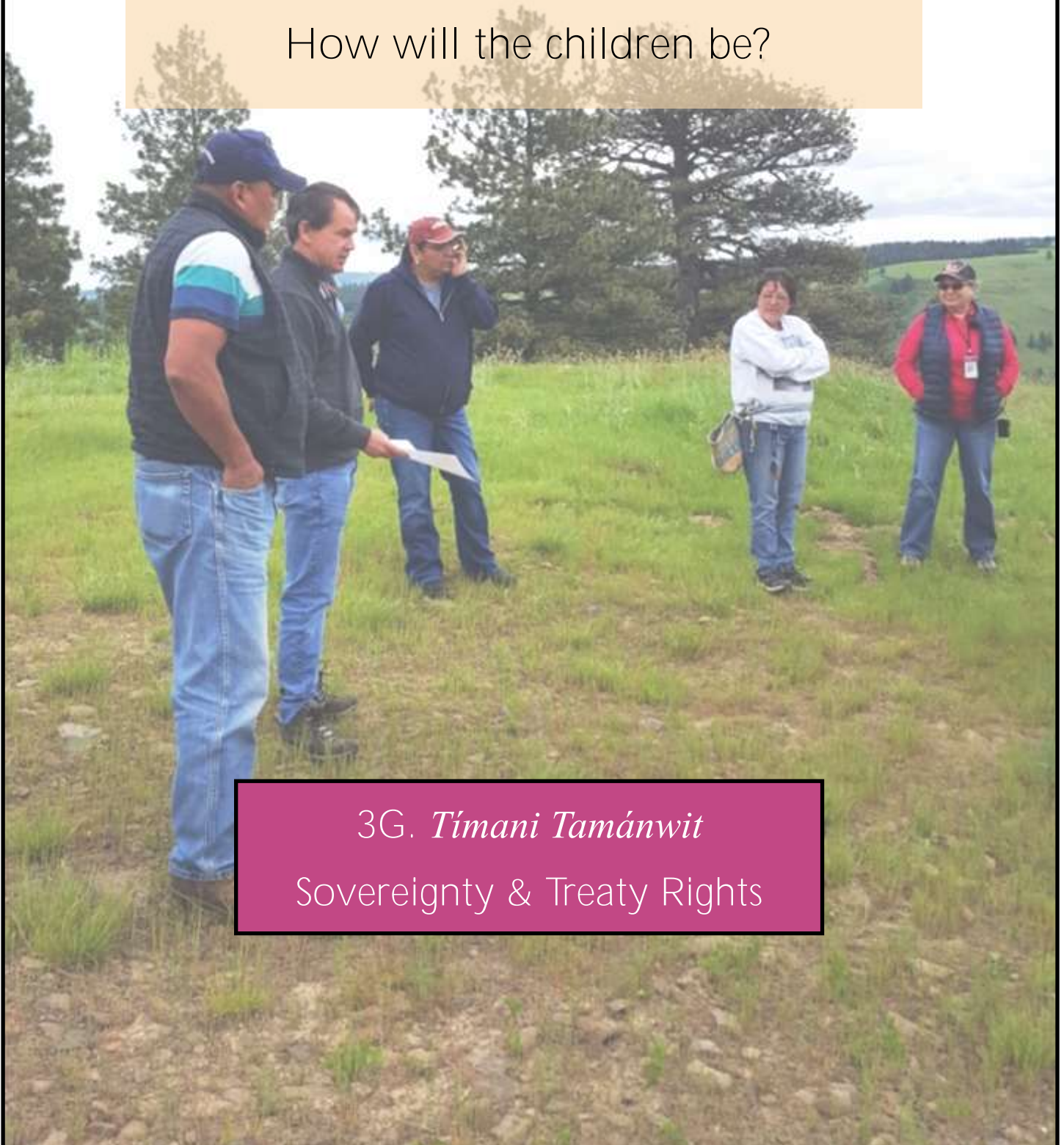


“Mayní pawáta miyánašma?”

How will the children be?



3G. Tímani Tamánwit

Sovereignty & Treaty Rights

Climate Impacts for Tribal Sovereignty

“The Tribes will always exercise our national sovereignty and preserve our traditional cultural ways in harmonious existence with our homeland. We will always provide for the well-being of our people in the future. We will live in balance with the land and use our natural resources only when traditional and cultural teachings dictate use.

We will respect all persons; acknowledge the wisdom of our elders and religious leaders; sustain the hopes of our people; and accept responsibility for our actions realizing that we are accountable to the Creator. The Creator’s spirit lives in our homeland and our national sovereignty protects the spirit with the land, waters, people, culture, religion and

language (CTUIR Comprehensive Plan, 2010).”

There are many mechanisms that federally-recognized Tribes like CTUIR can use to assert sovereignty over land and jurisdiction issues, at local, regional, national, and international levels. Issues of climate change become inseparably tangled with the history of Tribal recognition and respect. The history of Tribal dispossession of land, culture, language, and community cannot be ignored in the adaptation process. Tribes can utilize their sovereignty to impact land and resource management strategies, and returning Indigenous knowledge and cultural practices to lands dispossessed of them is essential in building a resilient future.

1. Potential Increase in Conflict over Water and Land Resource Management

As resource availability changes, conflicts over who can access the existing resources is likely to increase; this is particularly true of water. Conflicts over water in the region are likely to intensify, though there are proactive ways to anticipate for conflict.

High potential for water availability conflict the **Eagle Cap Wilderness, the Imnaha River, the Elkhorn Mountains along the Wallowa-Whitman National Forest, and Anthony Lakes recreational area** due to 30% reduction in summer base flow (Clifton et al 2018) as seen in Figure 3G.1 (page 263).

2. Increases in Criminal Activity and Harsher Sentencing

Heat causes impairments in rational decision making, and causes people to act in unpredictable ways. Violent crime and arrests are likely to increase as a direct result of extreme heat, especially incidences of assault with a weapon.

General arrests increase by 15% on extremely hot days, with largest effects on weapons charges and assault with a weapon. Violent crime arrests still increase by 9% per year by 2050 regardless of adaptation (Behrer and Bolotnyy 2021), as seen in Fig 3F.2a and Fig 3F.2b (page 265-266).

“For two centuries, our people have been engaged in a battle. We have fought to keep our lands, maintain our sovereignty, retain our culture, and convince others that we have no intention of leaving or giving up. We have fought to be free to live as our ancestors did, free to practice our religion, free to go where we please at our leisure.

We can never take these freedoms for granted.”

~Morning Owl et al 2015

3. Potential Interruptions in Collective Continuance for Tribes and First Foods

Indigenous knowledge, or “traditional ecological knowledge (TEK)” is a description of the way that Tribes live according to Tamanwit, and includes concepts of reciprocal responsibilities between individuals, communities, and the natural world. Leaders and scientists are beginning to realize the breadth and depth of this knowledge, and Tribes can be an integral part of climate adaptation that prioritizes the cultural continuity of these relationships.

Intrinsic value of Indigenous knowledge from **close connections with community, water, land, and First Foods**; instrumental value from **adaptive management that CTUIR creates with the First Foods Mission** (Whyte et al

2013) as seen in Figure 3G.3 (page 267).

4. Opportunities for Tribes to Be State, Federal, and International Leaders on Climate Adaptation

As governments prepare to implement climate adaptation strategies, consideration for existing and potential Tribal leadership in these efforts would ensure a more inclusive and robust outcome, with a focus on environmental justice for First Foods and CTUIR community.

Expertise in Tribal management organizations highlights the sophistication of Tribal governments and their **responsiveness, cooperative agreements, partnerships, and Treatment-As-States (TAS)** are all ways to expand Tribal sovereignty (Hopkins 2012) as seen in Figure 3G.4 (page 270-271).

1. Potential Increase in Conflict over Water and Land Resource Management

Tribes like CTUIR that are federally-recognized have a number of different diplomatic and regulatory mechanisms that are able to be employed to manage resource conflicts encountered. Water is an excellent case study to use in anticipating potential barriers, and opportunities for collaboration on large landscape management in a changing climate.

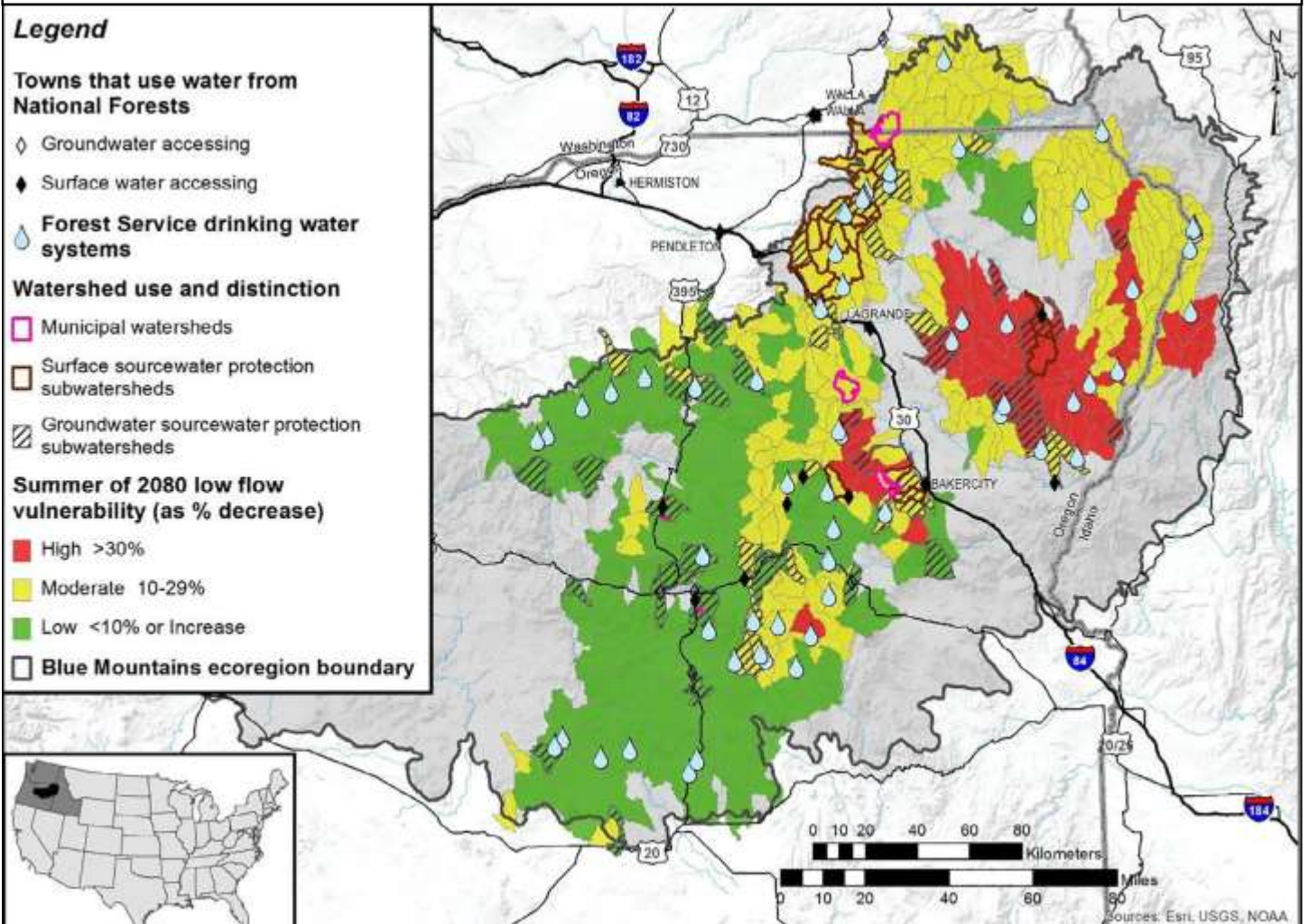
Figure 3G.1 shows locations in the Blue Mountain region (OR/WA) where water availability is unlikely to meet future demands by 2080, causing conflicts between groups of water users.

- Low flow vulnerability as a percent decrease is shown in a color scale: in green regions, summer water availability will decrease less than 10%;

yellow-colored regions are projected to experience a 10-29% decrease; locations in red are likely to experience 30% or more reduction in the amount of water that will be available during summer months (Clifton et al 2018).

- Regions like the John Day Basin and the Malheur National Forest are not projected to see dramatic reductions in their summer base flow. This may be because of forested land coverage, as well as a lower demand from local irrigators and municipalities.
- Areas with moderate loss of future summer flow includes the Umatilla and Walla Walla River basins, the Wenaha-Tucannon Wilderness and the main stem Snake River. These are likely to experience rising consumptive demand as municipal and evaporative water consumption rise with

Figure 3G.1: Areas of Anticipated Water Scarcity Conflicts in the Blue Mountains



future heat and drought (Clifton et al 2018).

- **Highest potential for conflict reduction needs are those with 30+% reduction in summer base flow: the Eagle Cap Wilderness, the Imnaha River, the Elkhorn Mountains along the Wallowa-Whitman National Forest, and Anthony Lakes recreational area**, where municipal and irrigation consumptive demand clashes with recreational and in-stream water uses, all highly valued in the area both environmentally and economically.

CTUIR is especially proactive in anticipating potential conflict and working collaboratively to find a solution that works for the stakeholders involved. The Tribe already has a number of strategies that assert sovereignty in issues of conflict:

- Technical documents like the DNR Umatilla River Vision;
- Internal institutions like the First Foods Mission, Water and Land Development Codes, and Tribal Water Commission (TWC);
- External negotiations like the Umatilla Basin Water Rights Settlement;
- Scientific and policy based water quality and quantity standards that exceed those of the state (TMDL);
- Active involvement in collaborations and partnerships.

Problem-solving collaborations like the Walla Walla Basin Partnership, the Oregon 100 Year Water Vision, and negotiations around the Columbia River water conveyance system all provide evidence and mechanisms for CTUIR to assert and enforce Tribal sovereignty. Another successful pilot initiative has been the Oregon Water Resources Department (OWRD) “Place Based Planning” initiative, with which CTUIR has been actively engaged in the

Grande Ronde Basin since 2019.

Proactive and collaborative planning efforts like this in areas where conflict is highly anticipated could help build working relationships with other regional water users that may be helpful in the future. CTUIR’s role

as a sovereign and Treatment-As-State (TAS) could provide a strong and adaptive backbone on which to base regional policy that benefits First Foods and the region as a whole.

(Credit: Clifton et al 2018)

Gaps in Knowledge/Data/Policy:

- How water conservation and adaptation initiatives are likely to affect water demand;
- Other natural resource scarcity issues additionally, and that affect water availability specifically;
- How adjustments or changes to “first in time, first in right” water policy might benefit or impact seasonal water supply.



Water availability is likely to be a large source of regional conflict in the future. Tribal people have a close connection with Water as a First Food, and many are willing to demonstrate in support of clean water (pictured).

2. Likely Increases in Criminal Activity and Harsher Sentencing

Potential increases in crime was identified as a concern in CTUIR’s Climate Change Vulnerability Assessment (2015), and is closely linked with effects of extreme heat. Heat affects the behavior of individuals involved in criminal events, including defendants, police officers, prosecutors, and judges (Behrer and Bolotnyy 2021). Heat reduces self-control, negatively impacts mood, increases aggression, and places heightened stress on cognitive faculties. These effects are present for all individuals participating in the criminal justice process.

Figure 3G.2a and **Figure 3G.2b** show the effects of increasing daily temperatures on violent crime and non-violent crime.

Figure 3G.2a: Effects of Heat on Violent and Non-Violent Crime

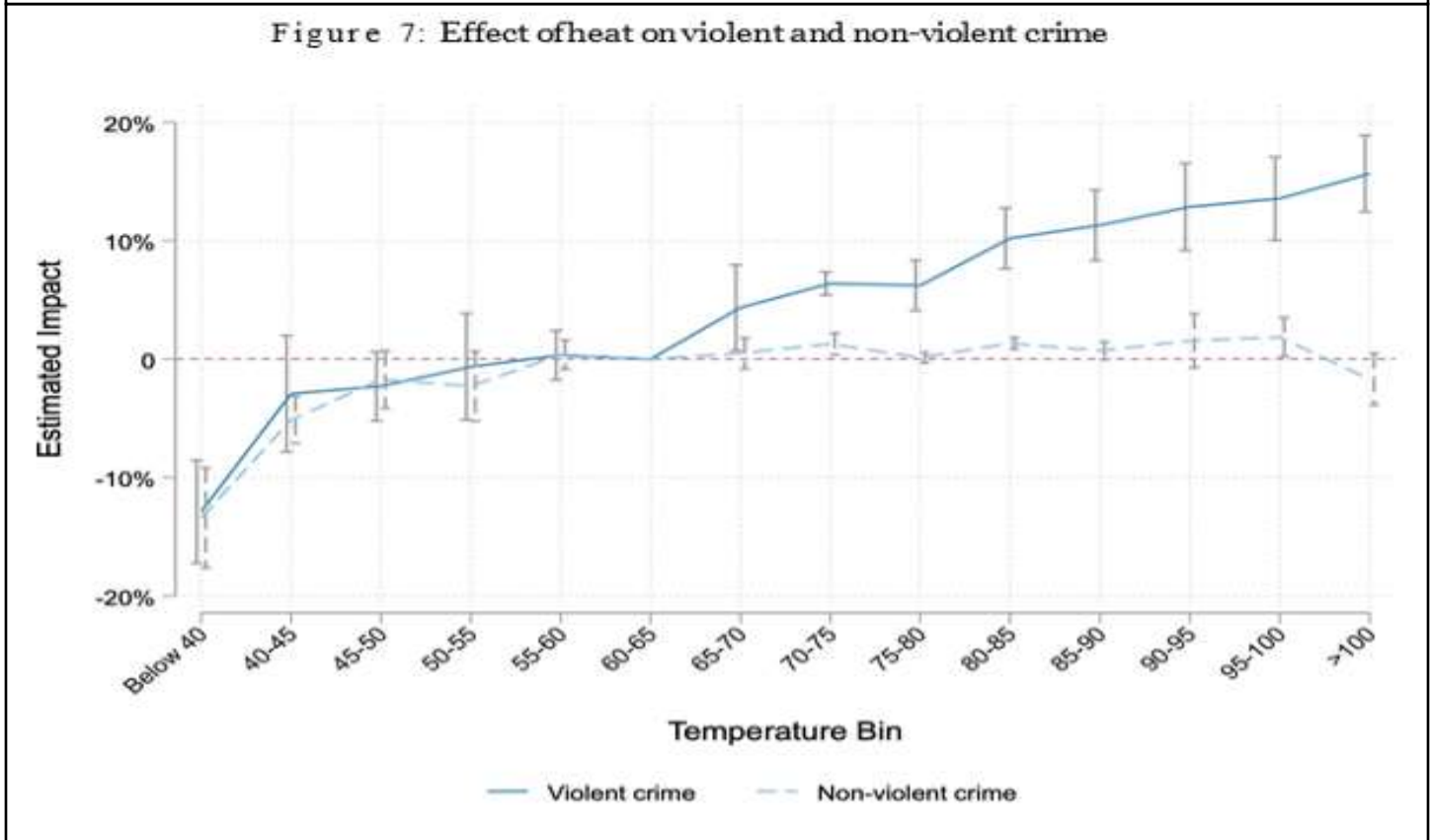


Figure 3G.2a and Figure 3G.2b show the effects of increasing daily temperatures on violent crime and non-violent crime.

- In Fig 3G.2a, cumulative heat effects on violent (solid blue line) and non-violent (hashed blue line) crime are shown. As heat increases (“temperature bins” in °F on the horizontal axis), both types of crime increase, though violent crime increases at a greater magnitude than non-violent crime (Behrer and Bolotnyy 2021).
- Fig 3F.2b shows some examples of specific types of crime and the effect heat has on them. Stolen property (labeled “C” in the top graph) increases slightly, as does domestic assault (labeled “E” in the middle graph), while aggravated assault with a weapon (labeled “H” in the bottom graph) increases substantially with increasing heat.
- Temperatures above 65°F (°C) lead to increases in crime. Intra-group conflict increases with increases in heat, and may not only affect potential criminal defendants, but also the police charged with arresting them, the prosecutors responsible for prosecuting them, and the judges who preside

over their trials (Behrer and Bolotnyy 2021).

- These increases are driven almost entirely by violent crime, with arrests for such offenses as traffic violations and larceny unaffected. Heat has the **largest effects on weapons charges and assault with a weapon.**
- **General arrests increase by 15% on extremely hot days**, driven by increases in violent crime rather than by changes in police behavior.
- Individuals arrested on hot days are more likely to have their case dismissed, with anecdotal evidence to suggest this is due to police officers being more likely to make arrests, but which prosecutors choose not to prosecute, or that judges decide to dismiss.
- Prosecutors appear to be unaffected by heat on the day of the charge filing, likely because the decision-making in the process happens over many days and in a team.
- Judges, conversely, are adversely affected by heat. **Judges are less likely to dismiss cases, and**

more likely to hand down harsher sentences on hot days. The fact that judges are overworked, have a limited amount of time to determine sentence severity, and have to do so by themselves, likely makes them more susceptible to the effects of heat.

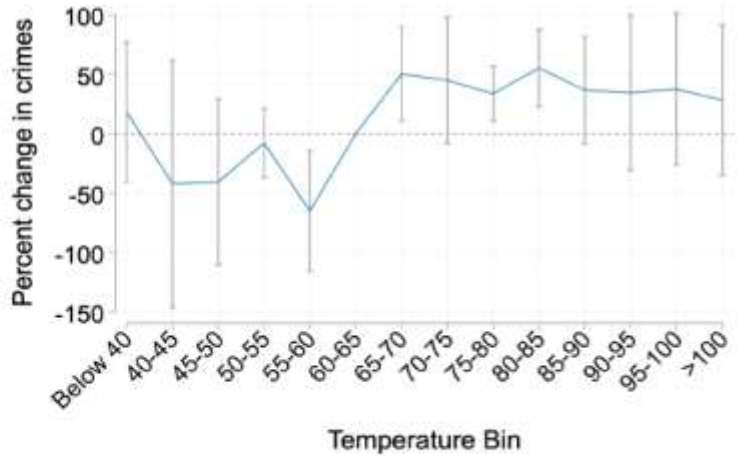
- Those working in teams and with long processing times are less likely to be susceptible to the effects of heat (Behrer and Bolotnyy 2021)
- Adaptation reduces this impact by approximately 25%, but **violent crime arrests still increase by 9% per year by 2050, regardless of adaptation.**
- The impacts are not spread evenly across the population, as adaptation will not occur evenly: lower income areas see increases in crime that are roughly 70% larger than high income areas, and minority neighborhoods see increases that are ~20% higher than white neighborhoods.
- Without adaptation, **current projections anticipate a 12% increase in the probability of arrest and conviction** relative to present day levels (2020) (Behrer and Bolotnyy, 2021).
- **Regions with homes that lack air conditioning generally, and lack central air conditioning specifically, were most impacted.** Thus, the impact of heat across neighborhoods is likely due to differences in the ability of individuals to protect themselves from heat.

Heat reduces self-control and rational cognitive reasoning, thus individuals are more likely to reach for weapons when they are available. Also judges working on tight schedules make harsher and more punitive judgements. Higher income, newer housing, more team work, and less accessible weapons may decrease the adverse effects of heat. However, while adaptation will significantly mitigate future impacts, it will not eliminate them.

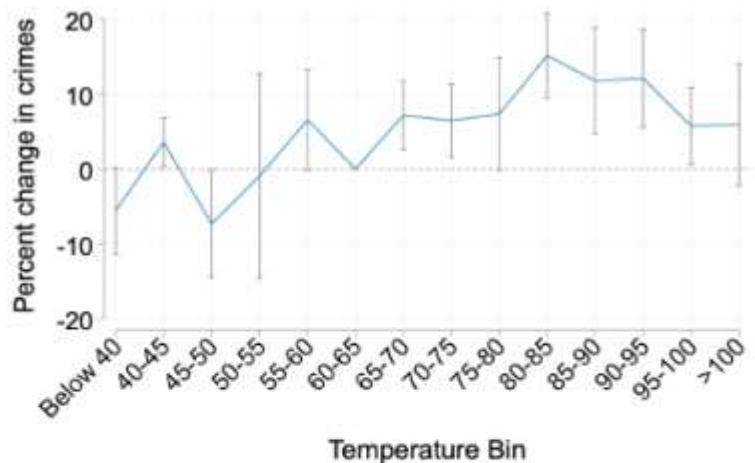
Future increases in heat appear to increase criminal arrests and to increase them substantially more in more vulnerable communities. Adaptations in criminal justice systems must be aware

Figure 3G.2b: Heat Effects on Specific Non-Violent and Violent Crimes

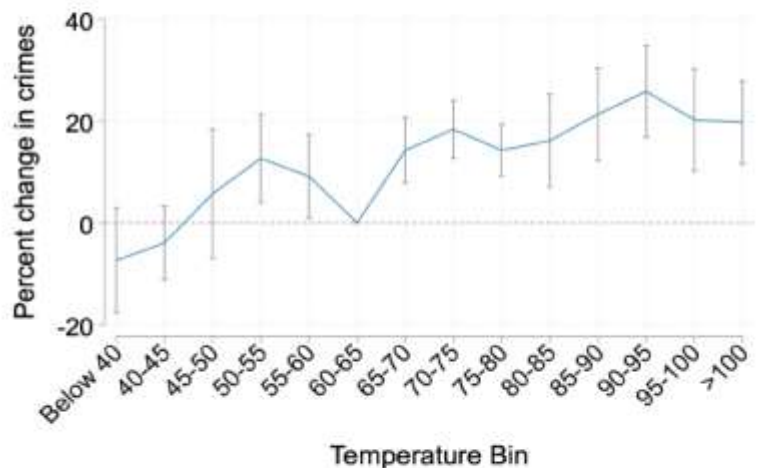
(C) STOLEN PROPERTY



(E) DOMESTIC ASSAULT



(H) AGG. ASSAULT, WEAPON



of the effects of heat on sentencing. This involves developing protocols to ensure judges are not overburdened and making decisions without sufficient oversight.

(Credit: Behrer and Bolotnyy 2021)

Gaps in Knowledge/Data/Policy:

- Data on how existing patterns in crime may be affected by heat locally;
- How other climate impacts such as flooding may affect violent and non-violent crime;
- Understanding of how Tribal court systems and interactions with state and federal criminal justice agents may affect these adaptations for Tribal communities.

3. Potential for Interruptions in Collective Continuance for Tribes and First Foods

Indigenous knowledge is integrally guided by many systems of responsibility, with layers of “collective continuance” to keep it connected. Collective continuance is a community’s capacity to be adaptive in ways that allow for livelihoods of its members to flourish into the future. Continuance is made of many relationships within single communities, amid neighboring communities, and with non-human kin (Whyte et al 2013).

With the climate crisis, Tribal collective continuance is also a community’s capacity for making adjustments to ways of living that make it possible to sustain robust cultural connection, community cohesion, and reciprocity with First Foods.

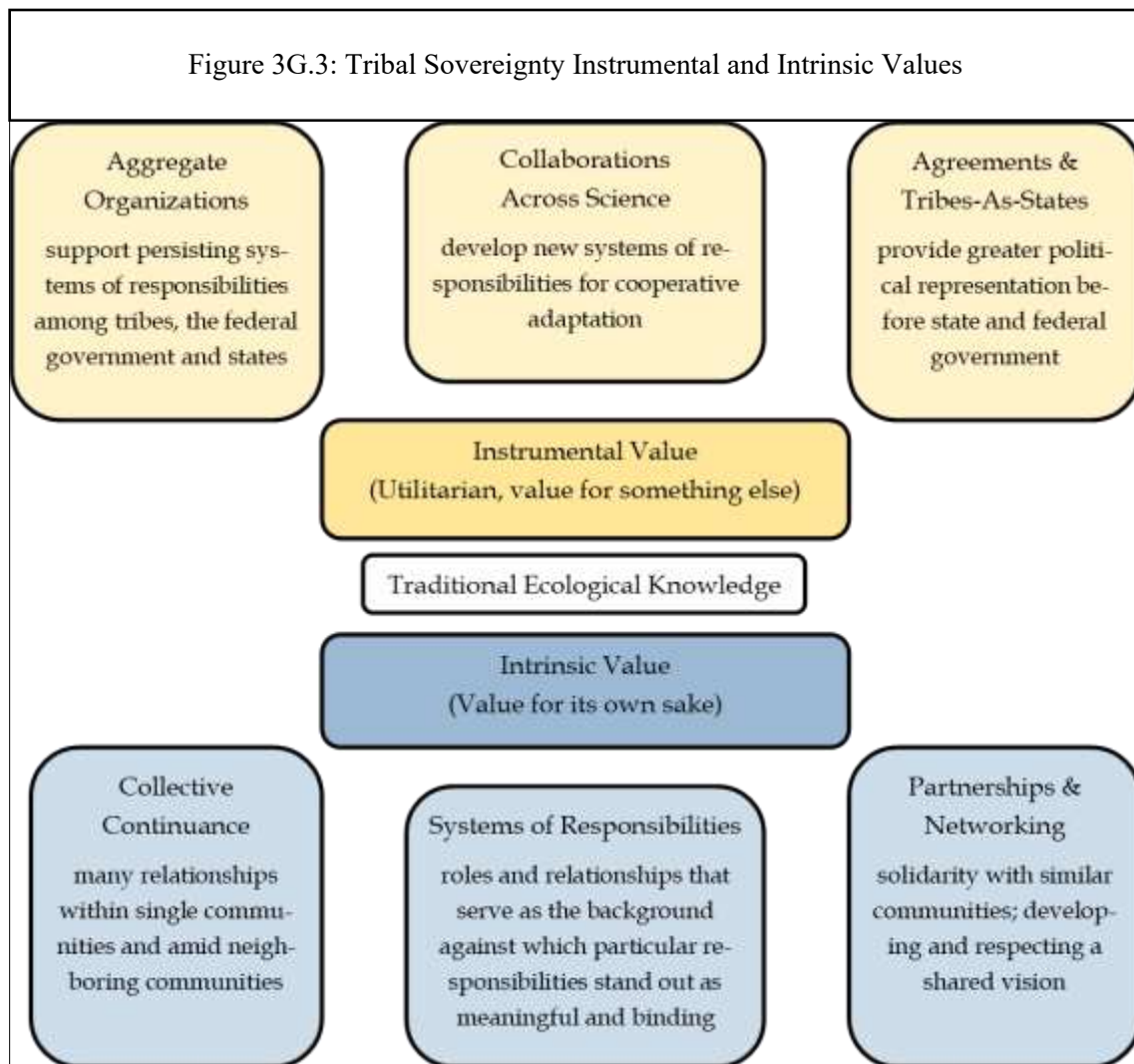


Figure 3G.3 illustrates the role that Indigenous knowledge (also called “Traditional Ecological Knowledge,” or TEK), has in Tribal sovereignty.

- Tribal sovereignty has **instrumental value** (utilitarian, value for something else) including: connections with aggregate organizations that perpetuate responsibilities; collaborations across science for cooperative adaptation; and agreements and Treatment-As-State (TAS) provide political and regulatory representation. These values are represented in the orange bubbles along the top of the graphic (Whyte et al 2013).
- Tribal sovereignty also has **intrinsic value** (value for its own sake): through collective continuance within and between communities, systems of responsibility bind participants in relationships, and through partnerships and networking to develop a shared vision. These values are represented in the blue bubbles along the bottom of the graphic (Whyte et al 2013).

- **Relationships that form collective continuance, such as CTUIR’s reciprocal relationship with First Foods, could potentially become uncoupled through environmental and policy inflexibility in the face of changing climatic conditions.**

- First Foods have intrinsic and instrumental value for communities: intrinsic value as a seasonal calendar that drives cultural activities, and extrinsic value through commercial salmon harvest, deer and elk tag revenue generation, and selective timber harvest, as examples.
- Systems of responsibilities are created through individual roles and connections. Economies require relationships to generate feasible, culturally appropriate opportunities, and that regulate economic production. Peaceful relations with neighbors require relationships that respect differences in culture, relative power, needs, and capacities to exercise agency (Whyte et al 2013). Together, these create the complex network of knowledge that informs Indigenous knowledge, accountable to reciprocal responsibilities.

Collective continuance is threatened by changing contexts in which systems of responsibilities are meaningful (Whyte et al 2013). Changes in landscapes may provide less opportunity for Elders to teach youth in practical situations. Change also places stress on the community’s ability to perpetuate those systems of responsibilities going into the future.

- Institutions that function internally and externally can be helpful in maintaining systems of responsibility. Internal integrative planning provides consistent guidance to operations, with examples like the CTUIR Comprehensive Plan (2010, 2018) and the Climate Adaptation Webinar Series. External integrative planning, like the Columbia River Gorge Commission (CRGC) Climate Action Plan, can help Tribes connect within Tribal departments, and between Tribal Nations to protect First Foods and Treaty Rights.
- Tribal governance networks, like the Columbia River Fish Commission (CRITFC) and the Intertribal Bison Commission, perpetuate understanding and facilitation of Treaty Rights across traditional use lands in an expanding way. These relationships are helpful in adapting to species

- migration, as distributions of First Foods shift.
- Sheltering and amending are two strategies that inter-Tribal and non-Tribal institutions can do to protect Tribal sovereignty. “Sheltering” means protecting systems from disruptions, while “amending” involves actions that improve and reform the systems themselves to be responsive (Whyte et al 2013).

Federal governments have a responsibility to collaborate with Indigenous people and Tribal nations in their efforts, to expand Tribal political authority off-reservation, and to pursue ecological outcomes favored by both sovereigns. Tribes are responsible for being accountable local partners and functioning with Treatment-As-States (TAS) to determine and enforce Tribal-developed standards that serve as a template for regional improvement.

Collaboration across science and TEK systems must involve conversations about how different groups of people understand the nature of reality and responsibility. It must also involve research practices about



Tribal people have a unique and place-based relationship with natural ecosystems through systems of responsibility like the People’s promise to the First Foods.

understanding of shared responsibilities, like those with First Foods. These should be highlighted in adaptation, management, and stewardship strategies (Whyte et al 2013).

Aggregate organizations like CRITFC support continuance of systems of responsibilities among Tribes and governments. Networking opportunities like summits and symposia gather Tribal and non-Tribal communities together to develop new systems of responsibilities for cooperative adaptation, and to facilitate a shared vision.

Drafting and publishing knowledge about First Foods management is also helpful for expanding CTUIR's management priorities outside the Reservation. Technical documents like the Umatilla River Vision, and First Foods Upland Vision provide this knowledge in an actionable way.

(Credit: Whyte et al 2013, graphic by CTUIR DNR FFPP)

Gaps in Knowledge/Data/Policy:

- Changes to federal and state programs that support Tribal sovereignty in the future;
- Administrative and staffing capacity of CTUIR programs and departments;
- Expansion of services and administrative responsibilities CTUIR is able to operate.

4. Opportunities for Tribes to Be State, Federal, and International Leaders on Climate Adaptation

With respect to climate crisis policy, recognizing and understanding of the role of Tribal governments creates new opportunities to challenging the idea that only states and federal agencies have influence over planned responses, adaptation, mitigation, and the role and application of science.

Jurisdictional powers of Tribal governments are under constant pressure from judicial interpretation. The patchwork of landholdings resulting from allotment illustrates this vulnerability. Non-Indian landowners within reservation boundaries sometimes challenge Tribal jurisdiction about regulatory or land use decisions. This is relevant for CTUIR due to its "checkerboard" of land owner status on the Reservation. If Tribal governments are unable to enforce laws within the Reservation regardless of Tribal status, there is little recourse for Tribal governments to correct this injustice.

This also applies to decisions and enforcement of regulatory standards for improvement like clean air standards, and can hinder the implementation of adaptation actions like cultural burning. Often, the paternal and dependent relationship Tribes have to the federal government has resulted in lands being owned and utilized for non-Tribal profit. This has forced Tribes into a commodifying relationship with First Foods, land and water, and has limited Tribes' ability to be autonomous in managing resources.

Figure 3G.4 lists the history between the US Federal Government and Tribes across the nation, all of which have a direct and ongoing impact on the power



Climate events like the Feb 2020 flooding could potentially hamper CTUIR TAS status, through the disruption of information collection. Biomonitoring efforts like DNR Fisheries project effectiveness evaluation was temporarily disrupted by flood damage to rotatory traps (pictured left). This same flood event also damaged water quality monitoring equipment (pictured right) that is essential in measuring restoration efforts and impacts funding reporting.

Figure 3G.4: Historical Legislation and Court Rulings that Impact Tribal Sovereignty (Hopkins 2013)

Historical Legislation and Court Rulings that Impact Tribal Sovereignty	
American Revolution (1871)	<p>Tribes engaged in Treaty-making with the federal government on a nation-to-nation basis, seeking mutual friendship, respect, and recognition of one another’s autonomy. Treaties were made between the Executive branch and a specific Tribe/group of Tribes, based on the foregoing mutuality and set aside significant tracts of Indigenous territory.</p> <p>Inherent powers of Tribal self-government were held by the Tribe in reserve and the Treaty affirmed Tribal authority to specific demarcated territory liken CTUIR’s Treaty of 1855.</p>
Marshall Trilogy (1823-1832)	<p>Supreme Court case decisions from 1823-1832 affirmed the autonomy of Indian Tribes, but made them dependent on federal plenary oversight.</p> <p>These decisions recognize Native American sovereignty prior to European contact, but with diminished autonomy.</p> <p>Within the American legal system, Tribes held a collective status as ‘domestic dependent nations;’ wards that were dependent upon federal protection.</p> <p>As domestic dependent nations, the jurisdictional powers of Tribal governments are under constant pressure from judicial interpretation. Patchwork of landholdings resulting from allotment illustrate this vulnerability when non-Indian landowners within reservation boundaries reject Tribal jurisdiction.</p>
Allotment and Assimilation Era (1871 - 1928)	<p>Use of Treaties ended as westward expansion and pressure increased from settlers and local governments for Congress to open up Tribal lands for development. Federal policies imposed plenary authority over Indian lands and affairs, and land theft through survey and legislation, impacting CTUIR’s reservation boundaries.</p>
Dawes Act (1887)	<p>Transferred large Tribal land holdings into federal surplus trust lands, and made possible the privatization of these lands. Also involved the assimilation of Tribal governments by undermining their territorial base and ability to govern over non-Indians within reservation boundaries. UIR is “checkerboarded” as a result.</p>
Indian Reorganization Act (1934)	<p>Sought to restore expropriated Treaty lands. Statute provided a widely adopted model for Tribal governance that emphasized the separation of powers. Also provided a framework for Tribal government to interface with the growing array of federal services that were responsible for Indian affairs.</p> <p>While lands were put into trust for Tribal governments, questions over the rights of non-Indian fee owners who found themselves inside the reservation set the stage for a new struggle over the scope of Tribal authority.</p>
Termination Era (1950’s)	<p>Congress began identifying prospective Tribes and withdrawing federal recognition through targeted legislation.</p>

Figure 3G.4 (cont.): Historical Legislation and Court Rulings that Impact Tribal Sovereignty

<p>Indian Self-Determination and Education Assistance Act (1975)</p>	<p>Gave Tribal governments the option to administer federally-funded programs where the Tribe had jurisdiction. Presented opportunities like 638 compacting to provide and determine services by Tribal governments.</p> <p>Many CTUIR services are currently provided through federal compacting, including forestry management and healthcare services.</p>
<p>Montana Exemptions (1981)</p>	<p>Established that Congressional delegation and a Tribe’s inherent retention of its Tribal power could be validly executed under one of the two conditions:</p> <ul style="list-style-type: none"> - When a consensual relationship has been entered into between the Tribe and the non-Indian (such as a commercial contract, lease, or partnership); - Or where the Tribe’s political integrity, economic security, or health and welfare is directly affected by the non-Indian’s conduct <p>These have historically been very narrowly interpreted by the Supreme Court in the past, and rarely in favor of the Tribal nations involved.</p>
<p>Tribes Treatment-As-States (TAS) (1970-1984)</p>	<p>The U.S. EPA’s role as regulatory and enforcement of air quality, safe drinking water, waste management, and hazardous materials standards does not prohibit states and Tribal governments from filling in gaps or establishing higher standards.</p> <p>EPA adopted the ‘Policy for the Administration of Environmental Programs on Indian Reservations’ in direct response to legitimate Tribal criticism of the agency’s previous oversight of Tribal sovereignty, and the need for Tribal governments to enact their own environmental protections.</p> <p>EPA successfully lobbied Congress to authorize the treatment of TAS: this enabled Tribal authority under TAS provisions in the Clean Water Act, Clean Air Act, Safe Drinking Water Act, National Historic Preservation Act, and the Comprehensive Environmental Response, Compensation, and Liability Act.</p>
<p>United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (2007)</p>	<p>Created a framework for global Indigenous communities to turn to having exhausted domestic routes of advocacy within the nation-state system.</p> <p>Mechanism to seek recourse to international and regional human rights decision-making bodies, which recognize that Indigenous communities can suffer loss of land, cultural identity, and the ability to self govern under domestic systems.</p> <p>UNDRIP also establishes procedural standards around institutional responses by nation-states in complying with international human rights. This has particular significance to global climate change issues.</p> <p>UNDRIP can also play a role as a tool for shaping domestic climate change policy. Historically though, attributing climate change impacts to specific polluters has not been successful.</p>

that Tribes have over their own lands and resources. This chart summarizes a timeline of legal decisions between the U.S. federal government and Tribal nations that has impacted Tribes' ability to self-govern (Hopkins 2012).

- From the beginning, U.S. federal government, Supreme Court decisions, legislative actions, and international declaration of rights have impacted how Tribes have had many decisions impact their land ownership and right to self-determination. This has also created channels through which Tribal sovereignty can act to perpetuate Tribal nations' priorities and perspectives.
- Tribal sovereignty creates important collaborative co-management opportunities for adaptation. Federal environmental laws need to **create cooperative systems that incentivize the implementation of local, regional, and state environmental protection measures.**
- "Treatment as State" (TAS) is a Tribal sovereignty mechanism that allows Tribes to act as their own regulatory and enforcement entity. Within standards set by the Tribal government for many regulatory activities, TAS provides a model for inclusive regulatory and regional decision making. **TAS status is further evidence that Tribal governments can change the practices of under-performing governmental actors** that may not readily fit into common understandings and practices. This is relevant to shifting government action (or inaction) on climate adaptation.
- The ability of Tribal governments to form strategic coalitions and pursue international venues is another potential strategy for collective adaptation. **The expertise contained in many Tribal management organizations fosters the development of new partnerships and highlights the sophistication of Tribal governments and their responsiveness.** This

further supports regulatory decision making that is inclusive and participatory, and that provides meaningful process to all parties concerned, especially Tribal nations.

This history is important to recognize, as current federal policy echo past legislation and court decisions being made today. This also suggests there are channels of sovereignty that may be useful in expanding certain adaptation and restoration strategies on a larger scale.

Having a better understanding of Tribes' unique role will shape future discourse within environmental federalism. This includes Tribes' ability to anchor jurisdictional rights to cooperative resource management agreements, and the preservation of TAS status to create a tripartite system of governance over common resources.

(Credit: Hopkins 2012)

Gaps in Knowledge/Data/Policy:

- How carbon crediting schemes and calculating will affect Tribes' ability to regulate themselves as states;
- Changing capacity of Tribes to act as TAS, given funding and staffing availability.



Monitoring and regulating Tribal interests involves developing additional data collection initiatives, like the DNR Women's Foods Monitoring Project (pictured). Tribes are often at the forefront of data collection and modeling for native plant and animal species, and have a role in regional information gathering.

A. Capacity Building and Expansion of Tribal Self Determination

“Many of them name places where people customarily and traditionally do things. Other names memorialize the actions of the Animal People at that place and the events that ensued. They tell us that Indian people occupied the land and that they used and enjoyed it – indeed, they possessed and owned it. The place names, then, are also implicated in the classical regional indigenous system of land tenure and use (Bruce J. Rigsby, 2015).”

i. Recognition of Tribal Sovereignty and Resilience

CTUIR specifically, and Tribes in general, have been sustainable stewards of lands and waters since time immemorial. Tribes have also done the least to contribute to the causes of the climate crisis. Recognizing and celebrating this status is essential for cooperative adaptation.

Short Term:

- **Encourage state and federal agencies to formally and informally recognize CTUIR and other Tribes as rightful co- or sole managers of natural and other resources.** This may look like statements of support, prioritizing Indigenous knowledge alongside (and at times as superior to) academic science, and actively planning for Tribal community engagement as part of Tribal consultation and project implementation.
- **Actively support and build connections within the Tribal community and with Tribal businesses/enterprises who can provide additional capacity to Tribal services.** Examples include (but are not limited to): training and supporting Tribal Members engaged in prescribed burning operations, composting and

waste management, food production and processing, renewable energy installation and service, and cultural learning and connection. See Ch 3B pages 88-90, Ch Ch 3D pages 153-155, and Ch 3E pages 194-195, 3F pages 227-229, and Ch 3G pages 288-289 for additional detail.

Long Term:

- **Advocate for funding sources and mechanisms to provide routine programmatic support of Tribal departments and staffing,** rather than just ‘project-based’ funding approaches. Consistency and reliability for program staffing maintains built capacity, and is essential to continuity of work.
- **Celebrate CTUIR and other Tribes as models of self-governance, facilitate Treaty Rights wherever possible, and recognize the natural laws that govern Tribal systems of responsibility** may differ from other Western and U.S. frameworks.

ii. Maintain and Expand Treatment-as-State (TAS) Status

As a sovereign entity with the right to govern itself, CTUIR has rapidly expanded facilities and functions over recent decades, and provides full government services for its Tribal community. For the Tribe, it is essential to have connection and access to resources now and into the future, and to exercise those co-management opportunities wherever possible.

Short Term:

- **Maintain data collection and monitoring for all fields of regulation CTUIR is currently engaged with, and expand these efforts** to include additional collection of enforceable and defensible data



and monitoring programs, as funding and capacity supports.

- **Maintain current government capability to provide services, and plan to expand these into areas of community need as the Tribe is able.** This could include (but is not limited to): working with partner agencies to build capacity, small business credit and financing to support Tribal contractors with services they are able to provide, co-management authority on public lands through the Good Neighbor Authority, and others.

Long Term:

- **Pursue new opportunities to expand TAS and Tribal co-management as they come available.** This could include (but not limited to): new areas of opportunity to secure programmatic and continued funding, agreements and co-management authority with state and federal lands, developing new data collection and monitoring protocols and projects like the DNR Women’s Foods monitoring project and Hanford Biomonitoring projects, pursuing new regulatory opportunities as capacity allows, and others.

iii. Exercise and Advocate across CTUIR Traditional Use Area

Rights secured by the Treaty of 1855 protect Tribal sovereignty, and the rights of Tribal Members to protect and perpetuate reciprocal systems of responsibility to First Foods. These rights are strengthened when Tribal Members exercise them, consistently and extensively, not only within CTUIR’s Ceded lands, but across traditional use areas.

Exercising rights in expanded and previously underutilized locations builds justification for Tribal Member access to those areas. Acknowledging harvest

and management rights throughout an expanded range will accommodate for shifting plant and animal habitat and migration patterns that affect harvest opportunity.

Short Term:

- **Celebrate and recognize the Treaty of 1855 and its signers** for the forethought to secure lands



Outreach to Tribal and non-Tribal audiences like those held at Treaty Day (pictured) improves regional understanding of Tribal sovereignty and climate resilience.

and rights for future generations of Tribal members. Participation in Treaty Day (June 9th) celebrations is already encouraged for Tribal staff and community members, and non-Tribal people are welcome and invited to engage with this event.

- **Encourage and facilitate Tribal Member exercise of Treaty Rights and harvest opportunities.** This could include

partnering with agencies and other Tribes on harvest trips to previously underutilized locations, supporting First Foods Excursions and classes hosted by DNR, DCFS, and Yellowhawk Tribal Health Center, mapping new locations of First Foods for harvest, organizing gatherings to discuss the state of First Foods and plant medicine harvest conditions/barriers/opportunities, and many other strategies to expand knowledge and access. See Ch 3B pages 88-90 and Ch 3D pages 153-155 for additional detail.

Long Term:

- **Continue and expand CTUIR co-management and engagement with resources throughout the traditional use area “from buffalo to sea lion.”** CTUIR manages resources through inter-Tribal collaboration efforts across a broad geographic range over which it has been historically engaged. Supporting these collaborations will be essential to protecting and preserving Treaty Rights and Tribal sovereignty across this region.

iv. Identify Areas of Strength and Areas of Opportunity

Recent years have brought numerous opportunities to witness how a changing future might affect CTUIR. Each of these events is an opportunity to examine gaps and improvements that systems of service may experience. Community conversations around these events reduce anxiety and stress associated with disaster events, as well as inform areas where strengthening or adjusting efforts can improve future response.

Short Term:

- **Develop protocols to organize and facilitate community “debrief” discussions in response to emergency events.** These proceedings can be formal or informal gatherings to facilitate community feedback and testimony about individual experiences during emergency events, and generate reporting documents to archive resulting guidance.
- **Continue and expand protocols found in CTUIR’s Emergency Operations Plan (EOP) and pursue development of a formalized Continuity of Operations (COOP) or Continuity of Governance (COG) plan** to provide processes for accomplishing administrative and operation functions during emergencies. These plans are an opportunity to inventory Tribal services already being provided, and identify gaps in services, barriers to access, and future opportunities to support community response. Widely publicize any improvements to government and community response, recommendations, and procedures to communicate knowledge to the community.

Long Term:

- **Continue and improve coordination with other agencies and governments in emergency response;** mutual aid agreements between CTUIR Public Safety and local municipal/county governments area already in place to provide emergency services to both the UIR and impacted non-Tribal communities, and supporting this coordination will ensure these services are provided consistently into a future with greater need. Guidance on these strategies is found in CTUIR’s Emergency Operations Plan (2016), as well as delegation of roles and responsibilities for Tribal departments, staff, and executive management team in Part 3, pages 49-73. The CTUIR Hazard Mitigation Plan (2016, 2021) also has guidance on emergency response to various hazards on the UIR; see Section 4: Hazard Mitigation Strategy (page 192-212), and Section 5: Mitigation Strategy Implementation and Integration (page 214-225) for detailed information.
- **Examine opportunities to improve First Foods and language connection, even in times of emergency.** Opportunities to include cultural components to emergency response include (but are not limited to): facilitating language classes/story telling sessions during community-scale “cleaner air” shelters for wildfire smoke, including First Foods in emergency food distributions where possible, and exploring cultural testimony around dramatic natural disaster and “apocalyptic” stories/ events to create connection to Indigenous emergency response, among many others.



B. Encourage Cooperative Partnerships and Agreements

“As a relatively new and rapidly developing government, CTUIR will need to continue to diversify and expand its revenue base to maintain the substantial and growing amount of real property and programmatic assets. One of the greatest challenges is the continued development of political power and economic influence to take on the external challenges of changes in water, environmental and energy policies, business regulation and the right to exercise sovereignty (CTUIR Comprehensive Plan 2010).”

i. Tribes as Co-Managers of State, Federal, and Private Resources

As active stewards of ancestral homelands, Tribes have been and will always be the best managers of resources and have helped shaped this landscape. There are many mechanisms that create opportunities for Tribes to be directly involved with managing decisions about natural resources.

Short Term:

- **Continue to participate in existing and (if necessary) new Natural Resource Trustee Councils for contaminated sites;** CTUIR already participates with the Portland Harbor (PHNRTC) and Hanford (HNRTC) Natural Resource Trustee Councils to determine the future cleanup efforts at these two contaminated sites. See Ch 3E pages 193-197 for additional detail on CTUIR’s Hanford NRTC issues.
- **Continue to participate in cluster and collaborative state legislative affairs groups, especially inter-Tribal assemblies.** CTUIR is an active participant in the Legislative Commission on Indian Services (LCIS) through the Oregon Legislature



Creating partnerships with outside agencies is essential for expanding Tribal priorities, particularly for co-management of lands and waters; U.S. Forest Service is one such management partner.

to lead with consensus on issues that affect Indian Country.

- **Support and expand memorandums and agreements between local municipalities and CTUIR.** Agreements with cities and county entities can expand Treaty Rights opportunities, enable the Tribe to have a more formalized relationship with the smaller subunits of the state government, and provide a structure with which potential conflicts can be proactively addressed. CTUIR has a number existing of Memorandums of Understanding (MOU’s), including with the City of Kennewick-WA, City of Richland WA, Port of Kennewick, and a series of MOU’s throughout Oregon and Washington.
- **Continue to work with private companies and corporations on land reclamation and access issues as appropriate.** CTUIR already has exist-

ing relationships with private corporations like Union Pacific Railroad and Amazon Inc. to mitigate for First Foods harm.

Long Term:

- **Support and expand partnerships with state and federal agencies to manage land, forests, water, food, air, and other “resources”** regulated under applicable government agencies. CTUIR has existing partnerships with the United States Forest Service (USFS), Department of Interior (DOI), Bureau of Indian Affairs (BIA), Indian Health Services (HIS), and Department of Energy (DoE), among others, to include Tribes in management decisions and actions at different participation levels.
- **Support and expand government-to-government (G2G) relationship with the State of Oregon and the State of Washington.**

ii. Economic, Resource Management, Health, and Education Partnership Opportunities

CTUIR has a huge influence on the Columbia River region, and provides many opportunities for potential partners and agreements that are mutually beneficial to the Tribe and to other stakeholders.

Short Term:

- **Support and expand economic partnerships and opportunities**, such as those already present through employment and services. Partnerships with Wildhorse Resort and Casino, Coyote Business Park, and Wanapa Industrial Park, as well as the UIR’s location between major Pacific Northwest cities like Portland, Spokane, and Boise, and adjacent to Interstate 84 build networks and capacity.
- **Support and expand education partnerships**. Many already exist: with Whitman College for student groups and other learning exchanges; with the Walla Walla Community College through the Water and Environmental Center (WEC); with Washington State and Oregon State Universities through Tribal member students and MOUs; with Blue Mountain Community College through Umatilla Language courses and Tribal Member Student Body President Megan Van Pelt; and through the Pendleton Early Learning Center with Umatilla Language classes for young learners, among others.

Long Term:

- **Support and expand resource management partnerships**, such as those listed in 3G.B.i, as well as with individuals, landownership entities, and enterprises whose goals align with CTUIR management goals.

- **Support and expand healthcare partnerships that facilitate adequate and culturally appropriate care for Tribal Members and access to services.**

Yellowhawk Tribal Health Center has been recognized for its Covid-19 pandemic response, testing, contact tracing, and vaccine administration. Partnerships with local county health departments, Oregon Health Authorities, and Oregon State University College of Public Health assist in providing and expanding health services to Tribal Members now and into the future.

iii. New Partnerships for First Foods Restoration and Tribal Stewardship

Many partnerships exist informally as mutually beneficial relationships that arise organically from the presence and activities of Tribal Members. Relationships that support Tribal family connection to First Foods and community access, knowledge, and policy protections are likely to be ones that benefit both Tribes and these relationship partners.

Short Term:

- **Encourage and support relationships built with academic institutions where Tribal students attend.** These enrich schools through diversity of knowledge and perspective, and builds capacity for Tribal communities. Ideas for projects and opportunities with CTUIR are suggested in Ch 3D pages 153-160 and Ch 3E page 192.

Long Term:

- **Encourage and support inter-Tribal coalitions, particularly around landscape and First Foods management and restoration.** CTUIR has existing coalition relationships with the Affiliated Tribes of Northwest Indians (ATNI), Inter-Tribal Buffalo Council,



National Congress of American Indians (NCAI), and Columbia River Inter-Tribal Fish Commission (CRITFC), among others. Supporting First Foods access across a broad region supports climate resilience; see Ch 3B pages 83 and 88-90 and Ch 3G pages 276-277 for additional detail.

iv. Establish Frameworks for Conflict Resolution and Harm Reduction

While Indigenous worldviews typically reject narratives of scarcity that create division between priorities and communities, resource usage is unsustainable as currently managed. Planning to neutralize potential conflict requires proactive engagement and cooperative frameworks to facilitate constructive and ongoing dialogue.

Short Term:

- **Support and expand “Place Based Planning” for cooperative resource strategies.** These approaches involve convening all stakeholders affected by resource management decisions, and facilitating a collaborative process where all parties agree on the decision-making procedures and protocols, ahead of any actual disaster event. One example CTUIR has been involved with is the Oregon Water Resource Department’s planning for the Grande Ronde basin and associated water users. See Ch 3A pages 53-54 for additional detail.
- **Organize and facilitate listening sessions with Tribal community and other stakeholders** to improve relationships, access to decision making information, inventory of shared knowledge, and to provide an avenue for

community engagement with government climate adaptation response.

Long Term:

- **Develop protocols for addressing resource conflict proactively and equitably,** and with natural solutions as the priority. Drought early warning systems, prescribed and wildfire response, and community public health are examples that can be used when developing these kinds of protocols for additional concerns as they emerge.
- **Develop and implement community and staff training aimed at strengthening conflict prevention.** Types of trainings could include (but are not limited to): conflict de-escalation, police interaction and reporting, bystander intervention, self-mindfulness and emotional regulation, and addiction intervention services.



Tribal atmospheric weather stations (pictured) improve information on native plant population changes. Data sovereignty and sharing networks are essential in implementing climate adaptation.

C. Support Tribal Policy, Frameworks, and Services

“The three Tribes worked in alliance to regain and rebuild their self-sufficiency from the government. The traditional leadership of chiefs and headmen at the head of table as key negotiators evolved into a new form of leadership. This leadership was intertwined with the negotiations not only for the Tribal people and their well-being, but also with decision making that would develop into the economic stimulus

that would enable the Tribes to acquire the financial sustainability that would give them a new found independence (CTUIR Comprehensive Plan 2010).”

Short Term:

- **Pursue new 638 Compacting opportunities as they become available, and as CTUIR capacity allows.** Compacting/contracting with the federal government typically involves a “638” agreement that facilitates Tribal nations to receive funding and directly provide services previously being rendered by the federal government. Securing 638 compacts requires a Tribe to “prove” it is capable of taking over the services in question, which requires documentation and having appropriate policy structures in place. See Ch 3F pages 232-234 for additional detail.

Long Term:

- **Continue to advocate for programmatic funding for Tribal services and programs, as well as for capacity to incorporate climate impacts into planning.** Many private and public funding sources are designed to implement “project” based efforts for Tribal communities, however success of such project efforts requires sustained program staff to make it happen. Climate resilience and other funding programs need to recognize that sustaining program staff is a component of climate adaptation measures, and advocating for inclusion of programmatic and operations needs as eligible under these funding sources would expand the capacity of Indian Country to implementing adaptation strategies.



Measuring Success and Gaps in Tribal Sovereignty Adaptation

How Do We Measure the Success of These Adaptations?

“The Tribes’ sovereign powers also include judicial authority to enforce valid legislation and executive orders. Many progressive actions have occurred to preserve, protect, and strengthen our national sovereignty in line with our songs, dances, prayers, and longhouses. For the Creator and the land itself vests ultimate authority in The People (CTUIR Comprehensive Plan, 2010).”

- Confederated Tribes of Umatilla Treaty of 1855 Article One
- **CTUIR Comprehensive Plan Objective 5.7.2:** Maintain collaborative partnerships with other tribes, federal, state and local jurisdictions, agencies, institutions to manage cultural resources from a tribal perspective, including repatriating items or information belonging to ancestors of the CTUIR (See Comp Plan page 90 for benchmarks);
- **CTUIR Comprehensive Plan Objective 5.7.8:** Maintain, safeguard, conserve, and insure cultural and historical assets of the CTUIR including facilities, objects, records, documents, photographs and recordings (See Comp Plan page 90 for benchmarks);
- **CTUIR Comprehensive Plan Objective 5.8.4:** To the extent permitted by law, provide for and protect the exclusive exercise of CTUIR management authority over the Umatilla Indian Reservation, over Treaty reserved rights related activities off-Reservation and for co-management of Treaty reserved resources off-Reservation (See Comp Plan page 95 for benchmarks);
- **CTUIR Comprehensive Plan Objective 5.8.5:** Integrate the missions, goals and work plans of CTUIR to provide for the most proactive, effective and aggressive protection of 1855 Treaty-reserved rights (See Comp Plan page 95 for benchmarks).
- **Mission Community Plan (1995) Part C: Land Use Element 9.5:** Tribal lands in the planning area should be reserved, protected, and developed for land uses and buildings servicing the social services and law enforcement needs of the community.
- **CTUIR Water Code (2005) Section 1.05. Statement of Policy P: Water Quality.** The Water Code will be the primary source of regulation and enforcement for water quality standards and the TMDL for the Umatilla Indian Reservation.

- **CTUIR Water Code (2005) Section 1.05. Statement of Policy T:** Intergovernmental Cooperation and Coordination. The nature of the Clean Water Act governing the use and protection of water make it necessary for close intergovernmental cooperation and coordination to ensure successful implementation of the Clean Water Act;
- **CTUIR Water Code (2005) Section 3.07. Water Quality Management Planning** Goals and Objectives (page 42, benchmarks on pages 42-46);
- **CTUIR Emergency Operations Plan (EOP) Section 3.2.1, 3.2.1.1:** roles and responsibilities for CTUIR’s Executive group (Board of Trustees, Executive Director, Deputy Executive Director (page 49-51);
- **CTUIR EOP Sections 3.2.2.1:** roles and responsibilities for department directors (page 51);
- **CTUIR EOP Sections 3.2.3.1:** roles and responsibilities for transportation; includes Public Works, Tribal Planning Office, and Public Safety (page 53);
- **CTUIR EOP Sections 3.2.3.2:** roles and responsibilities for alert and warning communications; includes Public Safety, Office of Information Technology, and Communications (page 54);
- **CTUIR EOP Sections 3.2.3.3:** roles and responsibilities for public works and engineering; includes Public Works, Tribal Environmental Recovery Facility (page 55);
- **CTUIR EOP Sections 3.2.3.4:** roles and responsibilities for firefighting; includes Umatilla Tribal Fire (page 55);
- **CTUIR EOP Sections 3.2.3.5:** roles and responsibilities for emergency management; includes Public Safety (page 56);
- **CTUIR EOP Sections 3.2.3.6:** roles and responsibilities for emergency assistance; includes Yellowhawk Tribal Health Center, Public Safety, Housing, Child and Family Services, Tribal Planning Office, Public Works, and outside partners (page 57);
- **CTUIR EOP Sections 3.2.3.7:** roles and responsibilities for logistics and resource support; includes Administration and Finance/Purchasing (page 58);
- **CTUIR EOP Sections 3.2.3.8:** roles and responsibilities for public health and medical services; includes Yellowhawk Tribal Health Center and Public Safety (page 59);
- **CTUIR EOP Sections 3.2.3.9:** roles and responsibilities for search and rescue; includes Public Safety (page 60);
- **CTUIR EOP Sections 3.2.3.11:** roles and responsibilities for agriculture and natural resources; includes Natural Resources, and Public Safety (page 61);
- **CTUIR EOP Sections 3.2.3.12:** roles and responsibilities for energy and utilities; includes Public Works and private utilities (page 62);
- **CTUIR EOP Sections 3.2.2.1:** roles and responsibilities for law enforcement services; includes Public Safety (page 62);
- **CTUIR EOP Sections 3.2.3.14:** roles and responsibilities for damage assessment; includes Public Safety, Public Works, and Tribal Planning Office (page 63);
- **CTUIR EOP Sections 3.2.3.15:** roles and responsibilities for external affairs; includes Public Safety and Communications (page 64);
- **CTUIR EOP Sections 3.2.3.16:** roles and responsibilities for evacuation and protection; includes Public Safety and Public Works (page 64).
- **CTUIR EOP Sections 3.2.3.17:** roles and responsibilities for legal services; includes Office of Legal Counsel (page 65);
- **CTUIR EOP Sections 3.2.3.18:** roles and responsibilities for volunteer and donation management; includes Public Safety and Administration (page 65).
- **CTUIR Hazard Mitigation Plan (2016, 2021) Section 5:** Mitigation Strategy Implementation and Integration (page 214-225)

What Gaps in Knowledge, Policy, Capacity, or Education Exist?

- How state and federal carbon legislation could impact Tribes’ TAS status;
- Energy and capacity to collaborate within and among Tribal departments for adaptation implementation.

Climate Impacts for Treaty Rights

“That struggle is not yet ended. Deeds of such magnitude cannot be undone and over with, as many of you believe. They cannot stand alone in a period of time. Their tentacles reach out to on-coming generations and touch the lives of our people. We live centuries after the deeds themselves seem only echoes in history.

I am an Indian living in the present now, but I, like all my people, carry the burden of those distant years. So do you, whether Indian or white. We cannot be understood separate from the past for what happened to our ancestors over the past centuries has had its large share in molding the

character that is ours today (Maudie C. Antoine, CTUIR BOT Chairwoman, Walla Walla June 11 1955).”

As Tribal Members exercise rights guaranteed by the Treaty of 1855, there is connection to lands and practices that has sustained Tribal people since time immemorial. These rights have legal protections, but are also constantly being questioned through court cases and litigation nationally. Access to Treaty Rights requires strong legal frameworks to ensure Tribal Members are protected as they practice these relationships, and have safe conditions under which to do so.

“Over millennia, our oral traditions have given us an understanding of the natural world, the capacity of life, and the fundamental human relationships that are bound by it.”

~Phillip Cash Cash,
2006

5. Opportunities to Reduce Climate Impacts Risk through Cultural Practices

For Indigenous people, cultural and religious practices are integrally tied with sustainable land management practices. Traditional burning is an excellent example of the diverse benefits of returning cultural practices to the land, especially out in the relatively rural areas of CTUIR Ceded and traditional use lands.

Returning **cultural burning to the Eastern Oregon and Washington region** is least risky and has potential for great benefits (Gilbertson et al 2018) as seen in Figure 3G.5 (page 282).

6. Challenges to Healthy Conditions to Exercise Treaty Rights Safely

Intangible access barriers to Treaty Rights exist and should not be treated lightly. These kinds of barriers can be thought of as conditions that reduce the ability of Tribal Members to maintain physical and emotional health while exercising Treaty Rights. Exposure can have a lingering effect on Tribal Member health and desire to continue to participate in harvest and processing opportunities.

Roughly **20% improvement in seasonal air quality can be maintained through use of intentional burning** (Long et al 2017) as seen in Figure 3G.6 (page 284).

5. Opportunities to Reduce Climate Impacts Risk through Cultural Practices

Cultural burning is a sensitive topic for those who manage lands for multiple uses, but it also is becoming more acceptable to perform prescribe burning to reduce vegetation fuel loads. Implementation of fuels reduction strategies will be necessary to control wildfire risk, and burning has historically been used by Tribal people to clear vegetation and cycle nutrients in forest and grassland ecosystems.

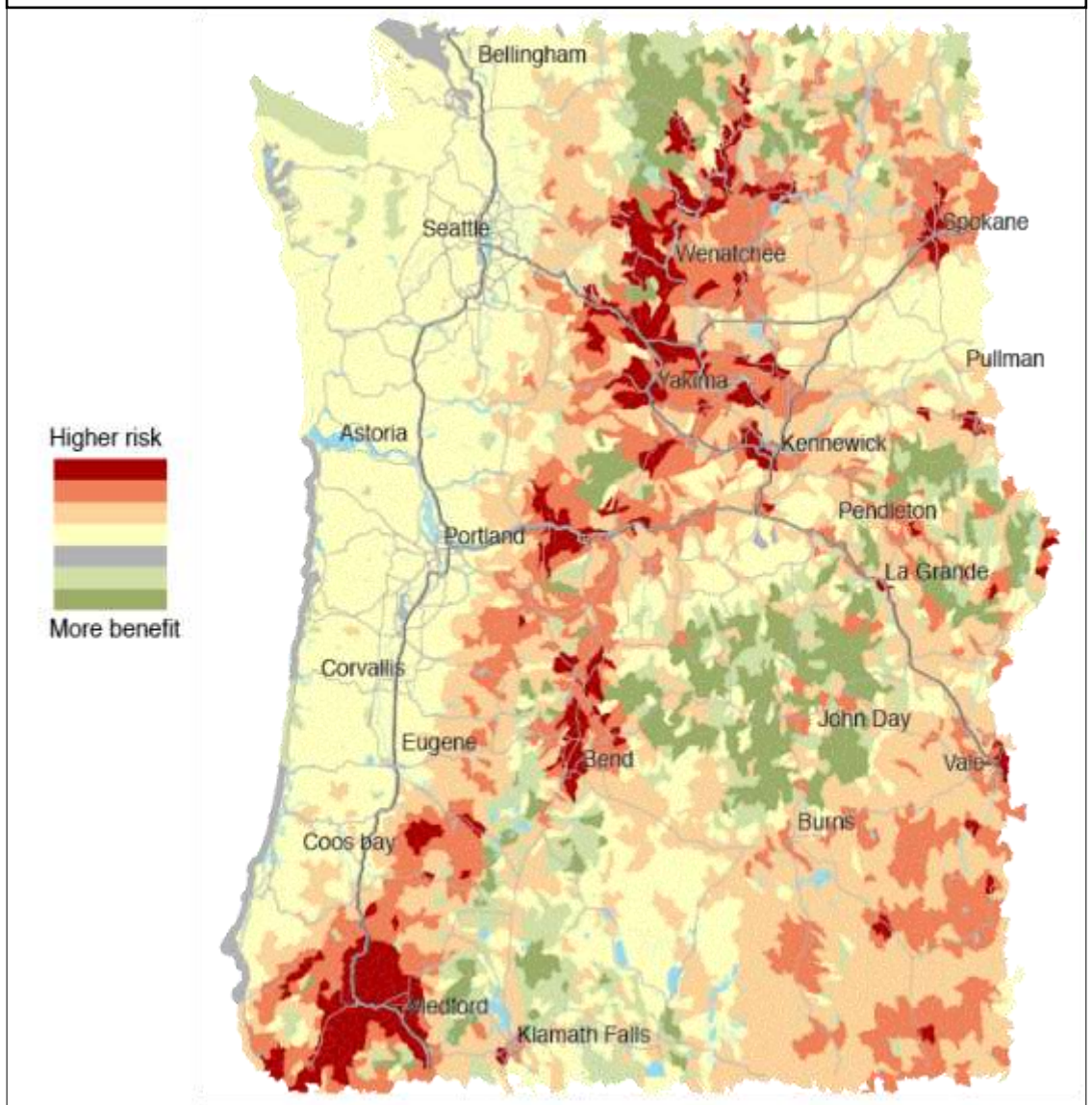
Figure 3G.5 shows the results of a controlled burn risk analysis conducted for Pacific Northwest forests to determine the level of difficulty of returning a sufficient level of intentional burning to these very diverse types of forest.

- Areas in red indicate a high degree of difficulty in implementing controlled burning due to a number of different factors: infrastructure vulnerabilities, population density, sensitive species habitat concerns, and other metrics that feed into a multiple use risk analysis. Areas in green are the least difficult in logistics to return cultural burning, because the forest conditions, landscape, and land use make it easier to do so (Gilberston et al 2018).
- Assets are human-made features, such as commercial structures, critical

facilities, housing, etc., that have a specific importance or value. Resources are natural features, such as wildlife habitat, federally threatened and endangered plant or animal species. Inventories of these assets and resources was conducted for 17 Administrative Forests: Colville, Deschutes, Fremont-Winema, Gifford Pinchot, Malheur, Mt. Baker-Snoqualmie, Mt. Hood, Ochoco, Okanogan-Wenatchee, Olympic, Rogue River-Siskiyou, Siuslaw, Umatilla, Umpqua, Wallowa-Whitman, and Willamette National Forests (NF), as well as the Columbia River Gorge National Scenic Area.

- As this map demonstrates, **CTUIR Ceded lands have a very high potential to benefit from the returning of intentional burning to these forests**

Figure 3G.5: Risk Potential for Prescribed Burn Implementation in OR and WA



and grasslands. CTUIR is working to increase their own use of prescribed fire on-reservation and with co-managed public lands.

- High voltage electric transmission lines respond favorably to low intensity fires, neutrally to moderate fire, but increasingly negatively to high intensity fire intensity. Low voltage lines are mostly wooden poles, and therefore, respond negatively to fires of increasing intensity.
- Railroads have an increasingly negative response to fires of increasing intensity but tend to be more resilient than other infrastructure (Gilbertson et al 2018).
- Roads have a neutral response to low intensity fire and a slightly more negative response with each increasing intensity level. However it is difficult to model the temporal nature of road closures due to wildfire.
- Communication sites have a slightly negative response to low intensity fire, and respond more negatively with each increasing intensity level (Gilbertson et al 2018).
- Bull trout were included in the assessment because of concern over species isolation and ability to recolonize habitat restoration sites following a severe wildfire. The bull trout response to fire is slightly beneficial for low to moderate fire, and increasingly negative to high intensity burns.
- Chinook and Steelhead critical habitat was also included due to the species' listed status and economic importance. Chinook salmon and Steelhead are characterized as slightly benefit from low to moderate fire, but increasingly negative impact from high intensity burns.

Everything indicates that returning beneficial fire to Eastern Oregon and Washington is a high priority for reducing wildfire risk for the area. Efforts that expand the ability of land managers to use fire would help this effort, and there are a number of barriers and opportunities for supporting these adaptations for public and private lands.



A prescribed burn moves through the Umatilla National Forest in March 2022. Pre-fire treatments like selective thinning, and interagency cooperation across jurisdictions make controlled burns possible, and are necessary to reduce wildfire risk.

(Credit: Gilbertson et al 2018)

Gaps in Knowledge/Data/Policy:

- Understanding of how attitudes towards controlled burning from land managers, agencies, and the general public;
- How institutional supports for controlled burns might change, including changes in certifications, regulations, and insurance.

6. Challenges to Healthy Conditions to Exercise Treaty Rights Safely

First Foods must be harvested when they appear on the land, and don't accommodate for inclement weather or human time constraints. Because of changing seasonal conditions, there is an increasingly short window for Tribal Members to harvest First Foods. During the summer, wildfire smoke is likely to be frequently persistent during time periods for summer and fall harvest. Smoke has the potential to cause chronic and worsening health issues for Tribal Members who persevere to harvest during heavy and prolonged smoke events.

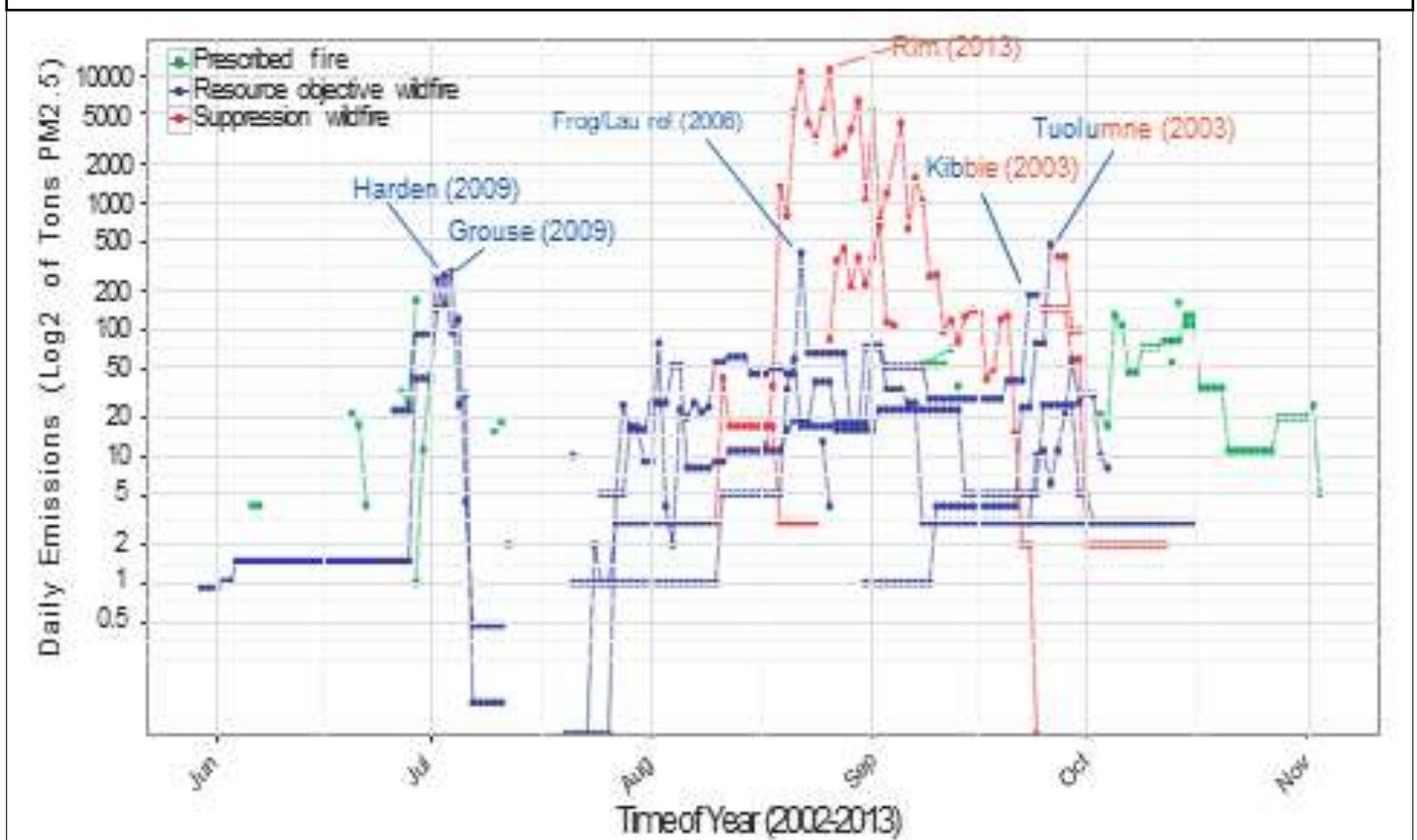
Figure 3G.6 shows a chart of the particulate matter (PM 2.5) generated by four different kinds of fire response in California between 2002 and 2013 (Long et al 2017).

- Colors in the chart are used to show the different kinds of fires: green lines represent prescribed burns; blue lines are ‘resource-objective’ fires (accidental fires that don’t threaten structures and are allowed to let burn in a controlled way); and red lines show wildfires that started and were suppressed (put out rapidly).
- As the chart shows, fires set with planning and intention produced much less particulate matter than those immediately suppressed. Even fires that were not planned but allowed to burn strategically emitted less smoke.
- On average, prescribed burns and resource-objective wildfires released an estimated 10-20 tons of PM 2.5 daily, while suppression wildfires averaged 500-1000 tons of PM2.5 daily for the same period. Suppressed wildfires thus released about 50 times more PM2.5 than wildfires intentionally allowed to burn (Long et al 2017).

- While these exact corollary relationships require more research to determine benefits of intentional burn on air pollution, this study suggests that cultural burning could result in **roughly 20% improvement in seasonal air quality daily being maintained through use of intentional burning** (figures estimated visually from Fig 3G.6, Long et al 2017).
- This demonstrates that a proactive approach to managing vegetation fuels, through selective thinning and prescribed fire, can immediately and over the long term reduce the impact of wildfire smoke on the air over CTUIR Ceded lands. Intentional burns can also play a role in reducing chronic health hazards from smoke inundation events.

Chronic respiratory conditions like asthma, chronic obstructive pulmonary disorder (COPD), diabetes, and cardiac illness exist at a higher rates for Tribal communities than national average due to environmental racism, and this is also true for CTUIR. These conditions are all made worse by heavy smoke exposure, and are unfortunately likely to persist into the future; see Ch 3D pages 142-143 for additional detail.

Figure 3G.6: Smoke Emission Patterns from Prescribed, Resource Objective, and Suppression Fires



This will create a dilemma for Tribal communities choosing between maintaining reciprocal relationships with First Foods, and preserving physical health in the long term. This is true for those with pre-existing illness, as well as for those who don't have pre-existing conditions, as healthy people might see adverse health effects over many years of heavy smoke exposure during summer and fall months.

With wildfire projections set to increase in frequency and intensity, dry seasons like summer and (increasingly) fall are likely to experience some period of prolonged smoke, both from local fires as well as those from around the West Coast. Intentional burning can help with reducing the risk of catastrophic

wildfire, and also reduce the overall air pollution involved with burning in forests and grasslands. Indigenous people must be at the forefront of these adaptation strategies.

(Credit: Long et al, 2017)

Gaps in Knowledge/Data/Policy:

- Understanding of how attitudes to using fire as a management tool are going to change within the general public;
- Effects and effectiveness of climate impacts on other forest and grassland management tools such as grazing and spraying;
- Other policy and legislative actions that may be taken to preserve air quality.

Adaptation Goals for Treaty Rights

D. Engage with Tribal Rights and Other Legal and Legislative Mechanisms

“The Tribes assert and exercise sovereign authority over the Reservation’s current territory and any future territory that may come within Tribal jurisdiction, protecting Tribal rights and welfare in all areas. The Tribes complete sovereign power includes the following legislative authority: the power to define individual conduct, to regulate business enterprises, to tax, protect the environment, regulate natural resource uses, to provide for health, education, and welfare, protect religious freedom, and to make laws as any other nation (CTUIR Comprehensive Plan 2010).”

i. Bureaucratic Mechanisms

Red tape and bureaucratic process can be an annoyance at times, but many of these processes are in place to create mechanisms able stop arbitrary and harmful actions from being conducted without resistance. CTUIR and other Tribes have used these bureaucratic mechanisms to stall and reverse agency decisions that threaten Tribal resources, and can be lessons to look to for preventing action that would contribute to First Foods harm or climate crisis impacts.

Short Term:

- **Incorporate climate projections and impacts during participation in agency procedures and process for permit applications, and others as appropriate.** Previous cases have used 1) agency failure to recognize impacted Treaty Rights and 2) lack of adequate emergency response planning, to recommend permit denials for fossil fuel projects within CTUIR’s territories. Incorporating climate projections and cultural documentation to these processes could provide further justification for permit objections.

Long Term:

- **Continue to pursue and participate in National Environmental Policy Act (NEPA) permitting and procedure** as a tool for 1) using partnership relationships with agencies to build well-considered processes that can be used to defend, and 2) delay or deny potentially harmful and poorly done processes that have not included sufficient Tribal participation. Additional incorporation of climate projections into processes would also strengthen defense of impacts to Tribal resources.



- **Continue to advocate for and participate in government-to-government consultation under the Administrative Procedure Act.** This Act governs the process by which federal agencies develop and issue regulations and requires meaningful consultation with Tribal nations. Adequate consultation with Tribes can be a powerful and flexible tool for building bureaucratic justification and defense. Using this Climate Adaptation Plan and other policy documents that incorporate climate impacts, CTUIR will be more prepared for meaningful consultation, now and into the future.

ii. State Legislative Mechanisms -- Carbon Pricing

Oregon and Washington States have, in recent years, dabbled with carbon pricing schemes, with little success in approving and implementing those initiatives. Market-based carbon initiatives are likely to continue to be pursued by future state legislatures, and Tribes will be affected by these efforts. Tribes are communities which contributed very little of carbon emissions responsible for this crisis, and decisions about Tribes and their fates should not be left at the behest of state legislatures, but for Tribes themselves to determine.

Short Term:

- **Conduct an internal inventory of perspectives and priorities related to carbon pricing schemes.** No Tribe is a monolith, and many opinions exist about carbon crediting approaches. Organizing community, staff, and leadership gatherings to explore decisions on the policy level is likely to improve CTUIR communication and



Language is an essential component of Tamanwit, and reciprocal connection to land and community for Tribal people. Access to educational opportunities to learn Tribal language, including the Immersion School, should be celebrated (pictured, Treaty Day).

commitment to carbon pricing mechanisms. Asking foundational analysis questions like ‘what is most important? Why are we doing this? What do we need to protect?’ as it relates to the legislation and implementation of carbon schemes will improve CTUIR’s accountability to the Tribal community in pursuing and/or responding to carbon pricing initiatives.

- **Advocate for carbon structures that allow Tribes to “opt in” to pricing and regulatory schemes.** Administration of such frameworks could pose a significant burden on governing capacity. Legislation that supports Tribes with additional capacity building, potential carbon pricing templates, and the ability for a Tribe to create their own carbon pricing structure would support Tribal self-determination in these frameworks.

Long Term:

- **Continue to advocate for elements in carbon pricing legislation that recognized Tribal sovereignty needs to be engaged over Tribal lands and Tribal resources.** Early reports about the success of carbon crediting from Indigenous communities in California and British Columbia are mixed. Some Tribes and First Nations have

boasted success with participating in carbon markets, while others have expressed concern over forest management and access to landscapes for the purpose of traditional harvest and practices.

- **Continue to build good state-Tribal relations and engage with states on a legislative level.** Building functional and mutually beneficial relationships is foundational to accomplishing governance.

Continuing to network and engage with other governmental agencies and entities creates opportunities for “soft power” in discussions and negotiations.

iii. Federal Mechanisms - Public Trust Doctrine and 5th Amendment

Protections of personal freedoms are preserved in various places within United States frameworks, including within the 5th Amendment and the Public Trust Doctrine. These protections can be drawn in direct parallel to Tribal Treaty Rights and rights to Self Determination. Examining opportunities to strengthen connection between Tribal rights and these other enshrined rights could provide additional pathways of protection for Tribal sovereignty and governance over climate adaptation measures.

Short Term:

- **Consider providing *Amicus* party justification/briefings in legal cases that have climate adaptation and pollution control implications.** Strengthening litigation that supports Tribal rights and the rights to a safe and prosperous future will provide Tribes with legal footholds to pursue further protections and enforcement of Tribal sovereignty.
- **Consider pursuing and strengthening protections that relate to the 5th Amendment, including Rights of Nature and Rights of Future Generations concepts,** among others. Under the 5th Amendment, property rights cannot be divested without due process. A parallel concept exists for Treaty Rights: considered “property rights” under the ownership or control of a Tribe, these are protected under the 5th Amendment. Collectively recognized, Tribes have legal claim to the Treaty Rights to cultural and subsistence practices. Previous U.S. Supreme Court cases have set precedent that protected rights to harvest and access are extended to

populations of species inherent in these practices. One illustrative case, *United States v. Washington* (2018), demonstrates the power of Tribes to advocate for restoration action to preserve salmon populations through 5th Amendment protections to Treaty Rights. Pursuing discussions on how those protections extend to non-human relatives and future generations could build justification for extended legal personhood arguments to succeed.

Long Term:

- **Consider pursuing and strengthening connections of Tribal rights to Public Trust Doctrine protections in any way possible.** Under the Public Trust Doctrine, general citizens to have rights to clean air and water and land, and the right to exist safely. These rights are parallel Tribal trust obligations with the Federal government, and failure to act on the climate crisis could be seen as a violation of Tribal and Public Trust obligations.

iv. International – United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP)

International governing bodies have recognized Indigenous People have unique relationships and cultures, which require additional protection and translation on how these apply across global communities. The United Nations Declaration of the Rights of Indigenous People (UNDRIP) was ratified in 2007 and provides a mechanism by which Indigenous People can potentially circumvent “uncooperative domestic governments” and seek review from international courts. Several articles within UNDRIP correlate with rights and freedoms guaranteed by U.S. Treaties and amendments in the U.S. Constitution. These provide potential avenues of redress for grievances between Tribes and domestic governments under international review.



Long Term:

- **Identifying mechanisms could strengthen legal protections nationally and internationally**, especially in solidarity with other Indigenous communities globally. These could include (but are not limited to) UNDRIP (2007):

◇ *Article 31*

1. Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

2. In conjunction with Indigenous peoples, States shall take effective measures to recognize and protect the exercise of these rights.

- ◇ *Article 37.1:* Indigenous peoples have the right to the recognition, observance and enforcement of treaties, agreements and other constructive arrangements concluded with States or their successors and to have States honor and respect such Treaties, agreements and other constructive arrangements.

This list provides a couple of examples found within UNDRIP; the full document can be found at the United Nations website: https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

E. Strengthen Education and Communication

i. Education for Tribal and non-Tribal Community

Tribal people have deep cultural knowledge and connection that creates inherent climate resilience. Thus education about First Foods, cultural practices, Tribal sovereignty, and Treaty Rights becomes essential in planning and implementing adaptation.

Short Term:

- **Incorporate Tribal language and cultural learning into department and program operations as much as possible.** This could include encouraging staff to attend available language classes, and specifically seeking Tribal Language Program staff input into documents and reports, among others.

- **Intentionally pursue and secure necessary funding to support and continue Language education opportunities like Culture Camp and**

the Tribal Language Knowledge Bowl. Opportunities to engage youth and families in Language learning improves understand and awareness of the importance of Tribal connection to place and First Foods.

- **Explicitly include community engagement and education into Tribal departments, services, and planning.** Many CTUIR planning and



CTUIR Education Dept staff conduct outreach for Tribal Language Program resources, including the Umatilla Language Dictionary.

technical policies currently do not include activities and benchmarks for sustained community education as part of their strategies.

- **Develop a protocol for CTUIR department/program plans and projects to collaborate with Nixyaawii Community School (NCS) Board and the Education and Training Committee (ETC)** as part of implementation and planning of these efforts.
- **Continue to implement and update the CTUIR Education Strategic Plan.** This plan informs how the Education Department conducts activities and goals, including the Oregon Department of Education Umatilla Bi-Literacy test for Tribal student language recognition.
- **Encourage community and staff to become familiar with and actively utilize the Umatilla Dictionary and Sahaptin keyboard** into documents and reports. Connecting Tribal services and plans to culture and sovereignty will build legally defensible justifications and strengthen Treaty Rights and Tribal sovereignty protections.

Long Term:

- **Continue to develop education around cultural knowledge and Treaty practices.** Examples include the Language Program Tamayct, CTUIR’s Afterschool and Head Start Programs, and First Foods Excursions, among others. Activities should be planned for both exclusive education of Tribal Members and descendants, as well as others for non-Tribal audiences, as appropriate.
- **Formalize First Foods systems of**

responsibility in developing textbooks, policy documents, technical guidance, and government services.

This relationship builds defensible justification for Tribal self-determination, Treatment-as-State, and rights to Treaty practices across a vast and changing landscape.

- **Actively promote education of First Foods, Treaty Rights, and Tribal sovereignty to non-Tribal audiences.** Such activities should aim to increase understanding and opportunities for collaboration, resource co-management, Treaty Rights access, prescribed burn management, and generally a sense of shared fate with Indigenous knowledge as a protected priority.

ii. Communication of Tribal Knowledge and Policy

Many potential partners and collaboration opportunities have gone underutilized due to a lack of understanding about Tribal rights, culture, procedure, and governance. Expanding communication of Tribal priorities through official publications and engagement opportunities could boost participating with CTUIR in many different ways.

Short Term:

- **Organize and facilitate live and on-demand educational content through virtual recorded webinars** similar to the kind conducted as part of the Climate Adaptation Webinar Series (Nov 2020 – June 2021) on various Tribal program efforts and community projects.
- **Continue to implement and inform Senate Bill-13 on Tribal History/ Shared History** as part of a state effort to expand understanding and recognition of Oregon’s Nine Tribes.



- **Promote and facilitate learning opportunities with the Šapátunxwit Community Curriculum and Online Resource.** These resources should be used to continue to engage Tribal community on climate impacts and adaptations. That resource is located here: <https://ctuir.org/departments/natural-resources/climate-adaptation/s-apa-tunx-wit-community-curriculum-and-online-resource/>

Long Term:

- **Organize and facilitate regularly occurring discussion groups for CTUIR’s Tribal community on CTUIR policy documents,** to expand understanding and continued engagement on future improvements and updates to these documents. Regularly engaging the Tribal community is likely to improve long term planning success and identify gaps in services. See Ch 3D pages 156-158 and Ch 3F pages 249-250 for additional details.

responsibilities, especially in ways that can be documented in support of Tribal capacity. This includes clear policy that integrates Tribal social, cultural, traditional, economic, and Treaty purposes. Also needed are structures/frameworks with demonstrable functions and impacts that relate (where possible) to existing Tribal capacity, such as the CTUIR Comprehensive Plan, policy statements, and services.

Long Term:

- **Promote understanding and awareness of documented services and policies that formalize First Foods systems of responsibility.** DNR’s First Foods Mission, First Foods Policy Program (FFPP) and First Foods Policy are examples of translating cultural importance into government policy. These also help anticipate what leadership policy goals might be, as well as direct other programs about how to operate and provide services.

F. Fortify First Foods in Systems of Responsibility

“As a group, we do not have the mastery of our language anymore, simply because of all the cultural influences that have been added to our world. But we exist, and we continue to view ourselves as a distinct group of people because of our ancestors’ actions and their foresight in seeking to preserve our rights through treaty. We must, as our ancestors did, maintain the vision of our sovereignty, represented by our old ways, and we must do so while adapting to new predicaments (Johnson, 2006).”

Indigenous people have deep connections to homelands, which manifest in enduring relationships between place and people, like the First Foods. Translating these reciprocal relationships into policy and technical documents to guide governance contributes to preservation of culture and sovereignty.

Short Term:

- **Intentionally build opportunities for clear policy, structures, and frameworks that formalize First Foods relationships and**



CTUIR Fisheries Project manager Jeremiah Bonifer teaches Tribal youth about salmon habitat and restoration work (pictured). Strengthening learning and education opportunities for Tribal and non-Tribal audiences of all kinds improves understanding of Treaty Rights.

How Do We Measure the Success of These Adaptations?

“For two centuries, our people have been engaged in a battle. We have fought to keep our lands, maintain our sovereignty, retain our culture, and convince others that we have no intention of leaving or giving up. We have fought to be free to live as our ancestors did, free to practice our religion, free to go where we please at our leisure. We can never take these freedoms for granted (Morning Owl et al 2015).”

- **Confederated Tribes of Umatilla Treaty of 1855**
- Board of Trustees List of Priorities
- **CTUIR Comprehensive Plan Objective 5.2.2:** Manage Tribally owned lands to assure the highest and best use for Tribal Members consistent with their inherent capabilities (Comp Plan page 67 for benchmarks);
- **CTUIR Comprehensive Plan Objective 5.8.3:** Integrate CTUIR 1855 Treaty-reserved rights protection with the development and exercise of the Confederated Tribes’ sovereignty, economic development and employment, and political and legal affairs. (Comp Plan page 95 for benchmarks);
- **CTUIR Comprehensive Plan Objective 5.10.7:** Promote national and local civic responsibility while educating students on the meaning of CTUIR sovereignty (Comp Plan page 103 for benchmarks).
- **CTUIR Emergency Operations Plan Section 3.3.3: Individuals and Households.** Suggestions include: reducing hazards in homes, preparing an emergency supply kit and household emergency plan, monitoring emergency



Protecting access and ability to practice Treaty Rights, secured in the Treaty of 1855, preserves reciprocal relationships to First Foods into perpetuity for current and future generations.

- communications carefully, volunteering with an established organization, and enrolling in emergency response training courses (page 67);
- **CTUIR Emergency Operations Plan Section 4.5: Response Priorities.** Priorities include: self-preservation for CTUIR employees and families, protection of life and property, protection of CTUIR cultural resources, emergency food and temporary housing, restoration of infrastructure, business enterprises, and recovery (page 79).
- **CTUIR Emergency Operations Plan Section 6.5: Community Outreach and Preparedness Education.** Identifies the need for an active community preparedness program (page 99).
- Annual/seasonal exercise of Treaty Rights by CTUIR Tribal community.
- Partnerships with agencies and landowners on Treaty Rights opportunities.

- Coordination with agencies and landowners on cultural and prescribed burning.
- Preservation and promotion of Tribal language learning opportunities and technologies.

What Gaps in Knowledge, Policy, Capacity, or Education Exist?

- Understanding of how land and water access might change with future energy and carbon crediting initiatives and how these might impact Treaty Rights;
- How expanding regional understanding and awareness of Tribal Rights and Indigenous stewardship strategies will affect land and water access for cultural practices.

Tribal Sovereignty and Rights Summary

Tribal Sovereignty Adaptation Goals

- A. Capacity Building and Expansion of Tribal Self Determination**
- B. Cooperative Partnerships and Agreements**
- C. Support Tribal Policy, Frameworks, and Services**

Tribal sovereignty has many strong mechanisms that can be used to pursue and protect climate adaptation strategies. These mechanisms strengthen connection to the land, and can benefit Tribal and non-Tribal communities and priorities.

Measures of Success:

- Confederated Tribes of Umatilla Treaty of 1855 Article One
- CTUIR Comprehensive Plan 5.7. 2, 5.7.8, 5.8.4, and 5.8.5
- Mission Community Plan (1995) and Water Code (2005)
- CTUIR Emergency Operations Plan (2016) Section 3
- CTUIR Hazard Mitigation Plan (2016, 2021) Section 5
- Coordination with agencies and landowners on cultural and prescribed burning.

Treaty Rights Adaptation Goals

- D. Engage with Tribal Rights and Other Legal and Legislative Mechanisms**
- E. Strengthen Education and Communication**
- F. Fortify First Foods in Systems of Responsibility**

Responsible and regular exercise of Treaty Rights is essential for maintaining and expanding Indigenous knowledge on CTUIR lands. These include traditional land management techniques like cultural burning, as well as the revitalization of dormant practices, and understanding of reciprocal responsibility.

Measures of Success:

- Confederated Tribes of Umatilla Treaty of 1855 Article One
- CTUIR Comprehensive Plan (2010) Objectives 5.2.2, 5.8.3, and 5.10.7
- CTUIR Emergency Operations Plan (2016) Sections 3.3.3, 4.5, and 6.5
- Annual/seasonal exercise of Treaty Rights by CTUIR Tribal community.
- Engagement with legal and legislative efforts on carbon accounting
- Partnerships with agencies and landowners on Treaty Rights opportunities.



Chapter 3G References and Credits

Literature References

Behrer, A. Patrick; and Bolotnyy, Valentin. 2021. "Heat, Crime, and Punishment." Economics Working Paper 21114. <https://www.hoover.org/sites/default/files/21114-bolotnyy.pdf>

Clifton, Caty F.; Day, Kate T.; Luce, Charles H.; Grant, Gordon E.; Safeeq, Mohammad; Halofsky, Jessica E.; Staab, Brian P. 2018. "Effects of climate change on hydrology and water resources in the Blue Mountains, Oregon, USA." *Climate Services*, Volume 10, Pages 9-19, ISSN 2405-8807, <https://doi.org/10.1016/j.cliser.2018.03.001>.

Gilbertson-Day, Julie W.; Stratton, Richard D.; Scott, Joe H.; Vogler, Kevin C.; and Brough, April. 2018. "Pacific Northwest Quantitative Wildfire Risk Assessment: Methods and Results." Fire, Fuels, and Aviation Management; DOI BLM OR/WA State Offices, and the USFS PNW/AK Regional Offices.

Henderson, David E.; Milford, Jana B.; and Miller, Shelly L. 2005. "Prescribed Burns and Wildfires in Colorado: Impacts of Mitigation Measures on Indoor Air Particulate Matter." *Journal of the Air & Waste Management Association*, 55:10, 1516-1526, DOI: 10.1080/10473289.2005.10464746

Hopkins, James. 2012. "Tribal Sovereignty and Climate Change: Moving Toward Intergovernmental Cooperation." Arizona Legal Studies Discussion Paper No. 12-07, University of Arizona James E. Rogers College of Law.

Long, Jonathan W.; Tarnay, Leland W.; and North, Malcolm P. 2017. "Aligning Smoke Management with Ecological and Public Health Goals." *Journal of Forestry* 116 (1): 76-86. <http://dx.doi.org/10.5849/>

[jof.16-042](#)

Whyte, Kyle Powys. 2013 "Justice forward: Tribes, climate adaptation and responsibility." March 2013. Springer Science+Business Media Dordrecht: Climatic Change. DOI 10.1007/s10584-013-0743-2

Photo Credits

- Part G Cover Photo; "Tribal staff and knowledge keepers discuss Rainwater acquisition," CTUIR DNR CRPP
- Background Photo; "Iskuulkpte Creek from ridgetop," CTUIR DNR CRPP
- Background Photo; "DNR Fisheries staff corral juvenile salmon for collection," CTUIR DNR
- Inset Photo; "Tribal community demonstrate in solidarity with Standing Rock," East Oregonian, 2016
- Inset Photo; "Tribal youth participate in hands-on learning about First Foods," CTUIR DNR CRPP
- Inset Photo Left; "Fisheries rotary trap damaged by floodwaters," CTUIR DNR 2020
- Inset Photo Right; "Water Resources stream flow gauging station damaged by floodwaters," CTUIR DNR 2020
- Inset Photo; "DNR staff view new Women's Foods Monitoring station on forestry tour," CTUIR DNR FFPP 2019
- Panel Photo; "Huckleberries and leaves," CTUIR DNR FFPP 2018
- Inset Photo; "DNR staff Wenix Red Elk provides outreach at Treaty Day," CTUIR Confederated Umatilla Journal (CUJ) 2021
- Panel Photo; "DNR staff work on Meacham Creek restoration," CTUIR DNR



- Inset Photo; “U.S. Forest Service’s Smokey Bear provides outreach at Community Picnic,” CTUIR CUJ Aug 2022
- Panel Photo; “Net repair tools and materials,” CTUIR DNR CRPP
- Inset Photo; “CTUIR OIT staff install atmospheric weather station,” CTUIR DNR RAF Amanda Lowe, 2020
- Inset Photo; “Endemic Blue Mountain Orchid species,” CTUIR DNR CRPP
- Background Photo; “View from Blue Mountains Ridge,” CTUIR DNR CRPP Wenix Red Elk
- Inset Photo; “Prescribed burn occurring in Umatilla National Forest,” U.S. Forest Service Umatilla National Forest, 2022
- Panel Photo; “Wildflowers bloom in Blue Mountains,” CTUIR DNR CRPP
- Inset Photo; “Language Immersion School represent in the Treaty Day parade,” CTUIR CUJ June 2022
- Panel Photo; “Flows of the Umatilla River,” CTUIR DNR Water Resources Program (WRP)
- Inset Photo; “CTUIR Language Program staff provide outreach at Treaty Day,” CTUIR CUJ June 2022
- Panel Photo; “Flowers bloom along the Columbia River at Hanford,” CTUIR DNR FFPP 2022
- Inset Photo; “DNR Fisheries staff provide Tribal youth education opportunity,” CTUIR DNR
- Inset Photo; “Youth participants have fun at Wildhorse Powwow,” CTUIR CUJ July 2022
- Summary Inset Photo; “Happy Canyon royalty ride in Treaty Day parade,” CTUIR CUJ June 2022
- Panel Photo; “Footsteps in the sand at Hanford cultural site,” CTUIR DNR FFPP 2022

Conclusions for Adaptation

Across all Areas of Focus

1. First Foods Knowledge, Access, Processing, and Safe Harvest

- Secure and expand Tribal Member ability to uphold these reciprocal relationships.
- Build understanding of First Foods life cycles, appropriate harvest information, and processing.
- Gain a better understanding of sentiments and strategies around displaced species, species migration, and other facilitated migration opportunities.
- Develop strategies to address displaced species that threaten First Foods. These may be native species that are outside their range, that increase risk, or that predate on First Foods in their life stages.

2. Information Collection, Sharing, and Networks for Tribal Sovereignty

- Develop knowledge and observation sharing platforms and protocols for community.
- Information collection and analysis should center Indigenous knowledge and empowerment of Treaty Rights and cultural practices.
- Develop education and infrastructure to support local access to First Foods and safe opportunities for mutual aid and exchange.

3. Training, Education, and Opportunity for Tribal Community

- Tribal Youth and Students – who are future leaders and are most impacted by future changes.
- Tribal Harvesters and Entrepreneurs – who spend much of their time outdoors and will experience disproportionate mental and physical health impacts.
- Expand access to financial services through mechanisms that improve quality of life, empowerment around decision-making, and flexible financing for those in the Tribal community.

4. Flexibility/Adaptability in Governance, Economy, Community, and Self

- Build capacity to anticipate variability by implementing flexible and adaptive strategies for all services and events.
- This will include developing policy, infrastructure, and social protocols that facilitate flexible living.
- Provide opportunities to listen to the Tribal community around issues being experienced, and develop protocols to respond to these concerns.

5. Build Capacity to Implement Adaptation

- Support Tribal governments, and community knowledge and enthusiasm to tackle emerging problems, using capacity to fund, administer, and implement these strategies.
- Securing programmatic funding for adaptation strategies, expand Tribal community capacity to implement adaptations, and prioritize solutions with an interdisciplinary approaches.
- Maintain, improve, and expand every opportunity for Treatment-as-State, Land Back, Treaty Rights, litigation, partnerships, and other sovereignty mechanisms.

Next Steps

Future efforts will need to focus on building capacity and knowledge of climate impacts being experienced, and will need to involve both the CTUIR government and community.

1. Incorporate climate projections into the forthcoming update to the CTUIR Comprehensive Plan, set to occur in 2025.
2. Organize and facilitate community knowledge-sharing and gathering opportunities with the Sapatunxwit Community Curriculum.
3. Organize a process and relevant CTUIR staff and community members to develop department-specific CAP implementation plans.

Climate Adaptation Planning Timeline

Pre-Plan

(2018-2019)

- Synthesis of Data from Scientific Literature
 - ◊ Literature Review for regional, relevant, and recent Climate Projections and downscaled data modeling.
- Investigation of other Tribal Plans and Strategies
 - ◊ Engage with other Columbia River Plateau Tribes doing climate adaptation (Nez Perce, Yakama, CRITFC)
- Regional climate adaptation planning workshops and planning cohorts. This included workshops on health, native wildlife, smoke management, and Tribal climate planning, with various inter-Tribal partner organizations.

Drafting & Community Engagement

(2019-2022)

- Draft Plan Released June 2nd 2021— published in draft form on the CTUIR Climate Adaptation webpages on the CTUIR website.
- Engagement included mailing requested prints of drafts, providing printed drafts to DCFS Food Distribution participants, and at the CTUIR Seniors Center.
- Additional outreach and draft documents available at community events such as the Elders Lunch, Community Picnic, DNR Open House, and others.
- Climate Adaptation Webinar Series (Nov 2020—June 2021) - virtual community engagement highlighting Tribal knowledge keepers, staff, and partners.

Revisions and BOT Resolution

(2022)

- Incorporate feedback and revise draft accordingly. Community, leader, and staff engagement was tremendous and incorporating excellent feedback throughout the document took some time. Patience shown by community was greatly appreciated.
- Review of draft plan by CTUIR commissions and committees; multiple entities views different sections of the plan by relevance to area of focus, and vote on support for full document was done by polling.
- CTUIR Board of Trustees review sessions—BOT reviewed the revised final document as an overview of the Executive Summary, and a resolution to adopt.
- Resolution No. 22-103 to Adopt accepted on 19, December, 2022.

Next Steps

(2023 and beyond)

- Sapatunxwit Community Curriculum—establish a standardization of understanding climate impacts. Talking circles and discussion groups to guide engagement.
- CTUIR Comprehensive Plan Update in 2025— this scheduled update to the CTUIR guiding document will incorporate climate projections in benchmarks.
- Community Survey—improvements, updates, and revisions to future Climate Adaptation Plan revisions. Assess document accuracy and relevance to need.