we did not discuss in this proposal to traditional plants and game that are utterly devastating. We have shared a few images here.

Outreach efforts for preparing our vulnerability assessment and PCAP demonstrated a clear need for solutions that reduce the cost of energy, increase its reliability, improve cellular and internet communications reservation wide, and help tribal members to power water pumps, medical equipment, air filters, lights, and air conditioning equipment during wildfires, extreme heat and cold, and when roads and powerlines wash out during floods. Social Services routinely assists tribal families with energy bills as high as \$500 to \$800 per month. Heatwaves, cold snaps, and air quality have now become so extreme that just suffering is no longer safe. The best way to solve the problem is via distributed solar arrays with battery banks on residences across the Reservation so that even if one relative's house is not suitable for solar or does not have an array, other relatives with solar will have energy, air conditioning, air filtration, internet, and the ability to pump water. We need batteries paired with solar arrays so that the most vulnerable residents won't be at home without power or communications when the grid is down during windstorms, floods, and fires. This is explained in greater detail under Community Benefits.

Community Involvement in Planning

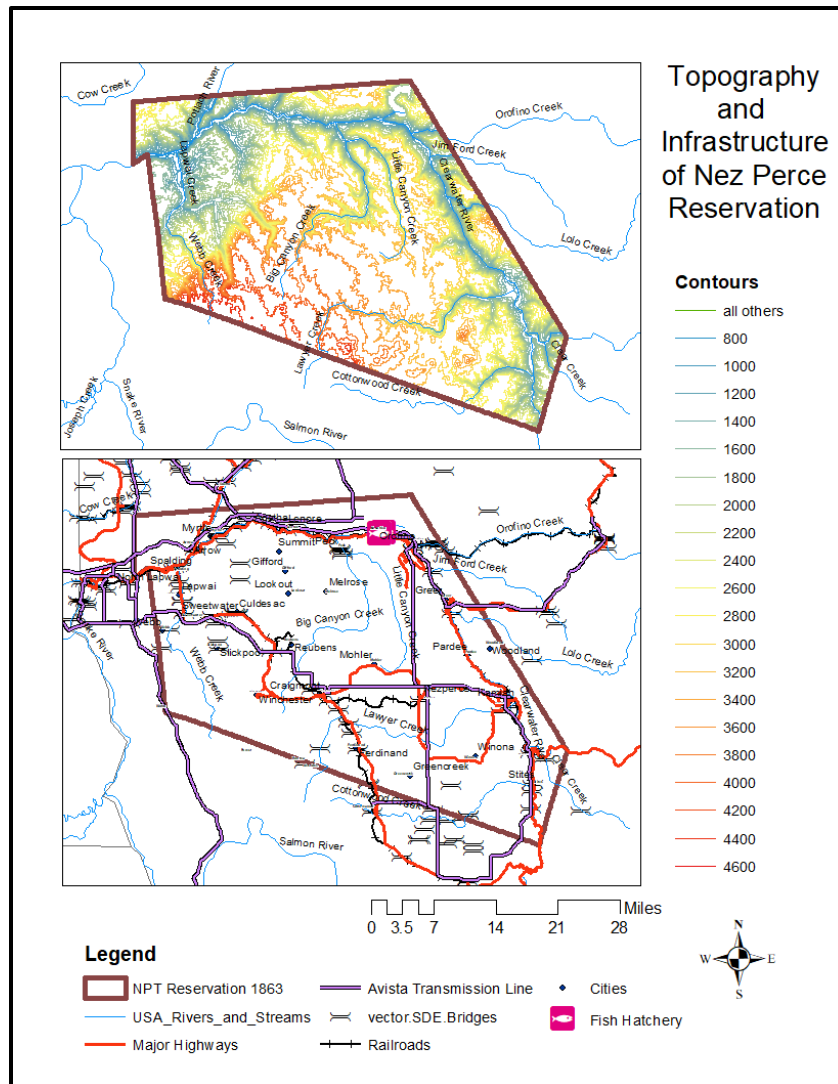
In 2016, shortly after a devastating drought led to significant fish kills, the Nez Perce Tribe held a climate change retreat, created a climate task force, and officially launched their climate program. Since 2016, Tribal agencies, with the support of the Tribe's climate coordinator, have engaged with all Tribal departments to understand how climate change continues to impact their community. This includes coordination between Tribal Fisheries, Natural Resources, Clean Air, Wildlife, Social Services, and Housing Departments along with *Nimiipuu* Health and other organizations and individuals working to meet the needs of the Nez Perce People.

The Nez Perce Tribe now has community wide efforts focusing on the impacts of climate change and has been working on meaningful community planning since 2016. These efforts informed our PCAP, and this proposal. Concerted climate change planning started shortly after the summer of 2015 when a devastating drought led to significant fish kills, wildfires on the reservation, and exceptionally bad air quality. In 2016, the DFRM and NRD held a climate change retreat, created a climate task force, and officially launched their climate program. Since 2016, Tribal agencies, with the support of the Tribe's climate coordinator, have engaged with all Tribal departments to understand how climate change continues to impact their community. This includes coordination between Tribal Fisheries, Natural Resources, Clean Air, Wildlife, Social Services, and Housing Departments along with *Nimiipuu* Health and other organizations and individuals working to meet the needs of the Nez Perce People.

The Tribe's climate change team conducted a community wide survey and elder interviews in 2017 (LINK) and used the results of the survey to develop a vulnerability assessment which is in the final stages of preparation. At that time, the highest priority actions identified by the tribal community were renewable energy projects and climate education. Protection for water and air were also identified as priorities. From 2022 to 2024, tribal climate staff interviewed elders and held workshops for the tribal community focused on flood impacts and impacts to traditional foods. In 2023, the Tribe hired a climate change communications technician to conduct interviews and produce short educational films about climate change and the actions that the Tribe is taking to combat it. Those films will be ready in early 2025 and will be used for education and engagement with tribal members and the reservation community.

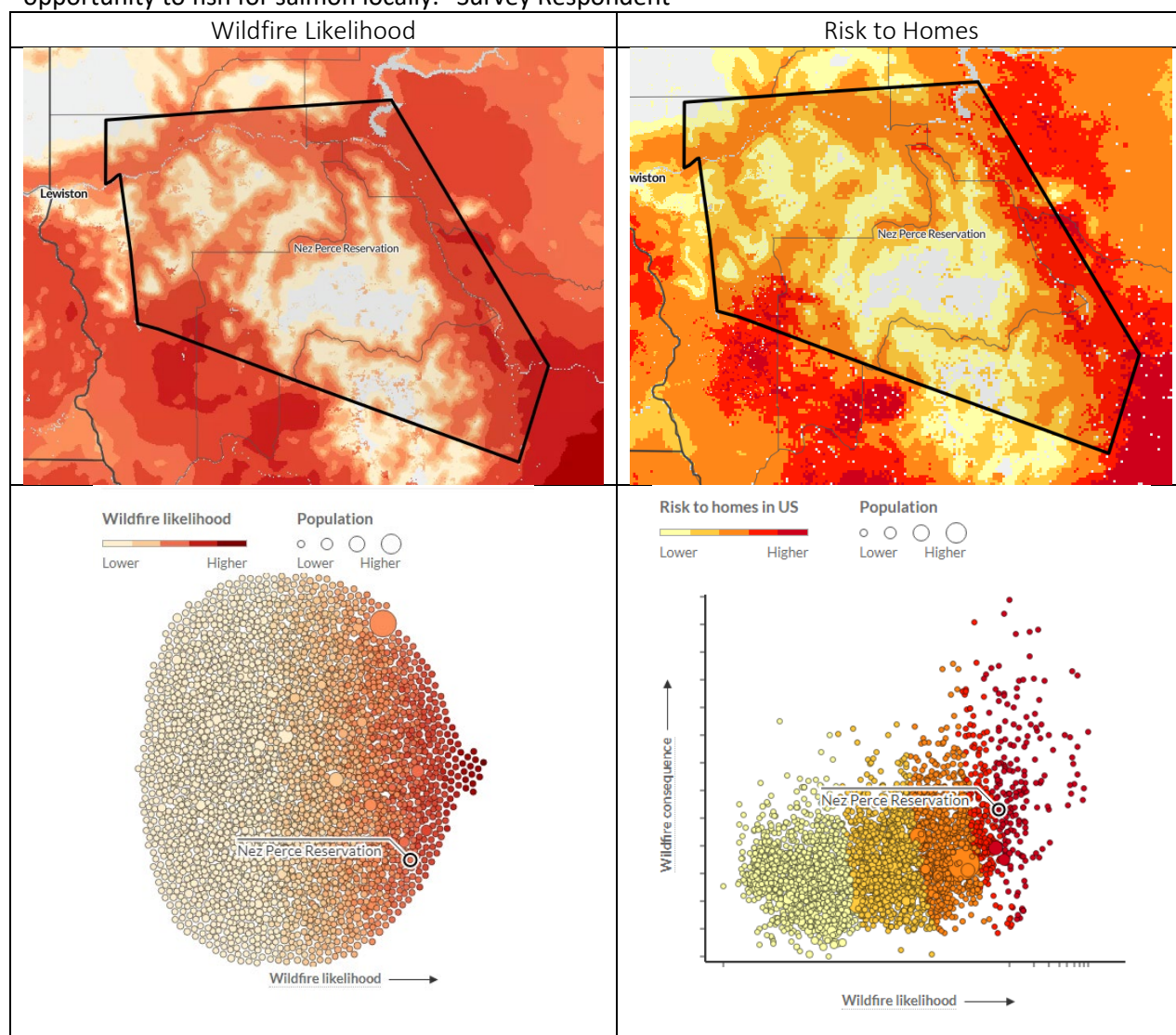
Please look at the list below and use the scale to tell us how concerned you are about the impacts of climate change on each list item: Human needs and well-being in general

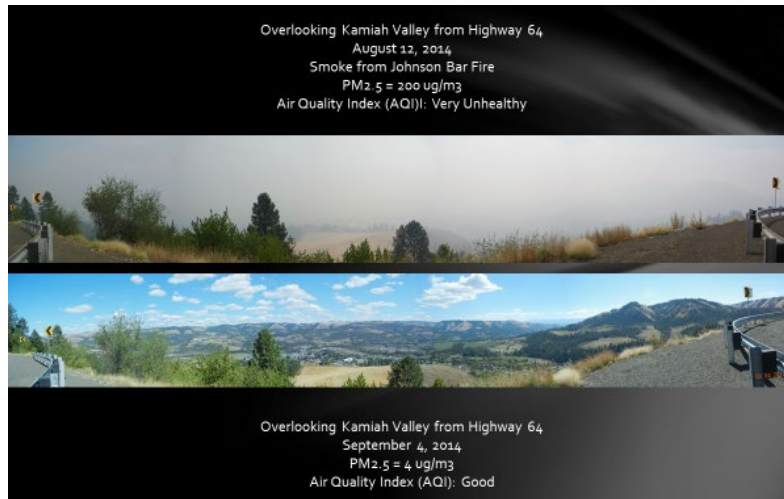
	Freq.	%
Not at all concerned	2	1%
Somewhat concerned	4	2%
Neutral	19	8%
Concerned	86	37%
Very concerned	119	52%
Total	230	100%



2015 Clearwater Complex fire near Kamiah Idaho showing steep slopes above river on fire. ID Farm Bureau, Flickr. 8/20/2015.	Rain on Snow Pictures: Unknown Tributary on Winchester Grade. 12/29/2017. WRD NPT	May 2, 2019. FEMA Flood Assessments- Adams Grade and Glenwood at Tom Taha Creek above Kamiah. WRD NPT

"I feel like we are 'threatened' more by natural occurrences such as floods and wildfires. Wildfires in particular have impacted my opportunity to spend time in the forests. Water issues have limited my opportunity to fish for salmon locally." Survey Respondent





“This summer was really hot and dry. there was a lot of fires and filled the area with smoke. Our fishing this year was decreased by half, this big change affected my family because this summer was harder on my kids who have bad allergies and asthma and could not be outside long.” Survey Respondent

“We had to evacuate my mother’s house a few years back. That was an eye opener for sure. How fast the fire grew, so fast and fierce. Little water in the rivers and much warmer temperature. It’s effected the animals and vegetation making berry picking more difficult and later in the summer months.” Survey Respondent

Floods and fires have threatened and damaged infrastructure.



Calkins Property Damage April 16, 2019, Lapwai Creek along Highway 95 between Lapwai and Spaulding. The cut bank was a riparian area with willows and cottonwoods. The flood took away grazing and shade, and nearly washed the power line out.



Calkins Property Damage showing power pole that was nearly washed out on April 16, 2019. The power line did not wash out due to emergency managers places structural support on the pole base, but the utility company had to move the line.



Clearwater River. May 2, 2019. FEMA Flood Assessments. Water Resources Staff. Above Kooskia at Maggie Creek. Houses, storage sheds, roads, and culverts routinely wash out now.



Clearwater River. May 2, 2019. FEMA Flood Assessments. Water Resources Staff. Damaged roads and driveways are now a common and costly occurrence for tribal members.

<https://www.nimiipuu.energy/>
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<https://covenantofthesalmonpeople.com>