

CTUIR Climate Adaptation Plan

Implementation Planning Workshop 1.1 Notes

March 21, 2025 8 – 10 AM

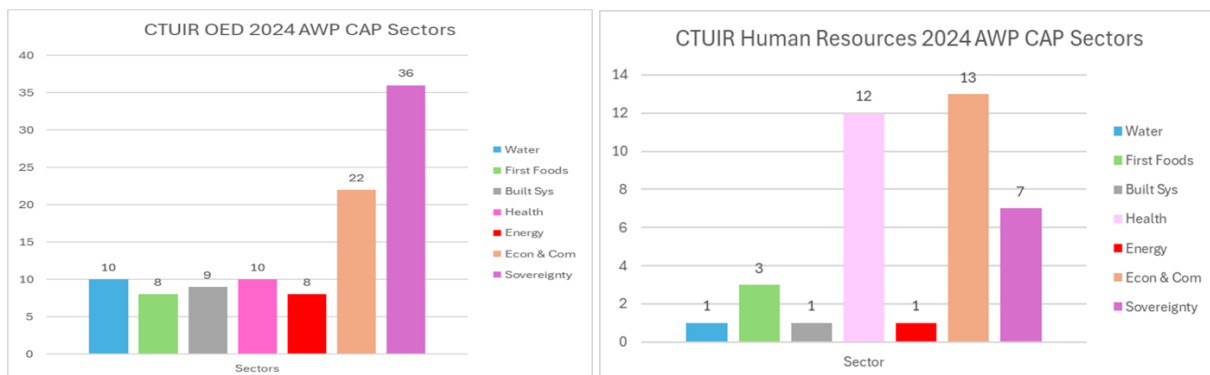
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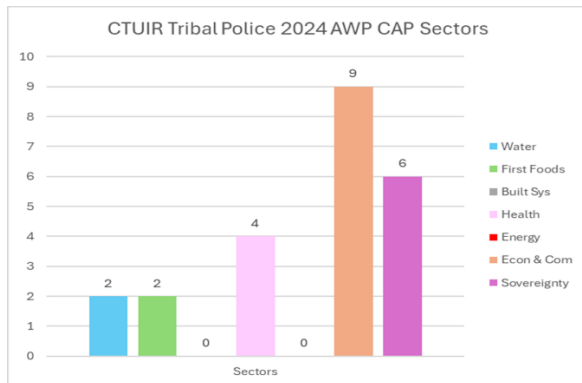
Thank you again for your time and energy with this Implementation Planning effort!

In attendance:

- Session 1
 - Ethel Hogge, OED
 - Tim Addleman, Tribal Police
 - Gretchen Kern, Human Resources
 - Roy Jones, Wildhorse Resort & Casino

Scope of Responsibility from 2024 Annual Work Plans:





Items of interest for Implementation Plan:

- Specific impacts identified by departments
- Issues/items that affect Tribal budgets and long term planning
- Tracking metrics for progress identified by departments
- Roles and responsibilities for mitigation/adaptation measures
- Opportunities for additional climate/carbon and emergency preparedness funding to support/expand existing work and implement new initiatives

DNR and First Foods Policy Program

- Workshop example: air quality response activities include:
 - understanding that Tribal practitioners are likely to still practice rights during poor air quality events if there are First Foods to be harvested;
 - sending personal protective equipment like P100 respirators with Tribal harvesters for on-site as-needed protection, in-building air filtration units for use within NGC, and units to be distributed to high-risk Yellowhawk patients for use in homes.
 - This was grant funded but involved in-direct because of purchasing and DNR staff time. Also expanded CTUIR relationship with funder Meyer Memorial Trust and contributed to securing additional funds for dedicated staff position and equipment from Oregon Health Authority. Opportunity to improve publicity around this tangible improvement to operations as a climate adaptation for Yellowhawk.
- Mitigation versus adaptation example: Providing cutlery to Feast attendees falls on Longhouse cooks, who currently purchase single use plastic to be thrown away. A long term way to reduce this plastic is for Feast attendees to bring their own cutlery to use and take back and wash at home, reducing labor burden on Longhouse cooks and the water required for dishwashing. While we wait for behaviors to change in the

short term, FFPP single use plastic reduction campaign purchased plant-based plastic reusable cutlery and TCI uses plant-based plastic single use cutlery to patrons, which reduces some of the plastic used and moves us closer to sustainable behavior. It takes time and dedicated energy to change deeply entrenched habits towards sustainability.

- As CTUIR implements adaptation, there is a need to track the changing costs associated with these actions. This tracking can be used to describe the additional cost burden of adaptation and may be eligible for future funding sources dedicated to financing adaptation measures; these may be state, federal, or private funding sources, but having a record of cost differences already established will help secure/justify additional funds.

Wildhorse Resort and Casino (WRC)

- Goal of operating sustainably and not contributing to climate crisis, GHG emissions
- Adapt to possible things like air quality and HVAC air circulation to prevent WRC operating disruption,
 - Role of Casino to provide Tribal dollars revenue, since CTUIR relies on casino revenue, drives desire to improve WRC ability to adapt and continue operations and financial support to CTUIR.
- Role of Casino as a de facto displacement center during events and in general, place of refuge for community
- Energy conservation measures implemented by WRC over many years and with partners like Energy Trust of Oregon.
- People displaced from a natural disaster are not going to be gambling during their time at the casino, they will isolate in their room and seek out services and information, so this hotel occupancy doesn't translate into gaming revenue.
- Do we have an understanding of how populations are changing? This includes birthrate as well as migration to and from the area. Improved or dedicated initiative to understand how our population demographics are or will be changing could help prepare for changes to community composition and need.
- Climate impacts touch on every aspect of how WRC operates and will continue to operate.
- Existing HVAC system is extremely robust and designed to bring in 100% outdoor air to mitigate tobacco smoke inside; thus when there was a heavy smoke inundation event outside, it created an impossible situation of breathing unhealthy inside air or unhealthy outside air.

- During the Covid-19 pandemic the permission to smoke cigarettes inside the casino was revoked and remains prohibited.
- Now WRC HVAC is able to circulate a mixture of inside and outside air, which has also reduced energy demand through reduced need to “condition” the air (heat or cool depending on season) as a result.
- WRC recently replaced HVAC system/components with new units that are able to completely seal air intake from the outside off and only circulate inside air during smoke events. This increases WRC’s ability to mitigate.
- Long term response requires the Tribe as a whole to determine how we will respond to the “big picture” impact of climate crisis. One example is if the environment changes in a way that tourism and gambling revenue declines, how can CTUIR have multiple revenue streams to protect sovereignty even if the tourism environment changes.
- Climate literature suggests new recommendations for HVAC systems to prepare for regular smoke events. HVAC filtration is measured in “MERV” ratings; current industry standard recommends a MERV 8 for most facilities, while climate researchers recommend a MERV 13 for future facilities and any retrofit that may be possible on existing systems.
 - How can we prepare our existing systems for this long term change? Example of swamp cooler in the basement to meet air conditioning needs in the short term, but what is the plan to improve ventilation and air filtration for all CTUIR facilities for future conditions?
- Covid-19 pandemic government response is a good example to look to for Tribal departments; during the declared emergency, federal funds were made available to reimburse Tribes who could show the claimed costs were in direct response to actions taken to protect health and safety of both clients/customers and employees.
- Much of Wildhorse’s infrastructure is state-of-the-art and can be an example to look to for how other facilities could be upgraded to meet changing environmental conditions. How can we document the adaptations WRC has implemented so other CTUIR facilities can look to it?

Human Resources (HR)

- Role is to coordinate and communicate with Tribal departments and job descriptions, could be used to track progress for items for departments in annual work plans and job descriptions
- Supporting work of other departments and connecting efforts across CTUIR

- Morale and team building events can be a source of plastic waste through the “swag” items that are purchased and given out. Often these items immediately or shortly after distribution end up as garbage, but its creation and transport emitted carbon only to be thrown away.
 - Plant-based plastic alternatives could be prioritized
 - Home/local or community-made items could also be considered when developing “swag” give-aways. This would take additional planning and sourcing effort to find people in our community capable of producing the quantity of items we need, and time for them to be able to fill this order.
- Increasing anxiety about climate change and/or natural disasters/emergency conditions that may cause increased interpersonal strain, HR administers interpersonal interactions for CTUIR departments.
 - Planning for increased need to mitigate interpersonal conflict exacerbated by mental strain or proactively manage for strain or distraction from ongoing emergencies may be necessary to protect employee mental and emotional health.
- Looking to the 2020 Flood as an example of what we might expect to see in the future, many CTUIR employees needed to be at home to prepare their homes and/or evacuate their families during the work day and didn’t necessarily have adequate leave available to do so. OED/Incident Command Team arranged for Admin leave for employees to be able to do so, which is at a cost to CTUIR.
 - Short term mitigations would include making sure CTUIR can provide Admin leave to employees affected by acute climate impacts
 - Long term adaptations would be to create a work environment and framework that facilitates flexibility for employees to be able to respond to emergencies and reduces interruptions to services as much as possible.
 - Supervisor trainings that include skills and consideration of climate impacts on employees, like effects of extreme heat not only at the work site but at an employee’s home too and its effect on behavior.
 - Do we have an understanding of employee home conditions and whether they have adequate equipment/situation to be able to cope with/respond to things like extreme heat? Are we providing a work environment that accounts for employees who experience strain from climate impacts, both acutely and chronically over their lifetime?

Office of Executive Director (OED)

- Ordering for the organization – lots of opportunity to make institutional change and change entrenched habits
- Finding “sustainable” options and tracking the change in cost
 - How well does this meet the definition because outside needs
- Moving away from single use plastic Styrofoam etc because of petroleum
 - Do a cost comparison, cost/benefit analysis for budgeting, how does this affect the waste management
 - Biodegradable cutlery that can be composted in commercial facilities – these facilities aren’t in our area; preliminary research shows a potential facility in Dallesport, WA. If these compostable goods are not diverted to a commercial facility, they go into landfill.
 - Is there a way to aggregate/agree on what to buy for WRC, NGC etc, Longhouse and other facilities, it would bring costs down and help standardize supplies sourcing. For Longhouse cooks, half of current budget is purchasing plastic cutlery and tableware; CTUIR-wide purchase of optimal option could reduce these costs. Is there a way to track cost changes in this transition? Is there a funding source to support/reimburse for these increased/changed costs?
- Training will be required for changes – plan for an education push that is supported by leadership around the implementation of many of these changes. How can HR develop and lead trainings that will reach most staff and help build this capacity? Is there funding available for workforce development/training to assist?
- Ethical and functional leadership by federally recognized Tribes because of legal mechanisms available to these entities (ex: trust obligation as leverage for action). Maintaining and reinforcing all opportunities for CTUIR’s “Treatment as State” in regulatory frameworks like water and air quality. Expand data collection and monitoring as well as seek additional opportunities to reinforce CTUIR’s ability to regulate the UIR, sets a standard for the surrounding region too.
 - What data currently supports this TAS? Where is CTUIR setting it’s own regulations? Air and water quality is known, are there others? What are the thresholds that threaten this TAS status? Are there gaps in funding that could be limiting CTUIR’s ability to self-regulate?

Umatilla Tribal Police Department (UTPD)

- MMIP and climate mitigation impacts
 - Connection to SMNR/CCS/Data Centers issues → large infrastructure projects like energy facilities and pipeline construction have a documented connection to human trafficking. Typically we think of fossil fuel projects, but

there is potential for nuclear and data center facility and carbon dioxide pipeline development could also contribute.

- UTPD already involved in Umatilla County Human Trafficking Taskforce, so this is a good start for addressing this impact.
- Are there metrics involved in tracking progress?
- Future concerns about potential for carbon dioxide pipeline construction through Tribal lands and regionally could bring large infrastructure construction efforts to our area and contribute to MMIP epidemic.
- One example of changing and tracking cost dynamics: from a public safety perspective, what changes in cost would be incurred during a flooding or wildfire event, if additional officers or time are required to prevent displaced people from returning to flood-impacted areas prematurely.
 - Tracking these additional hours/staff/costs could help build understanding of climate impacts on operations costs and be eligible for reimbursement/alternative funding as something connected but separate from baseline patrol and prevention.
 - It may be helpful to include constructing and updating a tracking system into a dedicated position, either as a separate FTE or as duties included (and enforced) in an existing or new position description. This is likely to include tracking of natural emergency events and the UTPD staffing and cost spent on addressing impacts from those events, and analyzing this data over time. This is something additional staffing funding could support.
- Extreme heat impacts a person's ability to think rationally and access coping mechanism that may mediate their behavior, and may result in increased interactions/confrontations with law enforcement.
 - Extreme heat and other climate stressors can be thought of as "contributing factors" to crime, increasing the complexity of responding and preventing crime. They may not create crime themselves, but they add to the risk that crime will occur.
 - Extreme heat is documented by climate science as contributing to poor decision making, but other climate stressors like drought, flood, wildfire, and numerous other impacts are less well understood, though they also contribute to mental strain that may exacerbate criminality. Do we have an understanding of how these strains on emotional health can be mitigated or better understood? This is a place where mental health services/research funding could support this understanding.
- On extremely hot days, UTPD has coolers and ice machine to stock frozen/cold water bottles in the vehicles to distribute to community members as a service. Are

there additional ways UTPD can proactively protect health of community through these kinds of direct patrol-related services?

- Vehicle idling during patrol to maintain vehicle interior at appropriate temperature creates additional air pollution and carbon emissions and cost of gasoline.
 - Short term mitigation is to ask officers not to do this practice
 - Crime prevention involves numerous and ongoing patrol of community and associated carbon emissions. UTPD has done preliminary investigation into electric vehicles but found it to be impractical for our rural environment currently. Grid infrastructure is currently unable to sustain projected demand for electric vehicles as another layer of complication to EV transition.
 - Long term adaptation is to transition the UTPD fleet to a non-carbonized technology. What is the potential for hydrogen to be a component of the UTPD fleet? Toyota company is investigating hydrogen potential but many other vehicle manufacturers are not. Does CTUIR have a perspective on hydrogen energy?
 - Infrastructure improvements may be beneficial; a covered carport (not full garage) may be helpful in prolonging the life of vehicles and reducing officer exposure and need to idle vehicles for temperature concerns. This structure could include solar panels for energy generation like Yellowhawk's set up. Infrastructure funding could help support this.
 - Potentially fencing around the UPTD facility may help visually reinforce the restricted access area and reduce conflict through clear communication of access rights. Infrastructure funding could help support this.
- Understanding and tracking how CTUIR departments are impacted by climate effects includes determining what metrics to track, like officers on a call during a heat event or responding to natural disaster emergencies, and building capacity to track and make that data useful. What kind of data should be tracked? How can this task be included in UTPD work flow in a way that fits with capacity?

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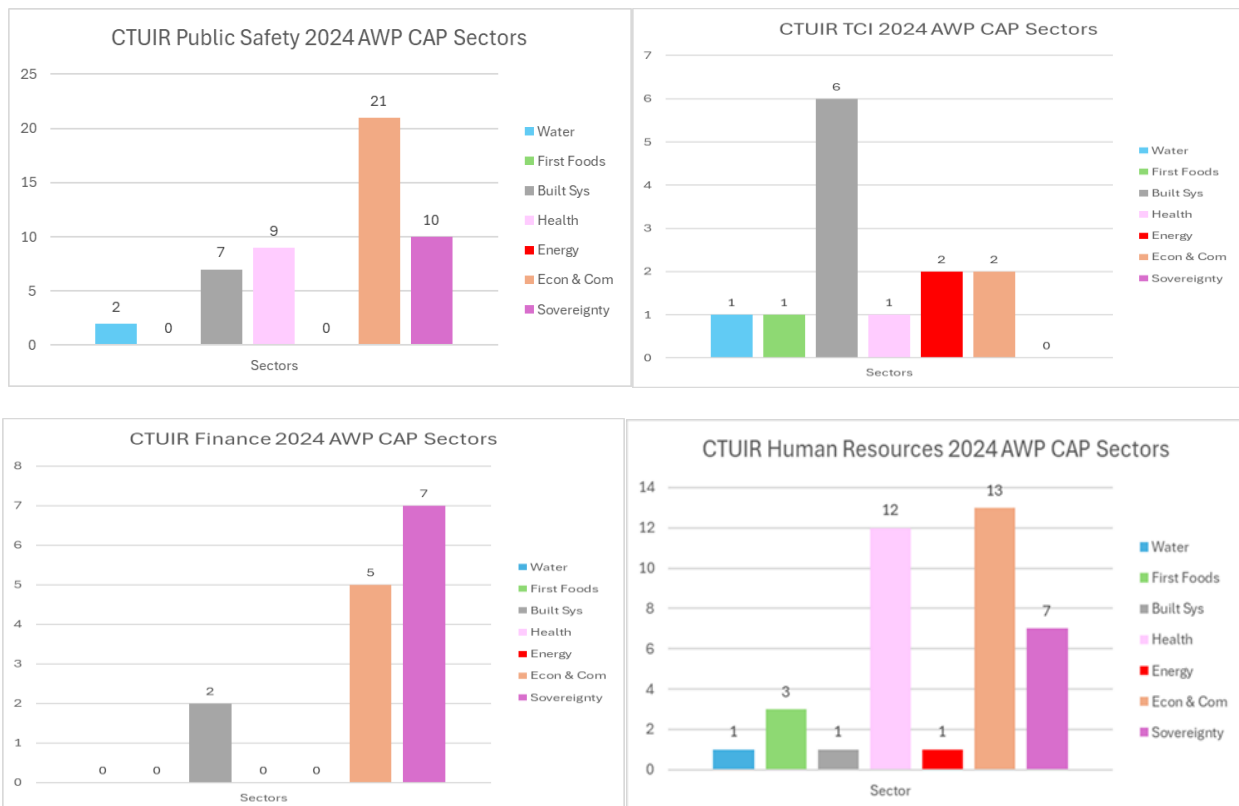
Implementation Planning Workshop 1.2 Notes

March 21, 2025 10 AM – 12 PM

In attendance:

- Session 2
 - JueJue Whithers, Human Resources
 - Bob Fosseck and Kimberly Hughes, Public Safety
 - Bobbie Conner and Randall Melton, Tamástslikt Cultural Institute
 - Chelsey Dick, Office of Finance

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 - While we wait for behaviors to change in the short term, FFPP single use plastic reduction campaign purchased plant-based plastic reusable cutlery and TCI uses plant-based plastic single use cutlery to patrons, which reduces some of the plastic used and moves us closer to sustainable behavior.
 - It takes time and dedicated energy to change deeply entrenched habits towards sustainability. Longhouse women would even make their own cutlery travel bags that could hang from their belts to make sure they had their silverware to use with Feasts. Maybe an outreach campaign could help encourage our community's creativity to address this request, and celebrate individuals and families that embody these practices.
- As CTUIR implements adaptation, there is a need to track the changing costs associated with these actions. This tracking can be used to describe the additional cost burden of adaptation and may be eligible for future funding sources dedicated to financing adaptation measures; these may be state, federal, or private funding

sources, but having a record of cost differences already established will help secure/justify additional funds.

Tamástslikt Cultural Institute

- Role is making people aware of Tribal/CTUIR perspectives through exhibits, discussions and other formats about why climate adaptation is important and how the Tribe is going to respond.
- Cultural continuity for Tribal people is itself climate resilience. By keeping and perpetuating that knowledge in a way that survives a changing future and is accessible to others is furthering Tribal climate resilience.
- CAP can be viewed as a risk assessment, do we have a line of information from internal departments and programs, for example from Wildlife related to warming and habitat to help inform decisions? Example is conversations with Aaron Jackson about hybridized white tail/mule deer crossovers and what kinds of strange things they were seeing besides wasting disease. Is this kind of information about what program staff are observing during their work, or is there a way to develop this informational flow?
 - Wildlife pathogen information is addressed in the climate plan and programs like Wildlife and Fisheries reviewed this section to make sure their diseases of note were highlighted in the section. Data collected on pathogens especially gets sent to state agencies like WA and OR Dept of Fish & Wildlife, who test, aggregate, and analyze the data and report it out (citations in the CAP reflect this relationship).
 - CTUIR programs can expand opportunities for data collection to be sent to state agencies for better understanding of changing trends in our region. Example is the skull barrel at Mission Market → provide a place for hunters returning from hunt to contribute their harvest data by leaving the harvested skull in the barrel for testing. Make it convenient for harvesters to contribute to the data as much as possible.
 - CTUIR does not currently have pathogen testing capacity, so partnerships with state agencies have been required. What would it take to build internal testing capacity? What would be required? How do we determine if it is worth it to do this “in-house”? How can we build capacity if this is something that is determined to be a priority?
 - Are we similarly monitoring for our plant species? Does CTUIR DNR RAF Restoration Ecologist Cheryl Shippentower have relationships with agencies

that provide data and monitoring capacity? Does RAF have relationships with state and federal agencies that are monitoring/modeling that are collecting data we are providing?

- Currently RAF has built relationships with at least the federal agencies responsible for land management. US Forest Service coordinates with CTUIR regularly through informal connections like email and in person correspondence, and through formal connections like the Three Forests Meetings to coordinate co-management of public lands in CTUIR's homelands.
- USFS has existing monitoring and modeling phenology data for native plant species generally; these efforts passively track the changes in plant seasonal life cycle (phenology) through intermittent photography and satellite uploading to document how these stages are changing in their timing across a season. This effort does not create a correlation between these changes and atmospheric conditions that could be driving these changes.
- Additionally RAF has begun generating some of this data "in-house" for Huckleberry species with the Women's First Foods Monitoring effort; this research collects atmospheric and soil data on huckleberry sites on adjacent USFS lands and will be able to provide hyper-local data on changing conditions that affect plant First Foods. There are plans to expand this data generation effort for other plant First Foods, as funding is made available. This monitoring is occurring on the South and North sides of the Blue Mountains currently. Factors of priority to understand are snow depth and soil moisture at two depths to generate a correlation with atmospheric conditions.
- Beginning in 2002, TCI conducted an energy efficiency audit through an engineer on the west side of the state (wife was the head of the Commission on Indian Services at the time). With this information, TCI looked for the biggest "bang for the buck" because the museum has a large energy need as it was designed, consuming 1.16 KWHs per year in HVAC heating & cooling utilities alone. As a result, soffits were sealed all around the building and dedicated effort was made to seal leaks in the building wherever air intrusion/passage was documented as occurring. This includes addressing any water intrusion also.
 - In 2003, energy mitigation efforts for the existing building began.
 - Since then, TCI has replaced the entire building envelope with the support of the BOT at a cost of over \$4 million. This involved replacing all the insulation, all the Tyvek and all external surfaces, and repainting the roof metal to a

lighter color for energy efficiency and cooling so it closer matches the sky, for both an aesthetic improvement as well as a climate smart strategy.

- TCI is currently working towards Net-Zero with two solar car ports and a wind turbine, but have experienced a couple industry problems. Currently TCI has the capacity to generate 100-225 KW, depending on the year and the weather.
 - TCI's energy goal is to be able to generate as much energy to the grid as it draws from it, hence Net Zero. This effort has been in development for 20+ years, and TCI is close to Net Zero with these most recent changes.
 - Of note, when power failures occur, people will often come to TCI with the misconception that its alternate energy sources are still providing electricity, but these energy generation sources don't feed to the museum but to the energy grid.
 - Additional energy efficiency changes include downsizing/rightsizing the boilers from ones that were a massive oversize to "munchkin" boilers that are more appropriate, and plans to replace the cooling towers/chillers next, since they are currently a massive tonnage, as the smallest the industry produces are 50-60 tons, which is what TCI is moving towards.
 - In the next phase, the air handlers are going to be replaced as part of energy efficiency. Initially, more air was pumped to the non-public wing of the museum where climate conditioned vaults are housed, which requires the least heating and cooling, while on the customer side the conditions were either freezing or roasting because getting the climate changed in the meeting rooms would take many hours due to the size of the space. TCI staff weren't able to closely control the temperature because the way the air handlers were installed made it so the "primary customer" the vaults, instead of the public areas.
 - TCI has been adjusting the variable frequency drives and other controls over the past 20 years and continues to do so.
 - TCI's electricity and gas utility bills have be dramatically reduced due to all this energy efficiency upgrading. Energy consumption has been reduced 67% in the first three years, and more than 80% in 10 years on natural gas since the upgrades!

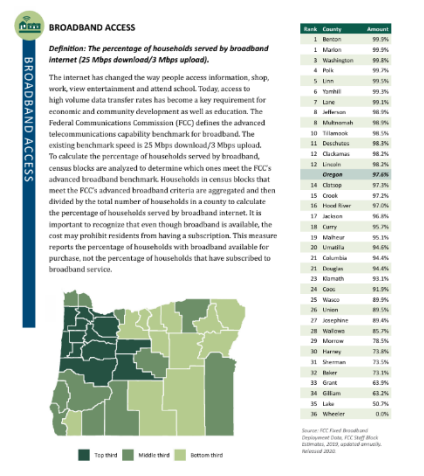
- In the Kinship Café kitchen, the cooking industry as a whole has not gone climate smart, so it has been a struggle to include this function in the energy efficiency.
 - Energy efficient refrigeration and stove units are available in residential sizing, but this has been focused on residential consumers rather than at an industrial scale.
 - Dishwashing systems especially, like the ones at the Longhouse and Kinship Café, don't have energy efficient options.
 - Large ovens typically aren't energy efficient either.
 - So our facility kitchens lack industry options for energy efficiency to improve their use of resources. Industry has focused on customer demand for the "best" equipment, not the most energy efficient equipment, so the market pressure hasn't driven innovation for kitchen equipment at an industrial scale.
 - Compostable take out options are currently being used by the Café, though these kinds of "biodegradable" single use plastic items can only really be compostable in an appropriate commercial composting facility, none of which are located near to us. If TERF had the capacity to accept and process commercial compost, this plasticware could be diverted to this facility, but currently it is still landfilled.
- TCI has discontinued the Living Culture Village outside and removed all the structures outside the building.
 - The prevailing Southwesterly winds have previously picked up the tuli mat lodge and thrown it on the ground twice; the first time it was rescued and the entire lodge was secured with airline cable anchors, but the prevailing winds and long stretches of hot weather in the summer when the Village was operating makes it a challenge.
 - Some visitors to TCI are ill-prepared for extreme heat conditions while outside for the Village, making it an unpleasant experience.
 - Summer youth employees also struggled to be outside in the heat for the Village/ When seasonal temperatures in July and August hit 106 degrees F, without shade or breeze makes for inhospitable conditions, even with sufficient hydration provided. Elders are also very hesitant to be out teaching youth in the extreme heat too.
 - Village as it was previously conceptualized outdoors has been discontinued. TCI is currently considering what they'd like to do instead in that outdoor space, potentially drawing from items included in the master plan that have not been built. Would it be possible and beneficial to build a climate

controlled semi-subterranean amphitheater, partially buried and completely covered which would allow for the use of misters in the space to address the ongoing challenges of extreme heat. The summer season for outdoor work after May (which has different challenges of potential and previous flooding, example during the golf tournament in late April which was moved to May, which is now experiencing weather challenges), so realistically outdoor season is June to October with hot weather coming later and lasting further into the fall season, and when harvest is happening (with the adjacent wheat field) making conditions where no one wants to be outside.

- Amounts of smoke over the previous 6 years that has inundated Tribal homelands for weeks to months from regional fires (WA/CA/OR/MT/Canada) has created poor air quality conditions that prohibit staff and visitors from having access to outside spaces.
- So TCI is looking at the two “aprons” to the East, one to the North and one to the South to decide how best to use these spaces in the future, regardless of what Public Works’ plan is for the wastewater treatment placement. TCI is potentially going to de-populate the native plants in those spaces, letting go of the dry creek but likely keeping the water feature there to preserve the population of resident frogs that rely on it. The water feature is the only thing that has been able to be kept up there with tuli and other wetland plants and animals there. But for all the other features out there, it is extremely difficult to have a functional space if there is no shade. Most native tree species struggle to provide a lot of canopy shade during the spring and summer seasons and tend to have a lot of needles and other debris that cause vegetative fuels to build up (hence fire danger)
- Gift shop uses mostly brown paper bags for purchases, and TCI is looking for a version that is even less industrially intense (glue, handles etc), and is actively considering what the more environmentally friendly option will be.
- TCI is also considering xeriscaping the landscape for the museum and reducing irrigated greenspace as much as possible.
- Also considering whether or not to move parking spaces next to the building because of the wind and heat that create challenges for patrons traveling between the parking lot and the building
- Addition to the AWP items for final version: TCI has three “products” that are an ongoing, continuous representation of Sovereignty & Treaty Rights, which include the permanent exhibit, the Tribal history book (As Days Go By), and the Place Names Atlas (Caw Pawa Laakni) that should be included in this AWP review for acknowledgement.

- Especially the Place Names Atlas does a lot to promote the idea of sovereignty and use of cultural identification of places, and cultural history of places, and is the best product to promote from the sovereign perspective of our homeland.
- These are ongoing initiatives/efforts that are not going to show up in an AWP, but they are part of TCI's work and should be included in the Sovereignty category of the AWP graphs.
- They will be going back in the AWP in 2026 however, because both the history book and the Place Names Atlas are going to be updated; one is now 10 years old and the other is 19-20 years old. In the next 3-5 years TCI will be working on 2nd editions of those works, and climate adaptation will be part of this update.
- Over the next few months in the permanent exhibit, TCI will be working on the "We Will Be" video will be changed; it will retain a few of the characters from the first issue of the film while weaving together more recent interviews with Elders and Youth about language and climate change, so the new "We Will Be" video will be more narrow than past videos to focus on language and climate change. Using the language allows non-Indians to see the identity that is tied to this sovereignty, and the climate adaptation/resilience/planning is further evidence that Tribal people are not "running the same race" as Tribal people.
 - Part of climate adaptation efforts include finding opportunities to remind non-Tribal audiences that Tribal people exist and that Tribal lifeways and culture are inherently climate resilient.
- Recent interactions with Gonzaga and Ohio State about a fossil of the largest Sabertooth cat in North America found at McKay dam; researchers reached out to TCI to ask for their help. Dr. Cash Cash helped name the species characterized by the fossil with a Cayuse name because it was found at McKay Creek dam. These same researchers have been back out to McKay and have published a new report where they have developed new identifications of these fossils, and one of the fossils is *Borophagus Secundus* which is a canid, 80 cm long and similar to a coyote but with a more powerful build, and is called a "bone crushing dog" and would be similar to modern hyenas. So CTUIR homelands had "super coyotes" during the Miocene era 9 million years ago. There were two species of Miocene horses, two different species of camels, a deer-like animal that no longer has living relatives on the planet, and the super coyote. What the article was presenting was the natural changes in climate as contributing to species change over time, so the researchers were looking at changing climate 5-9 million years ago and what could happen now.

- Find the article here: [S0022336023000987jra 1..12](https://www.yellowhawkjournal.com/2022/03/30/00987jra-1..12)
- To what extent is Yellowhawk participating in these workshops? During the Covid pandemic, Yellowhawk distributed air filtration units. Bobbie received one of these units and was using it at the office with relatively little effect, but found it to be effective at home and loaned it to grandkids with respiratory issues. Yellowhawk had additional replacement filters to be distributed, but there was no list of who received these units compatible with these filters. So there are community members who have the air filtration units but filters that are up to 6 years old at this point and need to be replaced. These filters can cost \$60-90 dollars per replacement, so high quality filtration units with filters that cost more than many community members are able to afford. But if there are replacement filters to be gotten out to those who have them, we just need to know who to contact. There is a huge opportunity to support Elders and kids who have asthma and other chronic health issues.
 - FFPP created the opportunity for air filtration units to be distributed; the “Preparing for Fire” MMT grant project was impacted by Covid, which prevented much of the planned community engagement activities. As a troubleshoot instead, air filtration equipment was purchased with these grant funds and routed to Yellowhawk to be delivered to high risk patients for indoor air quality improvements that address both infectious viruses and smoke effects.
 - Additional filters are still available to those who have the filtration units, it was suggested to try a CUJ or social media ad to request people with the air filtration units contact us. It was also recommended to send a photo of the filtration units to Housing with the note that there are replacement filters available and we know that many of your tenants have a unit. FFPP can connect with Yellowhawk too about any existing backstock, as they have taken over this effort with an Oregon Health Authority funded effort.
- Umatilla County is in the middle 3rd rate of broadband internet connectivity of 10 Eastern Oregon counties, according to the Ford Family “By the Numbers Book.” See the graphic for the 2021 report on broadband access. So the UIR is already starting at a deficit compared to other



counties in the state when it comes to internet infrastructure, so climate impacts make this deficit bigger.

- Other places in the world measure their population's progress in diverse ways. The nation of Bhutan is the only country in the world that has a "Gross National Happiness Index" and a holistic approach to measuring wellbeing, with nine domains and 33 indicators that guides their policy-making. Until the last 20-25 years Bhutan has been closed to tourism. Their index framework starts with psychological wellbeing and covers a diversity of domains and indicators like Time Use, Education, Cultural Diversity & Resilience, Community Vitality, Living Standards and many others. Bhutan conducts a survey every 3-5 years to measure these indicators for their population, wouldn't it be amazing to be an "island" that measures happiness.
 - Additionally, touchstones from the UN World Happiness Report [Home | The World Happiness Report](#)
- In terms of isolation impacts, funerals taking place during the Covid pandemic give us a glimpse into this impact. Not being able to participate in such a significant cultural event/activity as they would normally had a negative impact on the Tribal community. Sweat was also a regular cultural activity that was heavily impacted by the Covid shelter in place orders, and this had a disruptive effect on the community.
 - How can we provide guidance for our Tribal community to protect itself while still acknowledging and making space for cultural activities that are important for maintaining cultural and community connections, like funerals and sweat? What frameworks or models might already exist for Indigenous communities?
- It was announced in a MTM recently that DCFS will not be able to hold food distribution event in March, there will be one in April, but food distribution funding for 2026-2029 is gone. Many members of our community who utilize these opportunities often use these as a chance to catch up with others; they talk about who they see at the events, spend time checking up on neighbors, observing who is present and who is not present etc.
 - Since Covid, if families aren't going to the Longhouse, where else do community members gather, besides the shopping outlets in town? DCFS food distribution events have become a sort of community building process, and if that is going away, what connectivity do we lose through that? The food distribution events have been a way to build community cohesion; people



will get food bags for Elders and take them to them to check in on those who may be experiencing isolation otherwise.

- Losing these events creates more disconnection within the community, how can we replicate or make up for the community connection created by these events?
- Population migration is likely to affect our area and is potentially already being observed. What ways are we able to track and prepare for changing population dynamics? Real estate prices?
 - Bobbie remembers a study about people who are moving here and why, and remembers a 40% response for “quality of life” (may have been a popular magazine article talking about “10 best states to retire in for tax reasons/recreation etc”) but many folks are not doing adequate research.
 - Bobbie shared a story about a family during Covid who attempted to take advantage of cheap real estate in Harney and Malheur Counties who purchased an affordable ranch property sight unseen with the idea of working remotely during Covid and fix up the home and property, but when they arrived they learned there was no cellular reception or internet connectivity for the property, and no potential for other service options. The family was unable to work remotely from the property because they assumed that the utilities and access available to urban residents would be similarly available to rural residents and didn’t do any research into rural utility access.
 - Others noted that Tribal community members living upriver or at remote sites have places in their homes marked to indicate that is the single spot in the house where cell service is available.
- What is the current status of recycling with the Tribal Environmental Recovery Facility (TERF)? It was shared that the “bad news” is there won’t be separating of recyclables and there is no end market to ship to, but there hasn’t been a subsequent update on the status of recycling at TERF.
 - TERF received a EPA Solid Waste Infrastructure for Recycling (SWIFR) Grant but seems like there have been complications in finding recipients to send recyclable materials to once collected, which has been further complicated by recent tariffs and embargos.
 - Previously much of the recyclable material would be exported to China for processing, but recent federal policy has altered the feasibility of this approach. What is the updated plan for recycling at TERF as a result? What are the policy and processing limitations or requirements that factor into planning?

- The Tribal government and community have taken the steps to separate different materials into their collection receptacles (ex: aluminum cans from glass and plastic bottles etc) but there isn't any confirmation on whether this materials sorting is being carried through to TERF processing.
- TERF manager Ashley Picard has relayed information that TERF does have a grant but FFPP isn't sure if the grant is for direct recycling services and pick up from the community/facilities or for an education campaign or what the focus and objectives of the grant are. The grant is a very large one, \$915,000 starting in 2024
- Read the press release here: [CTUIR - CTUIR Getting \\$915,000 EPA Recycling Grant](#). From the press release, the grant is anticipated to:
 - work with a consultant to update CTUIR Conservation and Recycling Plan so that it will align with the needs of our community;
 - purchase two new trucks, one of which will be an automated truck to provide curbside collection, a new backhoe and an electric forklift that will be used to prepare recyclables for transport, recycling receptacles, a waste oil heater that will be used to heat TERF recycling center and transfer station during the cold months, and a glass crusher that will produce sand that can be utilized for landscaping purposes.
- Currently recyclable material receptacles at TERF are available for those who sort paper and cardboard and aluminum to deliver them to these bins, where they are processed into large cubes for transport once a certain amount of each material has been aggregated. Plastic is still not accepted as a recyclable material. Segregated materials bins had previously been stationed at the NGC but disappeared at some point, causing confusion about whether expanded recycling at TERF is being implemented.
- Materials management challenges are experienced at a national level and whatever is happening at TERF likely mirrors what is happening at municipalities across the nation.
 - Short term mitigation is to improve/expand recycling options
 - Long term adaptation is to structure our society so we don't have as much to throw away or dispose of, and generate less waste. This connects with how goods and materials are purchased and packaged as well.
- In the early days of the new NGC building, staff were heavily encouraged to bring their own reusable water bottles but issues came up about PCBs and other plastic contaminants that can come from plastic bottles. Thus CTUIR

facilities stopped buying those products, which created a question for the vending machines and the Kinship Café operations as to what is the best option to provide.

- What is the latest science on packaging materials that create the least harm? Can we connect the developing Toxicology Inventory to document and generate a baseline on priority toxins that may be in packaging material, and how can we make that information useful and actionable to commercial enterprises like TCI and the facility vending machines?
- Action: CTUIR should develop an understanding of the harms and benefits of different packaging materials (cans vs glass, vs certain kinds of plastics etc) to provide an informed decision making support framework; this can be provided to commercial enterprises as a purchasing decision tree, what factors to take into account when ordering food and packaged goods for the operation and for public consumption.
 - Who should be doing the labor to stay updated about these kinds of systems considerations, especially as new research and information are constantly changing. Who should fund this dedicated capacity? Where should this work be housed?

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Public Safety

- Role is forecasting and monitoring situations and being prepared for emergencies that may occur. Being able to see how climate change is going to impact conditions that affect the community's safety.
 - Being able to predict what will happen as much as possible and how it may trickle down to other things, and being able to record when things do happen because it's not possible to predict everything but have a record of what happened so that we will know for the future this is what was affected. Example, this is what we lost in this area, but we're either going to gain it back over here or restore it in some way.
 - Working with Cultural Resources to make sure what can be protected is protected, what our losses are, and what can be done to balance those losses back out.

- Using the material in the CAP to help do some of this forecasting in places where the information is known, and help develop data and modeling for impacts that aren't well documented as they emerge. Proxy estimates in CAP provide insight into potential impacts but we'll need to find or generate more refined data and modeling to more accurately predict.
- In relationship to When putting together an Annual Work Plan, a department is asked to address certain things, so not everything a department does shows up in an Annual Work Plan. Departments don't need to feel like they are addressing everything because departments work together to address adaptations holistically.
 - The CTUIR Hazard Mitigation Plan informs much of what Public Safety does routinely, and can be looked to for additional specific items that determine how Public Safety operates.
 - Are there specific sections or areas that we should put more emphasis on? CAP has direct citations and references to benchmarks for Economics & Community section that relate to Public Safety. **Follow up with Public Safety about additional items to include or address.**
- Infrastructure impacts include damages to roads from flood waters, with an example being the Thorn Hollow Bridge in the 2020 Flood event, as well as highway closures both in the winter due to snow/ice and now in the summer due to wildfire and smoke. All the traffic waiting for the highway to re-open are funneled to the UIR and inundate the Arrowhead/Casino/Exit 216 area for indefinite periods of time.
- Projection literature that compares economic revenue generation versus projected cost to respond to climate emergencies for our area is a moderate net loss. What this means is we will be spending more to respond to climate emergencies/natural disasters per year than we are generating in annual revenue. This will be a slow bleed of financial resources in reacting to climate impacts.
- Events that trigger "shelter in place" orders like extreme heat and heavy smoke events may cause prolonged isolation of vulnerable community members, especially with Elders, those with mobility challenges, and those who are eligible for Yellowhawk Community Health Representative and Seniors Center services.
 - How can we provide guidance for our Tribal community to protect itself while still acknowledging and making space for cultural activities that are important for maintaining cultural and community connections, like funerals and sweat? What frameworks or models might already exist for Indigenous communities?
- It is likely that effects of human/wildlife interactions increase as wildlife habitat shrinks due to land conversion, increasing the potential for zoonotic disease transmission from animals to people will increase as well. This includes infectious

disease like Covid as well as insect-vector-borne disease like Lyme Disease, Zika, Malaria, and more. What response strategies do we have in place for understanding these changing disease dynamics?

- Increased emotional strain will likely contribute to existing tensions and create additional ones for our community. People will require access to coping skills and emotional self-regulation strategies to reduce harm to individuals and families from increased strain, and conflict resolution skills and opportunities like talking circles to provide members of the community with constructive spaces to work through emotional stress and conflict.
- Transportation infrastructure will be impacted by flooding and mass soil movement (landslides). Much of our region's goods are transported by rail using trains and many rail routes were flooded in 2020, both locally (Meacham Creek confluence) and in North Dakota. On Highway 395 to Burns OR, Between UIR and John Day, there are many places that are prone to flooding due to the road's close proximity to the floodplain and river. What would be the alternative travel route if Hwy 395 travel was interrupted? It may create anxiety for some who have nostalgic connections or frequent travel along roadways impacted, and may cause travel disruption for those who may or may not have an alternative route.
 - In recent years, large talus (rock clusters) have been falling from rockfaces along many roadways and causing hazards on the roadways, many of these being very large in size and causing problems along roadsides that don't have the cyclone fencing, particularly around roads between UIR and Minam and John Day creating very dangerous road hazards especially for night driving.
 - Trees and other debris have been frequent on the roads as well.
 - Because soil types and topography often have very specific micro-conditions that can be difficult to map at a large scale, maps of areas at risk of soil migration are not well understood. A dedicated mapping effort to understand these risks for roads on the UIR or well traveled by Tribal community could improve knowledge of where soil migration may have the greatest threat to human and transportation safety.
 - Agency and industry consultation meetings such as the one between Union Pacific and the BOT could be a good opportunity to request or pressure entities to understand this risk or make action around it. To what extent do agencies and entities like Union Pacific provide data to CTUIR? What kinds of data are they collecting that might be helpful for CTUIR planning?
- Heat and violent crime are correlated and will increase as extreme heat events increase in a climate impacted future. There was a fire on the South UIR last summer (2024) and it is known to the community that there are 5 "meth houses" in

the same region, which may or may not have electrical and water system access. As the wildland fire burned closer to these properties, tenants weren't able to provide their own emergency response by using hoses and water to create a fire break.

- This speaks to the housing discrepancy that exists for residents of the UIR, either through lack of access to electrical and water system infrastructure, or through some amount of negligence in upgrading or building properties to meet building code standards.
- How many uninhabitable houses or structures exist on the UIR? How many people are living in these uninhabitable housing? This information would be helpful for emergency responders to know the risk levels for impacted areas. Especially with extreme heat events, resident homes will pretty much require air conditioning to prevent heat stress and mortality.
- Tribal Planning's Environmental Health and Safety may have an understanding of where there are residences at risk of fire and extreme heat due to lack of infrastructure. If housing lacks adequate plumbing and electrical for an extended period of time, they are typically logged into TPO's non compliance list. TPO's annual work plan includes an item that refers to working with these non compliant properties, but there is some level of inconsistency depending on the person in that staff position and what mechanisms of enforcement are available.
- All residents and facilities on the UIR rely on wells to pump groundwater for potable water and sewer systems. These water wells require electricity to operate, so when the electricity is interrupted, it cuts access to water off too.
 - For families that require access to water and for wildland fire fighting, thinking about access to water in context of availability of electricity is complex. Will it require water trucks?
 - Do houses that are more remote have storage of water for firefighting available in case electricity is cut during a wildfire event? This isn't uncommon for powerlines to be shut off when a wildfire is active, and will impact firefighting access to water for UIR residences. It might require providing electrical generators to at risk residences.
 - South Reservation Fire Station is on the Capital Improvements Committee list of priority efforts and would benefit so many people, but has never been implemented or initiated. Treatment facility would also benefit many people but has not been prioritized for implementation.
- As a personal anecdote, changes in invasive plant distribution was caused by the Feb 2020 flood event. Bobbie relayed an anecdote she is connected to; property owners along the river that had previously not had poison hemlock present in their

pastures were inundated with flood waters that must have been carrying poison hemlock seeds from places upriver. The hemlock established in the pastures the season after the flood (Spring 2020) and they were unaware of it. The horses that used the pasture grazed on the hemlock and one horse perished as a result of the hemlock poisoning.

- This is relevant to riparian restoration for UIR, to what extent are we able to document or control for invasive species upriver to restoration sites? As we improve flood plain connection, how are we managing for invasives that may migrate from other areas in the watershed to the sites affected? How will site restoration impact downstream properties in a way that positive change can be documented as well as any unintended outcomes?

Office of Finance

- Role is coordinating with other departments on fiscal operation and preparing budgets is a large part of Annual Work Plan
- Paper waste and use is highlighted as an area where Finance could reduce and/or repurpose/divert some of the materials used when they are discarded. Additional strategies could include ones that reduce the amount of paper required for operations, including utilizing electronic processes and storage where appropriate.
 - Shredded office paper is an excellent addition to composting operations, if shredded paper can be diverted. Existing relationships with secure shredding companies can provide a template for how to modify non-secure office paper waste management for better outcomes.
 - Carbon copy PRs were noted as creating an excess of paper waste
 - Paper use in and of itself is not necessarily unsustainable, as paper can be easily recycled into more paper products, and can be used in other materials recovery processes like composting. This also includes paper towels used in NGC restrooms for hand drying; if these are clean of other debris, they can be repurposed in similar ways as waste office paper.
 - Creating more spaces and opportunities around NGC and other CTUIR facilities dedicated to separating waste products could improve materials reclamation. Educational campaigns and signage on what is appropriate to discard in each bin would be necessary.
- With FFPP's "Preparing for Fire" grant project revision (distributing air filtration equipment), fiscal management policy was side stepped to pass filtration units to Yellowhawk for distribution.

- A large barrier for the Tribal community to have access to quality equipment to be climate resilient, a mechanism for getting needed equipment to community members that doesn't require additional payment or tax or restriction on recipients should be developed.
 - The Covid pandemic was a good example of how fiscal process can be modified during times of emergency to provide for community members in need.
 - The climate crisis is a slow emergency and chronic exposure to harms like air quality will kill over many years, so a mechanism in the Finance Office to distribute sometimes costly equipment is necessary to avoid slow unnecessary death due to chronic exposure.
- During 2020 flood event, many people were displaced from their homes and CTUIR shouldered some of the cost of sheltering displaced people at Wildhorse for a period of time. This was a cost to CTUIR, and events that create displacement are highly likely to increase in frequency.
 - Does CTUIR have a mechanism to track these kinds of costs to address displacement? This would also include costs for emergency response (ie sending rescue teams out, filling sandbags, other evacuation costs in materials and staff time etc)? Are there funding sources from which these costs can be recouped?
- Organizational rigidity about working hours (7:30 AM to 4 PM) create tension against being responsive to environmental conditions and climate resilience. This rigidity creates a demand to fortify the CTUIR facilities against climate impacts in order to adhere to worker safety regulations like HVAC requirements and air quality restrictions, among others. This facility fortification comes at the expense of energy and other inputs to meet these increasingly demanding burdens. Ancestrally, Tribal people lived with the seasons and cycles of the moon to reduce their energetic burden and improve quality of life, why shouldn't we (as their descendants) not adjust to the changing climate conditions to reduce our energy demands?
 - Would alternative work schedules have additional benefits? An example is a transition to a 4-day work week may save on utilities costs if the change leads to a reduction in hours of facility operation. Are there other benefits?
 - Where does Climate fit into these ongoing questions and decision making about facilities and financing? We keep hearing about the barrier of organization indirect and its requirements as a complication towards change, to what extent does climate response factor into this cost/benefit analysis?

- What does it look like to change our operations and financing practices to be more responsive to climate change?
 - This is a question that also connects to emergency preparedness and response; example of the Feb 2020 flood and many employees experiencing flooding and displacement were needing to be present for their families and properties, but didn't have adequate FTE leave to take the time during the work day while the flooding was worst.
 - CTUIR provided administrative leave to employees across the organization to allow for people to be available for their own personal and community emergency response. This was a cost burden on CTUIR to provide that leave and this cost may have been able to be reduced or eliminated with a flexible work schedule framework.
 - To what extent are examples like this one included in the cost/benefit discussions around building indirect and alternative work schedules? Is there a way we can develop a operations standard that preserves employee ability to respond to climate impacts at a personal, family, and community level, while maintaining Tribal government function and sovereignty?

Human Resources Department

- Role of training of supervisory staff and how increasing climate stress on families is likely to affect us as workers for CTUIR entities and as employable community members.
 - As our environment becomes more disruptive due to frequency of disaster conditions, this will increase emotional and financial strain on individuals, families, and communities. These are the same people who staff CTUIR entities and support the cohesion and function of our government and community.
 - Supervisors and managers will need to understand that workers are likely to be under climate-induced stress, and have training and skills to address any situations of duress or conflict with Trauma Informed and harm reduction mindset and mechanism.
 - HR's role as coordinating trainings for staff will need to incorporate more of these conflict resolution, trauma informed, and harm reduction based and focused opportunities.

- Also improving and expanding supervisor, manager, and technician-focused trainings around heat and smoke mitigation and personal safety, including harm reduction decision making and identification of information gaps.
 - Trainings should emphasize recognizing signs of heat and smoke exposure, preventative measures and proper use of personal protective equipment, and response measures and community care procedures.
 - This may include development of specific threshold trigger values for temperature and air quality and staff prescriptive action, if none exist federally or are insufficient. Many federal safety frameworks exist to guide staff management; this includes the Heat Index, Air Quality Index, and OSHA regulations, among others.
 - CTUIR has many staff positions that work outside regularly and the CTUIR staff management response should be standardized for these higher risk positions. Do departments understand and communicate about staff safety with one another? Does CTUIR have a organization-wide standard it can adopt and enforce? Are there programs that create loopholes for enforcement of this standard (ex: interns, contractors, BOLSTER etc)?
 - Is there a place in the Tribal Personnel Policy Manual (TPPM) that creates guidance or sets mandates on heat, smoke, and other climate exposure thresholds and procedures? Does this need to be added in a future revision? Do we have Standard Operating Procedures (SOPs) for managing staff that are exposed to these climate stressors?
 - This may also include reminders to managers and supervisors that staff may be dealing with inclement conditions through working outside or due to facility equipment failure, and may be experiencing additional emotional and/or cognitive strain as a result; management approaches will need to accommodate for those added job-related climate stressors in any response to managing personnel.
- Why aren't we developing schedules that are working around climate to reduce environmental and staff impact? There have been previous conversations about alternative work schedules had at a department director level, but often staffing turn over keeps these conversations theoretical and repetitive.
 - What would it look like to develop staff schedules that are responsive to climate impacts? For heat impacts, it can be safer to work from 5 AM to 12 PM, and smoke impacts also tend to be reduced during morning hours.

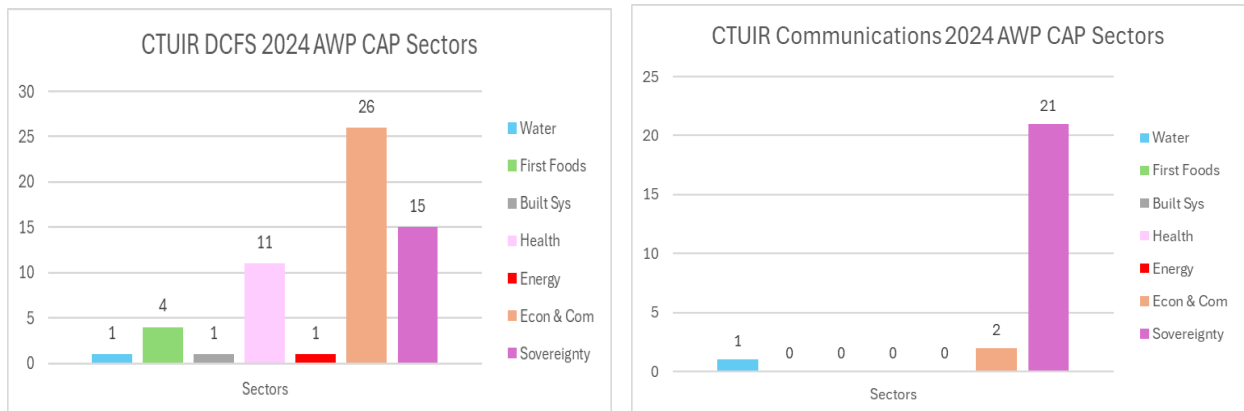
- Other atmospheric factors like moisture and humidity also need to be part of the monitoring and decision making procedure, as these can exacerbate and compound exposure impacts.
- Organizational rigidity about working hours (7:30 AM to 4 PM) create tension against being responsive to environmental conditions and climate resilience. This rigidity creates a demand to fortify the CTUIR facilities against climate impacts in order to adhere to worker safety regulations like HVAC requirements and air quality restrictions, among others. This facility fortification comes at the expense of energy and other inputs to meet these increasingly demanding burdens. Ancestrally, Tribal people lived with the seasons and cycles of the moon to reduce their energetic burden and improve quality of life, why shouldn't we (as their descendants) not adjust to the changing climate conditions to reduce our energy demands?

CTUIR Climate Adaptation Plan
Implementation Planning Workshop 3.1 Notes
April 11th, 2025 8 – 10 AM

In attendance:

- Session 1
 - Brittney Eickstaedt, Trinity Bates, Nina Allen; Dept of Child and Family Services
 - Travis Snell, Communications
 - Online: Dionne Bronson, Julie Taylor, Keeyana Mata, Derek Quaempts; Dept of Child and Family Services

Scope of Responsibility from 2024 Annual Work Plans:



Items of interest for Implementation Plan:

- Specific impacts identified by departments
- Issues/items that affect Tribal budgets and long term planning
- Tracking metrics for progress identified by departments
- Roles and responsibilities for mitigation/adaptation measures
- Opportunities for additional climate/carbon and emergency preparedness funding to support/expand existing work and implement new initiatives

DNR and First Foods Policy Program

- Workshop example: air quality response activities include:

- understanding that Tribal practitioners are likely to still practice rights during poor air quality events if there are First Foods to be harvested;
- sending personal protective equipment like P100 respirators with Tribal harvesters for on-site as-needed protection, in-building air filtration units for use within NGC, and units to be distributed to high-risk Yellowhawk patients for use in homes.
- This was grant funded but involved in-direct because of purchasing and DNR staff time. Also expanded CTUIR relationship with funder Meyer Memorial Trust and contributed to securing additional funds for dedicated staff position and equipment from Oregon Health Authority. Opportunity to improve publicity around this tangible improvement to operations as a climate adaptation for Yellowhawk.
- Mitigation versus adaptation example: Providing cutlery to Feast attendees falls on Longhouse cooks, who currently purchase single use plastic to be thrown away. A long term way to reduce this plastic is for Feast attendees to bring their own cutlery to use and take back and wash at home, reducing labor burden on Longhouse cooks and the water required for dishwashing.
 - While we wait for behaviors to change in the short term, FFPP single use plastic reduction campaign purchased plant-based plastic reusable cutlery and TCI uses plant-based plastic single use cutlery to patrons, which reduces some of the plastic used and moves us closer to sustainable behavior.
 - It takes time and dedicated energy to change deeply entrenched habits towards sustainability. Longhouse women would even make their own cutlery travel bags that could hang from their belts to make sure they had their silverware to use with Feasts. Maybe an outreach campaign could help encourage our community's creativity to address this request, and celebrate individuals and families that embody these practices.
- As CTUIR implements adaptation, there is a need to track the changing costs associated with these actions. This tracking can be used to describe the additional cost burden of adaptation and may be eligible for future funding sources dedicated to financing adaptation measures; these may be state, federal, or private funding sources, but having a record of cost differences already established will help secure/justify additional funds.

Department of Child and Family Services

- Family Engagement program has an active role in climate adaptation. FEP meets with families and share information, and be active participant in addressing consumption. FEP also takes families out on excursions and observes the land and sees the places under Tribal and other stewardship and observe changes and pray; soil quality, water temperatures, etc opportunities to witness and observe changes over time. Even driving to and from excursion locations are an opportunity to witness changes and pay attention to use and observe.
- DCFS has 8 vehicles in its fleet which are used by Family Engagement and other programs that have an impact.
- Collaboration with the food waste project and the Family Engagement have helped people be more mindful and think about things like portion control and consumption habits and waste, and the energy that is put into creating that food product.
 - Shout out to FEP for partnering, it has been a fantastic collaboration with the Nixyaawii, Don't Throw It Away! Project on food waste data collection.
 - Youth and families have responded positively to the reusable cutlery! Youth have ownership over their own kit and gives them some responsibility and agency.
- Changing habitat suitability for First Foods may mean Family Engagement will have to travel further to reach harvest opportunities as part of excursions. Traveling further may mean more vehicle miles traveled, additional time, and more frequent overnight accommodations funding for participants. Family Engagement began excursions in 2022 so hasn't been able to gauge First Foods harvest timing yet but would be an excellent source of data on shifts in timing of harvest. Feast events are also another opportunity to monitor change in timing of phenology for First Foods timing.
- Air quality is likely to be a factor for Family Engagement event decision making, and being prepared to mitigate for poor air quality as a regular aspect of excursions and events planned. Does this mean providing access to filtration equipment? Does this require more information for decision making? What do our staff and community need to know how to make these good decisions for culture and health.
 - Times during the season where it has been smokey and families with members/kids with asthma don't go out during these times to protect their respiratory health. This creates inequity and could contribute to a sense of isolation for those with chronic health issues that are affected by smoke.
 - Homes and facilities have a variable level of insulation against particle pollution and so having a better understanding of which housing and

facilities need additional protection against smoke would help for government and family decision making.

- Health impacts from smoke and heat are likely to be a factor for excursion decision making, especially for families with chronic health issues. To maintain inclusivity, DCFS may want to consider how their planned events can prepare mitigation strategies to make sure these families are still able to participate in programming.
- Algal blooms, both harmful and benign, make spending time at our freshwater lakes and slow moving rivers somewhat of a challenge for fishing and water recreation.
- Infections and disease of various kinds are likely to become more prevalent due to conditions that benefit vectors of these illnesses. These include fungi, bacteria, viruses and insect risks, for which data and modeling projections are not necessarily well understood.
- Cost of impacts are likely to be a factor for DCFS, primarily because this department administers many of the emergency and disaster funds to Tribal families. Financial support for securing mitigation of chronic impacts for families (air filtration equipment as an example) is likely to be necessary to preserve health, as well as acute impacts like flooding effects and displacement are likely to become more frequent and a burden on DCFS budget specifically.
- Food distribution events are a place where our community is able to connect with one another and catch up and improve community cohesion as well as meet nutritional needs. Food safety practices and distribution may need to consider mitigation actions that control temperature and “chain of custody” of food items being delivered or provided to the community.
- Family education and training programs may need to consider effects of increasing stress and extreme heat on cognitive thought and decision making. Even if families have access to air conditioning (not all do) they may be experiencing additional emotional stress during extreme heat events and with changing economic conditions. This is especially true for individuals and families that rely on the land for their livelihoods as these industries will experience greater impacts.
- DCFS administers a program that places Tribal members and families in RV trailer housing, and this program purchases paper kitchenware and single use plastic utensils products for these families.
 - For this program, what would be necessary to get them “real” kitchenware to use in the RV during their stay? The RVs are typically equipped with a kitchen sink that could be used to wash and re use this kitchenware, but currently a dish rack or other items that could be needed are not included in the furnishings. Including these items could reduce the single use kitchenware

waste though will also require labor on families to wash these dishes and capacity from DCFS staff to provide reminders and education.

- Previously, pots and pans were provided to the families but frequently these would not be cleaned before the families left, and DCFS staff would then be the ones that had to clean them and put them back. How can we communicate the expectation of cleaning these dishes to families and provide the necessary skills, information, or assistance to overcome the barriers experienced? Is it possible to include kitchenware hygiene as a standard part of the family responsibilities as part of the RV space? Could a checklist be included and any skills missing or knowledge gaps included in a check in process or support training?
- Displacement housing in the RVs and how to make sure those being housed in those accommodations are knowledgeable of food safe and food hygiene practices. How would this be enforced or assisted? Would this be a checklist and clear communication? Extra support and education around foundational health and hygiene skills for families using these accommodations. Communicating of the reasons and benefits of the life skills education, finding the foundation of preliminary knowledge and education, or providing it where we feel it might be lacking.
- Foster Family/Foster Child care packages/bags and gifts are given out to priority families during the holiday season; is it possible to incorporate handmade and local items in these packages in place of other items? Is it possible to source from local crafters and makers for holiday gift items?
 - Work with NCS on making quilts for families as an intergenerational activity? Including working with local producers in your grant proposals could add a “workforce development/local economy” aspect to proposals.
 - Example provided was Shriners Quilting group provided hand-made quilts to hospital patients to brighten their experience, is this something we can replicate for our families?
 - It takes time and fair payment to build these networks of manufacturers, and additional time for them to be able to produce items once ordered. There may also be a need for a way to provide upfront payment for those who may lack access to capital for a large order.
 - How can the BOT support this transition? CAP workshops and implementation priority has gotten this process started.
- Coordinate internally with all programs that order kitchen supplies and materials so we can transition to environmentally friendly items in a way that reduces costs for everyone who is using this. Coordinating consumables and supplies purchases

among departments could reduce costs as we transition to different purchasing habits. Bulk buy centrally and keep a running ledger of who needs and is using what.

- Family Engagement Program noted that “moving forward for the next couple months with Culture Night. Our program has committed to buying silverware for the longhouse to utilize. During Wednesday we can put a system in place that allows for efficient dishwashing of the utensils. We want to do a better job in our efforts to be more sustainable as we host and support the community.” Dishwashing volunteers are extremely helpful with making this transition.
- Programs are working towards moving away from convenient but ultimately harmful ways of doing things (like the plastic silverware), with intentionally making “baby steps” to move in a better direction. FEP was having conversations about using ARPA funds to stock the Longhouse kitchen with supplies and mats and things but time ran out and were considered low priority.
 - Things at the Longhouse can “walk off” many times and this creates hesitation to invest into supplies and infrastructure at the Longhouse.
 - Is there a way we can create an “honor system” or accountability structure that “if it is taken it won’t be there for others” kind of mentality? FEP can work on incorporating this into their programming as part of reducing trash and bringing down costs.
 - Work with Communications on promoting these changes that our programs are making so folks are aware and can be part of the change.
- DCFS is promoting Trauma informed practices in all department across the Tribe; FFPP’s meeting space agreement is appreciated.
- Increased mental and emotional strain is something DCFS is observing in the families they work with.
- DCFS works on response to natural emergencies like recent floods and fires, and is always in crisis mode and are reacting. DCFS wants to be preventative and proactive in this capacity. DCFS would also like to continue and expand working with Housing on water issues and conservation, with groundwater well levels, septic system health and operation, making sure air and water filtration systems are in place and accessible to families, and working with environmental health proactively to support families in all aspects.
- During summer months, Tribal youth are experiencing a lot of emotional strain, and these changes impact them in their daily life. With the recent floods, the river swimming holes have changed and aren’t available to provide recreation and river access to kids like before, which has a negative impact on emotional health.

- DCFS also works with the BOLSTER crews on removing noxious weeds from the cemeteries and educating these crew staff on what these weeds are and how to remove them. This is a great opportunity to improve the community understanding and recognition of priority noxious weeds for removal/treatment. This is also a concern for our animals like horses, some plants are toxic
- Air quality has been a topic recently around protection of outdoor workers and how to keep BOLSTER crews safe in the heat and smoke.
- DCFS's role is to work with the different departments of the Tribe to find solutions that center our workers and families.

Communications

- Role is to coordinate and communicate internally and externally, and through many different formats and media that include social media and video etc.
 - Communicating knowledge and decision-making information to our government and community. What do people need to know for their health and activities? What kinds of information do community members need to know to preserve their health as much as possible.
- Communications is planning on re-doing its annual work plan in July
- Recently has been working on developing and releasing a video series on First Foods and with Fisheries regarding the impact the program is having on fish health and availability.
- Telecommunications disruption from acute and chronic climate impacts to soil stability will create challenges for communicating with our remote community members, especially for those that already lack access to telecommunications.
- Using channels of communication that currently exist will be essential for helping community members be proactive about reducing effects of climate impacts. Can we develop a strategy or series dedicated to making sure Communications is developing or including information about emerging climate impacts and what people need to know to make good decisions.
- Are we being proactive in our communications to internal and external partners about climate crisis and its impacts and causes? Communicating the causes of climate change in a sustained and dedicated way. Travis recounted a story of once having a coworker who thought the climate was heating because more souls were going to hell, how does FFPP plan to communicate causes and responses around climate change to audiences that have differing levels of understanding and belief.

- Can we work with Communications to develop a media strategy for climate communication? This was an intention FFPP had early in the work to do a regular radio program about local climate impacts, but didn't find a foothold with then-Comms staff. If Communications is actively developing material, FFPP can work with Comms on developing this approach.
- Do we have standing hand outs and literature we can contribute regularly to any kind of giveaways that happen? FFPP can work with departments to develop topic-specific at-a-glance literature for this. Information on what climate crisis is and what our individual roles are in adapting, and what the Tribal government is doing too.
- Current push for single use plastic reduction, could we develop a campaign that centers the Longhouse?
 - Maybe collect all the single use plastic thrown away and place it on the Wash and photograph it.
 - Tribal government support would be a big help to sharing out that messaging.
 - Can we develop a quick explainer that can be shared before, during, and after ceremony about the campaign? Communicate the benefits and why we are doing the campaign.
 - Getting Tribal leaders to buy in to a campaign because they are constantly interfacing with the Tribal public and have more influence over actions of community and government. Could this be a message they are sharing or living as examples?
 - Potentially could use a creative avenue to convey this message, examples include [7 Days of Garbage - Photographs by Gregg Segal | Interview by Justin Herfst | LensCulture](#)
 - Bags, cutlery, coffee mugs, water bottles are the priority target because they are easier to swap out and clean
- Branding guide to make sure messaging is consistent. How do programs connect with Communications to meet the branding guide standards? What is the procedure to develop something that is acceptable?
- Communications could be more proactive in connecting with projects to improve messaging. Does this look like checking in with Communications regularly? How can we find a way to coordinate on messaging that fits into the capacity of departments.
 - Nixyaawii, Don't Throw It Away! Project has been working to adhere to the branding guide, we need assistance in working with Canva to have access to the "branding kit" function on that platform.

- Standardized media communication FAQ available to departments to make sure staff know what the procedure and etiquette is for developing materials that adhere to the branding guide.
- Because Tribal staff are typically at capacity with performing the functions of their job, there needs to be additional staff capacity/FTE dedicated to coordinating with staff to get the message out and to document outreach efforts, whether that is with photos, film, CUJ articles, etc. Example of Lee Gavin filming at one Culture Night was very helpful; would it be possible to do more of this with coordination with staff?
- Communications is also a busy department, and staff will need to work proactively to coordinate outreach to internal and external audiences.
 - Knowing who to contact and what the protocol is would help departments work with Communications more efficiently to get information out in a timely manner.
 - Developing a 1 page FAQ for departments on timeframes, formats, and things most people should know/get wrong in trying to coordinate with Communications on publication and social media outreach would help.
 - Communications uses program “Sprout” that can be used to schedule social media posts to post months or days in advance. Departments should work to have information to Communications at least 5 business days before it needs to be posted, but having clear expectations would improve this.
- There is potential for a regular column in the CUJ that centers climate crisis as a topic, if capacity and timing for printing allows. Currently being doing one-off stories that function additionally as advertising, and provides information on current program efforts. This would be nice to continue as FFPP capacity allows.
- Wildhorse Resort (in their workshop) spoke about air quality and other forms of refuge that the casino *de facto* provides to the community. Air quality improvements were made as a result of the Covid pandemic. They have noticed many people use the casino as a refuge for heat and smoke, but these patrons don’t tend to gamble. The casino tends to be used as a displacement refuge in many circumstances; could we celebrate or recognize this fact in gratitude? If so, maybe this is something that can promote during these inclement conditions through the social media and Communications channels.
 - Is there a way for WRC to monitor/record how many people are using the casino as a refuge location? There are refuge needs in all seasons, and tracking this could help with grant funding requests and justifications.
- Work with programs like Family Engagement on promoting these changes that our programs are making so folks are aware and can be part of the change.

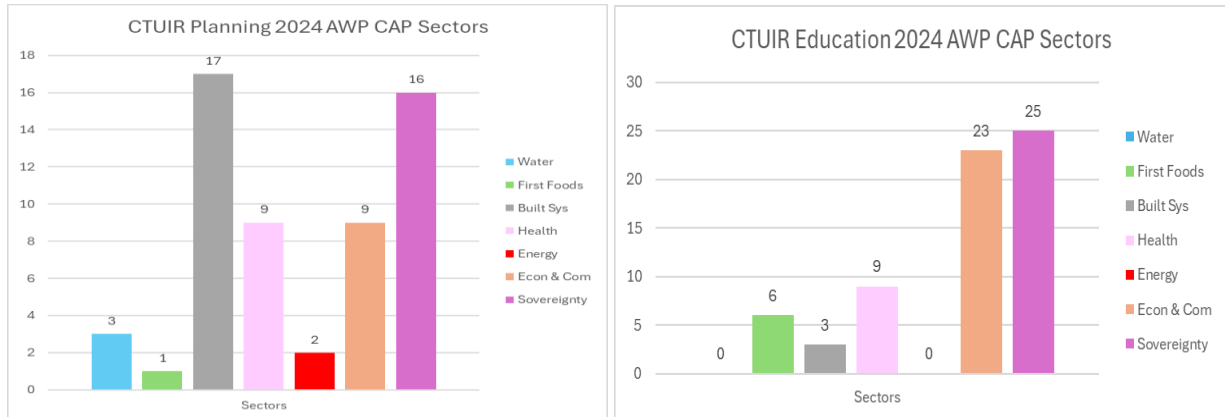
- Planting trees on the Tribal government campus would provide more shade, create an inviting atmosphere, and contribute to greenspace and habitat. Althea provided an example of the native trees in the Yellowhawk greenspace restoring themselves once land was left alone to grow something; these trees weren't planted, they grew because of the restored wetland patches designed around Yellowhawk. Other examples are locations that were previously dump sites around the area that have native trees sprouting. Seeds are waiting to be left alone so they can grow. Would it be beneficial to just plant trees wherever possible? Trees bring rain and create shade, reduce extreme heat effects on water quality, and sequester carbon. Trees in balance with the landscape; food at every elevation of the homeland at different times of year. Trying to rehabilitate the land back to what it was.

CTUIR Climate Adaptation Plan
Implementation Planning Workshop 3.2 Notes
April 11th, 2025 10 AM – 12 PM

In attendance:

- Session 2
 - Dani Schulte, Lora Elliot, Tribal Planning Office
 - Jaimie Crane, Jory Spencer, Rosie Jackson, Education
 - Online: Onawa Hines, Office of Legal Counsel

Scope of Responsibility from 2024 Annual Work Plans:



Items of interest for Implementation Plan:

- Specific impacts identified by departments
- Issues/items that affect Tribal budgets and long term planning
- Tracking metrics for progress identified by departments
- Roles and responsibilities for mitigation/adaptation measures
- Opportunities for additional climate/carbon and emergency preparedness funding to support/expand existing work and implement new initiatives

DNR and First Foods Policy Program

- Workshop example: air quality response activities include:
 - understanding that Tribal practitioners are likely to still practice rights during poor air quality events if there are First Foods to be harvested;

- sending personal protective equipment like P100 respirators with Tribal harvesters for on-site as-needed protection, in-building air filtration units for use within NGC, and units to be distributed to high-risk Yellowhawk patients for use in homes.
- This was grant funded but involved in-direct because of purchasing and DNR staff time. Also expanded CTUIR relationship with funder Meyer Memorial Trust and contributed to securing additional funds for dedicated staff position and equipment from Oregon Health Authority. Opportunity to improve publicity around this tangible improvement to operations as a climate adaptation for Yellowhawk.
- Mitigation versus adaptation example: Providing cutlery to Feast attendees falls on Longhouse cooks, who currently purchase single use plastic to be thrown away. A long term way to reduce this plastic is for Feast attendees to bring their own cutlery to use and take back and wash at home, reducing labor burden on Longhouse cooks and the water required for dishwashing.
 - While we wait for behaviors to change in the short term, FFPP single use plastic reduction campaign purchased plant-based plastic reusable cutlery and TCI uses plant-based plastic single use cutlery to patrons, which reduces some of the plastic used and moves us closer to sustainable behavior.
 - It takes time and dedicated energy to change deeply entrenched habits towards sustainability. Longhouse women would even make their own cutlery travel bags that could hang from their belts to make sure they had their silverware to use with Feasts. Maybe an outreach campaign could help encourage our community's creativity to address this request, and celebrate individuals and families that embody these practices.
- As CTUIR implements adaptation, there is a need to track the changing costs associated with these actions. This tracking can be used to describe the additional cost burden of adaptation and may be eligible for future funding sources dedicated to financing adaptation measures; these may be state, federal, or private funding sources, but having a record of cost differences already established will help secure/justify additional funds.

Tribal Planning Office

- Role includes long term planning and development, building things are part of the problem but also a critical need for the community (housing, facilities, components

of modern daily life). Also facilitating the permitting of development including things like gathering spaces that serve the community.

- TPO has had internal conversations about the rigidity and role of building codes that can contribute to problems but also attempt to address issues and be regulatory, and potentially be helpful to protect community and resources.
 - Codes are often developed externally and adopted by the Tribe due to understandable lack of expertise in all aspects of development. These codes are often created with certain goals or benefactors in mind that are not necessarily the Tribal community.
 - Prioritization of these codes is a balancing act to both keep people safe and protect what is important; permitting is like a tool that can be used to damage or advance depending on who and how it is being used.
- If Tribal government is a wheel, Tribal Planning is like a spoke in that wheel where eventually everything will make its way to their desks. Very interdisciplinary and a good place to coordinate government-wide changes that are necessary.
- Planning focuses on the land and what barriers do or don't exist for what can be done with the land, and to provide facilitation to work with community to get to development goals, and how it impacts what can be done with the land.
- CTUIR is part of the National Flood Insurance Program and are required to meet their regulatory requirements. This program is reacting to litigation around failing to comply with the Endangered Species Act and in Oregon specifically, working with CTUIR and Warm Springs to get floodplain development codes into compliance with the ESA.
 - This is a nonvoluntary measure that is having climate resilience benefits; the national program has stalled for unknown reasons, but Tribal Planning is still going forward with updating the codes for the benefit of floodplain and ESA protections, and may be the only community to be doing so.
 - Benefits that will result from this change include enhanced/no net loss impacts to fish species especially salmon, etc. Changes are a bit inconvenient but support the overall direction of CTUIR in addition to being in compliance.
 - Part of the conversation is how is this change going to affect property owners who may now be facing expensive/complicated requirements; is there a way

to proactively communicate the benefits of these changes to audiences such as this that may feel negatively impacted?

- Tribal Planning has some data on well contamination on the UIR that isn't publicly available through the well testing efforts. This data might be subject to privacy concerns/confidentiality but there may be a way to cluster data by census tract/ de personalize the data in some way to make it shareable.
 - Environmental Health and Safety has done presentations previously that indicate CTUIR's issues center around naturally occurring contaminants that are standard in rural well systems; lead, nitrates, concentrated in rural wells in the middle of agricultural fields using chemical fertilizers. Not really occurring in the Umatilla River but in sites surrounded by ag fields.
 - This might be an opportunity to connect with the developing Toxics Inventory effort being organized by EESP.
- When addressing First Foods migration, access for those who have mobility or physical impediment challenges will be an important consideration. With microclimates and First Foods habitat, it may be that steep northfacing terrain would be better huckleberry habitat from a climate standpoint, but would be very difficult to access for Elders and most people who would be doing the gathering.
 - Especially with facilitated migration approaches and/or finding new habitat suitability for gathering, new locations particularly high elevation places are not likely to be very level or developed with trails and facilities that would make it easier to go and gather.
- Road systems in North America are Indigenous road systems; transportation routes were established on top of Tribal travel and trade routes; Dead Man's Pass is a good example as it was named this PRIOR to the highway system being established, and is the most dangerous stretch of road in the US.
- Wildlife corridors are likely to be beneficial in places along our busy Interstate routes, particularly on I-84. CTUIR DNR Wildlife Program has been in preliminary conversations around the development of a wildlife corridor for I-84. This would be a multi-billion infrastructure project that would require external collaboration due to jurisdiction and scale of effort.
 - Oregon has a pilot highway, Hwy 97 down to Bend that has been an ongoing experiment to see what style of corridor and placements are most effective, and how existing passes and other infrastructure can be used to supplement/enhance corridor potential. Wildlife tends to take a path of least resistance, which often includes underpasses and culverts. 97 is a very developed road, that bisects rural areas, so would serve as a good model for a similar effort in our area. Large investment and partnerships required.

- In terms of impacts to infrastructure, our regional climatic conditions with our very extreme high and low temperatures is a significant challenge, as these are some of the most extreme temperatures (hot and cold) that exist in US. Water expansion and contraction that occurs during winter months when water freezes and melts and refreezes causes damage to infrastructure, as well as high heat in the summer in ODOT Region 5.
- Public Transit operations like Kayak are not only a daily support but also an emergency response support. If there is a major collusion or weather incident on the freeway, Kayak dispatches buses to these sites to pick up any stranded motorists or others who need transportation; they are on call to respond to many different emergency types like floods and fires also.
 - Planning has put a lot of energy into participating with the state of Oregon, who is developing their transportation plan for the next 5 years to maintain and expand the transit networks. Transit is the most impactful for the people who need it (tend to be more/most vulnerable in community) and is also the most impactful way to address climate crisis and carbon emissions. More people in fewer vehicles is most efficient.
 - People in our community do/could use Kayak to travel to higher education opportunities like community colleges and universities in Pendleton, Walla Walla, and La Grande
- Railway transit was mentioned in CTUIR's Transportation Plan, and one item discussed was the potential restoration of the Seattle/PDX/Boise rail route to facilitate greater public transportation connectivity. Standards for passenger rail are higher than for freight rail and to facilitate , so long term investments and upgrades would be necessary.
 - Recent State Rail Survey highlighted this exact rail line in their suggestions for upgrades and expansion
 - This would be hugely helpful for those in our community who lack access to a reliable vehicle, for those with medical appointments outside our immediate facilities at OHSU or Boise.
 - Railways are also part of the legacy of land theft from Tribal Nations. But current railroad use is creating only harm, through the transportation of fossil fuels, nuclear waste, landfill garbage, and hazardous materials along the commercial/freight lines. Noise pollution and delays at railway intersections are additional negative impacts on CTUIR communities. Long trains have been known to block emergency vehicles during urgent situations on the UIR; example is Gibbon residents experience 5 railroad intersections between residence and Mission.

- Pioneer passenger is also highlighted as having a legacy connection with Tribal harvesters who were able to ride this rail line for free and would use it to travel to hunting, fishing, and gathering sites.
- Historical and ongoing over-application of agricultural chemicals; in Eastern Oregon there are actually many farmers who are interested in addressing the overapplication, as it is very expensive.
 - Umatilla and Morrow County group that examines the correct usage of chemicals and address potential misuse.
 - BMCC precision agriculture program with drone mapping and variable application to reduce broad and imprecise application that can contribute to contamination.
- Agricultural soils themselves can also be a potential avenue for public health concerns. PM2.5 and PM10 cause respiratory harm, and bacteria/fungi attached to soil particles can cause respiratory and other infections in the body. Valley fever fungus *Coccidioides* is natural in our soils and can cause long term chronic illness in severe infections, and is vectored by airborne soil particles from tillage activity. Homes on the UIR are often inundated by agricultural dust from tillage and are at risk.
- Population migration is not well documented, but anecdotal evidence of industries and people migrating north from California in particular. City of Bend might be a good case study for how population migration might affect our area as people continue to move northward, following either jobs or quality of life, or other unknown predictors of movement.
 - Telecommunications infrastructure will play a role in improving quality of life as well as accommodating for potential population increases due to migration.
- Building/permitting code changes run the risk of a lot of effort being put into changing them but other factors create enough barriers that the change can't effectively be implemented. These changes are relatively small in the building code permitting but require a lot of internal administration to make happen, so there is a balance between the helpfulness or accessibility of changes that can be made versus how much effort they would be and how many people would be able to take advantage of the changes.
 - This includes code changes or incentives for alternative building materials and approaches, like cobb, strawbale, cordwood, ecoblocks, etc. Certain addenda to the international building code that can be adopted that speak to these alternative forms of building. "Ecoblocks" designation covers some

broad applicability, all that is needed is demonstrated that it meets building specifications and standards through testing.

- Another exists for “tiny homes,” though CTUIR currently does not have any minimum or maximum size limits as long as the home meets the mandatory specifications like bathroom, kitchen and living space. Tiny home designation would make it possible for a ladder to be sufficient in place of stairs for a home under the permitting requirements.
- New code for accessory dwelling units, or “mother in law apartments” with a completely separate residential unit that can be rented out to build/stabilize income, provide space to family members in need with you but apart, or for young families starting out. It has been implemented by CTUIR Planning but because it is expensive to build, only a few have been requested for permitting. These accessory dwelling units are allowed wherever houses are allowed on the UIR, capped at 1,000 sq feet.
- Generally CTUIR’s building codes are set at the minimum possible requirement so people can have maximum flexibility in meeting these standards, but these elements exist within other systems like lending, where mortgage lenders loan money to build to certain specifications. So the codes may allow something, but if a bank won’t provide a construction/building loan, it effectively isn’t accessible.
 - This may be affecting energy conservation use. Historic examples of Tribal families turning electricity off during certain months when the demand was less due to hospitable weather, and would help conserve energy for the family during the season. But current family care standards and reporting would find that to be a violation of care responsibilities under our current system.
 - Would it be possible to develop some alternative building standards and specifications with small demonstration structures, like a smokehouse? CTUIR TPO process is triggered with residential structures 200 sq ft and commercial structures 150 sq ft, and occupancy is a factor.
- Tribal families are more likely to be willing to adjust their style and standard of living to reduce consumption of resources like energy and water, as long as codes are in place to allow for the exploration of what alternative living can look like for our climate and communities. Alternative approaches could be an OPTION not a standard, which could reduce objections to change.

Department of Education

- Role of Education in working with students and families to share information; if we can connect with youth and their families to share this information, we have a greater reach for affecting change and address behavior change through different avenues.
 - As educators, these professionals have the best knowledge on how to communicate with youth and families and will be an asset in creating opportunities to communicate with the community.
 - Education interacts with all age ranges of the community and provides connection to families with the Tribal government in different ways. Education is an excellent place to focus connecting with families around climate education and response, and help people to learn and pass along information.
- Week of the Young Child is a good opportunity to connect with Education with hands on activities for young children. Ex: DNR brought lamprey tank for kids to engage with
- Current educational structures are still designed to mimic the industrial revolution school design; this design wasn't accounting for and prioritizing climate and Tribal peoples' sovereignty.
 - For the future of the Tribal community and students, the educational system needs to be re-designed and primarily should be learning outdoors with multiple co-benefits that include reduced electricity and water use, reduced waste creation within the learning environment. Many learning systems that are moving towards outdoor learning; opportunities for a "Birth through High School" outdoor learning feasibility study to create a sovereign learning system for our Tribe.
 - Tribal lifeways are inherently climate resilient so even to create an education system that focuses and uplifts outdoor learning, cultural relevance, Treaty Rights, and other forms of cultural knowledge also builds climate resilience.
- From a director's perspective, placing climate resilience and response items into Annual Work Plans shows a commitment to making meaningful change. People on the frontlines can share feedback and guidance and try to put efforts in place, but unless it comes from the top down and being mindful when creating our goals, it won't affect change as quickly.
- Education's focus on early childhood creates a holistic approach that addresses many aspects of climate resilience.

- How is CTUIR addressing, reducing, or managing the spraying of vegetation and pest management chemicals on CTUIR-managed lands? Specifically on the NGC, Yellowhawk, and NCS campus grounds, and in the Housing areas? What are the vegetation and pest chemical management approaches in these high traffic/long duration places where our community spends its time?
 - Will check in with departments who manage this spaces, many places are bound by outside requirements. Examples include requirements/restrictions on “beneficial use” on lands under BIA jurisdiction; other examples could include mandates for spraying of agricultural plants or for public health.
 - Need for “balancing competing harms” of invasive plant or invertebrate control with environmental degradation from chemicals; example of Poison Hemlock, which is harmful to people and livestock, how important is it to manage this kind of harm through the use of chemicals that also have the potential for water and air quality harm? Does the community get to weigh in on where this balance rests or is it driven by external forces or leadership/staff decisions? Are there ways we can be using timing or different forms of chemicals that would reduce potential harm?
 - Pulling weeds by hand is still the most efficient method but limited in application. RAF previously wrote a grant to understand what landowners would need to efficiently manage for the noxious Wild Rose species (ie what kind of equipment and chemicals). This plot is still under evaluation by RAF for a conclusion.
 - RAF does prioritize management of noxious plants that affect First Foods species; example of mountain herbicide application in the season between Sawit and Huckleberry to address the nuisance plants to prevent fall seeding and another year of propagation. This research plot is intended to be a government study to promote these practices for use by individual landowners that have high concentration of noxious roses, as many UIR allotments are.
 - Public Works does hand pulling of goathead/puncturevine with the DCFS BOLSTER just before fall (Aug/July) and sprays afterward to reduce impact; estimated to take 9 years of aggressive control to prevent seeds from germinating.
 - Rainwater/Tatwin property is incorporating prescribed burning, though it is not known if Huckleberry currently/previously existed because they don’t exist now but that may be because of overgrazing on the site previously. Restoring the soil health through Tribal management is currently underway, though it may take up to 100 years to return the soil to its pre-grazing

conditions to support Huckleberries again. Rainwater is at an elevation that would support First Foods species, but they don't currently exist there, with slow recovery. Most lands returned to CTUIR management are degraded and require a lot of investment of time and funds to do the rehabilitation work.

- Short Term mitigation: use appropriate chemical control at the appropriate time of year and as little as possible
 - Long Term adaptation: restore soil and vegetation conditions to pre-degradation status to naturally control for noxious weeds.
 - Community based response: example of City of Pendleton in the past doing the "Buck a Bag" goathead/puncturevine plants that encouraged community to pull up the plant where they could and bring to a centralized point to receive monetary incentives for mechanical control. Funding and organizing needed to make this happen. Is there a way we can make this culturally beneficial?
 - Invasivore movement: many of these noxious plants have stages or components of them that are useful/edible; niche social media accounts focus on knowing these uses and getting out there to gather these plants as a kind of mechanical control. Can we rethink our approach to managing these harmful plants?
 - Looking for a grant to encourage non-Tribal communities to gather non-native/invasive plants instead of native plants. Examples include mullein, blackberries, St. Johns Wort, are all useable and can be reconnected to by non-Tribal people.
- Teaching and training Tribal members to know their Treaty Rights and what rights they have to exercise these in different areas as a climate response; starting to teach these lessons when Tribal members are young with Education's culturally rooted approach to teaching First Foods and ceremony.
 - Education department reaches community members of all ages with their programs, and so is an excellent resource for connecting with families around climate education and response.
 - Language as a core component to learning about First Foods and connection with the land and harvesting practices. Climate response is beginning to see Tribal language revitalization as a part of climate and carbon mitigation
 - Umatilla Dictionary and Online version represent a significant sovereignty milestone because it improves access to the Tribal language and expands the audiences to which it is available.

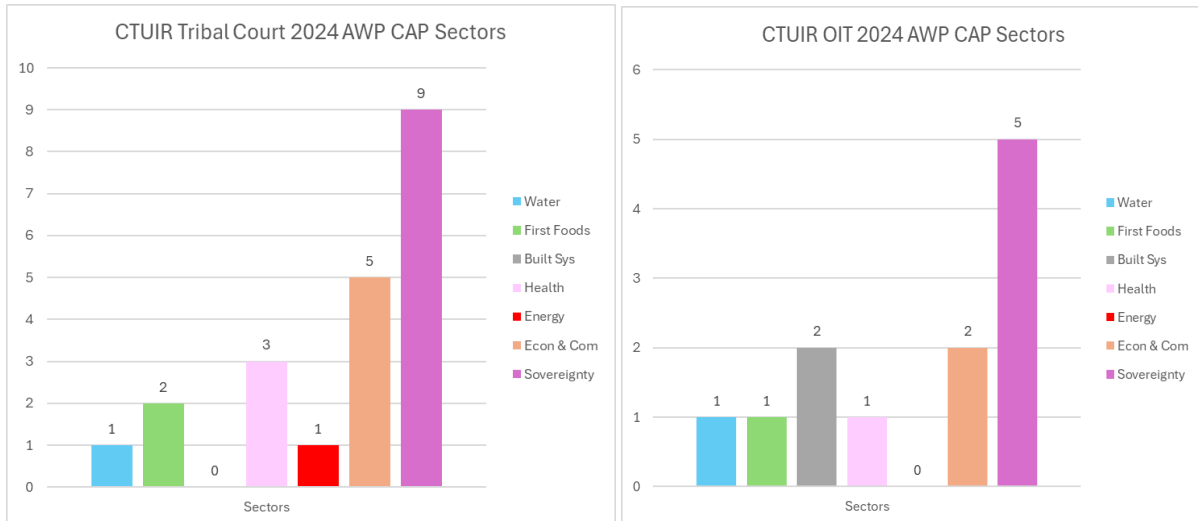
- Language literally changes the minds of people who learn it, as it creates new neural pathways to learn new languages. Language can recreate thought patterns and processes and new capacities.
- Boundaries and parenting can be used to guide development of behaviors and habit. Gentle parenting as a strategy to establish safety boundaries and consistent mechanisms and structures for children to grow and thrive and also not be at risk of harm. No one has to yell, but establishing boundaries helps everyone grow.

CTUIR Climate Adaptation Plan
Implementation Planning Workshop 4.1 Notes
May 9th, 2025 8-10AM

In attendance:

- Session 1
 - Donyale Jackson, Jessica Wright, Tribal Court
 - Marguarite Bencenti, Matt Underwood, Stacy Schumacher, Janine Morris, Office of Information Technology

Scope of Responsibility from 2024 Annual Work Plans:



Items of interest for Implementation Plan:

- Specific impacts identified by departments
- Issues/items that affect Tribal budgets and long term planning
- Tracking metrics for progress identified by departments
- Roles and responsibilities for mitigation/adaptation measures
- Opportunities for additional climate/carbon and emergency preparedness funding to support/expand existing work and implement new initiatives

Tribal Court

- Coordinating community service could provide opportunities to build skills or capacity needed to address climate adaptation gaps
- Changing systems requires an understanding that rehabilitation should be culturally centered, which connects to First Foods adaptation and emotional health
- With heat effects, understanding that decision making for anyone in the justice system may be affected.
 - This includes judges who make decisions in isolation (compared to others in the system who make decisions in pairs/groups); this may affect the harshness of sentencing both for Tribal Court and for Tribal defendants in non-Tribal court systems.
 - Mood stabilizing medication is also more statistically likely to be neglected during the periods of summer heat, can Tribal Court have a role in proactively reminding clients to keep up on medication as needed?
- Regulation of harvest of Tribal plants – what ability do we have to set seasons, standards, and limits? What effect can we have for these processes in neighboring state/fed/county jurisdictions?
- Tracking to understand how behavior might be affected by natural disasters and long term stress from climate changes – is there a way to correlate this to atmospheric monitoring and other social metrics being monitored already?
- Is CTUIR tracking incidences of wildlife pathogens that may affect human health? The “skull barrel” at Mission Market is a good example of how CTUIR is attempting to collect this data, but heavily relies on state and federal agencies that are doing this tracking.
 - Do we have access to this data? Can we use this data to help us make decisions?
- Additional that you remember?

Office of Information Technology

- Maintain information services and data storage/access for CTUIR and others who use the Centralized Data Management Service (CDMS)
 - Infrastructure for IT may be disrupted with climate impacts, similar to other utilities in the area
 - How are we planning for preservation of information if electrical services are interrupted?

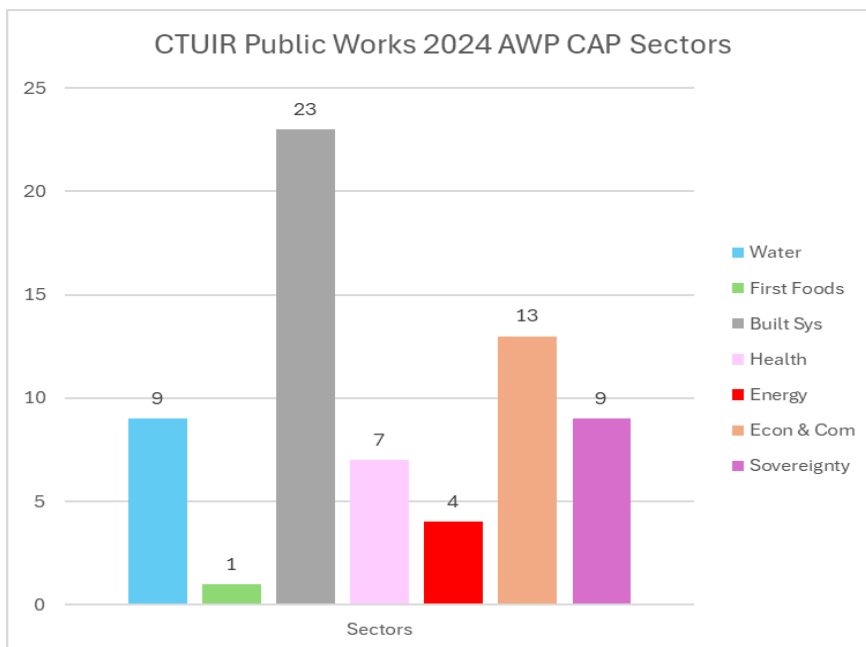
- Building temperature is set not only for personnel but also for server operations; there is only so much deviation from “room temperature” that the servers can tolerate, so this limits temperature changes the building can experience.
- Data from state and federal agencies is currently being collected, how readily do we have access to this data? Do we have any that we are collecting currently that we can use to communicate or plan for climate changes?
- Tribal member portal can be used to communicate information that may be culturally sensitive, such as changes in First Foods abundance or targeting facilitated migration opportunities.
- Changes in First Foods distribution potential could be proactively mapped to suggest where new and changing opportunities for harvest might be located.
 - Mapping could dictate building new relationships in potential new harvest locations to get ahead of migration challenges
- Energy demand of data services is going to increase and shift; what perspective or policy does CTUIR OIT have for determining appropriate data collection, storage, use etc? This connects with data center conversations, what is CTUIR’s perspective on the issue?
 - Marguarite to attend Energy Strategies meeting for nuclear associated with data centers, still needed
- Washington has a huckleberry season that is regulated and monitored, but Oregon doesn’t have a similar system, are we able to advocate for this to be implemented? Similar to hunting and fishing season, to ensure the harvest isn’t exceeding the availability.
 - Mechanisms that prioritize cultural harvest of Roots and Berries
 - Are there methods that can be regulated? Specifically the rakes that harm the bushes, is there a way to address these for commercial and non-Tribal harvesters?
- Additional we may have missed?

CTUIR Climate Adaptation Plan
Implementation Planning Workshop 4.2 Notes
May 9th, 2025 10AM – 12 PM

In attendance:

- Session 2
 - Justin Northern, Alaina Mildenberger, Public Works

Scope of Responsibility from 2024 Annual Work Plans:



Items of interest for Implementation Plan:

- Specific impacts identified by departments
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Public Works

- Public Works is responsible for maintaining Tribal facilities to ensure continuity of operations and public safety, also for upgrades and long term planning for the build environment.
 - Flooding impacts have been most noticeable recently. Mission Creek especially routinely creates challenges for facilities like the Fire Department, DNR Bull Pen, Housing, and other structures located along the creek floodplain. Working with Water Resources on potential solutions.
 - Helped coordinate sandbag fillers for 2020 flood.
 - Building HVAC systems have also experienced challenges from smoke. NGC HVAC usually pulls ~20% outdoor air to maintain ventilation standards. This can be reduced to as much as 5% but the design requires pulling from outdoor air, which is a problem during smoke inundation events.
 - Wastewater treatment plant would be a step to help us use our water in a more efficient way.
- Public Works has old videos and handbook of sustainability principles that were to be implemented when NGC building was new. Tried to require staff to bring mugs/water bottles but eventually this was eroded over time and with changing staff needs.
 - Can we get copies of these materials?
- Recycling rangers – administrative personnel were the point people for this effort, and helped coordinate segregated recycling. This program lapsed, but those who were involved still have positive and empowered memories of the program.
- Energy Trust of Oregon program → labor burden to report
 - Public Works was working with ETO on building upgrades to document energy savings for funding/reimbursement. This was successful and contributed to funding availability, but was a large labor burden to collect and report the data.
 - Potential staff position/responsibility to revive and maintain this data collection and program, could continue to yield modest revenue or at least be used to calculate carbon emissions savings to credit to CTUIR
- Hazard pay calculations
 - Public works employees are regularly working in heat and cold conditions, is there a way to calculate and compensate for hazard pay for these positions?
 - ALL public works staff work in hazardous conditions in some way or another; during pandemic we saw that even custodial staff are subject to hazardous conditions.
 - If we can't provide hazard pay, is there another way we can recognize that these staff are providing a service that is underappreciated?

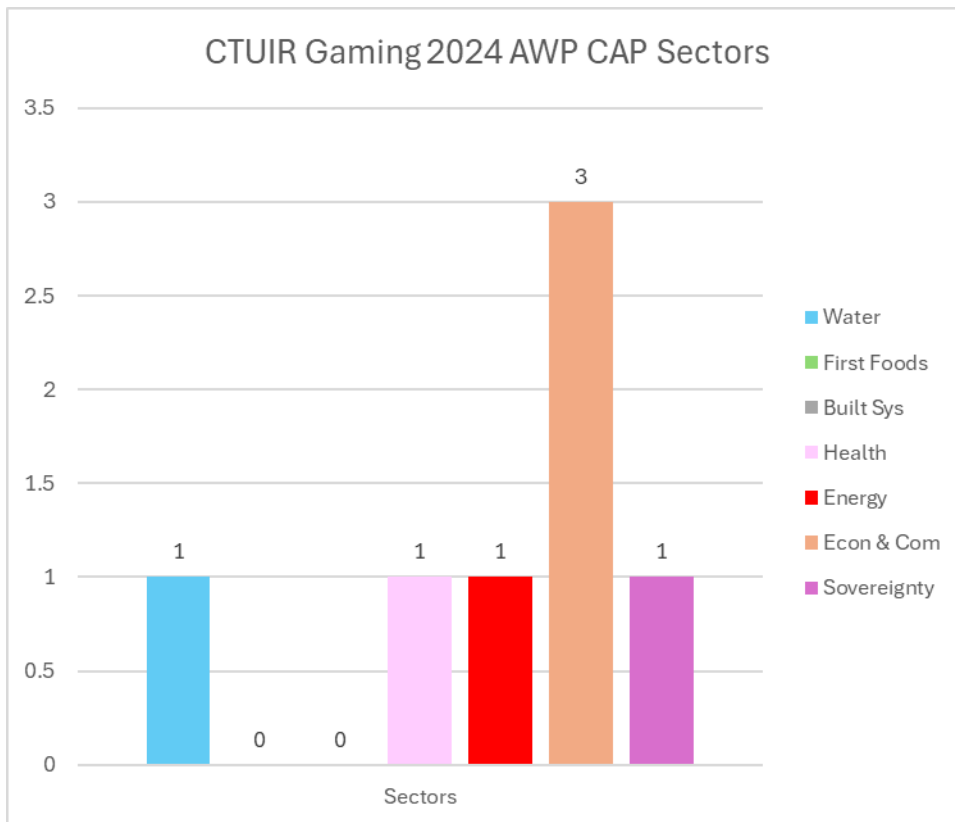
- Consider programs like the Green Janitor Education program that centers custodial staff in sustainability efforts: [Sustainable Cleaning Practices for Janitors - USGBC-CA](#)
- UIR census on AC/equipment
 - Understanding what level of access to climate modification equipment (heaters, air conditioning, air filtration) our Tribal community has is important for knowing how the Tribe can provide what people need.
 - Would it be possible to include questions about access to equipment into existing Tribal services surveys? Like into Yellowhawk's Community Health Assessments or Comprehensive Plan?
 - This would help CTUIR understand funding needs for being able to provide equipment to families.
- No coordinated weed management
 - Invasive species have been a high priority for these conversations; there are management plans in place but no coordination or accountability for application and reporting.
 - A centralized entity to report to would improve CTUIR's overall ability to conduct weed management in a coordinated and sustainable way
- Committee with directors
 - Sustainability or adaptation focused committee could help integrate climate adaptation into Tribal services; could be a committee or a working group etc
 - This coordinating entity would need to have at least one CTUIR department director on it to have any kind of meaningful impact.
- SOP for efficiency practices with follow up
 - Create standardized guidance and monitoring climate adaptation efforts, including weed management, access to equipment, natural disasters etc
 - Standardizing these practices and making this information accessible could improve community and volunteer and outside agencies' ability to provide additional capacity to CTUIR
 - Emergency response SOP proactive coordinator
- Community census and communication
 - How are we communicating with our Tribal community about what we are asking them to do? How can we improve our communication internally and externally to make sure we are consistent and having the right impact?
- Any thing else you remember?

CTUIR Climate Adaptation Plan
Implementation Planning Workshop 5.1 Notes
May 16th, 2025 8-10AM

In attendance:

- Session 1
 - Ermia Butler, DNR First Foods Policy Program
 - Brad Spencer, Office of Gaming

Scope of Responsibility from 2024 Annual Work Plans:



Items of interest for Implementation Plan:

- Specific impacts identified by departments
- Issues/items that affect Tribal budgets and long term planning
- Tracking metrics for progress identified by departments
- Roles and responsibilities for mitigation/adaptation measures

- Opportunities for additional climate/carbon and emergency preparedness funding to support/expand existing work and implement new initiatives

DNR and First Foods Policy Program

- Workshop example: air quality response activities include:
 - understanding that Tribal practitioners are likely to still practice rights during poor air quality events if there are First Foods to be harvested;
 - sending personal protective equipment like P100 respirators with Tribal harvesters for on-site as-needed protection, in-building air filtration units for use within NGC, and units to be distributed to high-risk Yellowhawk patients for use in homes.
 - This was grant funded but involved in-direct because of purchasing and DNR staff time. Also expanded CTUIR relationship with funder Meyer Memorial Trust and contributed to securing additional funds for dedicated staff position and equipment from Oregon Health Authority. Opportunity to improve publicity around this tangible improvement to operations as a climate adaptation for Yellowhawk.
- Mitigation versus adaptation example: Providing cutlery to Feast attendees falls on Longhouse cooks, who currently purchase single use plastic to be thrown away. A long term way to reduce this plastic is for Feast attendees to bring their own cutlery to use and take back and wash at home, reducing labor burden on Longhouse cooks and the water required for dishwashing.
 - While we wait for behaviors to change in the short term, FFPP single use plastic reduction campaign purchased plant-based plastic reusable cutlery and TCI uses plant-based plastic single use cutlery to patrons, which reduces some of the plastic used and moves us closer to sustainable behavior.
 - It takes time and dedicated energy to change deeply entrenched habits towards sustainability. Longhouse women would even make their own cutlery travel bags that could hang from their belts to make sure they had their silverware to use with Feasts. Maybe an outreach campaign could help encourage our community's creativity to address this request, and celebrate individuals and families that embody these practices.
- As CTUIR implements adaptation, there is a need to track the changing costs associated with these actions. This tracking can be used to describe the additional cost burden of adaptation and may be eligible for future funding sources dedicated to financing adaptation measures; these may be state, federal, or private funding

sources, but having a record of cost differences already established will help secure/justify additional funds.

Office of Gaming

- Gaming coordinates with Wildhorse on gaming operations but can make recommendations to improve casino operations
 - It's in the mission statement for CTUIR that we will do our best to protect natural resources and there are many little things that every department can be doing to help fulfill this mission.
 - Small changes can often be used to build to larger changes. If behavior and habit changes are small but successful, it can build momentum and willingness to try larger changes.
 - It's a responsibility of the Gaming Commission to help benefit and protect the safety and best interests of the Tribe, which includes health and public safety (as referenced in the CAP), and would like to be part of moving the Tribe to an improved sustainability for the "Wildhorse bloodline" that connects back to continuing planning for the future that the Treaty Signers have set out.
 - Gaming shows that "taking a gamble" in change and preparing for the future can really pay off (literally!) as an example of how things can start small but build to something huge over time and persistence.
 - Learn more and see how we can benefit, and help others. We don't have control over the climate/weather, but we do have control over what we do in response and contributes to conservation and sustainable use of natural and other resources and the overall health of our world. Many times, these small changes can have immediate and quality of life benefits in addition to climate and resilience benefits in the future. NGC walking trail is a very good example!
 - State energy efficiency programs are possible source of small supplemental funding, but do come with additional reporting burden. When WRC changed their lighting to more energy efficient bulbs, they were actually able to make money back using this state program.
- Night lighting for the casino is a bit extravagant for the occasions (no events active), ex: spotlights, building side lighting; can these be reduced during times when there isn't an active event at the facility?
 - Motion sensor lights in offices and walkways can also reduce electrical burden when occupancy is low.

- Dishwasher efficiency for water and power for the Longhouse; connects with water treatment plant plans because better use and repurposing of water we do have will help take pressure off groundwater wells that aren't infinite
- Little changes can be small but add up over time, and more importantly successful little changes can demonstrate to public/community that changes are possible and won't completely disrupt life, and are indeed worth doing. Focusing on small but successful changes in messaging and planning could help build to larger changes. When making a change, leave time to adapt to the change. Ex: move your trash can to see how deeply our habits affect us.
- Three bin recycling in each office area has been very helpful in separating all the recycling material and being best for materials, as well as encouraging people to know
- More plants in the office spaces improve the ambiance and clean the air
- Casino as defacto refuge center for people who are displaced, but don't tend to gamble. Is there a way that the casino can be more intentional about being available for displaced people? Is there a way for any revenue to be generated knowing that gambling might not be what displaced people are spending money on?
- Traveling daily and in emergency circumstances is likely to be affected by climate impacts, including our local community as well as visitors to area.
 - In addition to the bridges that are impacted, there are also other major forest service roads that were damaged in the 2020 flood that still haven't been repaired: Pearson Creek/East Birch Creek, and the North Fork Umatilla Roads are still damaged (impassable).
 - This affects both daily and emergency transportation routes, as well as First Foods harvest opportunities for Tribal members.
- Access to air conditioning is/will become life saving equipment during summer months; the casino is currently a place where community members find heat refuge. Is there interest/capacity with WRC/Gaming to designate/standardize WRC as a safe space for community to gather during heat and smoke events?
 - It was noted in a recent (2025) General Council meeting that it was believed law enforcement officers dropped off a community member seeking heat refuge at the casino; what is the standard practice for law enforcement response during heat events, especially for community members seeking heat/smoke shelter?
 - Gaming questions the accuracy of this report, WRC has a MOU with Oregon State Police and doesn't seem like they would "dump" community members at the casino for services.

- As part of CTUIR opioid settlement funds, Yellowhawk is implementing a services vending machine at Wildhorse, which the casino agreed to host due to the requirement that it be monitored 24/7. The vending machine will be a resource for good for those struggling with addiction and potentially homelessness, and have items like hand sanitizer, wet wipes, Narcan etc available for free to those who access this vending machine.
 - Some opinions were opposed to this vending machine because they felt the casino is an important revenue generator and didn't like the idea of those in need of services, who are unlikely to be patrons of the gaming or food service establishments, being directed there.
 - If Wildhorse is consenting to be a hub for those seeking services and refuge, is there a way we can be doing it better/more coordinately? Can we celebrate the casino for providing these services?
 - Increased strain and stress is likely to increase these traits in our community, and those who end up at WRC.
 - With Wildhorse's expansion, there will be more room to space to provide potential services, however it might not be ideal from a business perspective to invite non-patrons to gather could cause challenges.
 - People who have no other shelter or are transient through the community tend to already know about the beverage stations located throughout the casino. Current policy is those "abusing" the station without patroning WRC establishments are asked to leave, in a process deemed "evicted."
 - Wildhorse could be an opportunity to connect those who end up at the casino with existing services for addiction and lack of housing. Services exist through DCFS and non-Tribal organizations like the Neighbor to Neighbor Warming Station and CAPECO in Pendleton. Individuals who are "evicted" from WRC could be an opportunity to intervene with services referrals if a system to do so was put in place. This system would likely include participation from DCFS, Yellowhawk, and other regional organizations as necessary.
- Opportunities to increase passive cooling strategies through vegetation/plants, building orientation, heat pumps etc
- Energy use is going to become more expensive, so WRC is likely to see these costs increase without proactive energy efficiency and renewable microgrid innovations for the facilities.

- Increasing stress and strain on individuals and families will affect our community's mental health and ability to cope with change and loss. Is there a way we can support our government staff and services to just regularly and genuinely ask "how are you doing today?" and actually listen and be present for the response? Taking time to meaningfully interact with someone who is experiencing stress or crisis can go a long way in helping that person emotionally regulate.
- Increasing natural disasters will increase CTUIR costs in responding to our local events. Example includes the CTUIR covering the costs of 2020 flood displacement families up at Wildhorse and how expensive that was, and where the funding might come from.
 - Disasters might also discourage tourism to the area briefly during and after the event; while hotels might fill up with displaced people but they aren't actively contributing to revenue.
- Extreme heat effects on behavior should be anticipated for Gaming; Aug 17 2022 incident of attempted robbery at the casino is an example of how this might occur in the future. This incident still causes PTSD for Gaming staff who were affected.
 - Heat is a CONTRIBUTING factor to irrational decision making, it isn't likely to be the only cause of behavior but it makes it more likely that someone will act irrationally. Other circumstances are involved and it would be difficult to pinpoint the causes, heat just shortens peoples' tempers.
 - Home situations without AC are more likely to be affected so understanding our community's AC access is important for mental health.
- Using the blue box cutlery as an example, items that are given out at community events might be regarded as "freebie" items and treated as such, rather than meaningfully incorporated into daily routine. Climate adaptation campaigns will need to figure out how to encourage our community to make these lasting and permanent changes in behavior.
 - Little signage and other small ways of reminding people to make these changes, (ex: "Do you have your reusable silverware?" in places with food) can help build up the mental pathways needed to make these behavior changes. Constant visual reminders and opportunities to utilize them and encourage peer to peer reinforcement to build the habit.
 - This brings us back to the mission that was set out by Public Works with NGC was new to have their reusable mugs and cups and bottles, this program could be re-vamped and supported at a government level. These campaigns would need to be supported by the Tribal government at the highest office, since we would need to change entrenched habits and convenience culture.

- Be the example of the change we are trying to make! Encourage people to see themselves in the changes we want to make. Better highlight the benefits we do have, and provide information that will help people be proactive in being part of the change. This connects with building life and social skills to be responsible for oneself and be respectful of community spaces.
- Especially with beverages like coffee and water; bulk coffee makers reduce the need for KCups and waste they create, but staff are reluctant to be responsible for maintaining these shared systems.
- Gaming office has refrigerator to encourage staff to bring their lunches and stay on site to reduce vehicle miles traveled, and thus carbon emissions. Tricky to quantify these since the refrigerator is an energy user and could be causing other emissions due to energy use etc.
- Small changes that are successful add up over time to make a big impact!
- Leadership needs to be supportive and VOCAL about their support, not only passively facilitating changes. People are likely to complain about any changes we're trying to make, so leadership needs to visibly support these efforts.
 - Celebrate these efforts as a RETURN to sustainable culture and practices, as a way to honor ancestors and tradition. Focus adaptation campaigns on cultural connections wherever possible for improved messaging.
 - Beaded cutlery bags, tribal print on the bags etc could encourage pride in the habit change
 - Help us make these changes, for ourselves and for our kids! Build the habit in the youth for long lasting change. Provide for yourself as a way to help the community. Events can plan to have extra clean up time and volunteers to wash reusable silverware as part of these events.
- Efforts in food service to reduce waste have included not providing water, napkins, straws etc unless asked for them, as a way to reduce unnecessary materials being thrown away. Customers' reaction to having to ask have been a challenge in making progress, since it involves some minor inconvenience for establishment customers to reduce this waste.
 - The materials weren't appreciated until they were not readily available to customers. But this minor inconvenience brings public awareness to the material and makes a small change in the right direction if establishments persist, customers get used to it and know to expect it. We don't want the only time we appreciate our resources are after they are gone, making these small inconvenient changes allows us to appreciate our resources better NOW and perhaps prevent them being gone in the future.

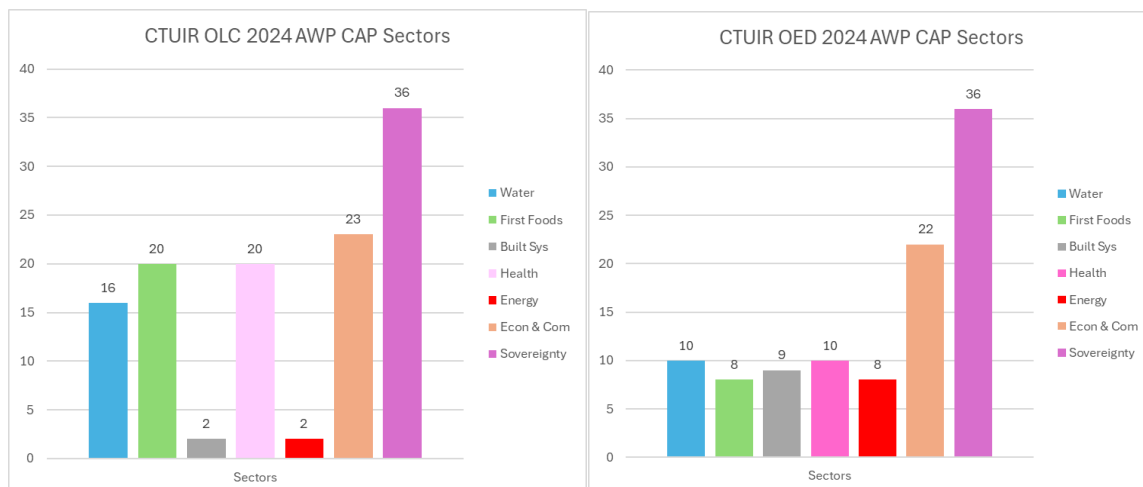
- OED visualization of where the Tribe is going; what are we doing now that will make it possible to exist in the future? What do we need to be doing differently to ensure the signers of the 1855 Treaty would be proud their descendants are still carrying on their vision?
 - What do we have now that was in the Treaty Signers' vision for our future?
What do we envision now for our descendants who will come after us, and what are we building to make this vision possible for them?
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CTUIR Climate Adaptation Plan
Implementation Planning Workshop 5.2 Notes
May 16th, 2025 10AM – 12PM

In attendance:

- Session 2
 - Joe Pitt, Office of Legal Counsel
 - Liz Bill, Office of Executive Director
 - Bryson Redcrane, Nancy Kirksey, Shana Alexander, Michael Erickson, Yellowhawk Tribal Health Center
 - Ermia Butler, DNR First Foods Policy Program

Scope of Responsibility from 2024 Annual Work Plans:



Yellowhawk AWP's were not provided for CAP analysis

General climate impacts were considered to the following known Yellowhawk services:

- Physical health and chronic illness management/prevention
- Mental health and psychological wellness
- Cultural health and “Culture as Prevention”
- Public and behavioral health

Items of interest for Implementation Plan:

- Specific impacts identified by departments
- Issues/items that affect Tribal budgets and long term planning

- Tracking metrics for progress identified by departments
- Roles and responsibilities for mitigation/adaptation measures
- Opportunities for additional climate/carbon and emergency preparedness funding to support/expand existing work and implement new initiatives

Office of Legal Counsel

- Providing legal support services to Tribal departments and programs, any efforts/projects being developed can use OLC to advise on implementation; advising on what can be done under current law and stay updated on changes in law that are required to accomplish Tribal goals; provides legal advisory role to efforts and activities undertaken by Tribal government entities.
- In Washington, a recent Supreme Court ruling connects to an ongoing effort attempting to limit off-reservation Treaty Rights to only lands that the Tribe is documented as having used at the time of the Treaty of 1855. OLC has pushed against this effort due to the fact that Tribal members historically and contemporarily travel great distances to harvest culturally significant species and to conduct commerce with other Tribal nations.
 - OLC anticipates the need to “double down” on this resistance to Washington state’s attempt to limit off-reservation Treaty Rights, to defend Tribal member ability to adapt harvest locations within Washington state as areas for First Foods habitat suitability migrate. This will require documentation of historic use as well as contemporary Tribal member access to harvest in areas previously underutilized but that are likely to become a First Foods harvest location in a changing future.
 - Potentially may include an eventual challenge to the Supreme Court ruling for Washington state.
 - Hopefully this will dovetail with an increasing understanding of the need for Traditional Ecological Knowledge in local and state governments that will ease the need for litigation-based approaches to expanding Tribal member access to lands for First Foods harvest. Connects with Education’s push to educate the public on Treaty Rights and how these benefit non-Tribal people too.
 - Also of note, Huckleberry habitat loss in high elevations like the Cascades is unlikely to be offset by any habitat gains that may occur in eastern high elevation sites like the Wallowas, so the result will be an overall net loss of Huckleberry habitat in the CTUIR Traditional Use Lands, regardless of any

facilitated migration of Huckleberry that may be undertaken in Eastern Oregon.

- How do we protect our First Foods where they exist currently? Conversations around establishment of more strict harvest windows or practices for First Foods harvest that prioritize the health of the First Food species over other factors.
 - Examples of this might be using fishing methods like netting in the earlier part of the Salmon season so small fish can be thrown back uninjured to have another chance, or to prohibit/discourage the use of “rakes” on Huckleberry plants, as studies have shown these methods damage and stress the plant.
 - Cheryl Shippentower with RAF may have more information or a link to the study/studies that provide this evidence. These impacted bushes tend to flower but not produce fruit for ~5 years after raking damage. Picking with hands allows for the leaving fruit for bears and birds, which is necessary for spreading of seeds to propagate into other areas.
 - How can we improve non-Tribal understanding of the need to prioritize plant health during the berry harvesting process? At a state level, harvesting windows would need to also address Tribal member use of these practices and provide a broad education effort to reduce rake use.
 - State of Washington has implemented a commercial Huckleberry harvest season that regulates berry harvest; at the beginning of the season, non-commercial harvesters are permitted, then later in the season commercial harvesters are permitted if levels allow.
 - Currently Yakama is petitioning Washington to not release commercial permits at all due to fruit production declines due to harvest methods and climate crisis impacts.
 - What does enforcement look like? Are there enforcers checking baskets/bags of Huckleberry harvesters? Are they asking for ID cards? Is this limited to the Yakama Nation area of Mount Adams?
 - Harvesting for family and Elders is a big reason many people participate in First Foods harvest, is there a way we can recognize and/or prioritize those harvesting for community members with assistance needs? If seasons or locations are restricted to Tribal gathering, how can we make sure those who have connection to First Foods through enrollment or family ties are able to maintain this access to these cultural gathering sites?
 - Suggestion to have a meeting that convenes these involved parties to discuss what it would take for CTUIR to take a more active role in

developing guidance or structure to harvesting seasons or methods, similar to the way other reservations do. Tribal regulations already apply on the UIR, and other Trust lands, with places like Indian Lake that have a higher population of berry First Foods.

- Becomes much more complex with non-reservation lands like National Forests where CTUIR is one of many regulatory and jurisdictional authorities and would need to coordinate efforts. Washington state's commercial berry harvest regulation could provide a template or example for future discussion.
 - Example of "excessive commercial use" of Huckleberries is from Hal's Drive In in Pendleton, roughly 10-15 years ago. Customer ordered and was given a 20 oz Styrofoam cup full of Huckleberries that cost only a few dollars. This was used as an example of how commercial harvest can overharvest and exploit First Foods.
- Energy generation and transmission are negatively affected by extreme heat and changing river hydrology. Hydrologic generating systems are negatively affected by increasing soil erosion and changes to seasonal hydrology, resulting in increased costs to operation. Solar generation is also negatively affected by extreme heat and wildfire smoke. All energy that is conducted through transmission lines is negatively affected by extreme heat due to increased resistance to electrical transmission. This is true for ALL energy sources, even renewable and alternative sources.
 - Transmission of energy itself is vulnerable to extreme heat
 - Community members are observing more electrical disruptions to parts of the reservation, and may be part of the emerging electrical transmission climate impact. Some utilities are working to proactively prepare by upgrading utility poles and lines in areas. UIR residents have a range of different energy sources for electricity, including Pacific Power, Umatilla Electric Cooperative, and some degree of natural gas. This results in pockets of the UIR being affected differently by outages. These outages are becoming more frequent.
 - Many households on the UIR rely on groundwater wells for household drinking water; these wells require electricity to access drinking water, so when the electricity is disrupted, access to drinking water is as well, creating a compounded problem. Public Works understands this issue and is working to address it. Mitigation for this problem includes supporting families in what they need to have an emergency supply of drinking water on hand in the home.

- Emergency responders to wildfires and structure fires automatically shut down electrical systems when responding to a call, which severs access to household drinking water.
- What will the future of energy transmission look like for the Tribal community? Will it be large centralized generation sites with transmission lines running to use locations? Will it be smaller more numerous microgrids located closer to use locations with shorter transmission lines? Can we reduce our demand to help make it possible to produce the energy that we need?
- Nuclear energy, especially associated with Amazon data centers is being discussed in the Tribal community, with sites anticipated in Wallula, Hermiston, and other locations. Does the CAP speak to nuclear energy at all?
 - CAP addresses Hanford site issues specifically but not issues around nuclear energy in general.
 - CTUIR has not expressed a formal opinion on nuclear energy development, outside of the existing Hanford Nuclear Policy, which states clearly “no new nuclear will be developed.”
 - FFPP understands there is a current effort by EESP to develop a CTUIR policy to guide decision making around nuclear energy, though we have not been included in discussions around its development and review process.
- Proactive intergovernmental conflict resolution and planning can help alleviate potential conflict over resource management. Walla Walla 2050 and the Grande Ronde Watershed Participatory Planning efforts are two examples of CTUIR working to build inclusive planning initiatives that work to reduce future conflict.
 - As water availability and quality becomes a potential source of conflict 20-30 years from current time, there may be pressure to divert in-stream water rights to other needs, which is something CTUIR could plan to get out in front of to preserve in-stream flows against other consumptive water demands on UIR and in the region.
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Office of Executive Director

- Prepare and compile the documents to be reviewed by the BOT, set up meetings with BOT, and ensure climate adaptation implementation is part of the process and that all the departments work together. OED has made it a priority for departments to participate in the CAP implementation workshops and will follow up with

incorporating the outcomes of the workshops in to 2026/7 annual work plans and beyond.

- Hub of all the documents being overseen by CTUIR entities and ensures CTUIR is meeting everyone's needs, not just with the Tribal government but with funders, partners, enterprises and everything else.
- In reviewing the projected change of climatic conditions that are suitable to support First Foods, it is important to understand that First Foods presence in a habitat requires more than just appropriate climate conditions. OIT has done mapping of plant relationships for Huckleberry is very multi-faceted with plant, insect, and fungal relationships also required to be present in addition to climatic conditions for Huckleberry success in a given habitat. This means protecting Huckleberry habitat in new places using our understanding of ecosystem requirements for facilitated migration.
- Extreme heat events will cause challenges for Tribal facilities' ability to maintain suitable temperatures for personnel. Staff have experiences with being sent home on administrative leave because the NGC HVAC was not able to maintain internal temperatures low enough to ensure safety of staff. This is also true for cold season events as well, as the HVAC was not able to maintain building temperatures high enough for suitable working conditions.
 - Improvements to the HVAC system are understood to be necessary, and Public Works is working to address this longstanding issue. Are there additional funding sources for infrastructure upgrades to buffer against climate extremes?
 - Balancing act between building energy efficiency re: climate modification and maintaining a suitable work environment. Management can ask staff to modify their behaviors (ex: wear more layers to reduce need for heating etc) but there are parameters that need to be maintained.
- Reducing resource conflict now and in the future is ongoing and requires constant and appropriate communication with all parties involved. OED and OLC are a big part of the internal communication process, having full communication and knowing what's going on with UIR and in the region, and bringing in departments where relevant and as it relates to their goals or potential impacts. OED is actively working on maintaining and improving this internal communication.
- In connection to risk management with wildfire and the use of prescribed burn, academic literature indicates there is a lot of potential for positive use of fire in CTUIR's Ceded lands specifically. The OSU study that supports the use of prescribed fire for forest management took into account many factors like population density, presence of critical infrastructure, known presence of

endangered species, and other factors to generate their map of risk for prescribed fire. Overall smoke reduction as well from the use of intentional burning, as opposed to suppression strategies that attempt to quickly put out unintentional burns.

- Flexible work options and ability to work differently would improve ability to respond to changing conditions and continuity of services in the face of emergency and disruption. The Pandemic proved alternative work arrangements are possible for certain kinds of employees, and implementing flexible work options would improve staff retention and reduce the need for administrative leave during times when building or travel conditions are unsuitable, examples winter weather closures and HVAC disruptions. Having laptops and docking stations for staff whose work would translate to WFH/alternative work would improve continuity of services and reduce admin leave for those positions that can work remotely/alternatively.
 - This would require a coordinated effort to understand which CTUIR positions would be eligible for alternative work options and have a agreement for protocol and requirements that are standardized.
 - It would also need to include an understanding of work/life balance to be in place as well, to prevent employee overwork or exploitation.
 - Having a standardized protocol for building closures that shifts to WFH in certain situations, and to have staff understand the protocol and put communication in place to make it possible would improve continuity of services and reduce admin leave paid out.

Yellowhawk Tribal Health Center

- Medical administration is focused on cultural integration into services, education of staff on culture and practices for better connection with patients, which includes traditional First Foods and Tribal language, to teach/demonstrate to staff how Tribal people here live and their ceremonial/cultural connection to land that informs health and diet of patients.
- Quality and Risk Management provides structures and channels for feedback and evaluation with patients and understand where barriers exist to eligible community members not utilizing services.
 - There are many avenues through which to collect and provide feedback on services; Yellowhawk has improved survey collection in recent years from ~400 responses to well over 1,000, and have made changes and improvements based on the results and the feedback provided.

- Upcoming media and outreach push to have patients fill out the comment cards and share “good, bad and ugly” with Yellowhawk, independently and with assistance services available. Feedback is reviewed regularly with department chairs and their staff, and is presented twice per year to the Health Commission.
- This connects very well with recommendations in the CAP around providing formal and informal avenues of providing feedback on gaps and services for the Tribal community.
- Work to make patient experience the very best it can be by listening and identifying necessary changes to be made and communicating directly to management and staff.
- Public Health Clinical Operations Team includes public health emergency preparedness, which has a very strong role in natural disaster and emergency response to climate impacts, both responding to and being prepared. Community wellness is also part of being prepared by educating on what climate does and how it affects us, connecting with community and with things that are important to the community.
 - How do we make healthy changes and choices that can also be part of the climate solution. Little changes can make big impacts.
 - Shout out to Seniors Center lunches!
- Yellowhawk to wildfire smoke is a living example of climate adaptation; clinic provides N95 masks, filtration equipment, and education to patients during times of heavy smoke inundation. Also using air quality monitors like Purple Air to understand local/immediate air quality conditions for the benefit of vulnerable patient groups like Elders, pregnant women, and those with respiratory conditions.
 - These are really good examples of short term mitigation strategies that protect health during poor air quality conditions. What has been the funding impact and sources for these
 - Long term adaptations would involve reducing the risk and impact of wildfires to our communities, which is outside the responsibility of Public Health.
- Pilot effort to change staff work hours reduces demand on facilities electricity and heating/cooling, and importantly reduces vehicle miles traveled by staff in their daily commutes. 32 hour work week also allows people to prepare meals at home and reduce single use plastic, improves family dynamics, and reduces emotional strain on staff.
 - Works great when everyone is there and feeling healthy, can be challenging if some or key staff are out sick or urgent situations arise. Easier to get

providers, less absenteeism, less utilization of sick leave, and Yellowhawk receives better applications and retains staff better with the work schedule change. A report will be forthcoming on the impacts. Exact impacts depend on department, and Yellowhawk is still adapting its practices for the best delivery of services. Able to be more present for patients this way; through risk and quality management there has been almost entirely positive feedback from patients.

- Yellowhawk staff worked diligently through the Covid 19 pandemic and many have flex time that had accrued but there was no time to use it since the demand was so great.
- Pharmacy and Medical are viewed as “frontline workers” and may be more impacted by climate crisis impacts than other departments. These departments tend to have higher staff turn over and were hardest hit during pandemic. It made staff feel expendable and made management think that change was needed, leading to the 32-hour work week.
- Benefits to adaptation that exist NOW for families and personnel, not just in the far future.
- FFPP invites Yellowhawk to let us know if staff and admin would like to have a dedicated CAP Implementation workshop for Yellowhawk services in the near future. Materials presented were more generic for “healthcare services” and did not have a close review of annual work plans for Yellowhawk departments.
- In addition to healthcare services, Yellowhawk also performs some emergency management roles in responding to natural and man-made disasters as well as disaster preparedness.
- Wildlife and plant pathogens are likely to increase in frequency due to warmer winter temperatures, which will affect First Foods, and depending on the illness, may carry risk of zoonotic transmission to humans. Non-zoonotic diseases have the potential to reduce edible meat from fish and big game, with community anecdote examples from the DNR fish distribution on fish meat being potentially spoiled or contaminated being given to Tribal members.
 - Yellowhawk as a point of contact for Tribal members around health and nutrition might be able to collect more information on what people are seeing in terms of food quality and safety as they harvest or receive First Foods.
 - Is there a mechanism or channel for community members to report incidences of First Foods illness or reduction in quality?

- Insect vectored illness, especially with ticks and mosquitos, can transmit and cause disease in humans, and will increase in numbers as warmer winters fail to kill overwintering eggs and insects.
 - Does our community or Yellowhawk have an understanding of tick and mosquito associated illness? Do we know symptoms to look for and what public health response should be?
 - Does Yellowhawk or a partner entity have the ability to perform testing associated with illnesses like Malaria, Lyme Disease, and other insect vectored illness with recent or historic presence in the Pacific Northwest?
 - Many who live and grew up in rural areas are accustomed to ticks and dealing with them, but this might not extend to understanding around the illnesses they carry, signs and symptoms of illness, and how to contribute to disease monitoring. An example; many know to check for ticks and remove them after time in forested and grassy areas, but may not know to keep any ticks in a sealed plastic bag to deliver to Lyme disease testing centers to add data to disease monitoring and tracking. Understanding disease monitoring data collection protocols, locations, and methods could help document changes in tick emergence (are they emerging earlier in the season) as well as whether our local populations are carrying transmissible illness.
 - Our families also include our non-human relatives like our dogs, horses, and other animals are at risk from insect vectored illness as well. How are we able to monitoring and prevent their illness too? Especially as domestic pets can transmit illness to humans in the home.
- Air filtration in Tribal facilities will need to adapt to an increasing frequency of hazardous outdoor air, due to wildfire smoke. Current HVAC designs include a base requirement of outdoor air to be drawn into the building and can't completely circulate indoor air, which is a weakness during heavy smoke events. Building retrofits or more thoughtful designs in new facilities will want to consider an increasing frequency of hazardous outdoor air during certain seasons.
 - Individual and family level response includes distributing PPE like N95 masks and home air filtration equipment, as Yellowhawk has already started doing.
- Flooding impacts to roadways create public safety challenges by preventing transportation, including emergency services. It can also have unintended positive benefits to wildlife and aquatic systems by reducing human presence in locations impacted by transportation disruption. Example includes Thornhollow Bridge, which

was damaged in the 2020 flood, and the lack of traffic on the road has led to an increase in deer and other wildlife using the area, that would have been extirpated by the usual traffic on the road.

- Evacuation routes like Thornhollow Bridge and Ruckle Junction were damaged to the point of impasse, leaving some reservation population centers with only one entry/exit point, causing anxiety about natural disaster response.
- Identifying opportunities to improve systems following any kind of disaster could help build adaptation efforts in places where infrastructure barriers have prevented previous action. Examples are flooding events that damage waterway passage infrastructure like bridges and culverts could result in rebuilding that improves these structures for fish passage, when voluntary retrofitting was viewed as infeasible.
- PPE for the 2020 flood clean up was also used for the Covid 19 Pandemic, and made it possible for Yellowhawk to protect staff and patients without running out or not having access like other places experienced.
- Flood was also good for First Foods systems since river flooding is an essential part of seasonal hydrology that protects cold, clean water.
- Smoky air is a hazard for those with existing respiratory and other chronic illness, but is also a concern for young folks who are not the target or focus of wildfire smoke response. Communication to younger audiences about the impacts of lifelong chronic smoke exposure could be included in Yellowhawk wildfire smoke preparedness and response.
- Air borne hazards are not limited to smoke, as dust from wind erosion and agricultural tillage creates health challenges from particle matter (PM) effects, and the potential for other contagions attached to air borne soil particles. CAP example is Valley Fever that exists naturally in soils in our area, and when breathed in can create mild to severe infections. Many homes and Tribal facilities (including the NGC) on the UIR are surrounded by agricultural fields that still perform tillage and contribute to seasonal air pollution through soil PM.
 - Are we prioritizing areas where residences are located for conservation tillage or no-till farming practices? Many Tribal members live adjacent/surrounded to wheatland and are seasonally inundated by agricultural soil PM, as well as chemicals associated.
 - Preparedness for smoke can often be just as helpful for dust, so understanding that PM concerns exist outside of just smoke season can help Yellowhawk provide expanded seasonal PPE for both smoke and dust.

- Allergies cause quality of life impacts and can disrupt work through increasing sick leave associated with allergy symptoms. Patients might also experience allergies as a contributing factor to other illness.
- Yellowhawk's patient feedback channels provide opportunity to listen to Tribal members and community about the climate impacts they are experiencing. Is there a way we can more formally collect this information for healthcare services planning purposes?
- Air conditioning and access to cooling is and will increasingly be life saving during extreme heat events. Yellowhawk's Community/Public Health office has been implementing an Oregon Health Authority grant/program to distribute not only air filtration equipment and PPE but also air conditioners to high priority patients.
- Preparations need to think at least one season ahead in the impacts that are being planned for, since responding to current emergencies tend to encounter supplies availability shortages locally, as people rush to local stores to purchase in-demand supplies that often have a limited amount. CTUIR planning needs to plan IN ADVANCE of emergencies to have supplies and equipment so supply availability is not a barrier to emergency response.
 - This requires having space to warehouse and store necessary supplies and equipment for when emergencies occur. Public Works expressed that storage and warehouse space is a limiting factor currently, and could be something to prioritize in long term planning.
- Something that might be good to implement in Medical is education for patients about animal diseases, zoonotic illness and risk, and food safety associated with wild foods like big game and fish. What to look for, what risks exist, what exposure signs and symptoms may be, and what the health response should be. This would also include having healthcare providers be aware of what disease and illness risks exist locally related to wild foods access and consumption, especially in connection to First Foods and Culture is Prevention.
 - This also relates to nutrition needs for high priority patients; if on paper these patients are receiving First Foods, like Salmon, but aren't eating them because of quality issues, then the patient's nutritional intake is incongruent with the medical documentation.
 - Education, messaging and working with DNR could improve community understanding of what illness and food safety risks exist with First Foods and how families can be aware and respond if necessary.
 - Expertise for First Foods diseases exists within CTUIR Fisheries and Wildlife programs, who are aware of what diseases we have locally and can work with Yellowhawk to understand the risks these may pose to patient consumption

of these Foods. Working with our local in-house expertise also reduces the need and cost of travel and coordination with outside entities, which is more likely to make it possible to do this collaboration.

- Reducing the need to travel improves staff ability to participate and prevents carbon emissions along with other environmental benefits. This connects with the expanded potential for virtual connection and collaboration that was built rapidly during the Pandemic, and creates new opportunities. Balance between travel externalities is required, but it is also possible to create an engaging and interactive virtual meeting space IF event organizers are intentional and dedicated to providing a quality virtual meeting option.

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