

# Chapter 1

## CTUIR, First Foods and Indigenous Food System

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# Pamawaniča Tkwatatma Cna Tiichampa

## The Foods Named Themselves in this Land

Iwíšayča čná tanán, ku kúuk pamáwaniča tk<sup>w</sup>átatma: “Áwnaš ín wáta wiyáwaítwita.” Ku itútiya latítlatit, “Ínaš wáta wáti.” Ku itútiya xáwš, “Ínaš átwanata naamína pátna.” Ku itútiya pyaxí, ku k<sup>w</sup>ná itútiya tmíš, ku pátwanana tmíšna wíwnuwin.

Ku kúušxi itútiya núsux, “Ínaš wiyáwaítwita, kuš patwánata inmíma isxípma.” Ku itútiya k<sup>w</sup>ná yáamaš, ku k<sup>w</sup>aaná pátwanana wawúkyayin.

Kúuš pamáwaniča tk<sup>w</sup>átatma, ku láax<sup>w</sup> ana tún ittáwaxinxa xnit, ku ana tún iwá tk<sup>w</sup>átat naamí. Kúma k<sup>w</sup>áy pamáwaniča mítaat, Mítaat pamáwaniča tk<sup>w</sup>átat, ana pmáy pawá, ana k<sup>w</sup>aaná pawalptáykinxa, “Mítaat tk<sup>w</sup>átat iwíyániknikša.” K<sup>w</sup>áy iwá núsux ku níkwít ku xnit k<sup>w</sup>áy ana kúma úyit patútiya.

Áwtaš wáta náma naknuwítá, ana pmáy pawáta čná tanán waníči, kutaš wáta tk<sup>w</sup>átat paamín, ku kúuš aw kú pawíšayčínxa ana kú iwawašmíwíxa ku pattáwaxinxa pát twánani ana tún áwtni tk<sup>w</sup>átat. Čáwnam lqíwita tk<sup>w</sup>átatna!

Ana kúuš patútiya, pmáy pamáwaniča čná tiichampa. K<sup>w</sup>áyš k<sup>w</sup>íł ínča šúk<sup>w</sup>aša, ana kú pasínwixana nčínčima, “Áwtni iwá tk<sup>w</sup>átat láax<sup>w</sup>, ana pín ittáwaxša čná tiichampa, ana tún iwá tk<sup>w</sup>átat.”

K<sup>w</sup>áy iwá áwtni. Čáwnam áqatqíwita k<sup>w</sup>aaná.

Kúuš pasínwixana nčínčima. Láax<sup>w</sup>na áwawtta tk<sup>w</sup>átatna, ana mún iwíšayča úyit, kuna k<sup>w</sup>aaná ák<sup>w</sup>alata ásapalwitana. Kúuš pasínwixana nčínčima, kuš áykinxana. Kúuš pasínwiša, ku ana pmáy patáwinpataxa tk<sup>w</sup>átatna, kupam níixki timnáki kupam áwinpatata.

Kúuš pa<sup>?</sup>ínxana tk<sup>w</sup>aynpláma: Níixkipam timnáki tk<sup>w</sup>aynpta!

Kúušxi xnitáma: Níixkipam timnáki áwštaymata naamína pátna, ana k<sup>w</sup>apín pináwaniča čná tiichampa.

K<sup>w</sup>íłnaš áw k<sup>w</sup>áy ínča šúk<sup>w</sup>aša.

The people came to be here, and then the foods named themselves: “Now I shall take the lead.” And the Celery stood up, “I shall be first.” And the cous stood up, “I shall follow our older sister.” And the bitterroot stood up, and there the chokecherry stood up, and the chokecherry was followed by the huckleberry.

And in the same way the salmon stood up, “I shall take the lead, and my younger brothers will follow me.” And the deer stood up there, and the elk followed that one.

Thusly the foods nominated themselves, and all whatever roots grew, and all whatever are our foods. Those three nominated themselves that. Three foods nominated themselves, they who are, that which they sing, “Three foods are going around.” That is the salmon and the meat and the roots that stood up first.

Now we shall be the keepers, they who will be the designated people here, and we will be their food, and thusly then they become when it turns to spring and the elder sister grows followed [by] whichever tabooed food. You should not play with the foods!

As they stood up, they named themselves in this land. That much I too know, when the elders used to speak, “All the food is tabooed, she who is growing in this land, anything that is the food.”

That is tabooed. You should not play with that.

Thusly the elders used to say. We all will taboo the food, whenever it will become first, and for that we are glad, we will feast. Thusly the elders used to say, and we used to hear them. Thusly they are saying, and they who go get the food, and with a good heart then you will go get it.

Thusly the hunters used to say: With a good heart you shall go hunting!

In the same way the root diggers: With a good heart you shall meet our older sister, she who nominated herself in this land.

That much now I also know.

# Chapter 1 : CTUIR, First Foods, and Culture

## [1.1] CTUIR History and Geography

### CTUIR Geography and Reservation

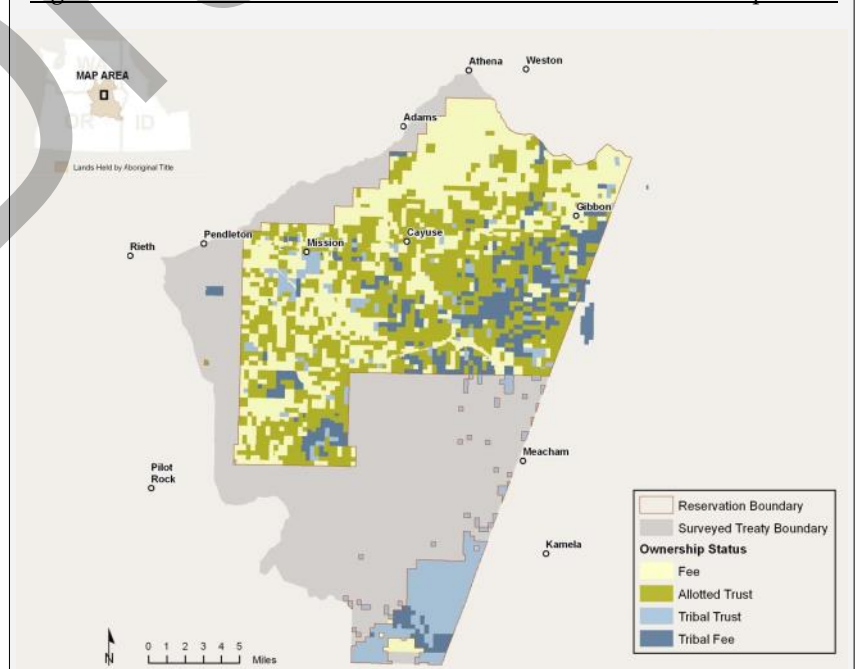
CTUIR is the present and future manifestation of the Cayuse, Umatilla, and Walla Walla peoples, who historically and currently live along the Columbia River Plateau and the Blue Mountain ecoregion in Northeast Oregon and Southeast Washington. Tribal membership currently stands at 3,060 (CTUIR Census, YEAR); while many of these tribal citizens do live on the reservation, or in neighboring towns, not all who live on the reservation are tribal members, as many allotments are owned by non-tribal private landowners that participate in the CTUIR community to varying degrees. Because of these different ownership statuses, the CTUIR reservation is a “checkerboard,” which can create management challenges when the tribe works to set goals and practices at a large scale. Figure 1.1 shows the various ownership statuses on the UIR.

### 1855 Treaty Signing and Rights Guaranteed

Along with the Yakama, Warm Springs, and Nez Perce nations, CTUIR entered into a peace agreement with the United States government during the Treaty of 1855, and agreed to move forward peacefully, in exchange for the rights to land and self determination. With the signing of this Treaty, CTUIR secured their rights to a dedicated reservation within their ceded territory, the right to self governance and sovereignty, and the rights to hunt, fish, gather, and graze livestock on their ceded lands and traditional use territory. Federally Recognized.

[Documents to quote and cite?]

Figure 1.1: CTUIR Reservation Boundaries and Allotment Ownership Status





## [1.1] CTUIR History and Geography

### CTUIR Ceded Lands and Tribal Jurisdiction

Lands ceded in the Treaty of 1855 still remain under special jurisdictional governance of the tribe, and many government projects and proposals require permission from CTUIR and other affected tribes. These ceded lands are shown in Figure 1.2 in the gray shaded area, which covers roughly 6.4 million acres in both Oregon and Washington states. Historically the Cayuse, Umatilla, and Walla Walla peoples were seasonally migratory, and would follow the First Foods as they appeared in order on the landscape. The First Foods wait for no

Figure 1.2: CTUIR Ceded Boundaries in OR & WA



one and people must be ready to go when they are, necessitating a frequent presence and close relationship with these plant and animal species. Within this land base, the migrating tribes would have encountered an extremely diverse collection of ecoregions and habitat types, as the proximity of the Columbia River and the Blue Mountains creates a complex and highly diverse area.

#### [Additional about habitat types]

#### REGIONAL HABITAT TYPES, FLORA, AND FAUNA

Mostly located along the high plains of the Columbia River Plateau, the northwestern edge of CTUIR aboriginal title lands receive a lower amount of annual precipitation (9 inches average), and is characterized by xeric plants and desert animals, though riparian zones have a number of wetland features where they have been preserved. Much of these lands can be classified as mid-elevation grasslands, located along the foothills of the Blue Mountains, and receiving 14-16 inches annual precipitation,

mostly as rain during spring and fall months. While up to 80% of these lands are privately owned in large scale agricultural use, native grazers, shrubs, and grasses can still be found. At the highest elevations of the tribe's ceded lands, the mixed conifer forest of the Blue Mountains provide habitat for much of the First Foods during one or more seasons. These mixed height canopy forests are largely Ponderosa Pine (species name), Western Larch (species name), and Douglas Fir (species name) with understory plants that provide habitat for grazing of big game and often beef cattle. Precipitation falls as snow in winter, and rain otherwise

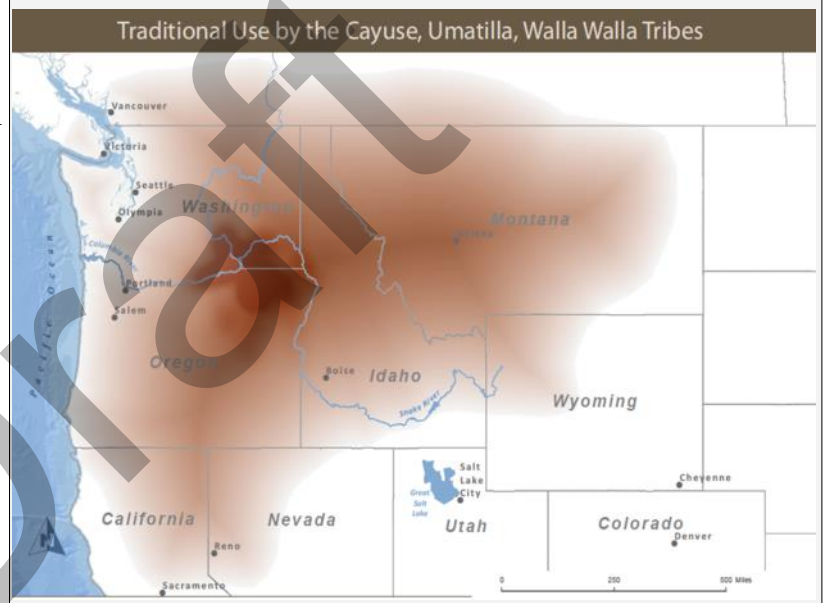
## [1.2] Traditional Use Area, Economic Factors, & Scope of Plan

### CTUIR Traditional Use Area and Treaty Rights

At another scale of legal distinction is the tribe's "traditional use area" over which tribal members have rights to hunt, fish, gather, and graze for cultural, subsistence or commercial purposes. Figure 1.3 shows the frequency with which CTUIR have historically utilized different regions of this traditional use area. The darker and more solid red shades indicate a region of heavy utilization, with the fading gradient demonstrating the main places where CTUIR tribes traveled and traded, which extends from the Pacific Coast east to the Rocky Mountains, and north of the Canadian border down to the Great Basin. It is over these diverse and vast lands that CTUIR tribal members are able to exercise their treaty rights. While much of this plan focuses on the climate impact scale of the Aboriginal Title Lands, it is essential to maximize the diversity and area over which tribal members are able to utilize traditional foods and medicines for their resilience to coming changes. Most of the focus of the document is on 1) the Umatilla Indian Reservation lands, 2)

CTUIR ceded lands in the Columbia, Umatilla, Walla Walla, Grande Ronde, Wenaha-Tucannon, Hells Canyon, and John Day River basins, and 3) CTUIR traditional use areas in Oregon, Washington, Idaho, Montana, and California states, as well as the province of British Columbia, with research and projection information as close to the Umatilla River Basin as possible being preferred. Much of the information in this plan comes from one of these three sources, though there are estimates from national and global scales at times, due to a lack of more regionally specific

Figure 1.3: CTUIR Traditional Use Area Density of Historical Presence



### TRIBAL ECONOMY

CTUIR is a sovereign nation with a multi-million dollar operating budget and its own internal economy that offers goods and services to its own residents and a thriving tourism industry. Much of the tribe's annual revenue is generated by the Wildhorse Resort and Casino (WRC) operation, its technological support company, Cayuse Technologies, and its independent convenience stores, Mission Mart, and Arrowhead Truck Stop, as well as other shops associated with WRC. These operations, combined with the operating capacity of the tribal government staffed at Nixyaawii Governance Center (NGC) makes the tribe one of the largest employers in the surrounding Umatilla, Union and Walla Walla counties. Tourism is a heavy economic driver in the region, and CTUIR participates in the annual rodeo and pageant, as well as independent activities.

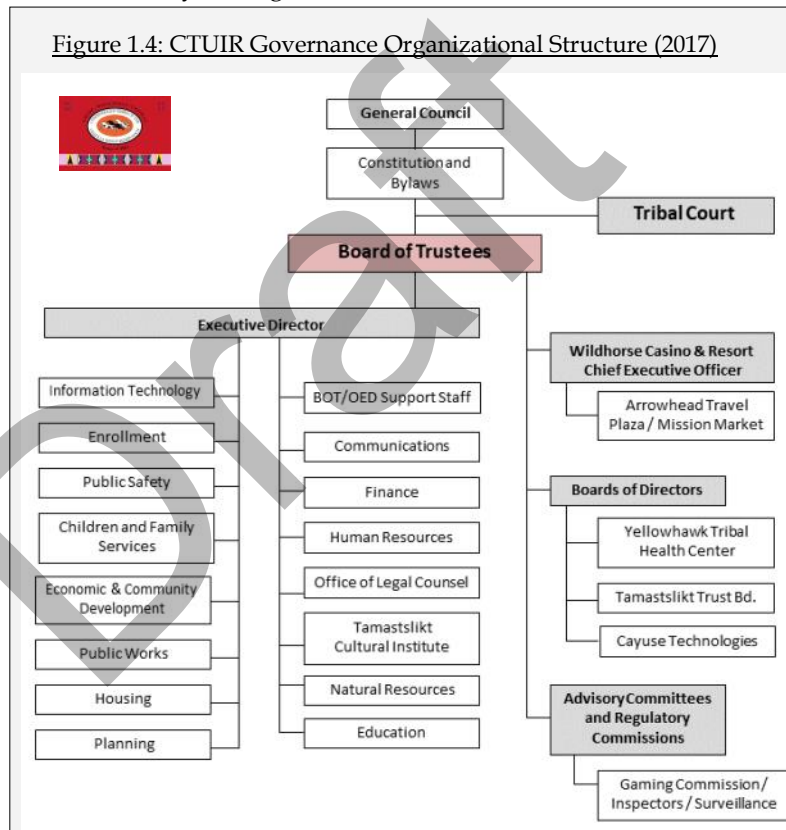
## [1.3] CTUIR Governance Structure and Enterprises

### CTUIR Governance Structure

CTUIR is a federally recognized sovereign nation with the right to self-governance and self determination. Figure 1.4 shows the organizational structure for the tribal government and entities related to the tribe. Three branches of government collectively make decisions, and are vetted and elected by tribal membership

### TRIBAL DEPARTMENTS & ENTERPRISES

Over decades and centuries, CTUIR governance has changed and grown to accommodate expanding capacity and emerging needs, and it's structure is designed to be accountable to the tribal community. In 1949, the tribe adopted a constitutional form of government to protect, preserve, and enhance the treaty rights guaranteed under federal statute. This government has three distinct branches that are accountable to the tribal community through different mechanisms, and administer much of the internal workings of local, state, and federal government services. Figure 1.4 shows the structure of CTUIR's governance , where the Board of Trustees (BOT) operates many routine services, while Tribal Court has decision -making powers, and both are accountable to the General Council. Through this structure we can understand how resource management decisions are made, how change can be effected, and how tribal communities can be involved. Building resilience requires communication and collaboration between different people and disciplines, and much will depend on our ability to act collectively to implement adaptation strategies and engage in constructive change.





## [1.4] First Foods of the Columbia Plateau Tribes

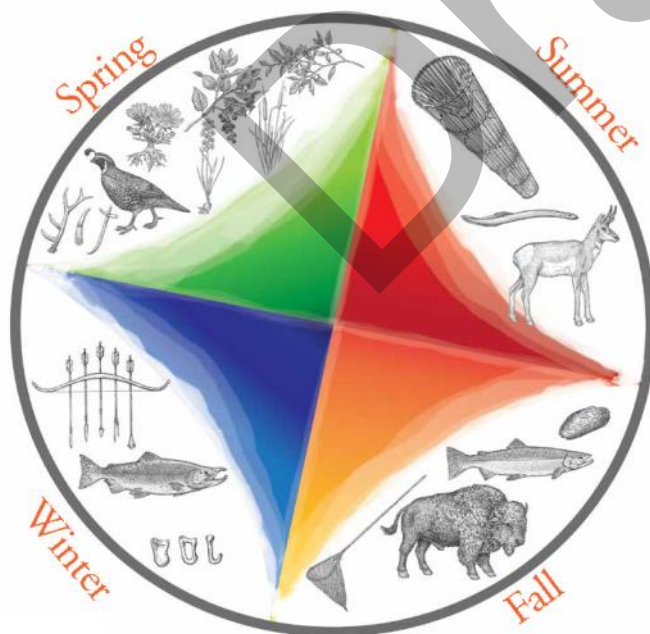
The people of the Columbia River Plateau partake in an incredibly diverse food system, and the First Foods of the CTUIR people still beat at the heart of tribal life. Treaty rights to hunt, fish, gather, and graze cover the seasonal practices of subsistence living that were essential in historic times, and remain still highly relevant today. The relationship indigenous people have with their land is spiritual, practical, and reciprocal. For millennia, the Umatilla, Cayuse, and Walla Walla people have existed in harmony with the diverse plants and animals that are uniquely adapted to these homelands.

Figure 1.5 shows the seasonal round for the tribes of the Blue Mountains and Columbia River Plateau. The indigenous food system of tribal people is highly diverse and firmly rooted in the naturally occurring plants and animals, making use of seasonally available nutrients, and harvesting in a way that is designed to boost abundance of subsequent generations. This food system relies on an accumulation of winter snow pack in the mid-elevation mountains to shelter plants and provide summer water. This snow pack has historically melted slowly over the warming spring season, infiltrated into the soil and through groundwater interflow to contribute to river freshets. Combining with frequent spring rains, these freshets flood the riparian zone of streams and rivers, following the geomorphology to provide a waterway for migratory fish to travel home and spawn. These inland river systems provide the foundation for the terrestrial ecosystems, as water supports many species of big game, including elk, white tail- and mule deer, and is integrally connected to the grassland slopes and upland forests that are home to root and berry plant species.

The First Foods concept is taken from the CTUIR Creation Story of how the Creator prepared the world for Man and Woman to arrive, and of the

First Foods — Water, Salmon, Deer, Cous, and Huckleberry — who eat stood in turn to promise their bodies so that the People would live. In return, the People promised to honor the First Foods, remember and celebrate them, and be their voice and caretakers. From the Ecology and Society paper: “In the creation belief, the Creator asked [of the creatures of the Earth], ‘Who will take care of the people?’ Salmon said ‘I will’ and the other fish lined up behind him, then the deer made a promise, and so on.’ Water, the fifth First Food, is served before and after the four emblematic First Foods, in recognition of the fact that water is singularly essential, nourishing all other First Foods, people, and the landscape. Without water, none of the other First Foods can exist.”

Figure 1.5: CTUIR Seasonal Round of the Blue Mountains & Columbia



Designed by Donna Nez & Stephanie

Quaempts, E. J., K. L. Jones, S. J. O'Daniel, T. J. Beechie, and G. C. Poole. 2018. Aligning environmental management with ecosystem resilience: a First Foods example from the Confederated Tribes of the Umatilla Indian Reservation, Oregon, USA. *Ecology and Society* 23(2):29. <https://doi.org/10.5751/ES-10080-230229>

Figure 1.6: First Foods Served in Order on the Longhouse Table is the Basis for the DNR First Foods Mission



### [1.5] CTUIR DNR First Foods Mission

The tribe's relationship with their traditional First Foods is at the center of cultural and educational life for the tribal community. Similarly, the CTUIR Department of Natural Resources has been using the framework of the First Foods to guide the work that department does; the First Foods mission is to "protect, restore, and enhance the First Foods – for the perpetual cultural, economic, and sovereign benefit of the CTUIR through population and habitat management goals & actions; and natural resource policies and regulatory mechanisms." (Quaempts et al 2018). The First Foods Mission was adopted by the CTUIR Board of Trustees in 2006, and was made an integral part of the mission and governance of the tribal departments through its inclusion in the Comprehensive Plan (2010), and each of the departments speak to the First Foods Mission in different ways. From the Ecology and Society paper:

"In applying this approach, the DNR emphasizes the reciprocal relationships between natural resources and humans. This is a deeply held and widely shared belief within the tribal community that means humans are responsible for taking care of the foods that provide sustenance to humans. This relationship is expressed in the concept of "reciprocity" between the community and the environment. Furthermore, the First Foods management approach provides the Tribal community with a means to "monitor" the performance of its government as the diversity, quality, and regularity of First Foods that can be harvested, served, and safely consumed are direct and meaningful indicators of the DNR's management effort and progress."

Quaempts, E. J., K. L. Jones, S. J. O'Daniel, T. J. Beechie, and G. C. Poole. 2018. Aligning environmental management with ecosystem resilience: a First Foods example from the Confederated Tribes of the Umatilla Indian Reservation, Oregon, USA. *Ecology and Society* 23(2):29. <https://doi.org/10.5751/ES-10080-230229>

Organizing the work the Dept of Natural Resources and the rest of the tribal government around the protection and enhancement of the culturally significant First Foods creates an accounting system where the activities of the government are recognizable and accountable to the values of the tribal community. With this approach over more than a decade of natural resource management has produced spectacular results, and the benefit comes back to the community in availability of salmon during fish distribution events, where salmon are harvested on the Columbia River and trucked to the CTUIR community to be given out to elders and families that have subsistence or ceremonial needs for the fish. CTUIR DNR has also produced a number of technical documents that guide the on-the-ground approach to habitat restoration work that prioritizes the needs of native species that are culturally significant to the tribe through its Umatilla River Vision (2011) which provides an in-depth review of the "touchstones" of river and stream restoration work, and the First Foods Upland Vision (2019) which provides a similar view of terrestrial land and vegetation management for support of wildlife, root, and berry species. These guiding documents are helpful to tribal and nontribal land managers and can be used to support First Food populations across the CTUIR ceded and territorial use lands. This Climate Adaptation Plan is an extension of the First Foods Mission into the larger Indigenous food system, and provides guidance on how different programs and departments connect with the work that DNR is doing to provide cultural connectivity to the tribal community through climate adaptations that support expanding access and opportunity for harvest to the tribe.



## [1.6] Fossil Fuel-Based, Regional, and Indigenous Food Systems

Conventional food systems on which most of us depend are based in the burning of fossil fuels and are vulnerable to national instability and disturbances in the global supply chain. These food systems are often linear in process, where resources extracted in other locations are used to produce and transport foods across vast distances, and producers are very rarely the end consumers. Figure 1.7 shows the multi-step process of most conventional food systems follow as food moves from where it is produced, often with high intensity fertilizers, through processing practices to convert it to goods that often require refrigeration. From there, these goods are shipped around the world, to be housed in markets that are using electricity to store them, as well as to direct to customer venues such as event caterings and restaurants. Even home cooks are part of this process, as food waste occurs at it's highest volumes from domestic food spoiling. Waste disposal of food is another large contributor to greenhouse gases, as food rots in landfills without oxygen, creating potent methane gases that have 84 times the global heating potential of carbon dioxide. Linear food systems are huge contributors not only to the generation of greenhouse gases, but to global and national inequality, creating situations where the places and people that produce food are not the ones that are the end consumers of this food, which exacerbates the funneling of wealth and resources to already

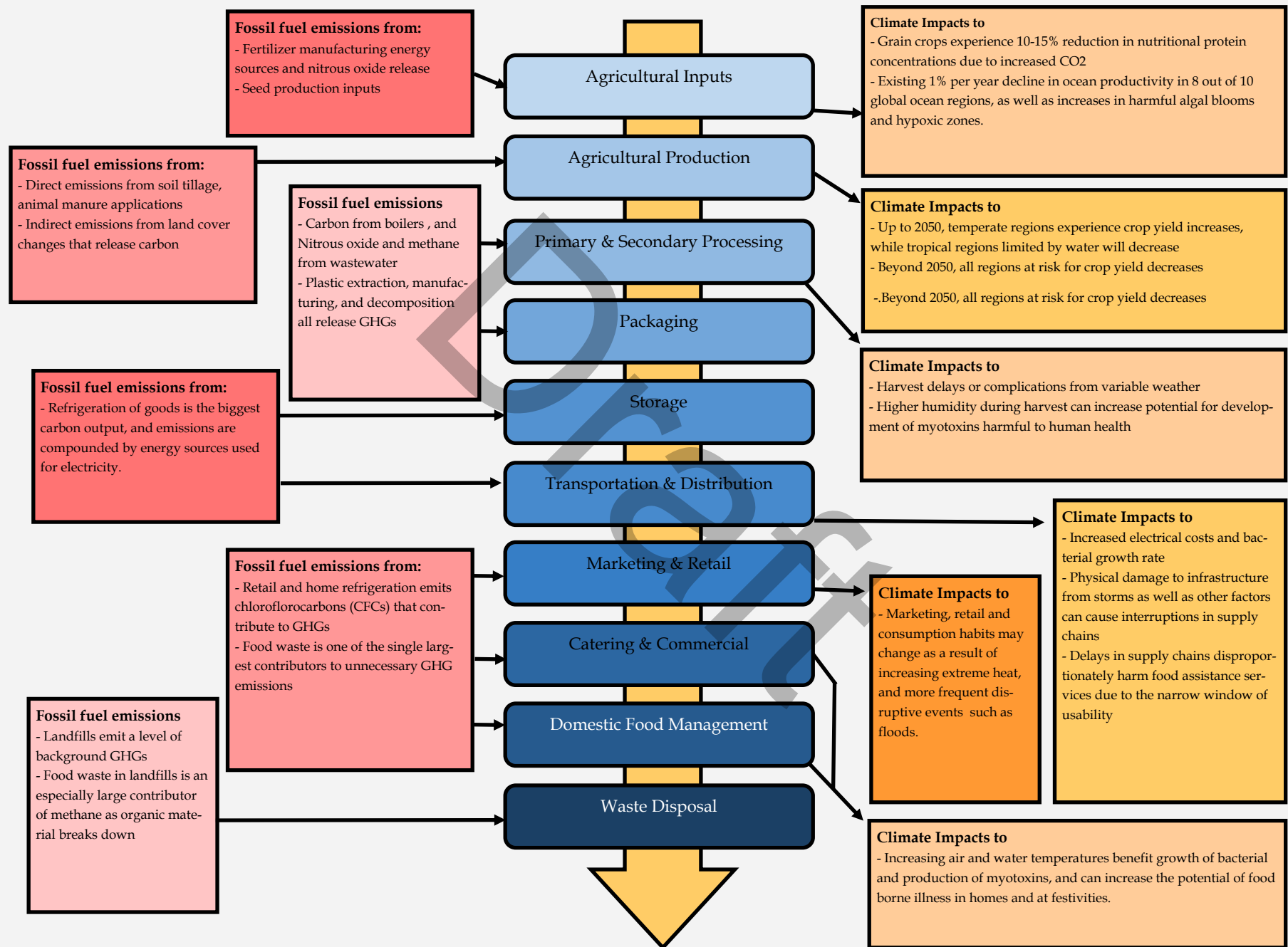
Figure 1.7: Fossil Fuel-Based Linear Food System



wealthy nations and locations. On a global scale this is true, and can be easily seen by reading labels on processed foods that list the country of origin. Many fruits and vegetables consumed in the U.S. are produced in Central and South America, grains like rice and wheat are often produced in African and Asian countries, and these foods are processed, packaged, and shipped thousands of miles to land on grocery store shelves in the U.S. While the concept of “food miles” determining the carbon intensity of foods has been debunked, the processing and storage requirements of these foods as they travel does have an impact on the amount of carbon a food produces. The need for refrigeration and cold storage while being transported creates a huge need for energy consumption to keep these foods cold over the duration of their travel. Frozen fruits and vegetables traveling from Latin American countries to the U.S. have a very high energetic burden because of their freezing requirements not only during transport, but additionally when they arrive and sit on store shelves in store freezers that use more energy than passive storage. End food consumers are not exempt from the carbon footprint our dinner plate has; much of the food waste that occurs happens at the end consumer stage, which means that caterers, restaurants, and homes are one of the largest sources of preventable carbon emissions as food is wasted and thrown into landfills along with other nonorganic waste. Recent projections suggest that at least 25% of food purchased by U.S. families is wasted, and only a small fraction of this waste ends up in recycling

avenues like composting, and represents a large area where climate adaptation could reduce carbon generation. These linear food systems are also extremely vulnerable to the effects of climate change, as globally integrated systems will have to contend with increasingly frequent extreme weather events around the world and dangers of food contamination here at home.

Figure 1.8: Fossil Fuel-Based Linear Food Systems Both Contribute and are Vulnerable to Climate Change through Import/Export Frameworks



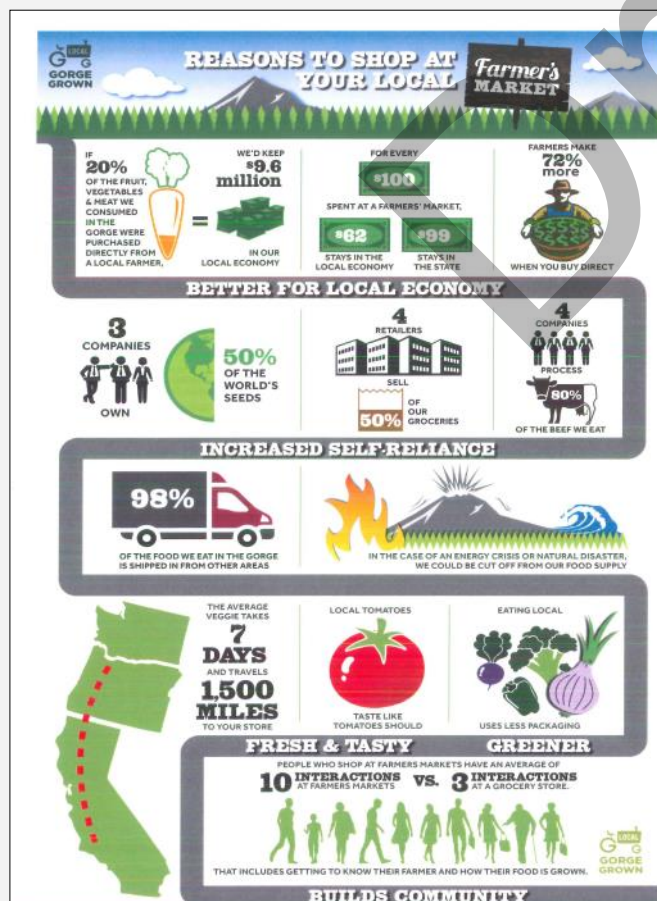


## [1.6] Fossil Fuel-Based, Regional, and Indigenous Food Systems

Regional food systems offer a potential alternative to these globalized linear food systems, and Eat Local movements have been picking up notoriety for a couple decades. In these regional food systems, food is produced closer to those who are consuming it, with the goal of having a much closer connection between people, the food they consume, and the people who produce it. Within CTUIR's ceded lands, this looks like the people who are growing local and diversified fruits and vegetables in places like Richland, Pasco, Walla Walla, Milton Freewater, and the Boardman/Umatilla area, and sold to local restaurants, schools, hospitals, resellers, and of course at direct outlets like farmers markets and roadside stands. Local food systems are still based in settler colonial frameworks, but can help mitigate for damage done by fossil fuel based import/export systems, though these systems do still tend to be reliant on migrant labor for their success and represent an opportunity for the tribe to work with economic and climate migrants to reduce inequality and improve access to food and healthcare for these integral members of our regional food systems. Regional food systems create more opportunities to circle capital back to the communities that generate it, and can create resilience in accessing food and other goods close to home. Fig 1.9 is an infographic developed by the Gorge Grown Food Network about the benefits that regional food systems can have for small and rural communities that are already agricultural producers. Secondary and value-added processing can help expand these food system networks and keep wealth in a food producing community for longer, and having a local source for food can help improve disaster response and emergency planning for natural and anthropogenic disasters that the climate crisis is sure to exacerbate.



Figure 1.9: Regional Food Systems Can Mitigate Some of the Effects of the Climate Crisis

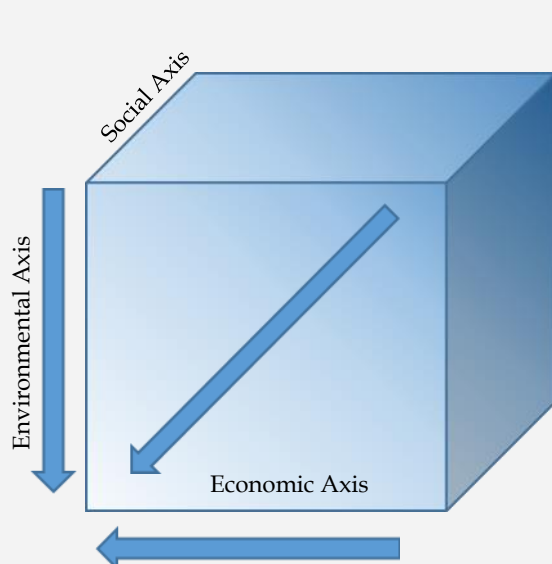


Graphic produced by the Gorge Grown Food Network (2015)

- Local food keeps more money within a regional economy, which can create new economic opportunities for those who wish to engage with commercial food enterprises. The concept of the “food dollar” can be a good way of looking at how food keeps money circulating in a community for longer and better use.
- Reduces economic loss to large consolidated corporations, which are large contributors to greenhouse gases and unfair labor practices.
- Fosters a closer connection with food producers and consumers, and a deeper understanding of the cost of food and our reciprocity with the land and people who make our dinner plate possible.
- Strengthens disaster preparedness by supporting local suppliers who are not dependent on global trends and transportation infrastructure to provide essential food to communities and families.
- Encourages seasonal eating and reduces plastic packaging, both of which are greatly helpful to reducing the carbon footprint of our dinner plate. Seasonal eating reduces the demand for products shipped from far away places, and reducing plastic, which is a fossil fuel product, from being mined and contributing to environmental degradation.
- Increases social interactions that build community cohesion, which allows us to more efficiently pass along information, pass information between generations, and ensure access to necessary education.

While regional food systems offer some alleviation of the issues from globalized food systems, there are still environmental and equity concerns with this vision of a climate adapted future. Local food producers and farm owners tend to still be overwhelmingly white and beneficiaries of generational wealth that they are invested in continuing along their own family lines. Black and Indigenous People of Color (BIPOC) are often not able to access land and capital required to run their own farming operations, and “credit deserts” in rural areas tend to disproportionately exclude BIPOC people from lending services. Small farms are still located on stolen land, and here is an active effort by large agricultural corporations to purchase these small farms and continue to operate them under their “small farm” status while consolidating the wealth these farms can generate. Finally, small farms still suffer from a concept inherent in modern agriculture itself: that non-native (often European-native) crops are of greater priority than native, naturally occurring plant and animal species. “Regenerative agriculture” and “permaculture” are terms that are applied to those who practice a more progressive farming, but even these systems perpetuate the theft of Indigenous knowledge repackaged as white invention, and many of these “progressive” networks still refuse to recognize the inherent ownership of Indigenous people over the land they have been displaced from. Resilience comes from native plants and animals that have been adapting to these local environments for millennia, and Indigenous people are an integral part of those evolutionary paths. Resilience within a food system often depends on a more complicated concept of adaptability than frameworks that only consider social or environmental factors. Because food touches every aspect of our lives as humans, a concept of “resilient food” includes environmental, social, and economic considerations that create vulnerabilities and strengths in any given system. Fig 1.10 shows the complicated interaction between these three pillars of human food systems as it has been conceived by Fraser et al 2007 and other food systems researchers. This framework can also be helpful in considering an Indigenous food system, because the same limitations and resilience mechanisms will still be necessary to support a robust food system that is founded on utilizing naturally occurring species and seasonal migration. An indigenous food system, in contrast with fossil fuel-based and regional food systems, are the most inherently climate resilient, because they require little no outside input, and are naturally adapted to the existing atmospheric conditions and geography. Fig 1.11 shows how tribal food systems work as a cycle to ensure a reciprocal relationship with the people, land, water, and foods. Indigenous food systems are rooted in the naturally occurring landscape around them and require no fossil fuel inputs, and are inherently resilient to climate change since these species have been adapting to natural regional climate change for millennia.

**Figure 1.10: Resilience in Food Systems Requires Three Planes of Connection to be Strong**



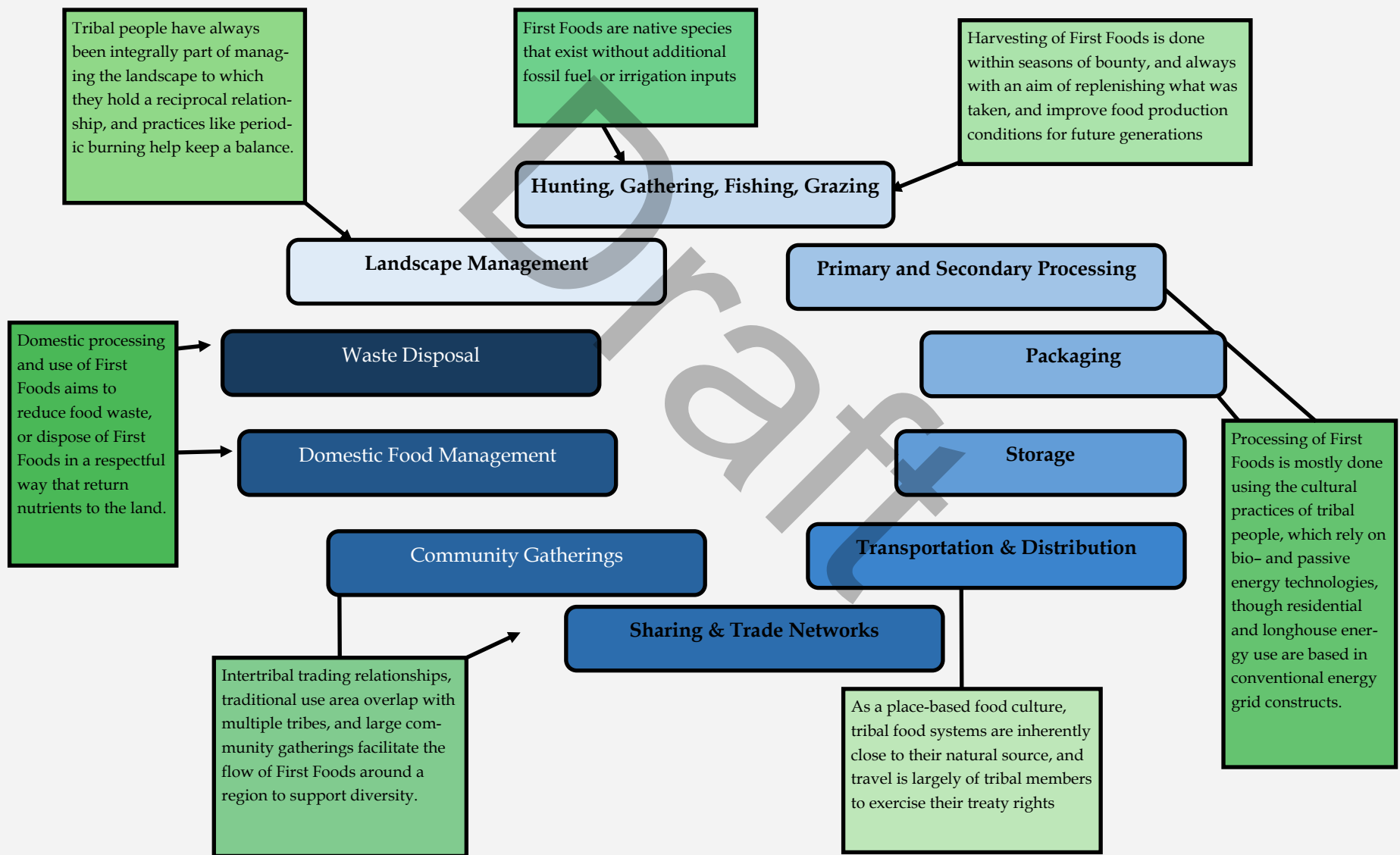
Research literature into food systems shows us that there are a number of factors that must be considered when examining the resilience of a given food system. Fraser et al 2007 examined the causes of various famines throughout history and determined the three-plane approach to assessing resilience of these systems that provide a fundamental need to communities.

- **Social Resilience**  
Institutions, political policies, and social networks are able to respond quickly to adapt to uncertain situations, pass along information, and act collectively
- **Environmental Resilience**  
Robust and diverse agroecosystems that can buffer unexpected changes in climate, maintain essential symbiotic connections, and preserve future productivity
- **Economic Resilience**  
Many livelihood options or revenue streams for farm by-product/value-added/social upkeep to help individuals diversify resources





Figure 1.11: Indigenous Food Systems Rooted in Tamanwit Respect a Holistic Approach to First Foods



## [1.7] Concept of the Food Dollar

The climate and environmental benefits from local and Indigenous food systems are valuable in and of themselves, there is also a great economic benefit from producing and consuming food as locally as possible. Figure 1.11 shows a recent calculation of how this idea of a “food dollar” is distributed throughout a conventional food system by the percentage of revenue that is generated at that stage. We see that only



11% of the entire amount of revenue generated from food production is harvested directly by those most active in food production (farmers and ranchers), and large amounts of revenue are generated at the food processing stage (18.6%), at food service locations like restaurants and entertainment centers (33%), and smaller percentages for those that package, transport, sell, energize, and finance food operations. The more of these operations are performed and supported by local communities, the longer this food dollar circulates in that community and retains the wealth that this community creates. Capturing more of this food dollar could include pursuing reasonable food processing frameworks such as community kitchens and food preservation classes, while CTUIR is already successfully creating dining and food retail opportunities on the UIR. Climate adaptations that create opportunities not only for more direct environmental benefit for First Foods and healthy local foods as well as more chances to capture this food dollar revenue will be more successful in rooting these adaptation measures in a way that creates a trifold resilience that strengthens environmental, social, and economic systems into an uncertain future.

## [1.8] History of CTUIR Climate Change Engagement

CTUIR has been addressing the climate crisis for millennia through their culture, and for decades with the restoration, advocacy, and sovereignty work that the tribal government and community engages in. This Climate Adaptation Plan is not anything new, but the most recent step in a long line of preparing for extreme natural disaster events and long term climatic shifts, and serves as a place to collect and celebrate the work that has come before us.

- 2008 ATNI Climate Change and Adaptive Government Workshop and two day event
- 2012 “Facing Climate Change: Plateau Tribes” outreach video production
- 2013 BIA Tribal Resilience Grant \$250,000 to then-Dept of Science and Engineering (DOSE) for a dedicated planning/research position
- 2015 CTUIR Climate Change Vulnerability Assessment for the CTUIR reservation
- 2016 Climate Change Online Data Viewer from OIT GIS Program
- 2016 Hazard Mitigation Plan chapter on climate change included in document update
- 2017 Climate Adaptation Planner position hired to dedicate staff time to developing an adaptation plan
- 2018 Youth and Climate Change Video Project from Education Department
- 2019 Women’s Foods Data Monitoring Project from BIA Tribal Resilience grant
- 2019 Preparing for Fire Project for air quality and traditional burning from Meyer Memorial Trust grant
- 2018 & 2019 Participation with regional, ATNI, and national climate change forums for tribes
- 2015–2020 Participation with Carbon Taxing Legislation in WA & OR
- [Others I have missed?]





## [1.9] Tribal Government Departments and Their Role in Food Systems

CTUIR is a full-service and highly diversified tribal government, with departments and programs that are dedicated to managing different aspects of a sovereign nation. While these different roles might not superficially be connected to the First Foods Mission, their operations are part of the larger food system, and support tribal member access to treaty rights. This Climate Adaptation Plan is designed to highlight the ways in which CTUIR departments are part of supporting First Foods abundance and access. In this section, we will provide a brief overview of how each department fits into the construction of the Plan, which will provide a roadmap for building collaborative and interdisciplinary adaptation strategies. The Climate Adaptation Plan webinar series that was hosted in Spring 2021 as an outreach response to the Covid-19 pandemic was a coordinated effort to bring together tribal members and tribal government efforts to build a sustainable and equitable future, and allowed for these departments to highlight their own successes and challenges for their work within the larger Indigenous food system. Everyone will need to be involved with climate adaptation for it to be successful, and each one of us brings different skills and perspectives to this effort. Within this section, we discuss the role that each tribal government has in CTUIR's Indigenous food system and how that factors into planning for its role in a climate shifted future.

### A. Surface and Groundwaters

Crucially, water, is the first and last of the First Foods, and will be profoundly affected by the climate crisis. Both surface and groundwater hydrology will shift as a result, and the effect of this ripples out into all other areas of life. Because water is so essential to life, there are many entities responsible for the management of water, even at an individual level, as families practice water conservation strategies. Water is managed at different levels, and often for very different purposes, and different goals can create tensions in the way we share this resource.

#### CTUIR Departments that are involved with managing water:


- **Department of Natural Resources (DNR)** Water Resources Program (WRP) within DNR is a robust water quality and quantity monitoring program that collects data on waters throughout the Umatilla and Walla Walla River basins. This program has over 30 years of data for the region on surface water flow and temperature, and is also engaged in data collection and carbon dating studies on groundwater on the Umatilla Indian Reservation (UIR).
- **Tribal Water Commission (TWC)** provides water regulation for residents living on the UIR through the CTUIR Water Code, and policy engagement with many tribal, state, and federal entities. As a commission with regulatory capacity, TWC is integrated with the CTUIR Board of Trustees to make policy amendments and updates, to coordinate with other tribal committees and commissions, and hear inquiries and requests from state and federal entities that are involved in water projects on the UIR and within the CTUIR ceded lands and traditional use area.
- **Department of Public Works** manages tribal facilities with plumbing and wastewater requirements, and staff in this department work to maintain and strengthen the infrastructure that makes the movement of water possible by address drainage issues, coordinate with WRP on road-adjacent stream and floodplain issues, and work with Tribal Planning Office to anticipate water treatment and facility needs for the UIR into the future.
- **Department of Public Safety** is the primary emergency responder for flood events when they strike the community, and facilitates communication with other emergency response agencies, as well as performing evacuations and law enforcement.
- **Tribal Planning Office (TPO)** Environmental Health & Safety Specialist staff coordinate with WRP to conduct groundwater contamination testing for residential wells affected by flooding, and coordinate to address inundated septic systems.
- **Department of Housing** manages residential and public space for tribal housing project areas and scattered home sites under their programs; this includes the largest area at Mission, as well as home sites along the Umatilla River and on the UIR.
- **Board of Trustees (BOT)** as an elected branch of government makes policy decisions for CTUIR, including for the ongoing Umatilla Basin Water Rights Settlement, which is intended to settle the matter of compensation of water for tribal needs with the federal government and secure in-stream water flow rights into the future.
- Additional?

## B. First Foods Availability and Access

Protecting and enhancing cultural and sustaining connections to traditional foods through their natural availability, health, and abundance, as well as tribal member ability to access these foods, and overcoming tangible and intangible barriers to these goals. Habitat improvement and restoration, control of invasive species, and documentation of tribal member treaty rights exercises, both past and present, are supportive of First Foods on the landscape. Tribal member ability to access their harvesting rights is also a consideration for keeping the promise.

### CTUIR Departments that are involved with managing First Foods directly:

- **Department of Natural Resources (DNR)** implements and adheres to the First Foods Mission of all its work, including habitat and floodplain restoration projects, First Foods monitoring and supplementation efforts, salmon and bison distributions to the community, and cultural education excursions to provide opportunities for availability of and connection to First Foods.
- **Fish and Wildlife Commission (FWC)** is a regulatory commission capable of setting harvesting restrictions for migratory fish within the Umatilla River basin, engages with intertribal commissions to monitor and manage Columbia River fisheries, and provide policy engagement around fish and big game First Foods across states and nationally.
- **Department of Public Works** maintains public infrastructure for transportation and cultural practices to access First Foods.
- **Yellowhawk Tribal Health Center** collaborates with DNR to organize community gathering and education opportunities for First Foods processing, knowledge, and how these Foods fit into a culturally respectful and healthy diet.
- **Tribal Planning Office (TPO)** sets zoning and permitting stipulations on many projects on the UIR that are designed to protect the health of water and soil in each zoning area as best as possible, and to plan for future generations' access to First Foods.
- **Department of Education** incorporates learning about First Foods and cultural practices into their curriculum, and works with the Head Start program to include First Foods into the school menu; the Language Program also builds Umatilla, and Cayuse-Nez Perce (and periodically Walla Walla) language into kid and adult curriculums for tribal and nontribal students.
- **Office of Legal Counsel (OLC)** actively and passively engages in legal proceedings that are likely to affect CTUIR's tribal sovereignty and resource interests, and are often involved with FWC in matters of intertribal and interstate treaty rights issues.
- **Department of Economic and Community Development (DECD)** has worked in the past with Wildhorse Resort and Casino (WRC) to organize and host a "Rez Kitchen Tour" event on the UIR that highlighted First Foods from the region and Indigenous chefs the opportunity to celebrate the beauty and flavor of First Foods.
- **Office of Information Technology (OIT)** works with DNR and others to create data sets and maps used in project planning, technical document development, housing data for monitoring efforts, and long-term visioning for the tribe.
- **Communications Department** coordinates with the BOT and with other state and federal networks that are seeking tribal consultation from CTUIR, as well as engage with Oregon and Washington State and federal legislatures on proposed bills that are likely to positively or negatively impact CTUIR sovereignty, communities and/or resources.
- **Board of Trustees (BOT)** take guidance from tribal voters through the General Council on their priorities for First Foods management actions within the tribe, and engage with state and federal policy to advocate for indigenous resource management across the region.
- [Additional?]



## C. Infrastructure and Built Systems

Buildings, roads, bridges, culverts, and communication networks are just part of the way tribal members access their sovereignty and treaty rights. These will face impacts from extreme heat and storms. These systems are often vast, requiring communication and cooperation with county and state partners, as well as periodic upgrades that can carry a heavy price tag.

### CTUIR Departments that are involved with managing infrastructure:

- **Department of Public Works** maintains governance facility buildings and large construction needs on the Umatilla Indian Reservation (UIR), maintains roads in population center in Mission, repairs some roads and facilities as they are capable, and works to anticipate the future infrastructure needs of the tribal community.
- **Department of Economic and Community Development (DECD)** actively recruit businesses and industries to the UIR that pay taxes to the tribal government for use of land and resources, and provides funds for infrastructure repair and upgrades; DECD also operates the rural broadband internet push on the UIR, and has installed [miles of fiberoptic cable ] in the community. The Tribal Environmental Recovery Facility (TERF) is also a DECD program that is responsible for collecting and diverting solid waste for the reservation, and is operated as a public utility.
- **Office of Information Technology (OIT)** is an integral part of the CTUIR build systems, as the tribe operates a Central Data Management System (CDMS) that houses not only CTUIR's internal data and monitoring, but other tribe's data as well, and this data is used to evaluate and improve First Foods restoration and monitoring efforts.
- **Tribal Planning Office (TPO)** is responsible for zoning and permitting built structures and systems on the UIR, and coordinates infrastructure upgrades and construction for tribal and residential needs; capital improvements, transportation planning, and environmental health and safety are a few of the services that TPO provides that keep CTUIR connected to their First Foods.
- **Department of Housing** manages residential housing facilities and needs for tribal community to be housed safely, and for these houses to be safe enough for families to engage in cultural practices of feasting in celebration of the First Foods.
- **Human Resources Department** operates and administers the Tribal Employment Rights Office (TERO) which is [federally] mandated to provide equal opportunity for tribal members and enterprises access to construction and industry projects within the CTUIR ceded lands, which provides a wider array of economic opportunity and recognizes tribal sovereignty in the workforce.
- **Department of Child and Family Services (DCFS)** trains construction professionals through the Workforce Development program that can be employed through the TERO program and creates opportunity for tribal members in industry.
- **Board of Trustees (BOT)** liaises with other government agencies on a government-to-government basis, and agencies such as Oregon Department of Transportation and other built systems partners on tribal consultation and involvement of CTUIR on projects in the ceded lands and coordinate efforts on the UIR.
- [Additional?]

## D. Human Health and Happiness

Climate impacts to life for tribal members is more than just numbers; cultural and spiritual connections to land and First Foods affect physical and emotional wellbeing, and must be anticipated. There is a range of predictable physical impacts from climate change to human health, from increasing severity of extreme heat and wildfire smoke events that reduce mobility and can cause complications to those with preexisting health conditions, but there are also effects to mental and emotional wellness, as "climate anxiety" and "ecological grief" enter the lexicon to describe some of these impacts that are a direct result of change.

### CTUIR Departments that are involved with managing health and wellbeing:

- **Department of Natural Resources (DNR)** works to perpetuate the First Foods throughout the CTUIR ceded lands for the benefit of tribal community harvest as part of subsistence and ceremony, and First Foods excursions and educational opportunities are organized with Yellowhawk to engage tribal community with opportunities to reconnect with tribal culture.
- **Health Commission** oversees and regulates issues related to health and wellness for tribal community and provides direction and guidance to the programs operated by the Indian Health Services (HIS) Yellowhawk Tribal Health Center on the UIR.



- **Culture Committee** preserves historical and contemporary connections to cultural practices to ensure their survival, and works to provide opportunities for the tribal community to access cultural learnings.
- **Fish and Wildlife Commission (FWC)** regulates and advocates for treaty rights protections that create opportunities for treaty rights exercise within the CTUIR traditional use areas across states and with other tribal jurisdictions.
- **Department of Public Works** maintains public infrastructure for potable water to residential and government building locations for to provide safe drinking water to those within housing project areas, as well as maintaining shared use areas like playgrounds and trails.
- **Yellowhawk Tribal Health Center** is the primary healthcare center for the UIR for both CTUIR enrolled and other tribal nation members, and proactively and reactively addresses health issues and wellness for tribal community; Yellowhawk provides a range of services including physical, dental, behavior, vision, mental, and community health programs to serve the tribal community and ensure wellness and healing are accessible. Yellowhawk also works with DNR on First Foods knowledge excursions and community classes about cultural and contemporary food and home processing techniques.
- **Department of Child and Family Services (DCFS)** provides family assistance and substance abuse recovery programs to improve quality of life for the tribal community, and administers the Food Distribution Program on Indian Reservations (FDPPIR) as a USDA program that provides commodities food assistance to participating tribal communities; and they also operate the Workforce Development program that facilitates the BOLSTER retraining program and the tribal youth intern worker programs that help tribal members build better lives for themselves and their families.
- **Department of Education** provides opportunities for tribal youth to learn and thrive within their new education facility and high school and Head Start class offerings, as well as afterschool programs and a tribal language program that offers community classes for kids and adults, and is teaching tribal youth about life skills, education, and training opportunities to build a brighter future for students that envision their roles as cultural knowledge keepers and modern practitioners of health, science, policy, law, and many other disciplines that lift up Indigenous communities.
- **Department of Human Resources** administers the TERO program to ensure that construction and industry projects within the CTUIR ceded lands prioritize the economic health and mobility of tribal professionals and enterprises, which contributes to a robust and employed families that are able to respond to community need in times of transition and emergency.
- **Tribal Planning Office (TPO)** works with Yellowhawk and other tribal departments to plan for the long-term health of the tribal community through transportation planning and emergency management; the Environmental Health & Safety Specialist coordinates with businesses and industries on the UIR to ensure their compliance with safe operating and construction practices, and work with community partners on recreational area and facilities planning and permitting to ensure cohesion. TPO also operates the Kayak Public Transit service, which provides reliable and free transportation for all tribal and nontribal community members that have need for public transportation through out the CTUIR ceded lands and helps people get to their medical, emotional health, school, and court appointments as a necessary part of life.
- **Department of Housing** maintains residential structures and public spaces for health, safety, and access to community spaces for recreation that improve the quality of life for families living in housing areas; these residents are held to occupancy standards that ensure the functioning capability of electrical and plumbing systems, and are reminded that behavioral practices such as running of indoor exhaust fans can assist in improving indoor living conditions for everyone.
- **Department of Public Safety** provides law enforcement, emergency assistance, case work and emergency preparedness services to the tribal community, which is especially necessary for increasing frequencies of natural disasters, as families will likely be required to evacuate more often, and the willingness of families to leave their homes depends on the evacuation assistance that is available, as well as whether they feel their property will be safe if they leave during a time of crisis.
- **Office of the Executive Director** administers the Wellness Program, Nutrition Break, and Val's Veggies Farm Stand which provides fresh food access to the employees of the Nixyaawii Governance Center (NGC) and Yellowhawk Tribal Health Center, and is accessible to the tribal community as well.
- **Office of Legal Counsel (OLC)** attorneys participate with Yellowhawk's accreditation process to become a credited public health institution directly, as well as ensures the sovereignty of the tribe and access to treaty rights by participating with legal proceedings that impact the tribe's sovereign functioning and the protections for treaty rights exercise.
- **Board of Trustees (BOT)** provides a steady and equitable governance of tribal voters both directly through election, and through the guidance of General Council, transparency and fairness in legislating on the UIR and in the surrounding region, and the actions of the BOT are meant to reflect the vision of the tribal community as they plan for the future.
- [Additional?]





## E. Energy Use and Production

Contemporary life is based on fossil fuel energy and other “renewable” energies that also have some environmental cost. Examining impacts to energy production, transmission, and end use, as well as their effects on First Foods and the food system reveal where supplementary or alternative energy supply options could be valuable for tribal communities.

### CTUIR Departments that are involved with managing energy:

- **Department of Natural Resources (DNR)** manages the Energy and Environmental Science Program (EESP), which has a wide array of responsibilities that include the growth and pursuit of renewable energy projects to diversify energy production opportunities on the UIR, a chemical laboratory that is able to test for a [number of different contaminants and attributes], a restoration project for the Hanford Nuclear Reservation that is within CTUIR ceded lands, and air quality monitoring and modeling for CTUIR ceded lands and for the Umatilla Indian Reservation (UIR). This program also facilitates the Energy Strategies Team that is coordinating energy production development for the tribe, along with the TPO, DECD, and outside entities like the Energy Trust of Oregon and Wenaha Consulting Group. As part of the First Foods Mission, these energy projects always have an eye towards improving the resiliency of the tribe to power transmission interruptions and danger, and to mitigate any impact there may be towards First Foods habitat and access.
- **Department of Economic and Community Development (DECD)** works with tribal enterprises that could either transition to renewable energy, or could work to provide energy capacity to the tribe in some way in the future, and they also work with the Wildhorse Resort and Casino (WRC) that accounts for a large energy footprint of CTUIR, and potential for energy savings; DECD has also worked with natural gas companies with previous Yaka Energy experiences, with wind turbine power through the Rattlesnake Wind Farm in Arlington, and is currently participating with the CTUIR Energy Strategies Team to coordinate energy production and expansion for the tribe.
- **Department of Public Works, Department of Housing** both maintain tribal facilities and residences, and are involved in the up-keep and upgrades of HVAC and plumbing systems and could be seen as opportunities to assess and inventory the efficiency of CTUIR homes and facilities. Newer housing facilities being planned are more energy efficient than the previous structures that were there, as the Lucky 7 Mobile Home Park receives some upgrades to energy efficient appliances for homes being constructed in this site.
- **Tribal Planning Office (TPO)** is involved in creating zoning and code conditions that allow for the growth of renewable energy at small and midscale projects for family and community need, and are an active participant in the Energy Strategies Team. Permits and coordination of infrastructure upgrades and construction for tribal and residential needs, and growth of energy sufficiency as it has been mandated in the Comprehensive Plan (2010).
- **Office of Legal Counsel (OLC)** participate as senior partners with the Hanford Natural Resource Trustee Council and the Natural Resources Damage Assessment (NRDA) being conducted to determine the scope of damage and rehabilitation possible of the site; OLC also participates in Portland’s Millennium Coal Terminal Super Fund Site Clean Up as it impacts the mouth of the Columbia River and the migration of salmon to and from CTUIR river systems. These sites show the long legacy that energy projects have, and are a reminder about the unintended consequences of some forms of energy.
- **Board of Trustees (BOT)** provides guidance to state and national agencies on their energy production and infrastructure plans and impacts to First Foods through government-to-government consultation, and through their involvement in these projects.
- [Additional?]

## E. Economics and Community

Monetary and social considerations are a realistic factor in planning efforts, and strengthening systems of cost and revenue that are rooted in social and environmental justice have a place in climate adaptation. Prevention and planning for uncertainty are the most cost-effective methods of preparing a community to face increasingly variable seasonal weather conditions. Human connections are what drive both economies and communities, and climate change is likely to impact both of these kinds of connection networks.

### CTUIR Departments that are involved with managing development:

- **Department of Economic and Community Development (DECD)** is the primary department responsible for pursuing and expanding tribal economic opportunities and proactively works to increase revenue from various businesses and industries that might be looking to locate on the UIR; DECD also works with infrastructure upgrades like the broadband fiber optic cable installation, with community improvement initiatives like the Earth Day Clean Up event, and with Farm Enterprises, which has historically provided a source of stable revenue for the tribe in its early days as a sovereign government.

- **Economic and Community Development Committee (ECDC)** as an advisory committee provides direction and energy to DECD projects and liaises with the tribal community on their needs and vision for the future; many on the ECDC have worked with the tribe for several decades in different capacities, and know the history of the tribe's economic development and survival through shifts in federal policy management of tribal nations. Land acquisition and alleviating of the UIR's "checkerboard" existence is a highlighted priority of tribal elders who participate with ECDC and should be an important aspect of climate resilience.
- **Nixyaawii Community Financial Services (NCFS) and the Wildhorse Small Business Development Center (SBDC)** work with small tribal businesses and provide them support for improving their operations, growing their businesses or getting start ups off the ground; NCFS also works with the Education Department to facilitate financial literacy classes for students and families to help prepare tribal youth to make important savings and financing decisions in the future.
- **Tribal Planning Office (TPO)** is involved with permits for businesses in proper land use areas, and coordinates infrastructure upgrades and construction for tribal, industrial, residential needs that include those of current and future tribal enterprises; planning for community need and facilitating participation in tribal planning also connects the tribal community to long term planning.
- **Communications Department** connects the community through traditional and social media outlets and can spread important information quickly, which is very important during emergencies and public health crises in the acute short term, but also in the longer term as these communication channels can facilitate information between families and generations.
- **Department of Housing** is often involved when families on the UIR have need to evacuate in response to flooding or wildfire, and many times there will be follow up repair or rebuilding after the danger of the emergency has passed; at times needed repairs might cause families to be displaced for weeks to months depending on the damage.
- **Department of Public Safety** plans and operates reactive emergency response during crisis events and coordinates with other emergency services during this time; they also assist with evacuations and provide law enforcement where necessary.
- **Department of Child and Family Services (DCFS)** provides opportunities for training and support for families who have need, and operate as the point of contact for CTUIR's Indian Tribal Organization (ITO) to the US Dept of Agriculture (USDA) and administers the FDPIR food distribution program; throughout the Covid-19 pandemic, DCFS has also been coordinating with other organizations to provide monthly food distribution events to get fresh and healthy food to residents of the UIR during this time.
- **Board of Trustees (BOT)** provides strong leadership in times of crisis and works to proactively address community and sovereignty needs in the region; as elected officials, these leadership positions are responsive to the tribal electorate and govern with current and future generational needs as a priority.
- [Additional?]

## G. Sovereignty and Treaty Rights

Tribal nations that have the right to self-determination are in a unique position to demand social and environmental justice that will be part of climate change planning, and have the tools to enact standards and practices that impact the entire region around them. Tribal sovereignty and Land Back movements are the most efficient ways of preparing for climate adaptation, since returning power and resources to tribes will expand opportunities for indigenous land management and proper care for the landscape in a way that strengthens natural resilience.

### CTUIR Departments that are involved with managing tribal self-determination:

- **Department of Natural Resources (DNR)** supports tribal sovereignty through the act of restoring First Foods habitat to a place where it can sustain and nourish these significant species, and requires working with many different state, federal, and private land jurisdictions to accomplish this. First Foods Excursions and educational opportunities provide education on treaty rights exercise knowledge often occur within the area of national forests, state and industry easement, and on private property where the landowner has reached an agreement with the tribe to provide for harvest opportunities.
- **Health Commission** exists as a regulatory commission to provide BOT and General Council guidance to Yellowhawk Tribal Health Center's programs and operations, and engages with regulating and managing emerging and ongoing health crises and is accountable to the tribal community; the Health Commission consists of active BOT members, appointed commission members from the tribal community, and Yellowhawk administration staff.
- **Fish and Wildlife Commission (FWC)** is a regulatory commission that provides BOT and General Council guidance to DNR and other tribal departments that are involved with First Foods; as a regulatory entity, FWC sets First Foods seasonal harvest levels for the Umatilla and Walla Walla River basin fish populations as appropriate, and works with states and nations to expand treaty rights opportunities throughout the traditional use area. FWC is comprised of BOT members, appointed commission members from the tribal community, and are often attended by DNR staff.





- **Tribal Water Commission (TWC)** is a regulatory commission that provides BOT and General Council guidance to DNR, Public Works, TPO, and other departments that are involved with water on the reservation; TWC performs tribal sovereignty actions when it regulates water use on the UIR with the Water Code and provides guidance to state and federal water management agencies like state Water Resource Departments, legislatively-mandated partnerships/cooperatives, federal agencies like the Bureau of Reclamation and Army Corps of Engineers, among others.
- **CTUIR General Council** is the populist branch of tribal government and is a collective of all participating and voting tribal members; General Council Chair is part of the BOT, and the council provides a forum for the tribal community to give guidance and direction to tribal governance on any issue the tribe is facing.
- **Department of Public Works** maintains public infrastructure for a connected, accessible, and equitable distribution of tribal resources, for the community to stay connected with one another, and for tribal members to travel to locations where they are able to fully access their protected treaty rights within the CTUIR traditional use lands.
- **Yellowhawk Tribal Health Center** is the CTUIR Indian Health Service (HIS) clinic that proactively and reactively addresses health concerns for tribal members in a culturally appropriate way; healthcare services have been contracted by Yellowhawk as the tribe has demonstrated its capacity to administer these programs internally, and the Health Commission oversees the operations of Yellowhawk as a mechanism for keeping its work accountable to the tribal community.
- **Department of Child and Family Services (DCFS)** responds proactively by reaching out to families and operating programs and services that meet ongoing need, and reactively with food distribution and other assistance activities for the tribal community as is needed to keep a strong and connected tribal nation. DCFS also administers the Workforce Development program that provides opportunity for tribal members to access education and skills training, as well as for tribal youth that are interested in interning with different tribal departments to grow and learn about these professions.
- **Department of Education** builds the future of this tribal nation as it shapes and educates tribal youth to be future leaders for the tribe and for a better world; Education creates space and opportunity for tribal youth to learn Indigenous culture, science, arts, and governance essentials, and works with other programs to organize additional opportunities for youth to engage and learn about the world they are inheriting and creating. Within Education, the Tribal Language Program is working to preserve and revitalize CTUIR languages through online learning formats and classes for children and adults that are open to all who want to learn the original language of these lands.
- **Department of Human Resources** administers the TERO program which asserts tribal member enterprise priority on construction and industry work being conducted throughout the tribe's ceded lands, with a goal to expand revenue generating opportunities for tribal members in the region and build economic prosperity into tribal enterprises.
- **Finance Department** is responsible for maintaining fiscal solvency and responsibility for the tribe, through the administration of grant and agreement funds, working with contractors and vendors to ensure the tribe's capacity for the projects it is conducting, and reporting and auditing internal tribal resources to be reported to necessary entities.
- **Economic and Community Development Committee (ECDC)** is an advisory committee that provides BOT and General Council guidance to DECD, DNR, TPO, and other departments that participate with economic and community development projects within the reservation and tribal government; this committee is comprised of current and former BOT representatives, and appointed members of the tribal community.
- **Office of Legal Counsel (OLC)** engages with legal frameworks and channels that support tribal sovereignty, and monitor state and national proceedings that are of interest to CTUIR because they affect tribal sovereignty function, they impact traditional use and ceded lands, and/or because they have the potential to affect the way treaty rights are protected.
- **Land Protection and Planning [Commission] (LPCC)** is a [regulatory commission] that provides BOT and General Council guidance to the TPO, OLC, and other departments that are involved with land acquisition and long term land use planning, permitting and zoning needs and changes on the UIR, and other building and infrastructure issues for the tribe.
- **Tribal Planning Office (TPO)** works with the LPCC and other departments on setting and enforcing permitting and zoning requirements on the UIR as a function of the tribe's ability to assert sovereignty over itself and its lands.
- **Department of Public Safety** provides law enforcement, emergency assistance, case work and emergency preparedness capacity to the tribal nation with a goal of protecting individuals and creating structure for a cohesive community.
- **Tribal Court** exercises sovereignty within the tribe, as the Tribal Court has the jurisdiction to administer law and civil violation complaints over tribal members and matters on the UIR, though these powers are curtailed when it comes to non-tribal violator. This is an ongoing issue for tribal sovereignty and should be addressed to expand sovereignty jurisdiction.
- **Board of Trustees (BOT)** is the elected tribal governing body and sets policy and governance for the tribal nation; Board Members are elected every two years, and provides steady and equitable governance of tribal voters, transparency and fairness in legislating and guiding other government entities; the BOT also conducts government-to-government consultation to state and federal agencies seeking tribal input and formal consultation requirements for projects in the CTUIR ceded lands.
- Additional?

## [1.10] Summary and Conclusions

Food is a thing that brings us all together, and First Foods hold us accountable to the *tamanwit* of the land, and the promise that the Foods and the People made to one another. By centering First Foods in our climate adaptation planning, ensuring adaptation is done with the ability to advance environmental justice happens without effort, and builds a plan that supports tribal sovereignty and the ability to exercise treaty rights into the uncertain future. The adaptation framework on the right shows how these different adaptation strategies come together around food access, while the vignettes in the center guide us to a timeline and approaches that can be used to reach these strategies.

### Short Term Actions

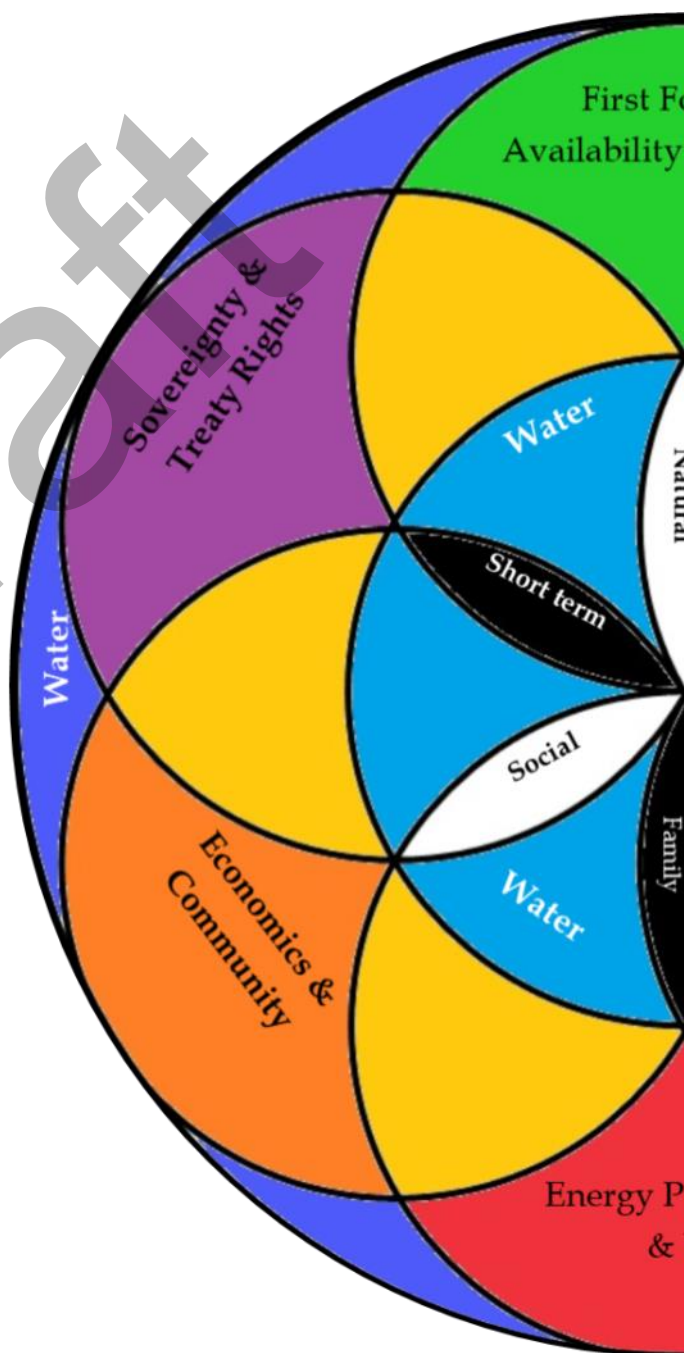
Strategies that can be implemented in relatively short periods of time, and with little additional input to address actions. Strategies that can be initiated in 1–5 years, and usually are a combination of preparatory actions, feasibility or planning reports, awareness campaigns, or public outreach.

### Long Term Actions

Strategies need more time, energy, or capital to be fully realized. These strategies often involve raising additional funds, acquiring other lands, or building new partnerships. These are strategies that would require at least 6+ years to fully implement, and could be the construction of new facilities, long term planning, and facilitated migration.

### Individual and Family Actions

Strategies to empower communities, families, and individuals to feel part of climate change preparations. These are actions that can be taken at a residential or neighborhood scale. These are strategies that would be easy for families to work into their daily lives, and bring a sense of empowerment and inclusion into preparation for the impacts of the climate crisis, and could be things like awareness around health implications of impacts, observations of the changes that are occurring, and approaches to water, energy, and biodiversity conservation.



## Natural Strategies

Naturally functioning ecosystems are very good at managing resources for the health of First Foods, since these species have adapted over long periods of time to these climatic conditions. Systems that occur with natural expressions are almost invisible in the way they function, at least until they are pushed out of balance and cause problems. These are often long term but highly efficient strategies that use indigenous knowledge and use the natural ecology to build resilience. These approaches are a strong tool for changing the way natural disasters present themselves, and can work to expand First Foods access.

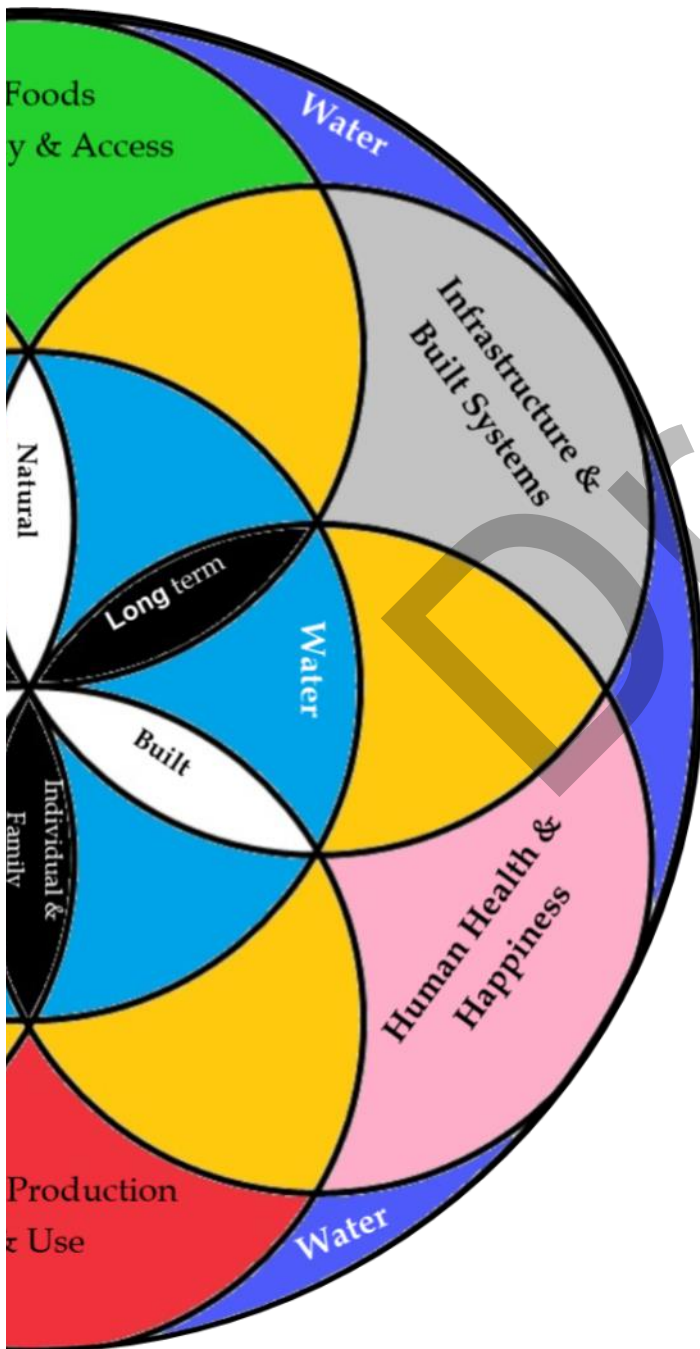
## Built Strategies

Engineered systems in place that support tribal member access to First Foods, stable living, and communication. These strategies can often mimic natural ecosystems in the way they function, but are engineered to be most efficient where

natural strategies are not possible to implement. These can include transportation infrastructure that facilitate tribal members access to harvest First Foods, ensuring safe home and work environments that foster healthy living and good quality of life, and storm & wastewater management through engineered systems that mimic natural ones.

## Social Strategies

These strategies address the behavioral and social structures that dictate many of the ways we allocate resources. Transfer of skills, and knowledge between individuals, generations, and demographic groups is an essential way we keep information and culture moving in a way that is helpful, and behavioral changes that reduce demand have a role in expanding conservation opportunities. Empowering people to participate in policy formation and the creation and support of frameworks and opportunities for people to connect will build community cohesion for use to effectively act collectively to implement these strategies.





First Foods have been keeping their promise to the People to sustain and nourish them, and CTUIR has been working to keep that reciprocity robust and resilient. CTUIR and the First Foods have survived since time immemorial together, adapting to natural changes in climate that have occurred over these millennia, and have survived world-ending events before, and tribal culture is made up of a resilient system of connections within our land use planning and management, built environments, and within our systems of social and economic support, and it is these connections that have withstood time and disaster and are still strong to this day. Below is a brief summary of the information presented in this chapter as it is important for subsequent chapters:

**1. Tribal Sovereignty and jurisdictional issues must be considered**

CTUIR is a federally recognized tribe and retains rights and ownership over its Umatilla Indian Reservation (UIR), though this land base has been reduced through various acts of bureaucratic and forceful theft, and the remaining land is a patched “checkerboard” of different land ownerships that complicate attempts to conduct large landscape management actions. CTUIR works with many different landowners and jurisdictions on and off the UIR, and has the capacity to work with neighboring USFS National Forests, private landowners who are willing to facilitate First Foods harvest opportunities, and state and federal agencies that have lands within the CTUIR ceded lands like the BOR, BLM, and other Dept of the Interior entities.

**2. First Foods Mission and Indigenous knowledge are priority**

First Foods are inherently climate resilient compared to settler-colonial systems that displaced these native plant and animal species. Tribes that have been supporting and reconnecting to these Foods have been building climate resilience into their operations even though it might not bear the label of climate adaptation explicitly. Identifying ways of strengthening and supporting these connections is the most efficient way of developing adaptation strategies that prioritize environmental and food justice.

**3. Food systems impact and are impacted by the climate crisis**

Global food production and distribution has deep roots in the climate crisis, as conventional agricultural production and global supply chain network transportation are large contributors to annual greenhouse gas emissions of nations. These systems are also vulnerable to the impacts of the climate crisis, as disruptions around the world will have rippling effects on those far removed from the immediate situation, and shifting climatic conditions throw chaos into established production patterns. Bringing food production back to a local and tribal level will help CTUIR buffer the worst of these effects in the uncertain future.

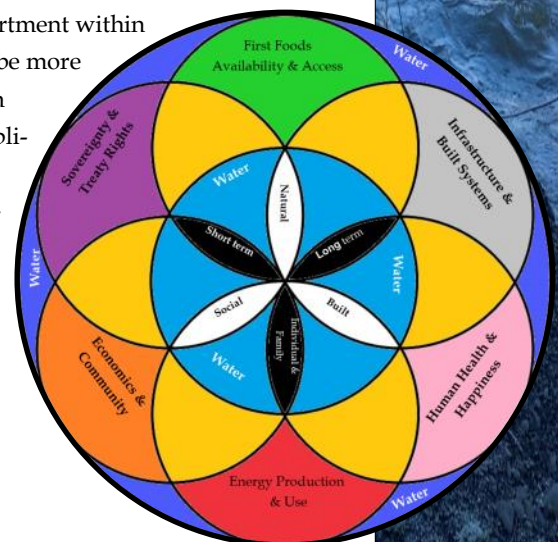
**4. Tribal government departments and entities are already governing this crisis and will do so into the future**

Indigenous people have been on the front lines of the climate crisis for centuries and their very practicing of culture and religion built resilience into their lands and people. The work that CTUIR has been doing for decades can be viewed as climate adaptation because it connects the people with each other and with the land, and facilitates the tribal government to operate and govern itself.

**5. Climate adaptation strategies must involve everyone and must be interdisciplinary in nature to maximize effort and efficiency of implementation and success.**

Climate adaptation is not the sole responsibility of any one program or department within the tribe, as these all work with different focuses and objectives. Efforts will be more successful if they are built in partnerships and collaborations that can sustain them and make them accessible to those who want to participate. Interdisciplinary efforts are also eligible for an expanded range of funding from various funding areas and can create projects that have more longevity, and community participation with efforts of tribal government.

It was the purpose of this chapter to provide a context for the information that follows, and to document the ways that CTUIR departments and entities participate in its Indigenous food system and in the climate adaptation planning effort.





## [1a] References & Credits

- i. Chapter One Cover photo credit DNR Fisheries
- ii. "Foods Named Themselves" story from Umatilla Language Dictionary
- iii. Umatilla Indian Reservation Boundaries and Land Ownerships, CTUIR DNR RAF
- iv. CTUIR Ceded Boundaries Map, CTUIR OIT GIS
- v. Traditional Use Area Density Map. CTUIR OIT GIS
- vi. CTUIR Organizational Chart, Comprehensive Plan 2010.
- vii. Freshwater Mussel Book First Foods seasonal round citation; Donna Nez and Stephanie Kapling
- viii. Extending the Table diagram, E. Quaempts as part of the First Foods Mission presentation
- ix. Quaempts, E. J., K. L. Jones, S. J. O'Daniel, T. J. Beechie, and G. C. Poole. 2018. Aligning environmental management with ecosystem resilience: a First Foods example from the Confederated Tribes of the Umatilla Indian Reservation, Oregon, USA. *Ecology and Society* 23(2):29. <https://doi.org/10.5751/ES-10080-230229>
- x. Vermeulen, SJ, Campbell BM, Ingram J SI. 2012. Climate Change and Food Systems. *Annual Review of Environment and Resources*
- xi. Fraser, E. 2007. Travelling in Antique Lands: Using past famines to develop an adaptability/resilience framework to identify food systems vulnerable to climate change. *Climate Change* (2007) 83; 495-514
- xii. Dietary Change and Traditional Food Systems of Indigenous Peoples. H V Kuhnlein, and, and O Receveur. *Annual Review of Nutrition* 1996 16:1, 417-442
- xiii. Connie M Weaver, Johanna Dwyer, Victor L Fulgoni III, Janet C King, Gilbert A Leveille, Ruth S MacDonald, Jose Ordovas, and David Schnakenberg. 2013. Processed foods: contributions to nutrition.
- xiv. Climate Adaptation Wheel, CTUIR DNR FFPP

## [1b] Additional Resources

- CTUIR Comprehensive Plan (2010)
- CTUIR Comprehensive Economic Development Strategy (CEDS) Report (2016)
- "The Umatilla River Vision" Krista L. Jones, Geoffrey C. Poole, Eric J. Quaempts, Scott O'Daniel, Tim Beechie. CTUIR October 1, 2008, Revised May, 2011 by Eric J. Quaempts
- "First Foods Upland Vision." Endress, Bryan A., Quaempts, Eric J., and Steinmetz, Shawn. April 2019.
- DNR Forest Management Plan (YEAR)
- Umatilla Language Dictionary(2016) and online application (2021)
- "Caw Pawa Laakni: They Are Not Forgotten, Sahaptian Place Names Atlas of the Cayuse, Umatilla, and Walla Walla." 2015. Hunn, Eugene S.; Morning Owl, E. Thomas; Cash Cash, Philip E., and Karson Engum, Jennifer.
- "Wiyaxayxt,/Wiyaakaa'awn: As Days Go By: Our History, Our Land, and Our People"
- Yellowhawk Community Health Assessment Report (2016; to be updated 2021)
- CTUIR Energy Policy (2018?)
- CTUIR Hazard Mitigation Plan (2016, to be updated 2021)
- CTUIR First Foods and Food Systems Assessment (2020)
- Additional?