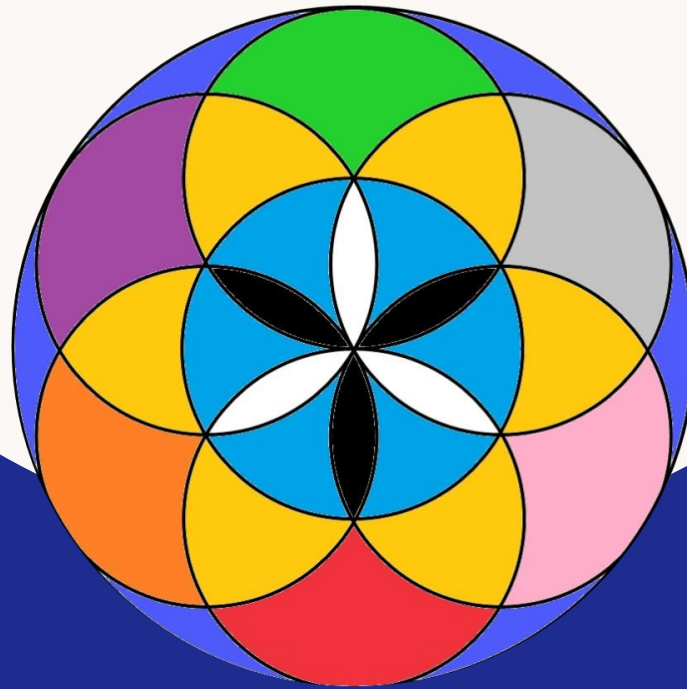


CAP WORKSHOP #1
SESSION 2
FRIDAY MARCH 21ST 10AM-12 PM



AGENDA

Trauma-Informed Space Agreement

BOT Priority

Pre-workshop survey

Example from DNR or Participant

AWP connections to CAP

Small Group Exercise

- Short-Term = Mitigation
- Long-Term = Adaptation

Participants Reflections & Takeaways

Post-workshop survey

Follow-Ups with FFPP –if needed

TRAUMA INFORMED SPACE AGREEMENT

3

First Foods Policy Program strives to provide services that are Trauma Informed and will work to maintain a space that is supportive, conducive to learning, and will reduce harm at all possible opportunities.

To do this, we ask that participants agree to the following terms. **By remaining in this space today, you agree to:**

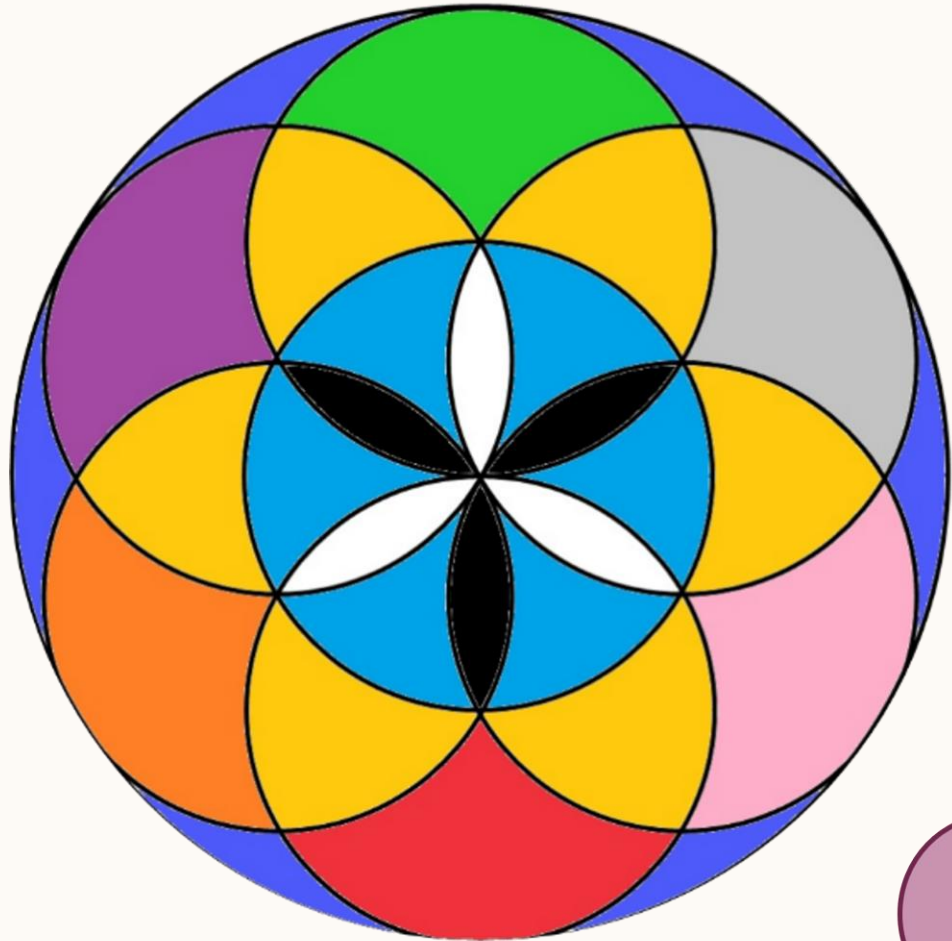
- Bring a learning mindset instead of an expert mindset
- Set a safe space: What's said here stays here, what's learned here leaves here
- Listen with curiosity & compassion
- Be patient, practice taking a pause
- Listen with empathy
- Hold space for multiple truths
- Create a judgment free zone
- Ask for what you need
- Commit to open two-way communication
- Keep each other safe
- Contribute to the well-being of the group
- Speak with intention, use "I" statements
- Be polite and respectful
- Understand that people are the experts in their own experiences
- Keep in mind we are all working towards a common goal

First Foods Policy Program will work to keep this space as safe as possible for you to share your experiences and learning with others. We reserve the right to give warnings to those who are not abiding by this agreement. If you are warned and do not change the offending behavior, First Foods Policy Program reserves the right to ask you to leave.





THE BOARD OF TRUSTEES
(BOT) PRIORITY 9.2 “DEVELOP
SCHEDULE AND ACTION PLAN
FOR CLIMATE ADAPTATION
PLAN IMPLEMENTATION FOR
ALL CTUIR DEPARTMENTS AND
ENTITIES (WRC, YELLOWHAWK,
NCFS, CAYUSE).



Cúuś
Water (Surface & Groundwater)

Áwtñi Tkʷátat
First Foods Availability & Access

Infrastructure & Built Systems

Sápánaknuwit ku Kʷaḷanáwit
Human Health & Happiness

Energy Production & Use

Ḫaxáykwit ku Pawiyalixsimit
Economics & Community

Tímani Tamánwit
Sovereignty & Treaty Rights

PRE WORKSHOP SURVEY

6

Q1: To what degree do you feel your department has a role to play in climate adaptation/response?

Q2: What level of awareness or understanding do you feel you have about climate impacts that will affect CTUIR priorities?

Q3: Evaluate the statement: I feel I have a firm understanding of the role my position can contribute to being prepared for climate crisis mitigation and adaptation.

EXAMPLES OF CLIMATE RESPONSES

Employee impacts
Client/Customer Responses
Service adjustments



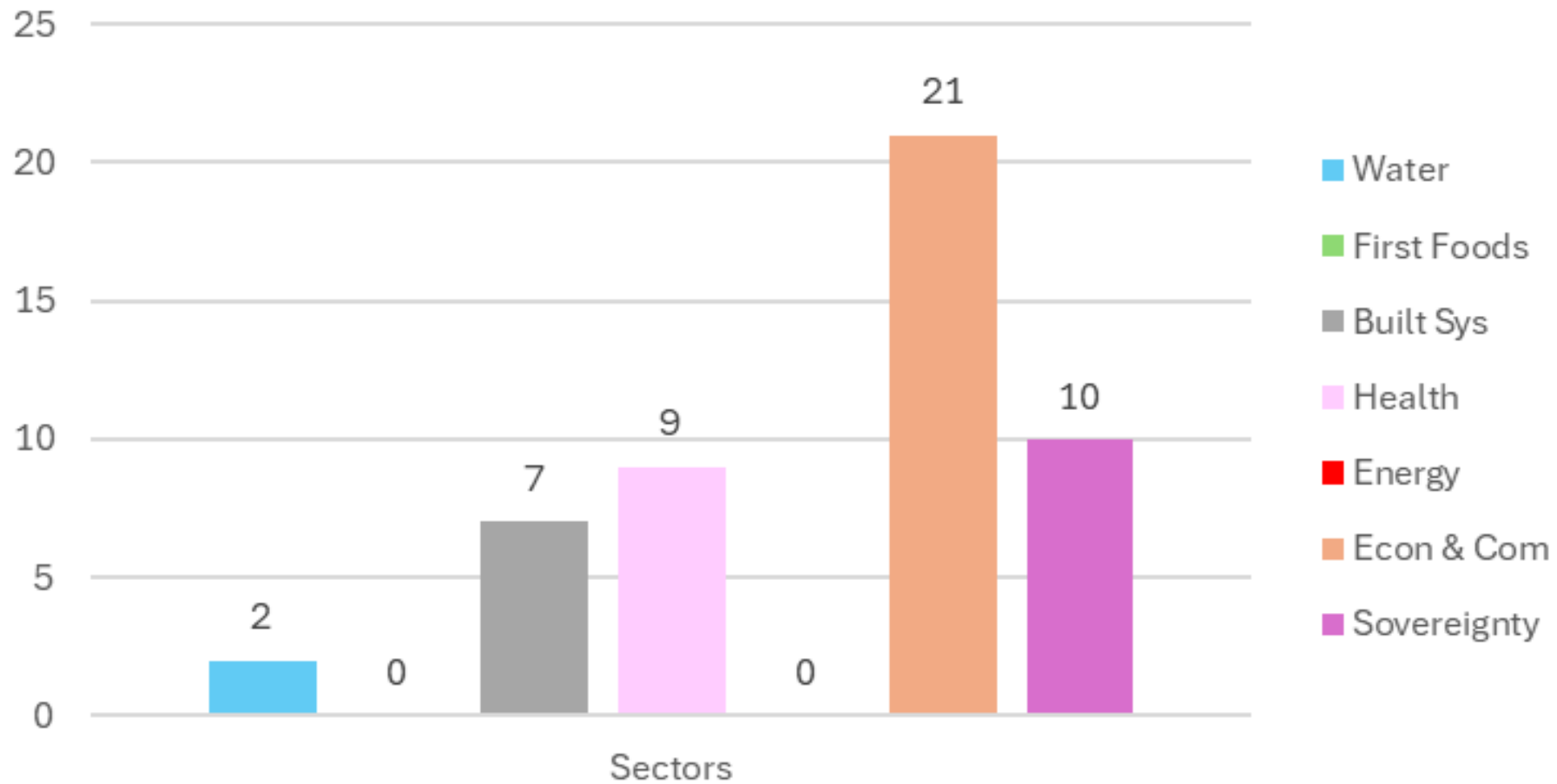
AWP CONNECTION TO CAP

8



- General categories of services in AWP
- General categories of climate impacts
- General categories of climate mitigations/adaptations

CTUIR Public Safety 2024 AWP CAP Sectors



Policy and Coordination

- 3.1 Participate in local, state, and federal emergency management and fire committee planning and education groups to help protect the citizens and interests of the CTUIR.
- 4. Promote a cooperative relationship with adjoining public safety agencies to ensure the safety of members living on and off the reservation.
- 1.6 Coordinate disaster planning and preparedness with all CTUIR departments and coordinate response with Public Works, Natural Resources, BIA, Planning, and Administration.
- 2.3 Coordinate with the Finance department to improve the collection of fire protection fees and to develop an insurance reimbursement collection process.

Education and Outreach

- 7.1-2 Provide outreach and education to tribal members about child support issues. Provide information about in-kind payments, debt management, and parental support.
- 5.c-e Coordinate with tribal programs to provide public education programs.

Emergency Response

5.b Coordinate closely with the BIA Wildland Fire program to ensure effective communication, prevention, suppression, and response to the risk of catastrophic fire within the Umatilla Indian Reservation

1.7 Identify and acquire the best emergency response equipment needed to respond to natural and man-made disasters. Train CTUIR employees and Tribal members on operations of equipment.

1.3 Identify and acquire the best emergency response equipment needed to respond to natural and man-made disasters.

2.4 Recruit trained and qualified full-time firefighters and paramedics as funding is available.

5.a Prevent the loss of life and reduce property damage due to fire or other emergencies through public education, code enforcement, and hazard inspection.



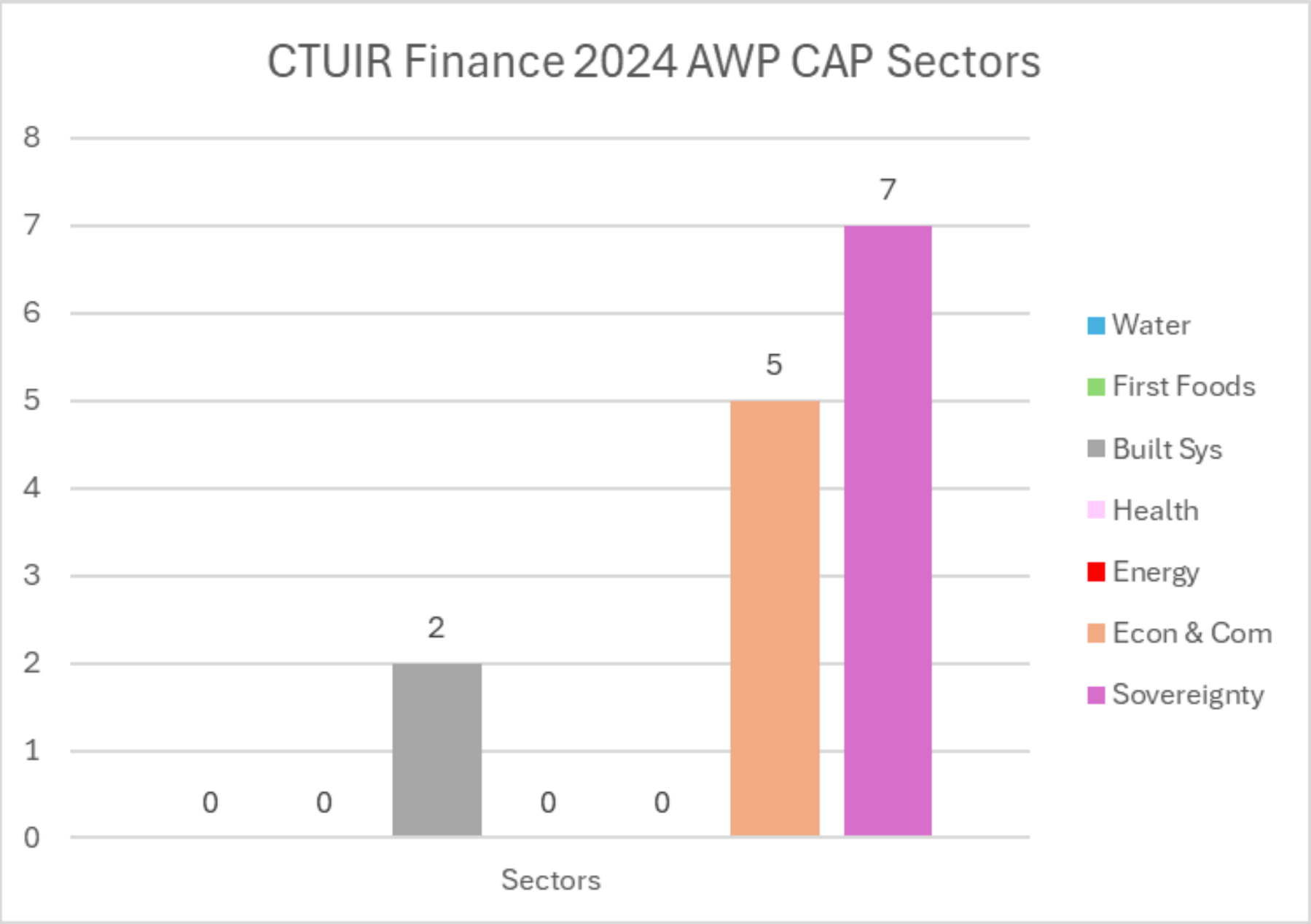
Community and Safety

- 1. Continue to promote awareness of and enhance services for victims of domestic violence, sexual assault, dating violence, elder abuse, stalking and trafficking
- 3. Increase safety for victims within surrounding nations by creating a network to engage in strategic planning and collaboration.
- 4.5 Ensuring legal assistance that's trauma-informed, victim-centered, and knowledgeable of Violence Against Women crimes.
- 4. Garnish wages and assets of support obligors, distribute support to custodians of children, and provide the tribe, support payors, support receivers, and grant administrators with accurate accounting of all payments and distributions.
- 1.1 Work with the offender and his attorney to achieve a result that promotes rehabilitation.
- 4.2 Prepare and pursue court actions to assist DCFS in monitoring and rehabilitating parents to meet the standards imposed by law to protect children's safety and well-being. Juvenile Code Amendments. Coordination with DCFS, Education, Tribal Court, Public Safety, Yellowhawk, Finance, Enrollment. Commissions.
- 5. Demand accountability of juvenile offenders

Sovereignty and Treaty Rights

Planning and Policy

- 1.4 climate change planning other committees/commissions as appropriate or necessary, conducting long-term planning, and coordinating with other CTUIR departments on projects as needed—relay information to program managers at department staff meetings.
- 4.3 Coordinate/facilitate criminal justice coordinated response team meetings with court, law enforcement, and probation and Yellowhawk Indian Health Service A&D staff and Behavioral Health staff.
- 3.4 Assist in the development and refinement of tribal crime prevention and law enforcement institutions and procedures.



Economics and Community

Purchasing & Procurement

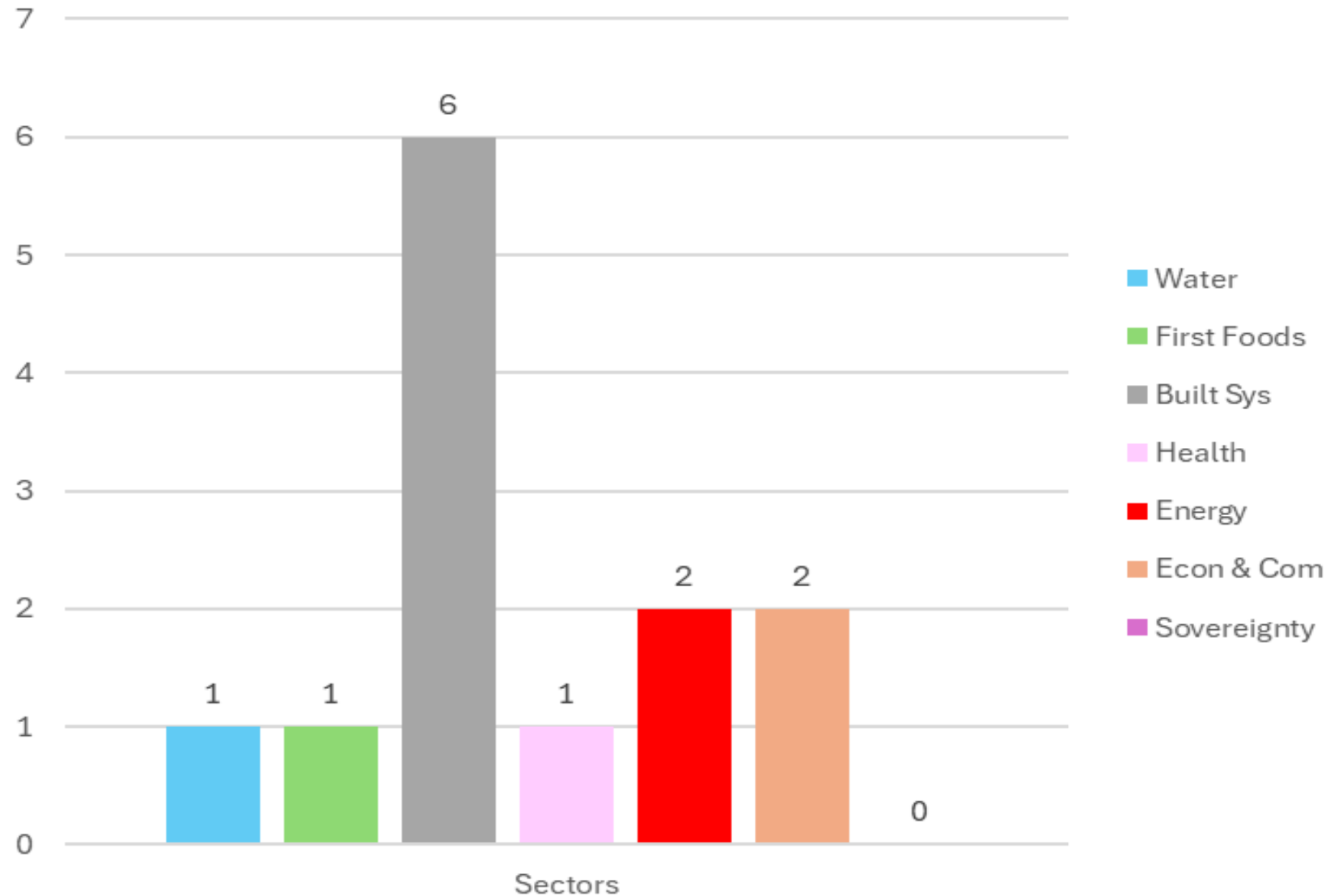
- 2.2 Provide recommendations regarding financing methods and timing of future projects.
- 7.3 Provide guidance to Departments and Programs in implementing policies relating to purchasing goods and services internally, from Native American businesses, and locally in the Tribe's ceded area.

Sovereignty and Treaty Rights

Planning & Policy

- 1.2 Review, update, and report on long-term CTUIR financial planning documents including a capital projects implementation plan.
- 3.3 Review and monitor investments, investment policies and make recommendations to the BOT regarding the investment and fund policies.
- 5.9 Provide staff input on the execution of the Climate Adaptation Plan.
- 6.1 Work with Legislative Manager, legal and program staff to provide comments on proposed Legislation and regulations that will have a direct financial impact on the CTUIR including Indian Affairs and Office of Special Trustee budget and appropriation processes.
- 6.4 Provide informational support and review testimony to congressional offices and governmental agencies regarding Tribal interests in coordination with the Communications Department.
- 11.2 Engage in Climate Change planning, community outreach, and strategy development and implementation

CTUIR TCI 2024 AWP CAP Sectors



Water & First Foods

- 5h. Plan a new xeriscape to minimize watering and fire risk and control the spread of noxious weeds.

Built Systems

- 1a Continue updates/upgrades to permanent exhibits
- 5k. Inspect, maintain, and repair HVAC, alarm, suppression, multi-media, and electrical systems.

Health & Happiness

- 5e. Replace chillers and cooling towers in a manner that advances net zero achievement.

Energy

- 5a. Complete Envelope Phase 2 in pursuit of net zero achievement

Economics and Community

- 2 Contribute to the tribal economy through revenue center functions. Earn income in all revenue categories by identifying, developing, and marketing new and successful products, programs, and exhibits to attract new audiences and increase repeat visitation pursuant to Comp. Plan Goal 5.7, objectives 3 and 9. Optimize public and employee safety in all revenue-related behaviors.
- 5i. Maintain safety and security standards, emergency preparedness, current and accurate inventories, up-to-date insurance values, and perform conservation measures.

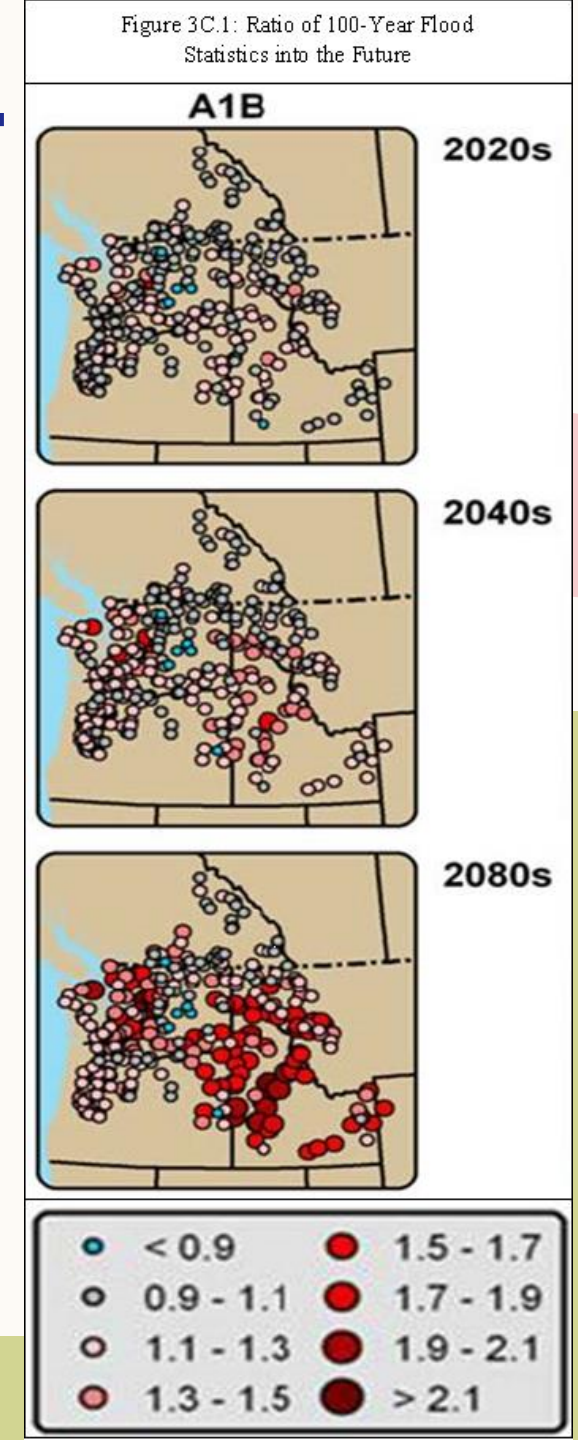


HIGHLIGHTED CLIMATE IMPACTS – BUILT SYSTEMS

Increased Severity and Frequency of Storms

Seasonal flooding events will increase in magnitude, though large annual variability will exist. Flooding and associated storms are likely to increase damage to homes and buildings, cause roadway blockages, and down power lines.

20-30% increase in 100-year flood events by 2040 (Tohver and Hamlet, 2010) as seen in Figure 3C.1 (page 108).

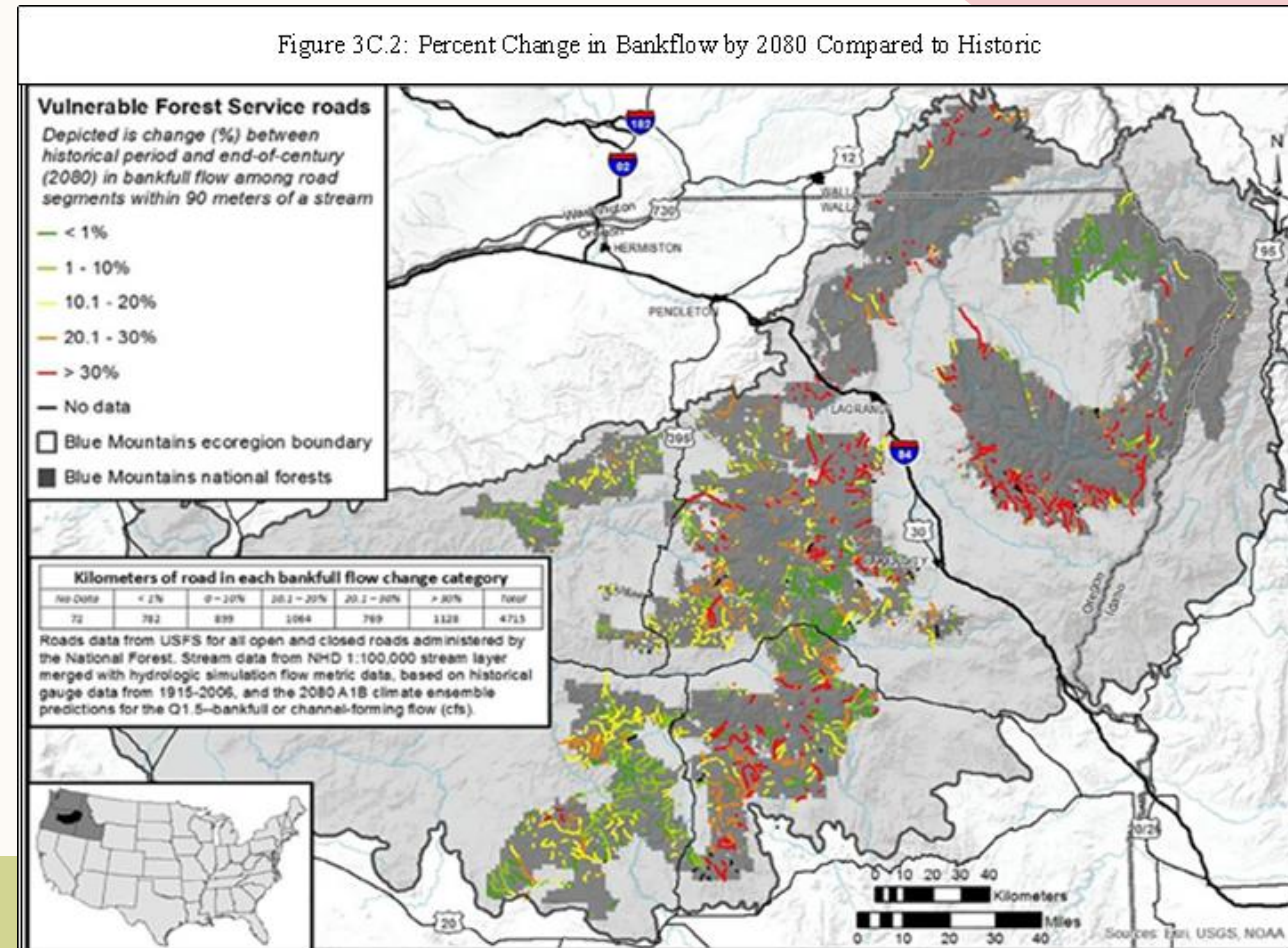


HIGHLIGHTED CLIMATE IMPACTS – BUILT SYSTEMS

Increased Vulnerability of Transportation Infrastructure

Transportation to cultural sites and harvest opportunities to exercise Treaty Rights require access roads for Tribal Members. USFS low traffic roads in forested lands are especially necessary for First Foods access. Many stream-adjacent sections of these roads will be threatened by flooding.

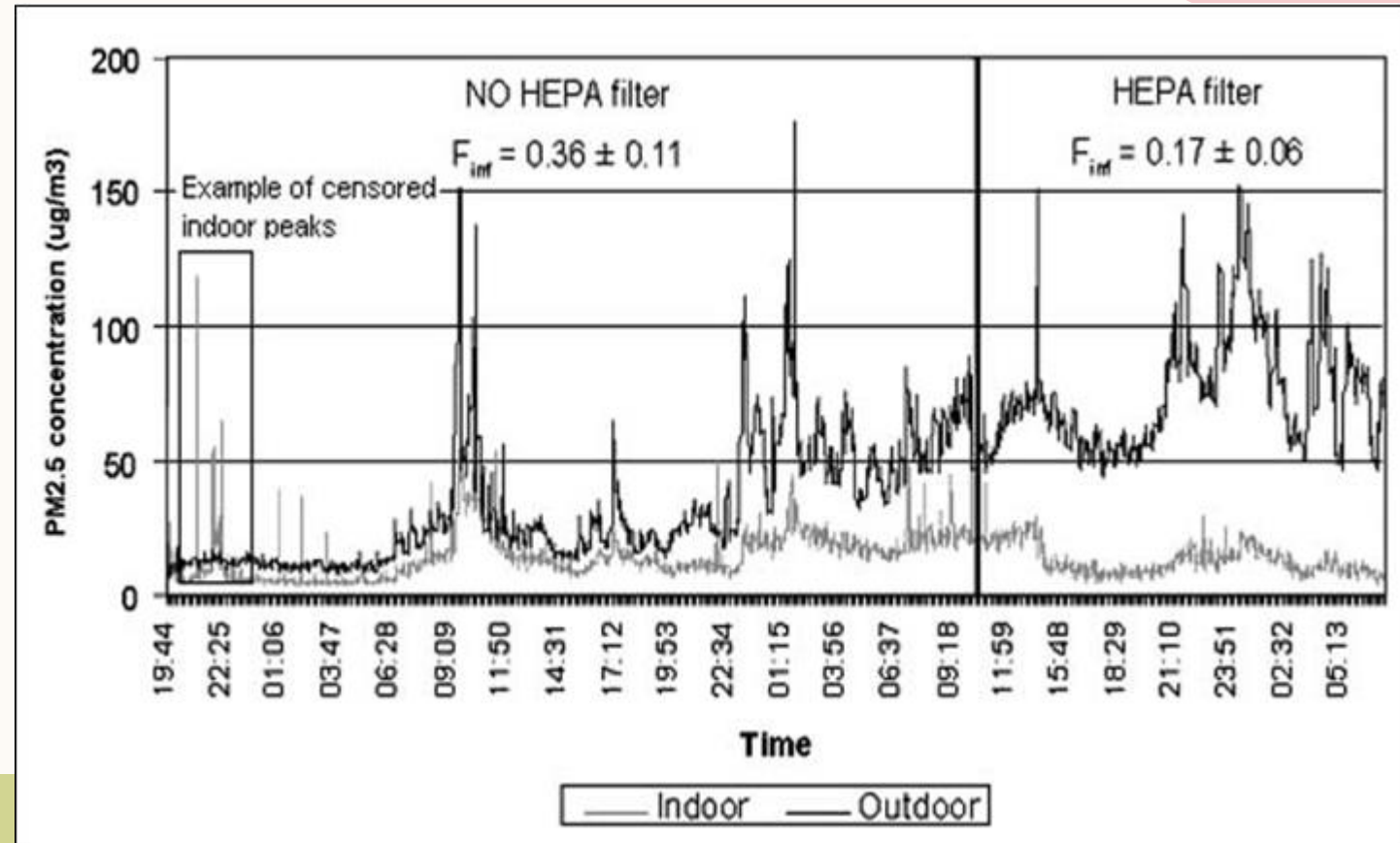
Roads in the Powder and Burnt River basins, southwestern Malheur River, Grande Ronde River, and southern Eagle Caps Wilderness have 20-30% + risk from floodwaters; least threatened is the Wenaha-Tucannon Wilderness, with 10% or less of risk change, as seen in Figure 3C.2 (page 109).



HIGHLIGHTED CLIMATE IMPACTS – BUILT SYSTEMS

Increased Stress on Indoor Air Filtration Systems

Stress on air filtration systems for facilities of all sizes will increase as particle pollution from many sources increases. Indoor HVAC and filtration systems are likely to need to be upgraded for changing climate demands. During nearby smoke events, **use of HEPA filters provides 58% reduction in particle exposure compared to non-filtered indoor conditions** (Barn et al, 2008), as shown in Figure 3C.3 (page 111).



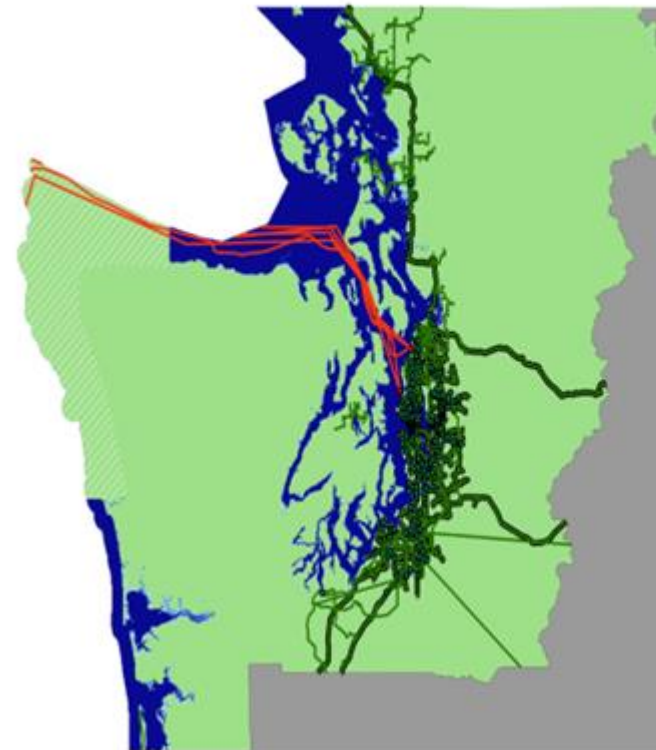
HIGHLIGHTED CLIMATE IMPACTS – BUILT SYSTEMS

Potential Disruption of Communication Networks

Telecommunications networks have physical infrastructure that spans large areas of the Pacific Northwest region to bring telephone and internet access to residents of Oregon, Washington and Idaho. These networks have cables and connection hubs that are threatened by climate change impacts and extreme events.

Estimated **236 miles (23%) of fiber optic line in the region is at risk of seawater inundation** (Durairajan et al, 2018) as seen in Figure 3C.5 (page 125).

Figure 3C.5: Telecommunications Infrastructure Threatened by Sea Level Rise



Top 10 Internet Providers with Most Infrastructure at Risk from Climate Change:

CenturyLink
Intelliquest
AT&T
BroadSky
TW Telecom
Verizon
Beyond the Network
Cogent
Zayo
Sprint

HIGHLIGHTED CLIMATE IMPACTS – HEALTH

Complications from Extreme Heat

Heat is an incredibly dangerous form of storm, and can take a devastating toll on both healthy and vulnerable community members. As extreme heat worsens health complications, especially for those chronically exposed such as outdoor workers and unsheltered persons, and those with existing health issues.

Extreme heat (at or above 90°F) has potential to cause health complications within humans in at least 27 different ways (Mora et al 2017), as seen in Figure 3D.1 (page 141).

Figure 3D.1: Potential Pathways of Complication from Heat					
Organs	Mechanisms				
	Ischemia	Heat Cytotoxicity	Inflammatory Response	Disseminated Intravascular Coagulation	Rhabdomyolysis
Brain	X	X		X	
Heart	X	X			
Intestines	X	X		X	
Kidneys	X	X	X	X	X
Liver	X	X	X	X	X
Lungs		X	X	X	X
Pancreas	X		X		

HIGHLIGHTED CLIMATE IMPACTS – HEALTH

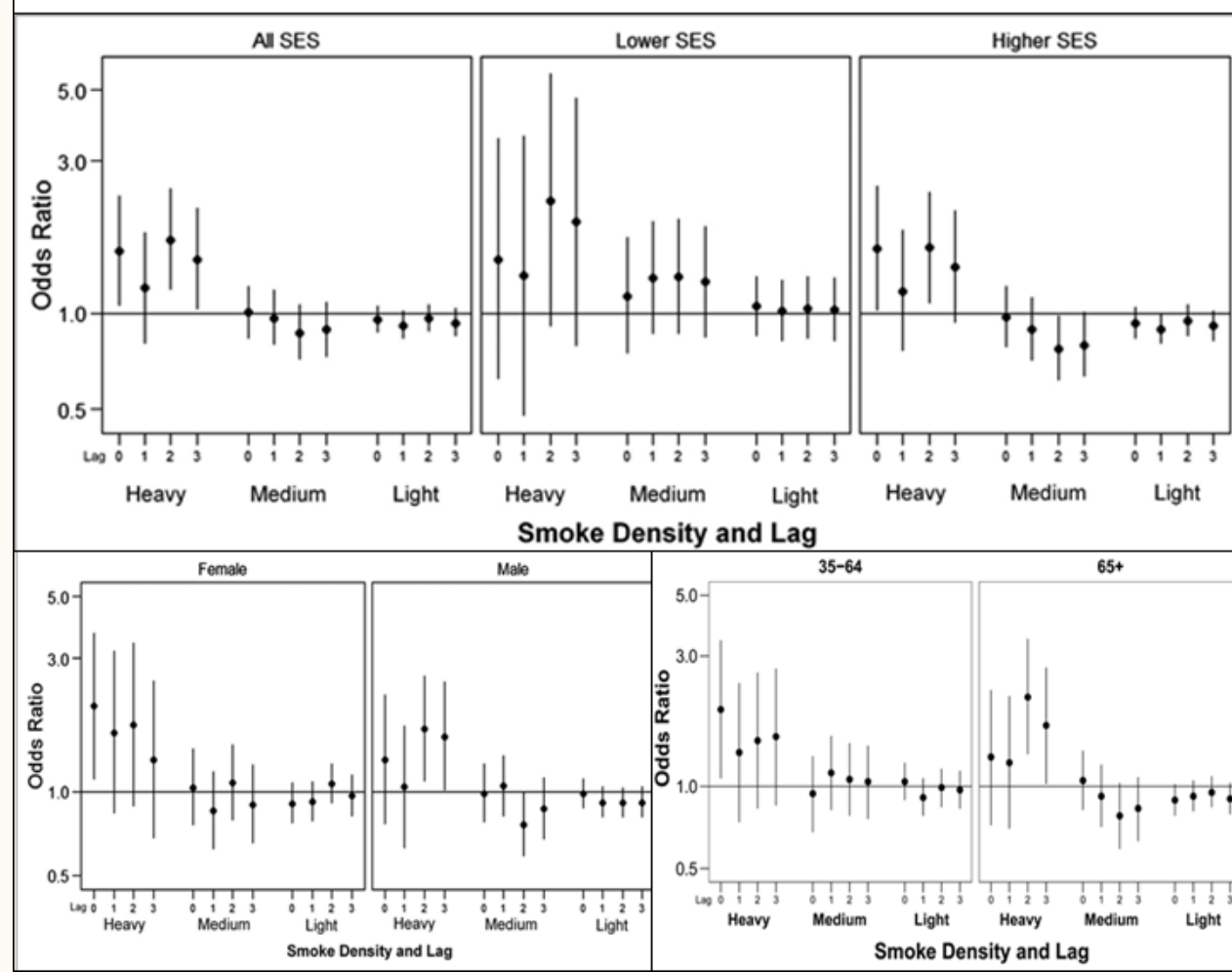
25

Complications From Wildfire Smoke

Particle pollution has a very negative effect on health, especially for those who are chronically exposed, and who live with pre-existing illness. Complications from smoke will increase morbidity and mortality around each event.

Heavy smoke events result in a **9.0% increase in the odds of same-day respiratory mortality**, and a **14.0% increase in the odds of same day COPD mortality**. **Cardiac arrest risk increased 70%** as seen in Figure 3D.2 (page 142). There was also a **4.9% increase in lung cancer** and **10% increase in brain cancer associated with smoke exposure** (Jones et al 2020).

Figure 3D.2: Increased Risk of Out of Hospital Cardiac Arrest (OHCA) Due to Wildfire Smoke Over Time

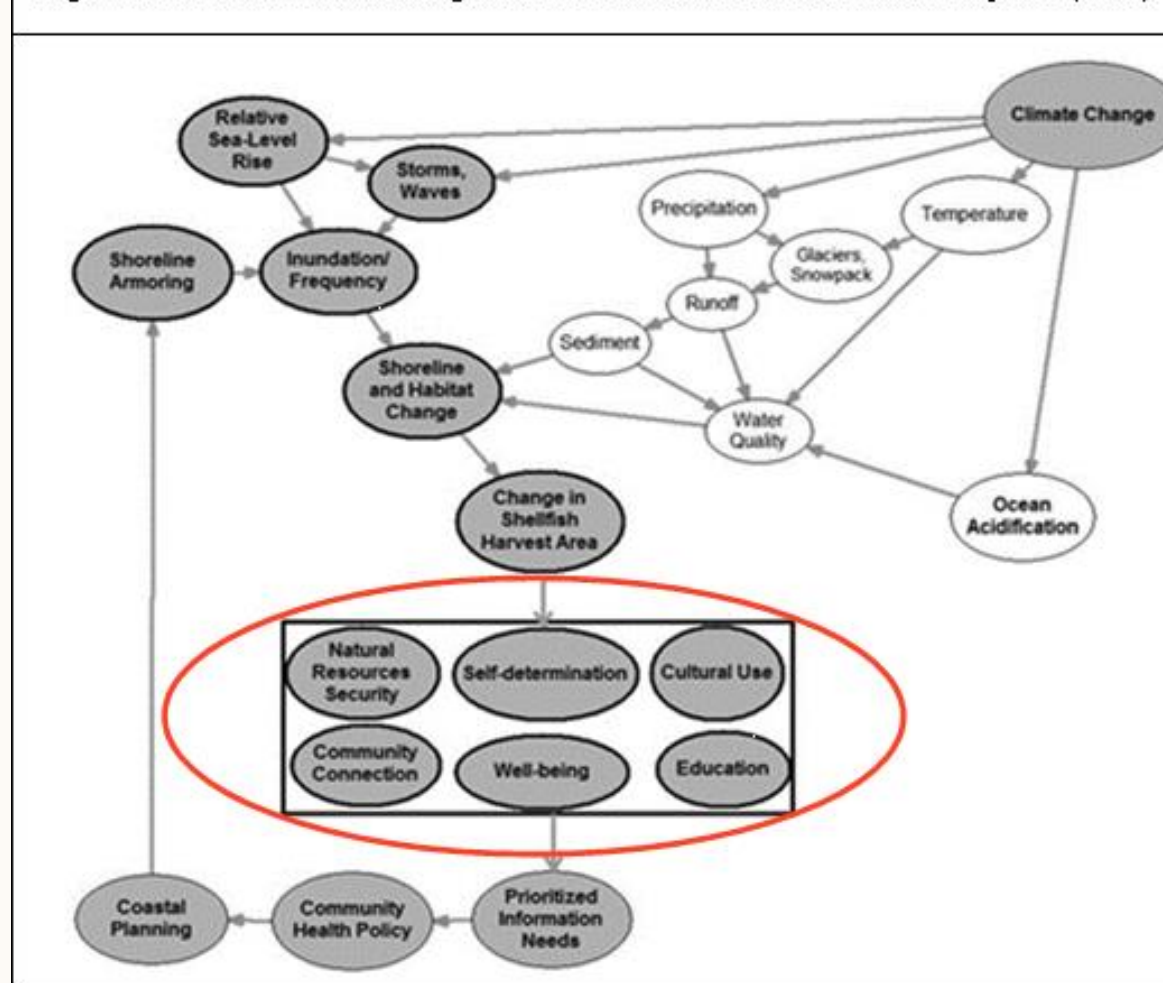


HIGHLIGHTED CLIMATE IMPACTS – HAPPINESS

Potential Disconnection from First Foods, Indigenous Culture, and Spiritual Connection

First Foods historic migration routes and timing are likely to shift and increasing frequency of natural disasters can trigger existing emotional health issues and potentially create new ones. Indigenous health is integrally tied to land, First Foods, community, and culture. Environmental climate impacts create challenges to traditional foods access, which in turn affect the Indigenous Health Indicators: **Natural Resources Security, Self Determination, Cultural Use, Community Connection, Well-Being, and Education**. These are used to inform needs, health policy, and resource planning (Donatuto et al 2016) as seen in Figure 3D.7a (page 163).

Figure 3D.7a : Swinomish Indigenous Health Indicators and Climate Impacts (2016)



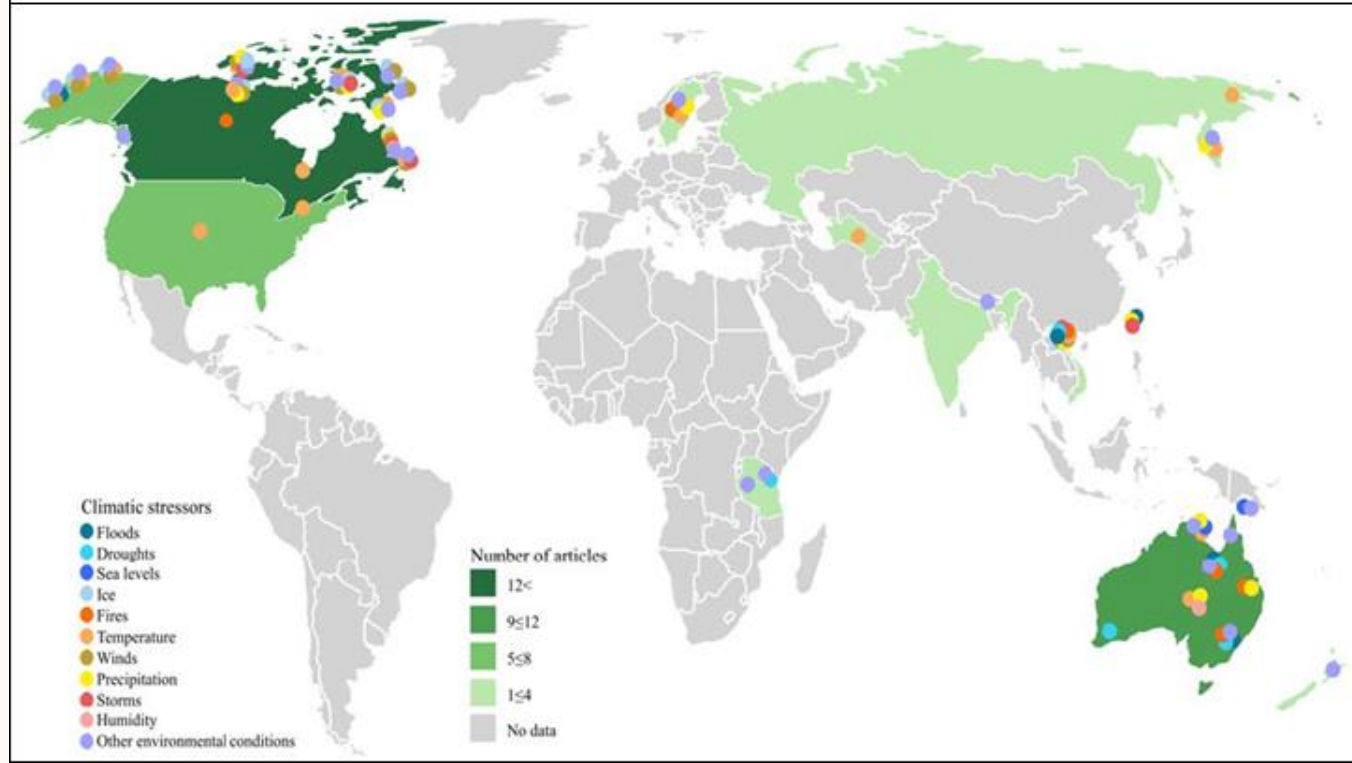
HIGHLIGHTED CLIMATE IMPACTS – HAPPINESS

Exacerbated Climate Grief, Eco-anxiety, and Solastalgia

Indigenous communities' concept of health is woven with land management practices and religious ceremony. Health outcomes are greatly improved for Tribal people who are able to continue access to subsistence foods and cultural practice.

Vicarious distress for those experiencing intense weather or environmental hardship; access to, and time spent on, the land linked to fulfilling psychological needs; altered or loss of place results in negative consequences for livelihoods, cultural practices, and social networks, as well as to alterations in personal and collective identities (Middleton et al 2020) as seen in Figure 3D.8 (page 165).

Figure 3D.8: Global Research Into Mental Health Impacts Associated with Climate Change for Indigenous Communities



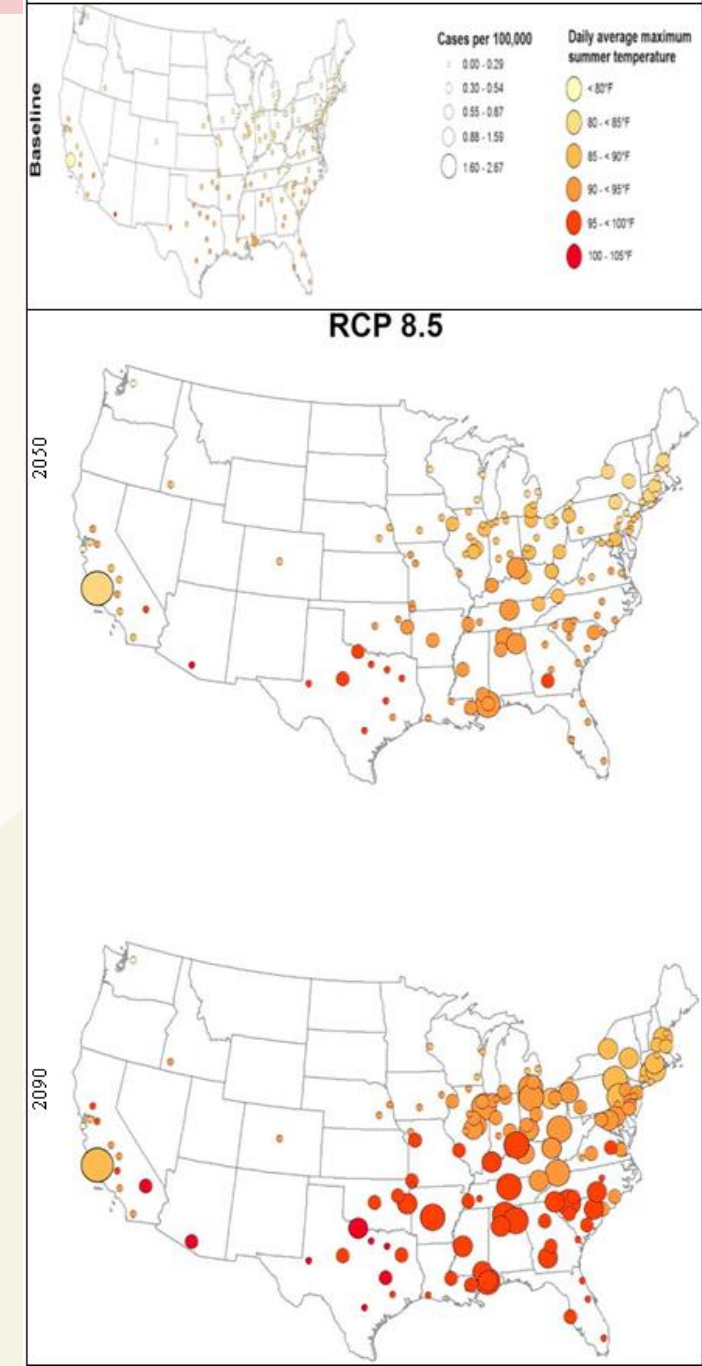
HIGHLIGHTED CLIMATE IMPACTS – ECONOMICS

Increased Household, Governance, and Emergency Expense

Acute and chronic climate impacts to health and emotional wellbeing will increase costs for healthcare, emergency treatment, insurance compensation, and cost of doing business for all sectors and communities.

Heat exposure related emergency department visits alone will cost an additional \$21.9-30.2 million dollars by 2050, and \$30.1-69.2 million dollars by 2090 per year across the U.S. (Lay et al 2018) as seen in Figure 3F.1 (page 216).

Figure 3F.1: Projected Increase in Extreme Heat in U.S.



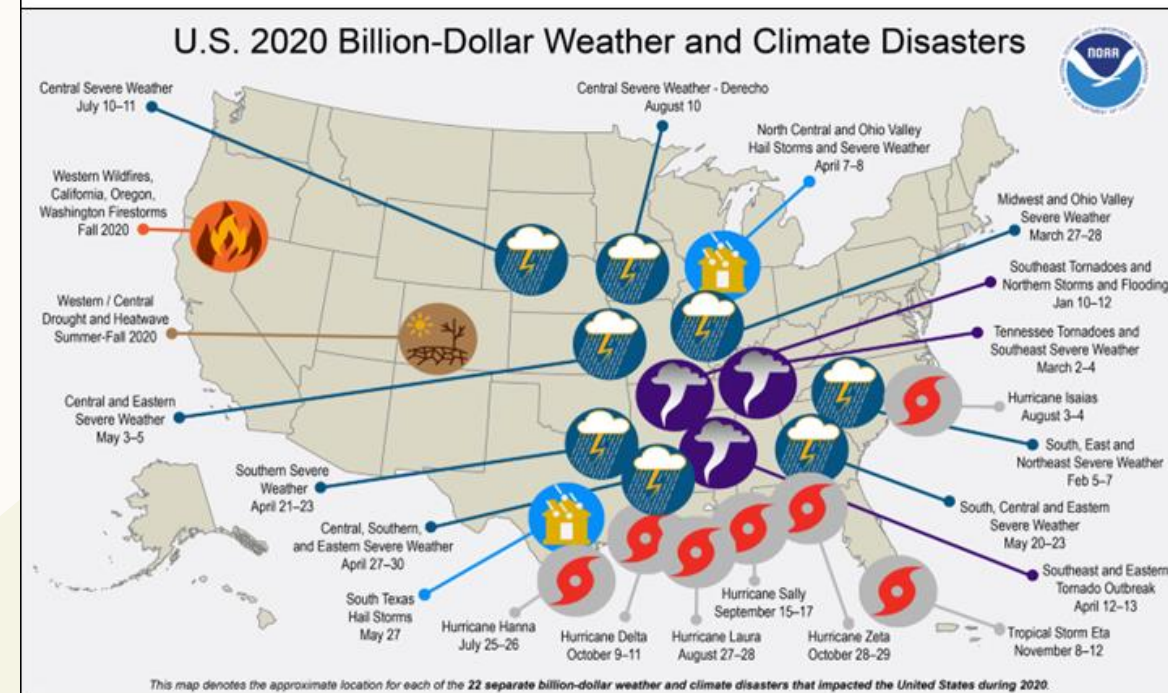
HIGHLIGHTED CLIMATE IMPACTS – ECONOMICS

Impacts to Tourism from Disaster and Displacement

Tourism has a role to play in responding to climate impacts, but is also likely to see changes, due to increasing natural disasters locally and regionally.

Hotel occupancy increased 43.3% in the directly affected area during the Camp Fire (CA 2018), but decreased by 13.4% during the wildfire event, and by 15.8% post-fire in nearby metropolises (Ward and Mattern 2020) as seen in Figure 3F.2 (page 218).

Figure 3F.2: Number of Billion Dollar Weather Events in the Year 2020



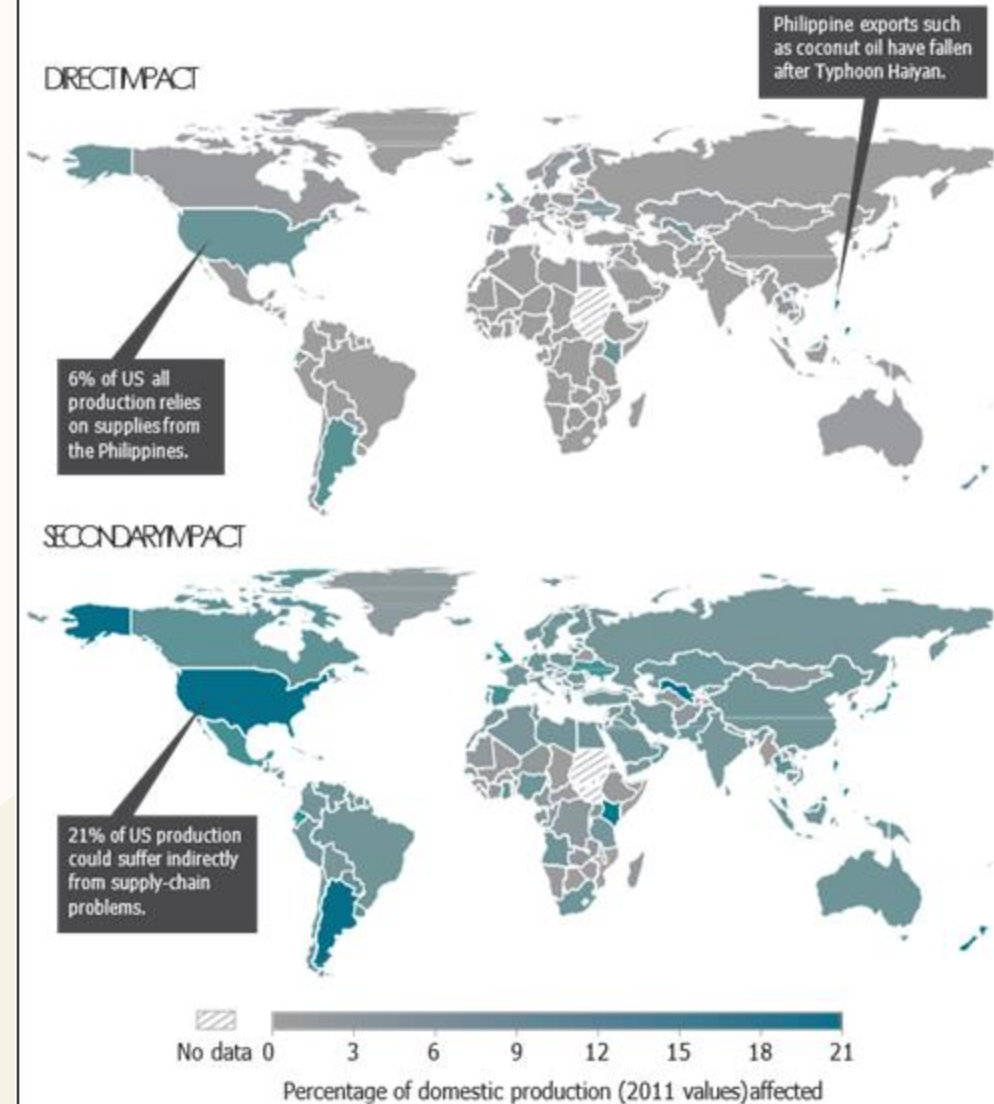
HIGHLIGHTED CLIMATE IMPACTS – ECONOMICS

Increased Potential Disruption of Businesses and Supply Chains

Dependence on globally-integrated supply chains leaves communities vulnerable to climate impacts around the world, and even small events can cause direct and indirect risk to production and goods available.

One single natural disaster event, Typhoon Haiyan in the Philippines in 2013, disrupted 6% of U.S. goods production directly, and posed a risk to 21% of all U.S. production indirectly (Levermann 2014) as seen in Figure 3F.3 (page 220).

Figure 3F.3: Supply Chain Interconnectivity Affected by a Single Extreme Event



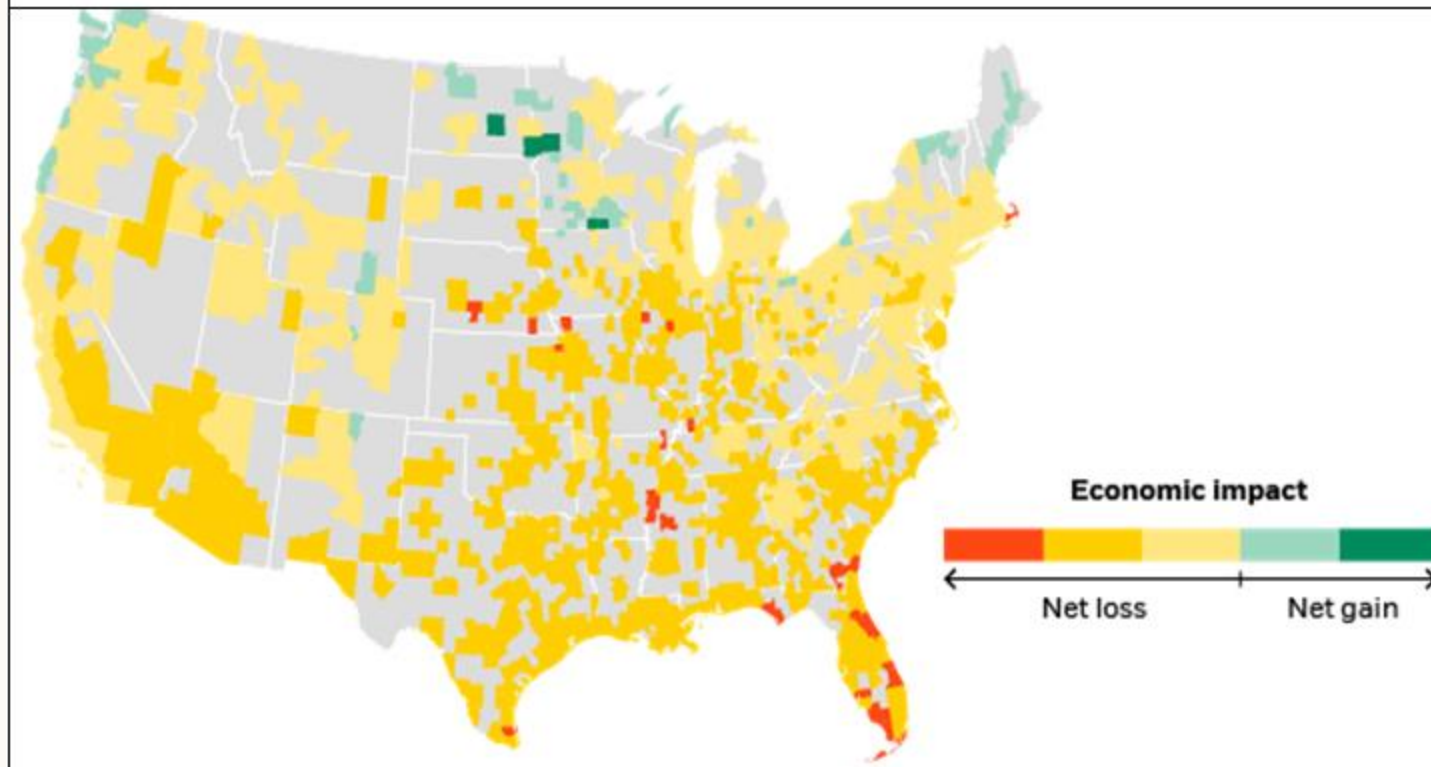
HIGHLIGHTED CLIMATE IMPACTS – ECONOMICS

Shifting Economic Dynamics and Revenue Generation

Acute natural disaster damage and chronic increases in operations strains will cost incurred by cities and Tribal Nations, as an increasing percentage of funds used to respond to disaster in the future. Adaptation could save money and investment opportunities.

58% of metropolitan areas in U.S. face climate-related GDP hits of 1% or more, and will be losing money on repairing and responding to the damage. Eastern Oregon and Washington are projected to experience mild net economic loss (Shulten et al 2019) as seen in Figure 3F.4 (page 221).

Figure 3F.4: Projected Economic Impact of Climate Adaptation on Investment Opportunities



HIGHLIGHTED CLIMATE IMPACTS – COMMUNITY

Potential Decrease in Community Cohesion

Community connection will be essential in adaptation but is also vulnerable to climate impacts, including social isolation, distress, and irrational decision-making.

Those who spend a lot of **time outdoors** are most likely to be **affected by multiples and compounding kinds of climate impacts. Impacts on people's decision-making and actions can create additional and unforeseen complications** (Hayes and Poland 2018) as seen in Fig 3F.6 (page 240-241).



February 2020 Flooding event (pictured) required first responders from CTUIR departments and volunteers from the Tribal community, as Dept of Public Safety, Public Works, and the Incident Command Team coordinated operations and responders.

HIGHLIGHTED CLIMATE IMPACTS – COMMUNITY

Increased Mental and Emotional Strain

Chronic and acute stress from a changing climate have a physical and emotional toll on those living through this crisis. Psychosocial resilience is providing **health education, building connection, delivering health and first aid resources, and improving communication to strengthen a community's capacity for calming, hope, safety, self-efficiency, and connectedness** (Gaughen and Hacker, 2019) as seen in Fig 3F.7 (page 243).

Figure 3F.7: Pala Indian Community Psycho-Social Resilience Framework

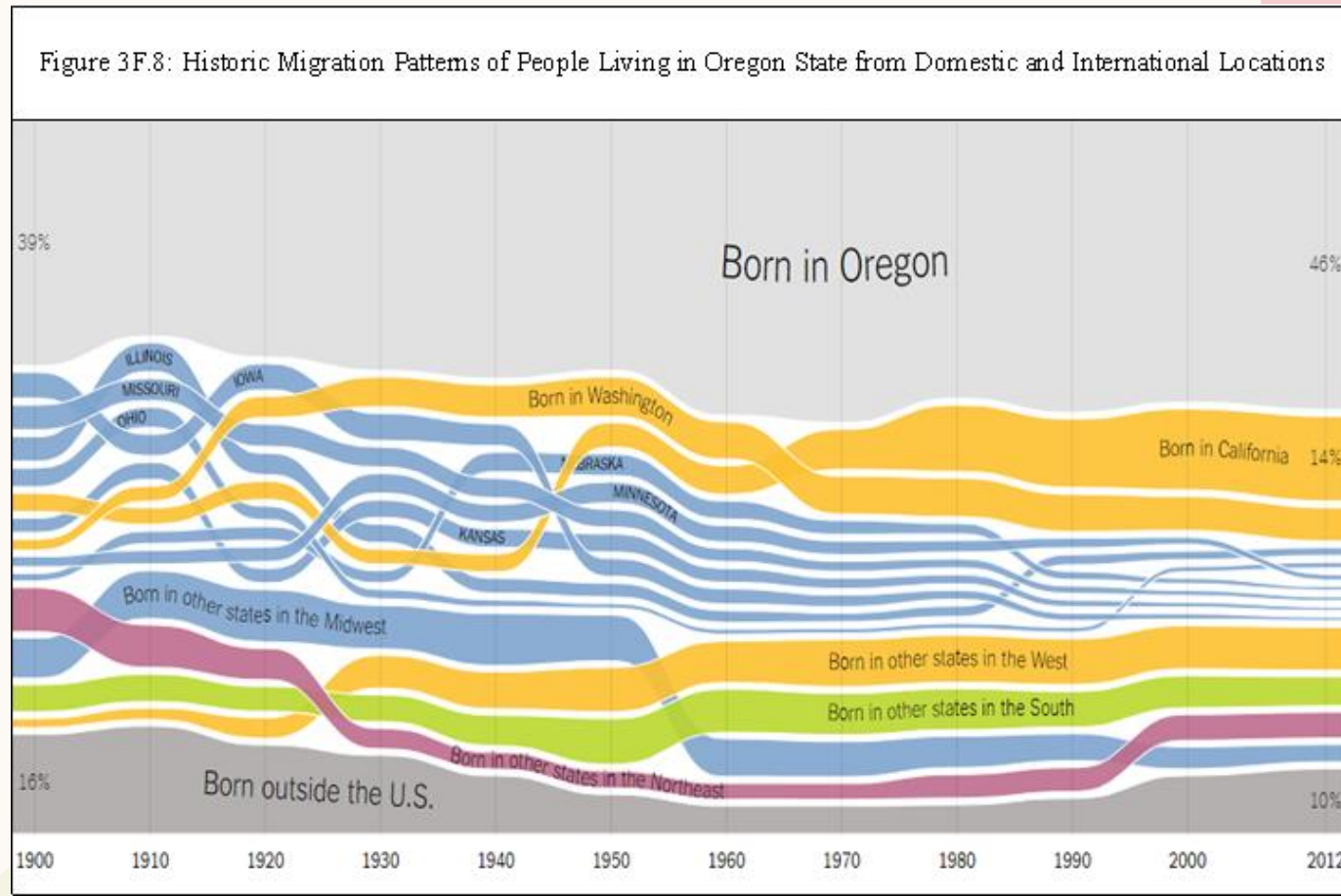


HIGHLIGHTED CLIMATE IMPACTS – COMMUNITY

Potential Increase in Population and Inequality

As the Pacific Northwest is better able to buffer impacts than many other regions, it is likely that this region will experience an influx of people migrating from more impacted places to into CTUIR's Ceded lands.

46% of people born in Oregon remain in the state, while 27% of people moved in from other Western states including California and Washington; 5% are from Southern states, 4% from Northeastern states, roughly 8% from Midwestern states. 10% moved from other international places outside the U.S. (Aish et al 2015) as seen in Fig 3F.8 (page 245.

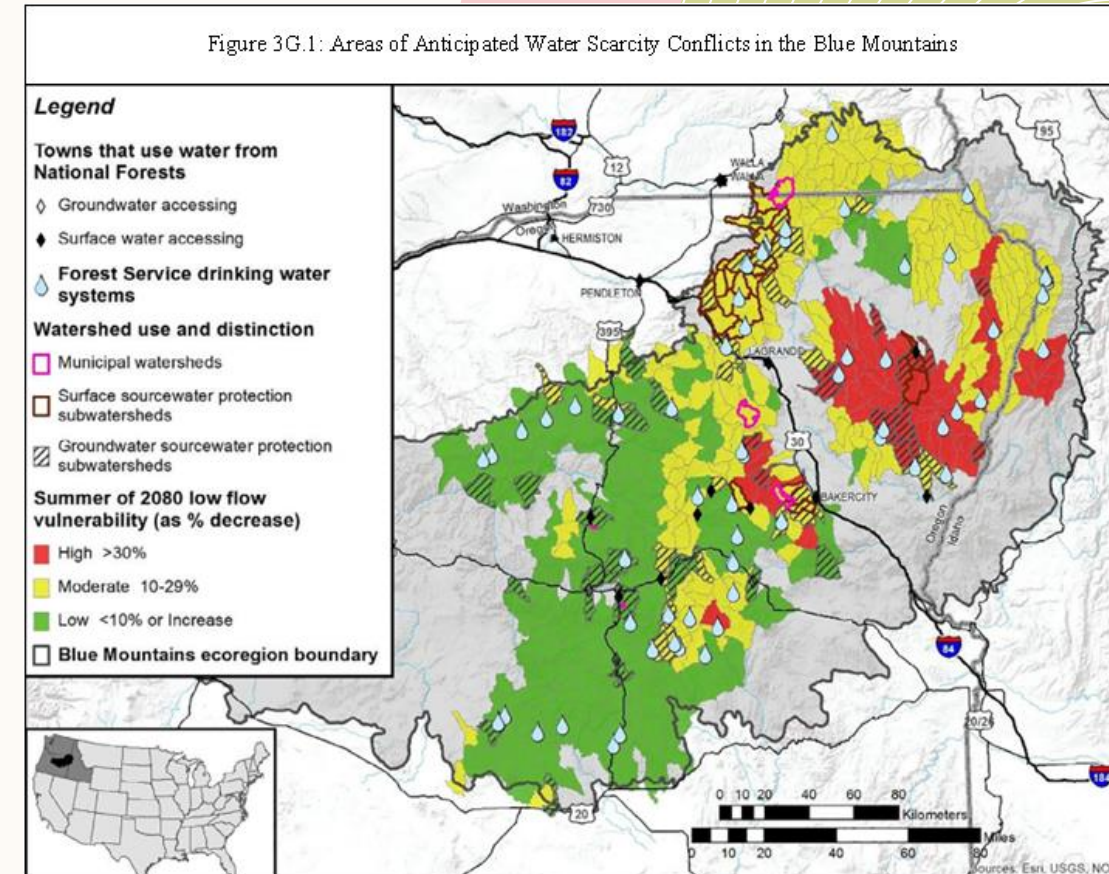


HIGHLIGHTED CLIMATE IMPACTS – SOVEREIGNTY

Potential Increase in Conflict over Water and Land Resource Management

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

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



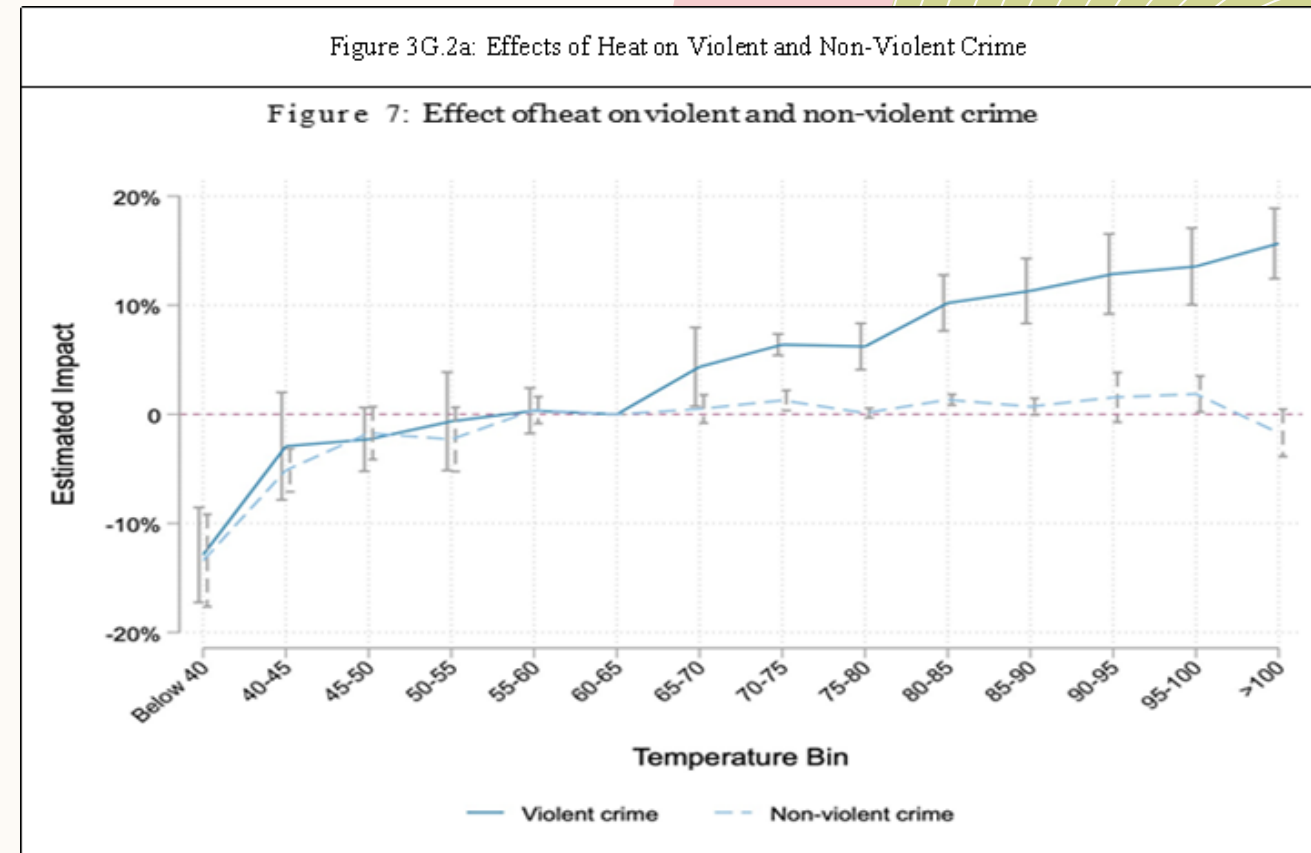
HIGHLIGHTED CLIMATE IMPACTS – SOVEREIGNTY

36

Increases in Criminal Activity and Harsher Sentencing

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

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



HIGHLIGHTED CLIMATE IMPACTS – SOVEREIGNTY

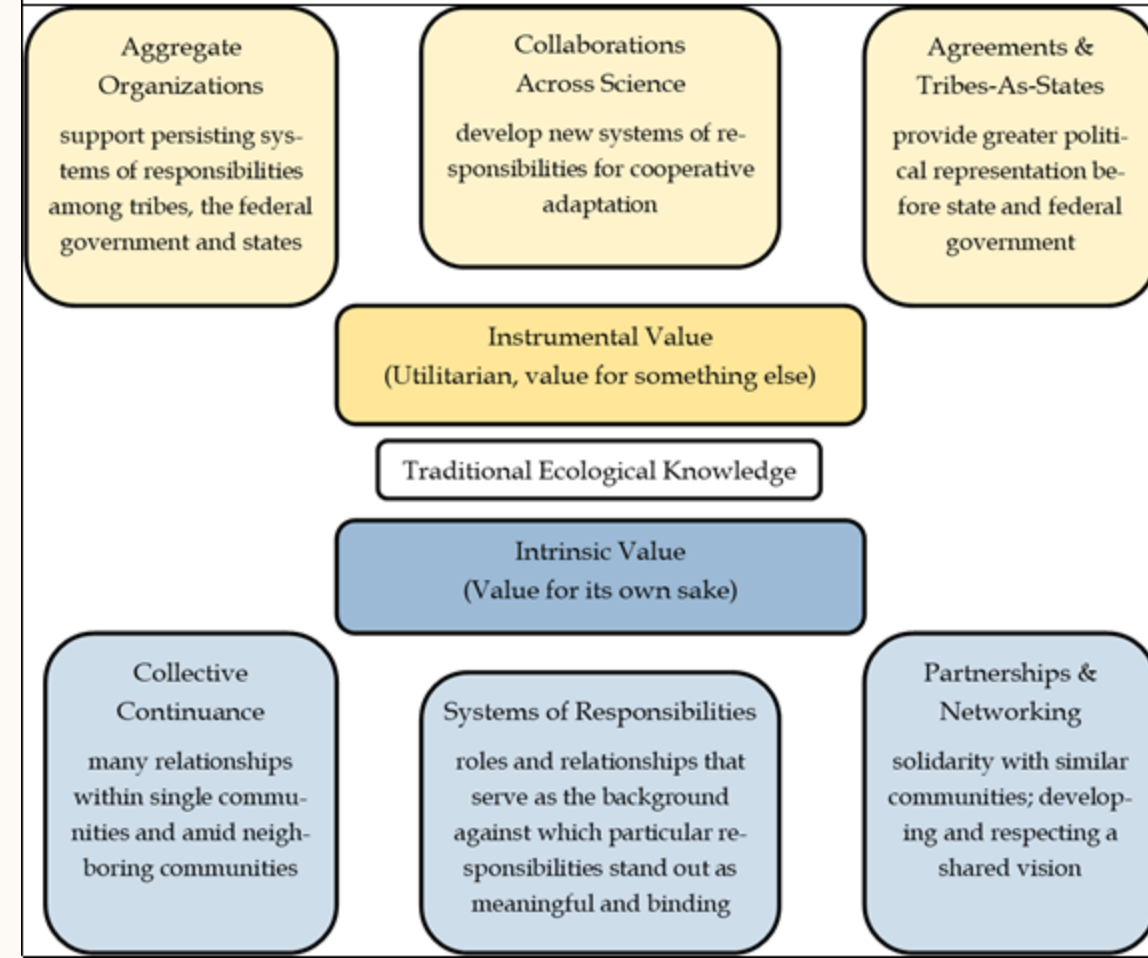
37

Potential Interruptions in Collective Continuance for Tribes and First Foods

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

Intrinsic value of Indigenous knowledge from **close connections with community, water, land, and First Foods**; instrumental value from **adaptive management that CTUIR creates with the First Foods Mission** (Whyte et al 2013) as seen in Figure 3G.3 (page 267).

Figure 3G.3: Tribal Sovereignty Instrumental and Intrinsic Values



HIGHLIGHTED CLIMATE IMPACTS – TREATY RIGHTS

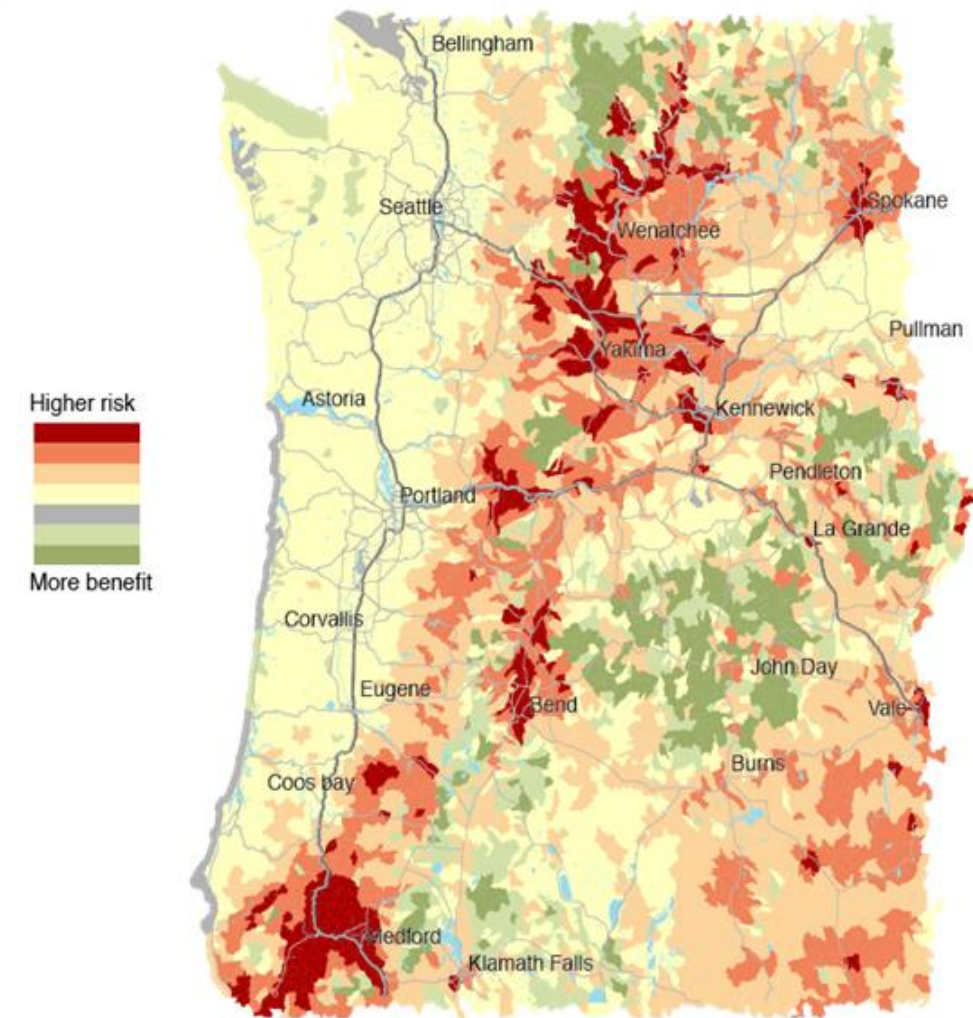
38

Opportunities to Reduce Climate Impacts Risk through Cultural Practices

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

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

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



HIGHLIGHTED CLIMATE IMPACTS – TREATY RIGHTS

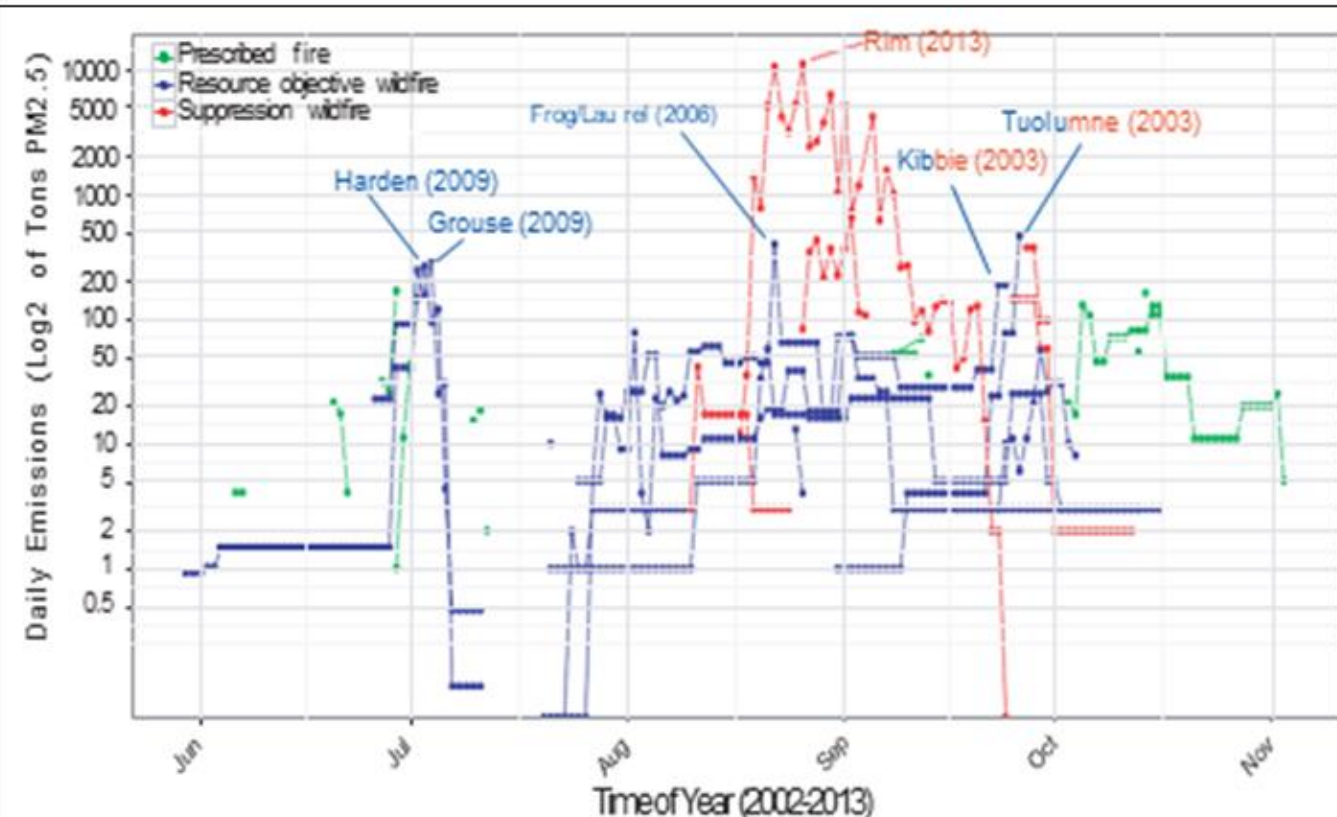
Challenges to Healthy Conditions to Exercise Treaty Rights Safely

Intangible access barriers to Treaty Rights exist and should not be treated lightly. These kinds of barriers can be thought of as conditions that reduce the ability of Tribal Members to maintain physical and emotional health while exercising Treaty Rights.

Exposure can have a lingering effect on Tribal Member health and desire to continue to participate in harvest and processing opportunities.

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

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



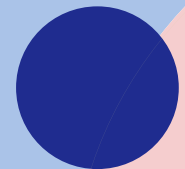
MITIGATION VS. ADAPTION

Mitigation = Short-Term

Is an immediate reaction to climate change. The actions an organization makes to reduce environmental impacts that could include altering services to clients or patients.

Adaptation = Long-Term

Is a preventative response to climate change. These are proactive actions an organization takes to continue continuity of services under changing conditions to reduce future impacts to the environment.



SMALL GROUP ACTIVITY

Employee impacts
Client/Customer Responses
Service adjustments

Resiliency: what can we do in the short-term and what can we adjust for the long-term?

PARTICIPANT REFLECTIONS & TAKEAWAYS

STICKY NOTE BOARD --

Reporting back to the larger group for reflections

- Sticky notes
- FFPP will generate workshop takeaways per session for participant review

Post-meeting

- Share with the rest of your staff
- Record staff responses and suggestions
- Email FFPP post-workshop department notes

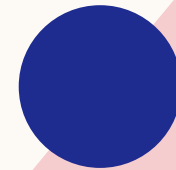
POST WORKSHOP SURVEY

43

Q1: To what degree do you feel your department has a role to play in climate adaptation/response?

Q2: What level of awareness or understanding do you feel you have about climate impacts that are/will affect CTUIR priorities?

Q3: Evaluate the statement: I feel I have a firm understanding of the role my position can contribute to being prepared for the effect of climate crisis mitigation and adaptation



EMAIL FFPP WITH QUESTIONS OR FOLLOW-UP NEEDS

FirstFoods@ctuir.org



**THANK
YOU**