



ROAD Session Virtual Exchange

Pathfinders:
Climate-Smart
Solutions from
Rural America
and Native
Nations

Today's Event Partners



RURAL LLSC



Welcome

Bonita Robertson-Hardy
Associate Director

Aspen Institute Community Strategies Group

Why host/organize Rural Opportunity and Development (ROAD) Sessions?

- Highlight and unpack rural development ideas and strategies that are critical in response to COVID-19 and to long-term rebuilding and recovery.
- Feature stories of on-the-ground practitioners who have experience, wisdom and savvy to share.
- Reflect and emphasize the full diversity of rural America – lifting voices and lived experiences from a wide range of rural communities and economies.
- Spotlight rural America's assets and challenges
- Infuse practitioner stories and lessons into rural narratives, policymaking and practice across the country
- Strengthen the networking of organizations serving rural communities and regions.

Our Next
ROAD Session:
Infrastructure on
August 16th

- Join us on **August 16th** at 3:00 PM ET
- Panel Discussion and Breakout Rooms on the topic of **rural infrastructure and economic opportunity**
- Register via the link in the **chat box** or https://aspeninst.zoom.us/webinar/register/WN_oRZyZC_ISYaxiUlyDmi9Mw

Pathfinders

Exchange Format

- **Panel Discussion: 1:30 – 2:45 p.m. ET**
Our speakers share their experience adapting and innovating rural strategies to combat climate change.
- **Breakout Rooms: 2:45 – 3:15 p.m. ET**
Optional
Join a breakout to meet others, ask questions, seek advice and share your thinking and experience. *Format: Open questions and answers, ideas and advice sharing. Each breakout will include one or more of today's speakers plus a facilitator.*

Pathfinders

Exchange Format

- Use the **Chat Box** to share insights or to echo/underline a panelist's point. Please share your thoughts with civility and compassion.
- Use the **Q & A Box** to ask your question of the speakers.
Participant questions will be addressed during the event, in the last 15 minutes of the panel discussion, and during the 30-minute follow-on breakout session.

Pathfinders

Social Media



- If you'd like to share insights from this event on [Twitter](#) or [LinkedIn](#), you can find us at:

[@AspenCSG](#), [@RuralLISC](#), [@RuralHome](#)
[@RCAPinc](#), [@federalreserve](#)

[#ruralinnovation](#), [#roadsession](#), [#climatecrisis](#)

And last before we start...A little Housekeeping

- Your mics are muted. If you have any **tech** issues, please use the **Chat** box. We have people standing by to address!
- At 2:45 ET, enter the breakout discussion by clicking on the link provided in the Chat Box and in the email sent to you today.
 - You have received an email with a special Zoom link for the breakout session already.
 - We will send those links again in the next hour to every registered participant's email.
 - If you have not received it – please send a note to csg.program@aspeninstitute.org.
- Recordings of the first hour will be available on the Aspen CSG event webpage in the next few days. That video link will be sent to all registered.



Welcome Today's Moderator:

Chitra Kumar

Acting Associate Director for
Environmental Justice
US Environmental Protection Agency



Setting the Context on Rural Climate Action

Jeremy Richardson
Senior Energy Analyst
Union of Concerned Scientists

An aerial photograph of a large industrial power plant, likely a coal-fired plant, situated in a rural landscape. The plant is illuminated with bright lights, and several tall smokestacks are visible, with thick plumes of smoke rising into the sky. The scene is set against a dramatic sunset sky with orange and yellow hues near the horizon and darker blue tones above. The surrounding area includes fields, a body of water, and some smaller buildings. The title text is overlaid on the image, flanked by large white curly braces.

Climate Change Solutions and Rural America

Impacts beyond temperatures



Little or no rain



Extreme precipitation
(rain and snow)



High-tide flooding and
increased storm surge



Extreme heat



Tornados and
thunderstorms



Western wildfire
activity



More Atlantic hurricanes



Parched soil

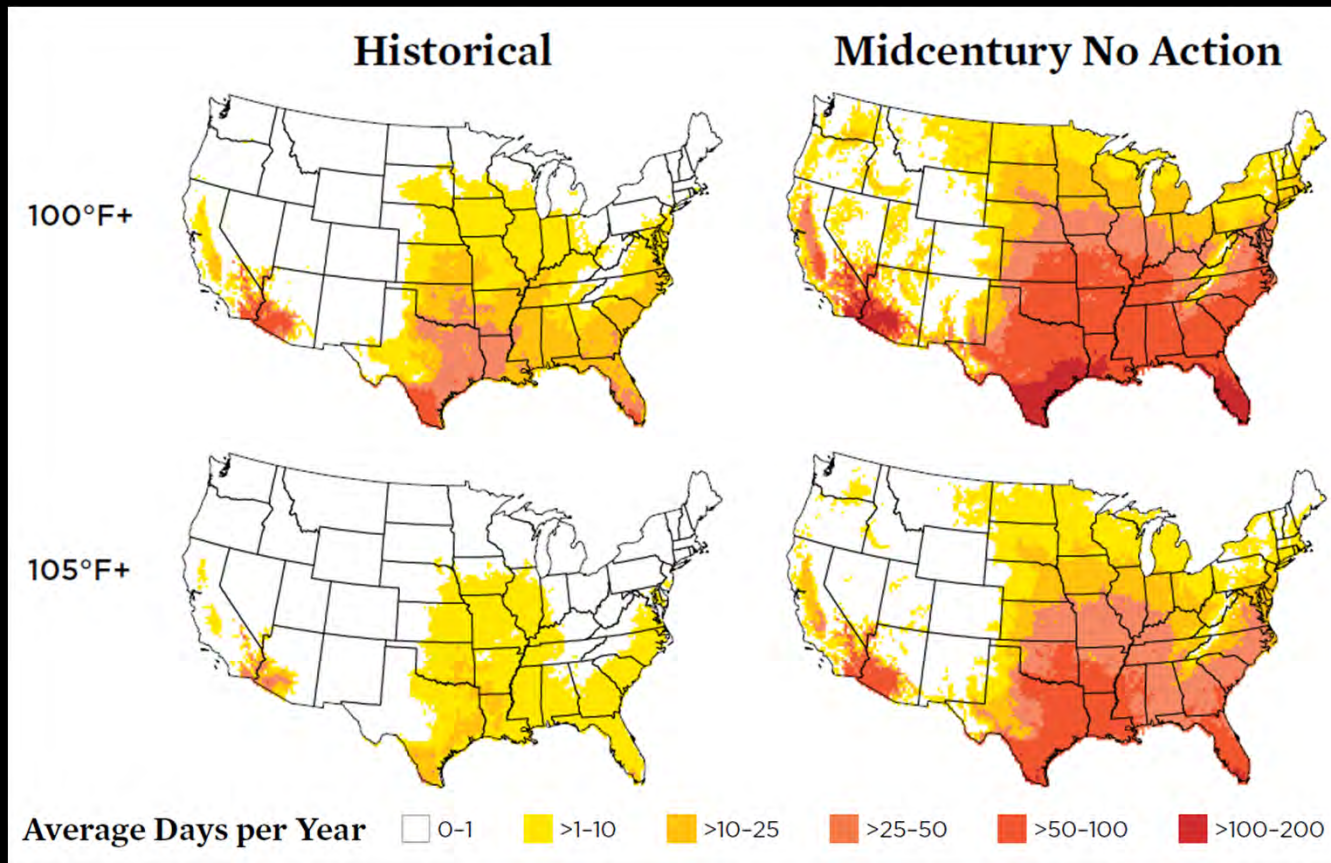


Extreme rainfall from
hurricanes

← Weakest Evidence Growing Evidence

Strong Evidence Strongest Evidence →

Midcentury (2036-2065): Steep increase in extreme heat











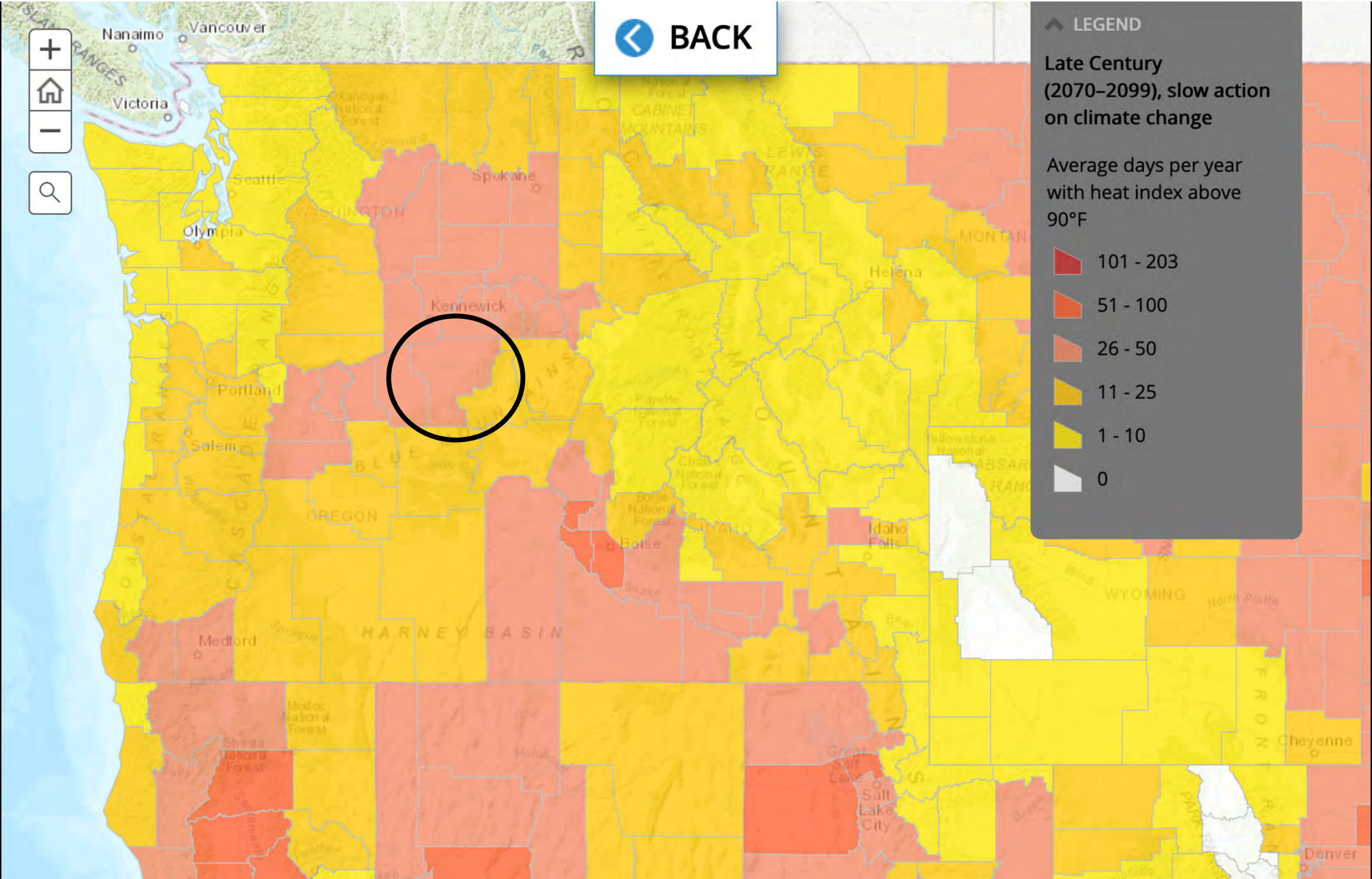
 **BACK**

LEGEND

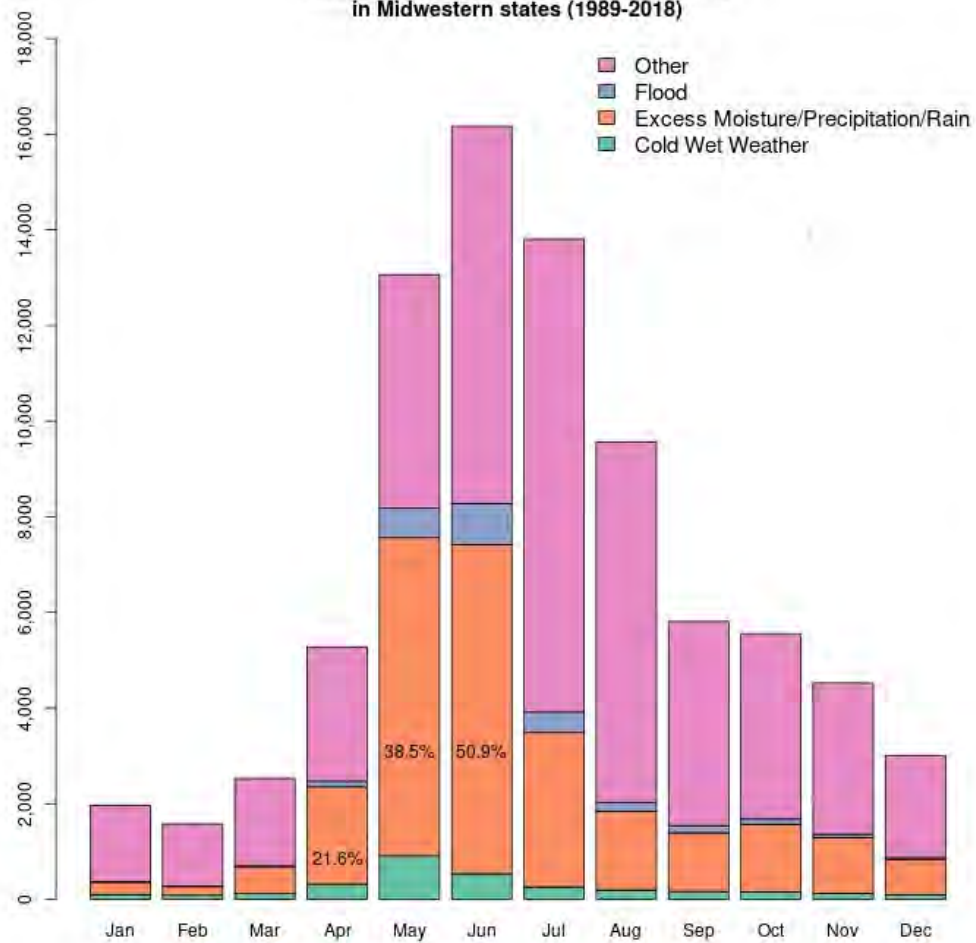
**Late Century
(2070–2099), slow action
on climate change**

Average days per year
with heat index above
90°F

	101 - 203
	51 - 100
	26 - 50
	11 - 25
	1 - 10
	0

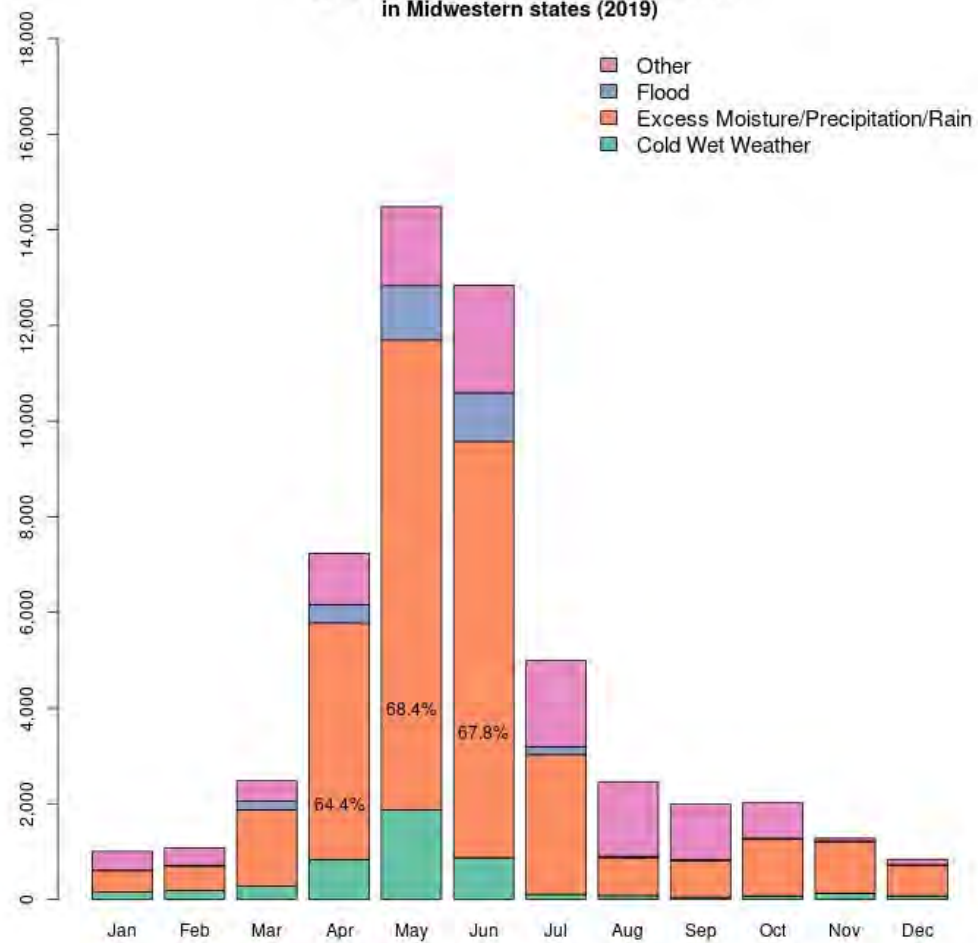


**Mean USDA Indemnities by Cause of Loss
in Midwestern states (1989-2018)**



States included: AR, IA, IL, IN, KS, KY, LA, MN, MO, MS, ND, NE, OK, SD, TN, TX, WI

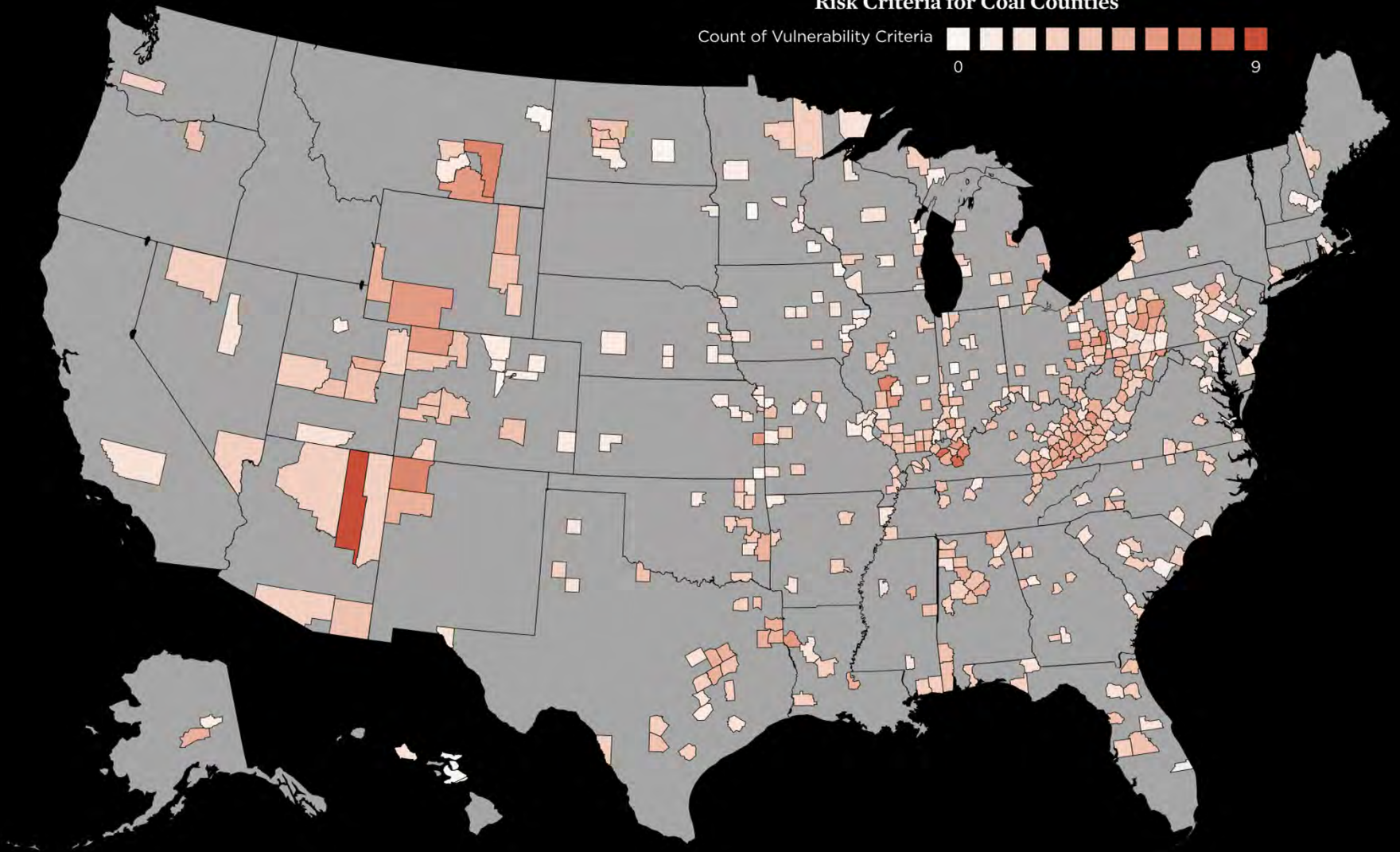
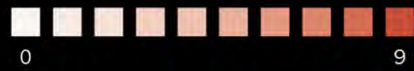
**Total USDA Indemnities by Cause of Loss
in Midwestern states (2019)**



States included: AR, IA, IL, IN, KS, KY, LA, MN, MO, MS, ND, NE, OK, SD, TN, TX, WI

Risk Criteria for Coal Counties

Count of Vulnerability Criteria



Climate Action Must Include Assistance to Workers and Communities

Dealing with Immediate Crisis

- Require advance notice of closures
- Dislocated Coal Workers
 - Early retirement and wage replacement for five years, indexed to inflation
 - Continued health care coverage
 - Full retirement/pension contributions
 - Retraining opportunities
 - Job placement resources and assistance
 - Relocation allowances
- Communities
 - Temporary replacement of lost tax revenue *
 - Economic planning grants
 - Addressing indirect and induced jobs (?)

Longer-Term Needs

- Mandated decommissioning and reclamation, employing dislocated workers as much as possible (win-win)
 - Strong labor standards, local hire if possible
 - Power plant decommissioning
 - Cleanup of coal ash ponds and groundwater contamination *
 - Mine reclamation (surface and underground)
- Prioritize federal infrastructure funding for local projects in affected communities
- Tax incentives to companies that hire or retain dislocated workers, or companies that locate in coal communities

Estimated Cost of Supporting Dislocated Coal Workers

Policy Support	Low Case Assumed Coal Phaseout=2040 25-Year Program (\$ billions)	High Case Assumed Coal Phaseout=2030 15-Year Program (\$ billions)
Five-year comprehensive wage replacement for dislocated coal workers	\$31.4	\$59.1
Educational benefits	\$0.3	\$7.3
Educational benefits for family members	\$0.6	\$14.6
Job placement services and training programs	\$0.2	\$0.4
Relocation assistance	\$0.5	\$0.8
Educational benefits for previously dislocated coal workers (2015–2019)	\$0.1	\$0.8
Total over life of program	\$33.2	\$82.9

[Union of
Concerned Scientists]

Science for a
healthy planet
and safer world.



Summary of Key Assumptions

Assumptions	Low Case	High Case
Assumed coal phaseout	2040	2030
Lifetime of program	25 years	15 years
Estimate for health and retirement benefits	30% salary adder	60% salary adder
Education	25% uptake by eligible workers; two-year community college	75% uptake by eligible workers; four-year university
Free post-secondary education for children	50% uptake by eligible children; one child per dislocated worker	75% uptake by eligible children; two children per dislocated worker
Per-worker cost in the Workforce Innovation and Opportunity Act's Adult and Dislocated Worker Programs	\$3,424	\$4,496
Relocation allowance	\$10,000 per worker	\$10,000 per worker



Clean Energy Economies in North Carolina

Ajulo Othow
Founder and CEO
EnerWealth Solutions



Clean Energy Economies in North Carolina

Curtis Wynn

CEO

Roanoke Electric Cooperative



Climate Action and Environmental Justice in Southeast Louisiana

Shirell Parfait-Dardar

Traditional Tribal Chief

Grand Caillou/Dulac Band of Biloxi-
Chitimacha-Choctaw



Climate Action and Environmental Justice in Southeast Louisiana

Kristina Peterson
Co-Founder
Lowlander Center

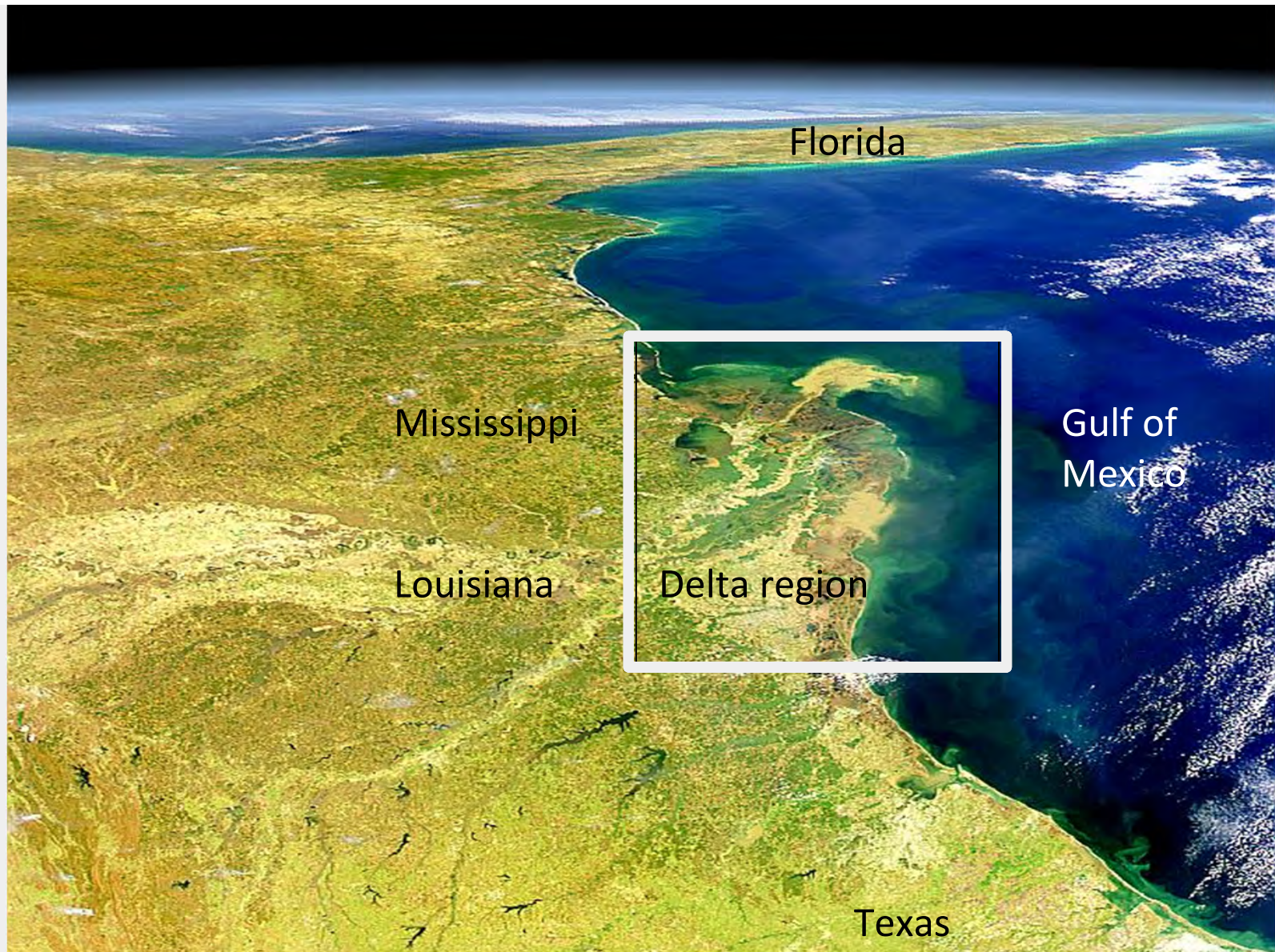
LAGNIAPPE FOR THE WORKING COAST: Reducing Flood Risk and Protecting Sacred Sites and Tribal Communities' Resilience by Strengthening Louisiana's Marshes

Chief Shirell Parfait-Dardar and
Dr. Kristina Peterson

Content and technical advisor
Devon Parfait, Young Chief



Rural Opportunity and Development (ROAD) July 16th 2021



Florida

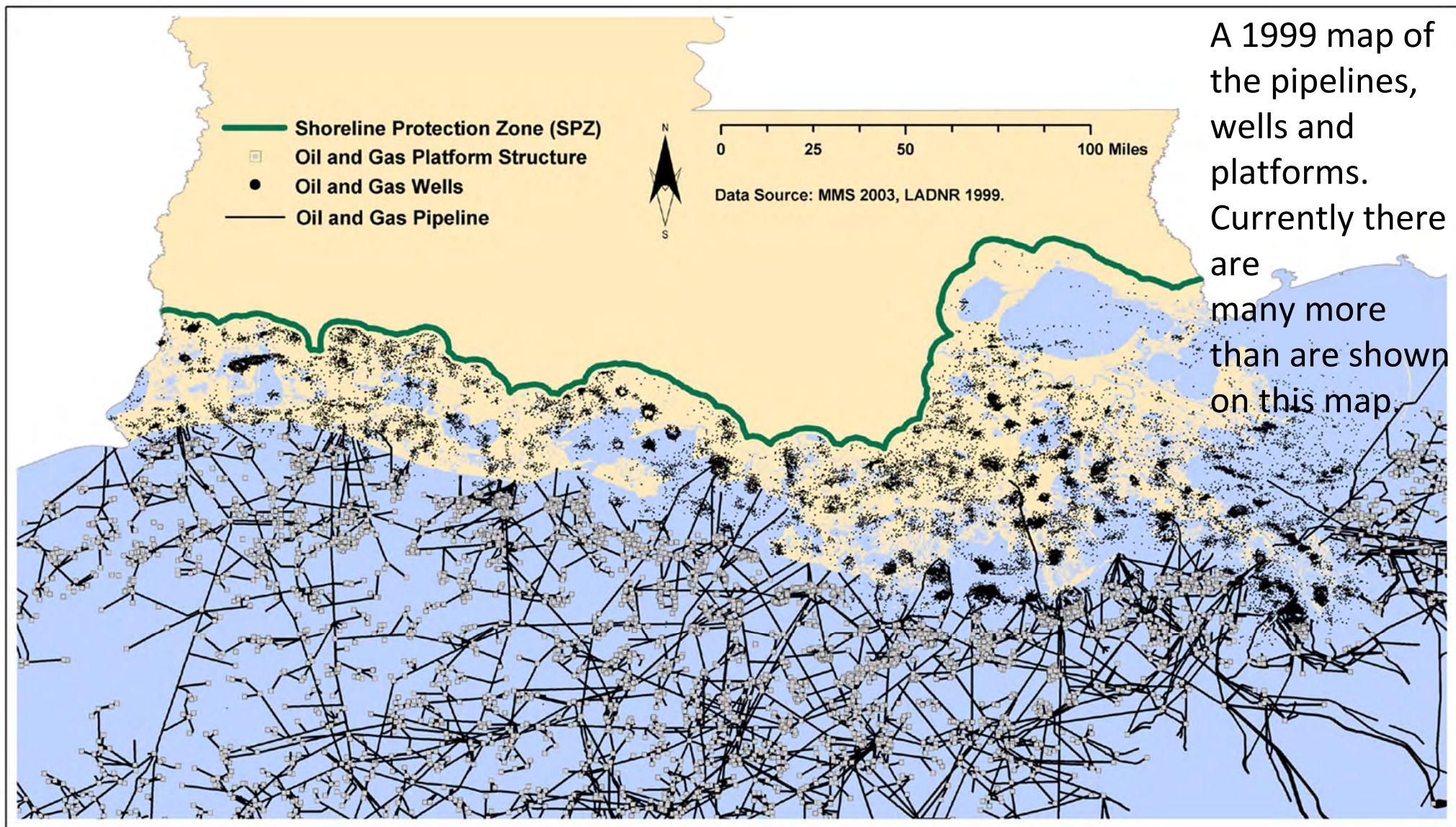
Mississippi

Louisiana

Delta region

Texas

Gulf of
Mexico





Category 1

Category 2

Category 3

Category 4

Category 5

Category 5 Storm Surge Inundation (SLOSH Maximum of Maximums)

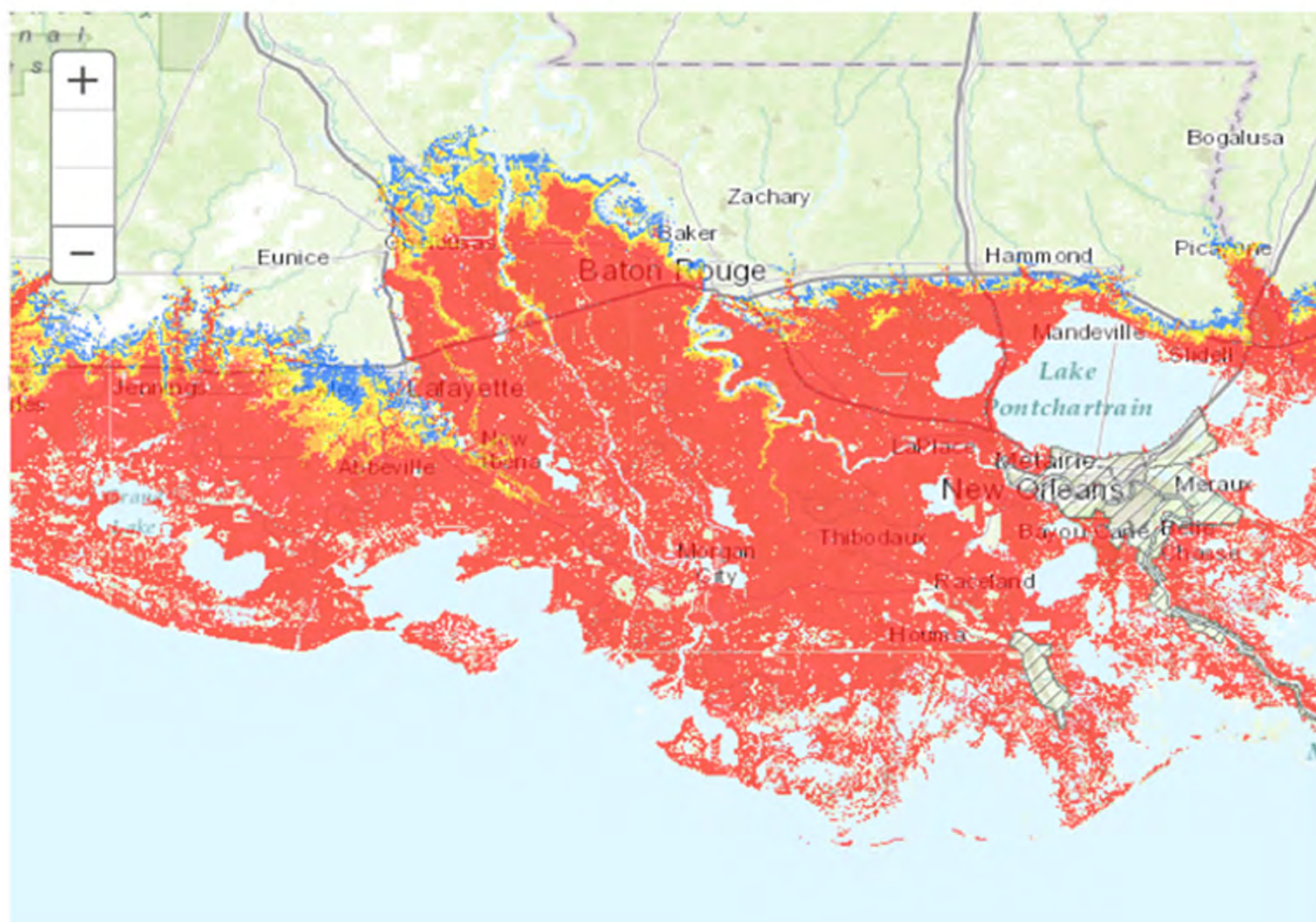
With this education and awareness tool, anyone living in hurricane-prone coastal areas along the U.S. East and Gulf Coasts can now evaluate their own unique risk to storm surge. This map makes it clear that storm surge is not just a beachfront problem, with the risk of storm surge extending several miles from the immediate coastline in some areas. "You

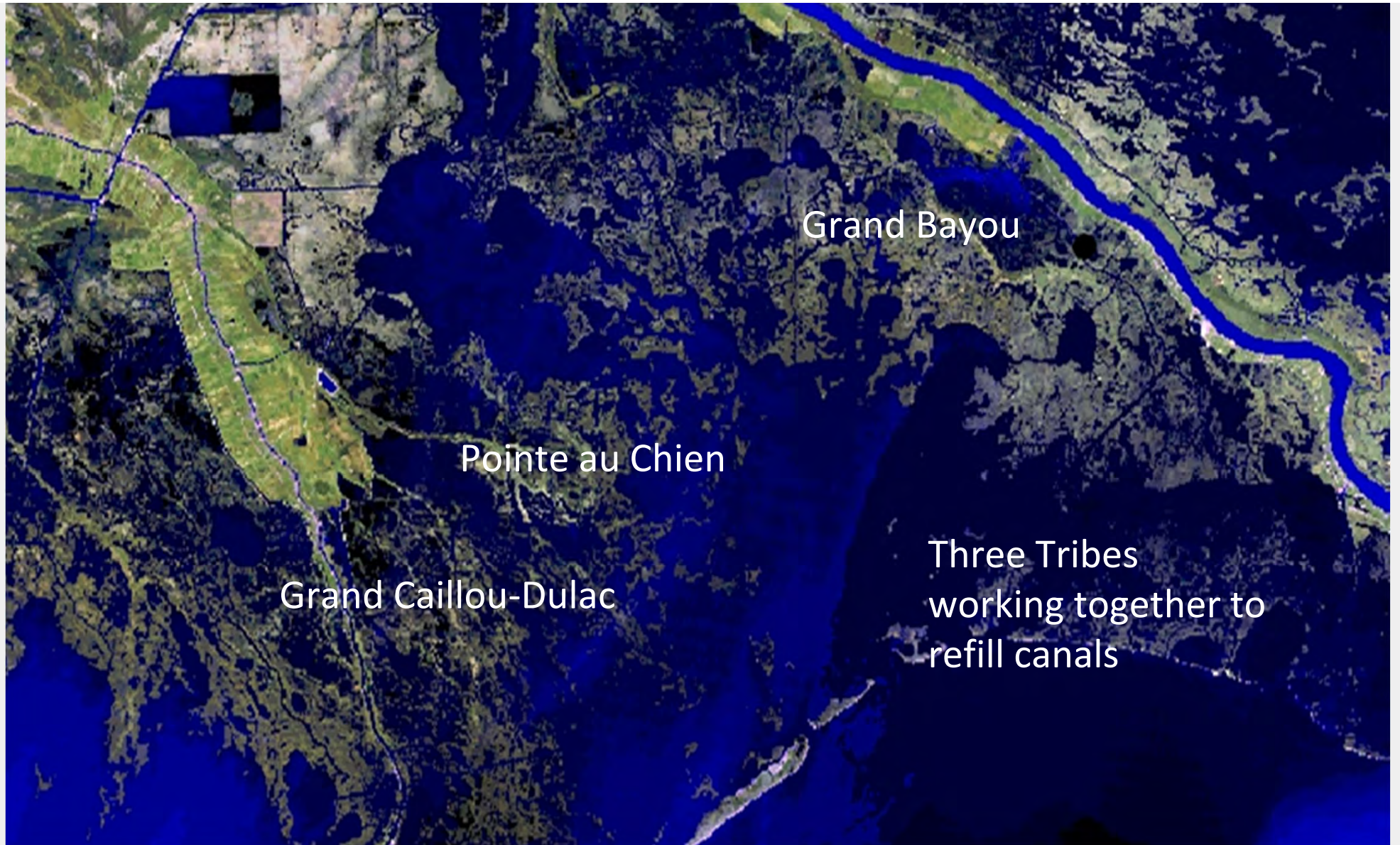
LEGEND

Category 5 (SLOSH MOMs) Storm Surge Inundation

Inundation Depth

- Up to 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground





Grand Bayou

Pointe au Chien

Grand Caillou-Dulac

Three Tribes
working together to
refill canals

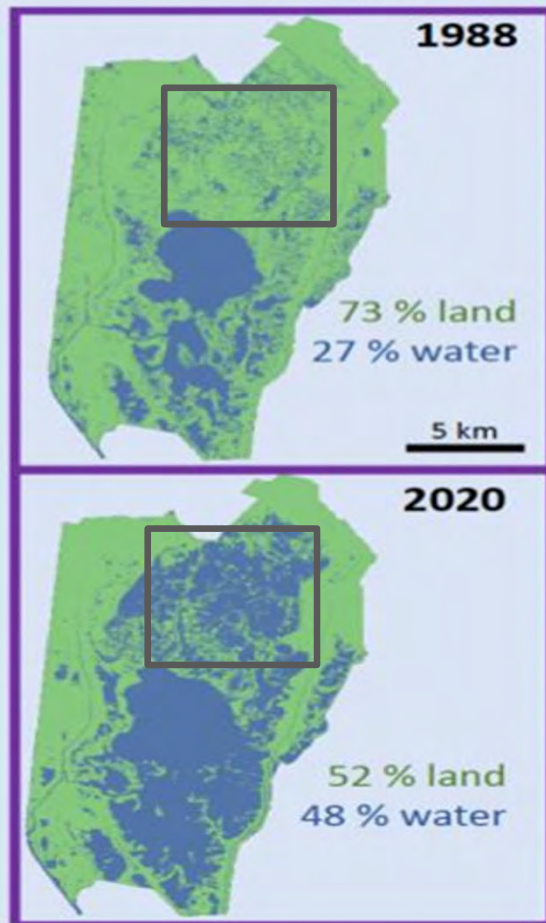
Land loss rates for indigenous tribal lands in southern Louisiana are higher than overall regional rates

Devon N. Parfait^{1,2} and Rónadh Cox¹

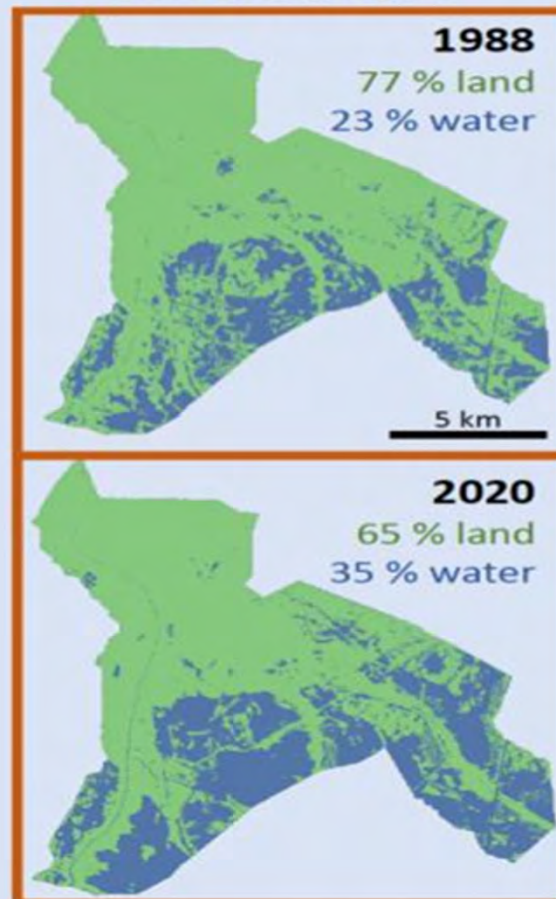
¹ Geosciences Department, Williams College, MA 01267

² Grand Caillou/Dulac Band of Biloxi-Chitimacha-Choctaw, Chauvin, LA 70344

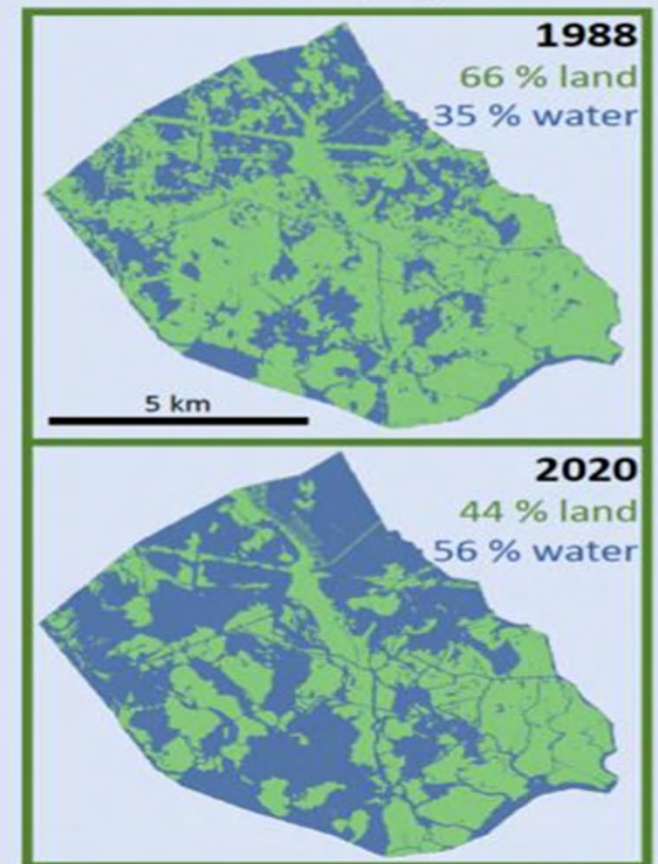
1. Grand Caillou/Dulac Lost 0.7% per year



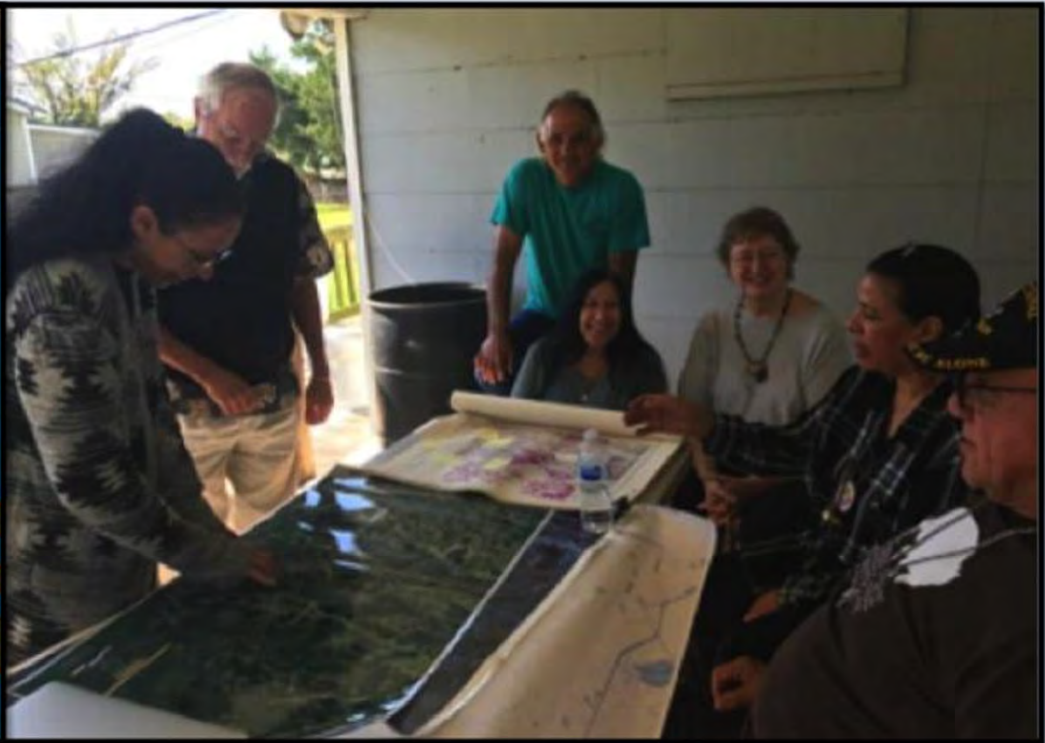
2. Point Au Chien Lost 0.4 % per year



3. Isle de Jean Charles Lost 0.7 % per year



LAGNIAPPE FOR THE WORKING COAST: Reducing Flood Risk and Protecting Sacred Sites and Tribal Communities' Resilience by Strengthening Louisiana's Marshes



National Estuary Program and National Fisheries and Wildlife Foundation

PROTECTING

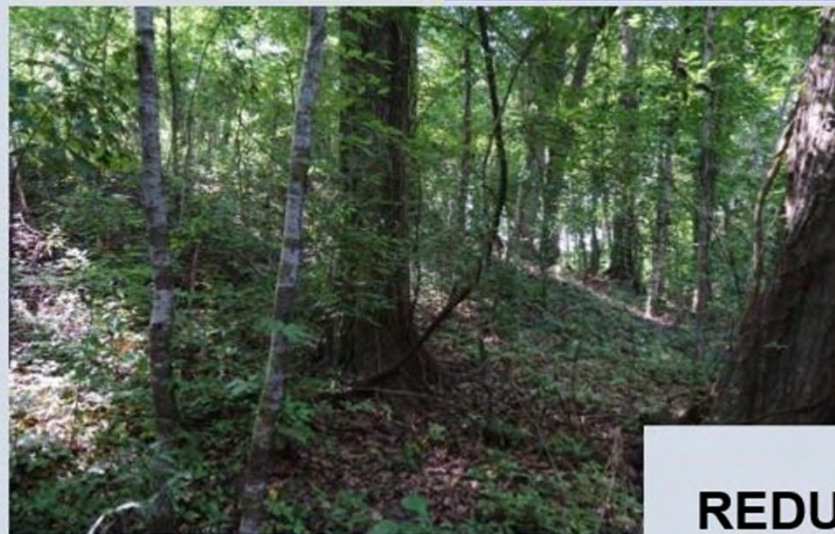


PEOPLE



LIVELIHOODS

SACRED SITES



RESTORING LAND

and....

REDUCING FLOOD RISK

Video Presentation



Thank you

Merci
Beaucoup





Climate Adaptation Planning on the Confederated Tribes of the
Umatilla Indian Reservation

Wenix Red Elk

Public Outreach and Education Specialist
CTUIR Department of Natural Resources



Climate Adaptation Planning on the Confederated Tribes of the
Umatilla Indian Reservation

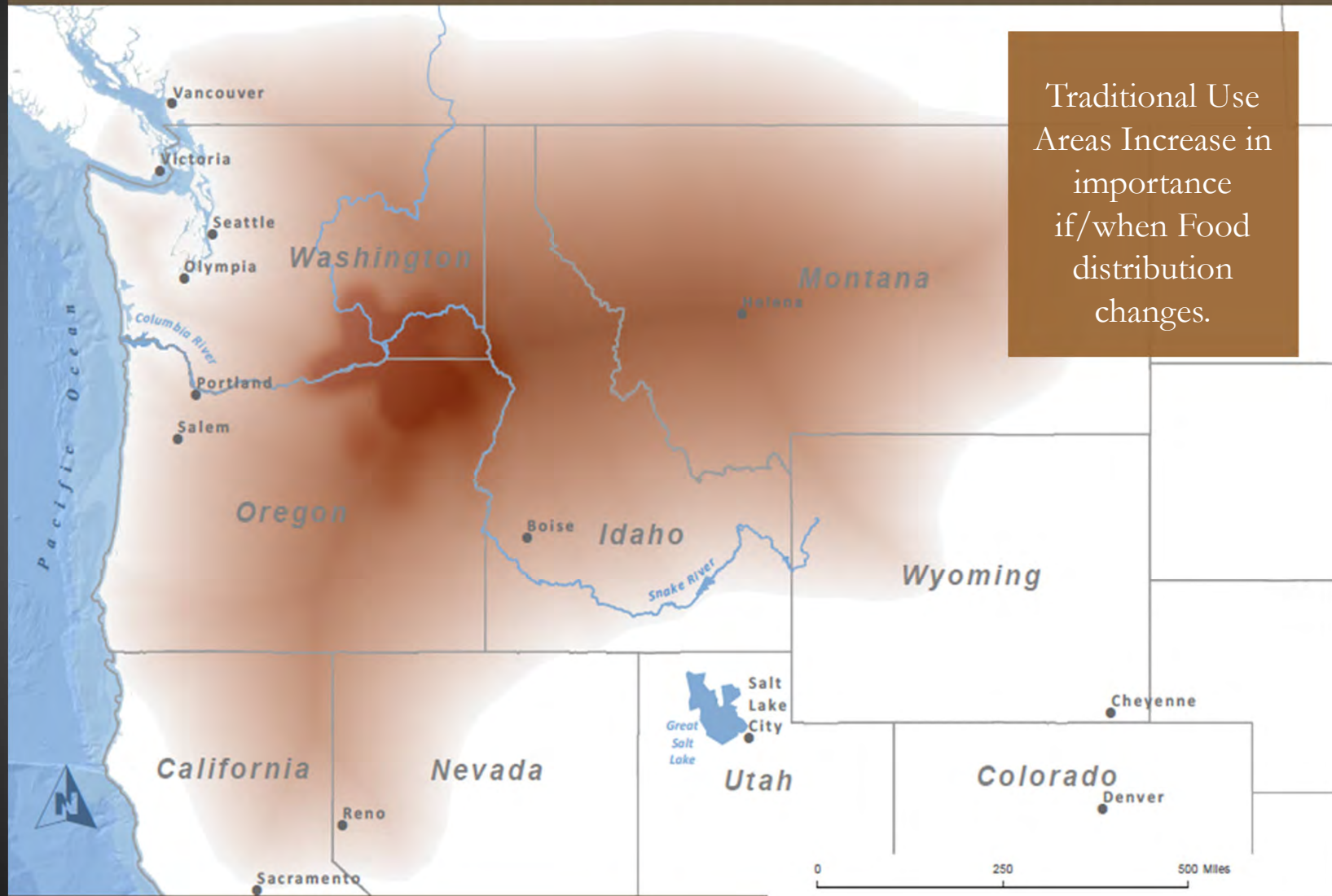
Colleen Sanders
Climate Adaptation Planner
CTUIR First Foods Policy Program



CTUIR Treaty of June 9, 1855

- Confederation of three Tribes: Cayuse, Umatilla & Walla Walla
- 6.4 million acres ceded to the US in NE Oregon & SE Washington
- Retained reserved treaty rights within ceded lands of the *exclusive right of taking fish, hunting, gathering roots and berries and pasturing their stock on unclaimed lands.*
- Sovereign Nation – Created Umatilla Indian Reservation
- 1949 Constitution & By-Laws adopted

Traditional Use by the Cayuse, Umatilla, Walla Walla Tribes



Department of Natural Resources

Mission Statement



To protect, restore, and enhance the first foods - water, salmon, deer, cous, and huckleberry - for the perpetual cultural, economic, and sovereign benefit of the CTUIR. We will accomplish this utilizing traditional ecological and cultural knowledge and science to inform:

- 1) population and habitat management goals and actions; and
- 2) natural resource policies and regulatory mechanisms.

First Foods are the Center of Culture



Tribal Community Cultural Continuity, Preservation Outreach & Education Project



DNR's First Foods Excursions Outreach and Education Goals:

- ☐ First Foods Mission management and restoration;
- ☐ identify, locate and document;
- ☐ provide gathering and legal access to sites;
- ☐ teach participants how to identify, harvest, and procure First foods

First Foods Associated Activity



Cedar Root Pull

Cleaning Cedar on the
Sandy River, OR

Smoke Plume Through Columbia Gorge

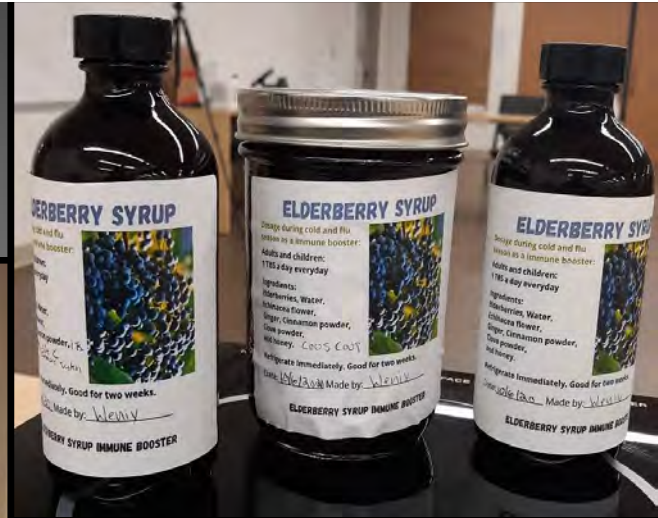




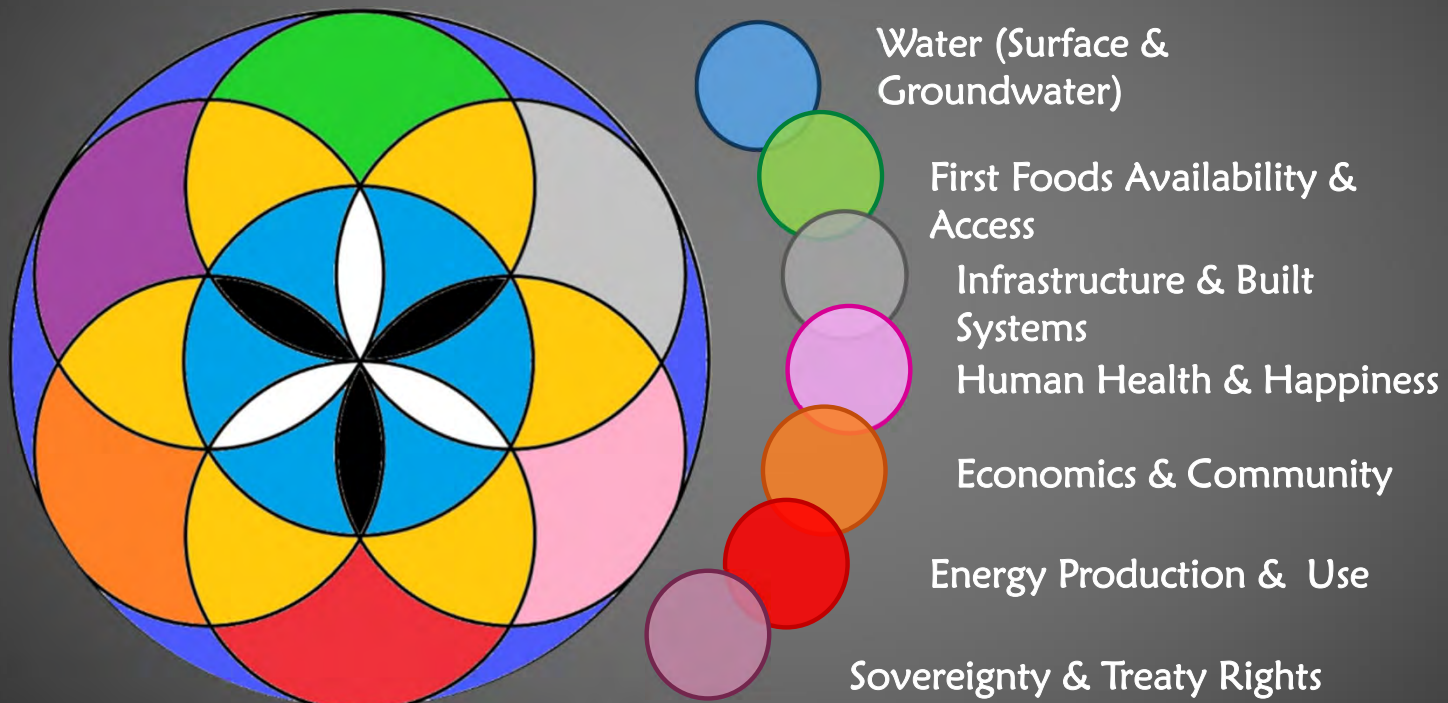
Passing Traditions to Our Youth



First Foods Resiliency



CTUIR Climate Adaptation Wheel



Q&A Session

Moderated by Chitra Kumar



Join us for the breakout room discussion

- To enter the breakout session: Simply use the Zoom breakout link provided in the Chat Box.
- We sent every registered email that link again during this hour.
- If you did not receive it – please send a note to csg.program@aspeninstitute.org
- Each room will include one of our speakers and a facilitator – it may take a few minutes to get them sorted into the right room. Chat until they get there!
- Open discussion!

Today's Event Partners



See you in the Breakout Room!