



Workshop for Building Drought Resilience in a Changing Climate with Upper Columbia and Missouri Basin Tribes

September 26-28, 2023

Kwataqnuk Resort & Casino | Polson, MT

Meeting Location:

KwaTaqNuk Resort & Casino

49708 US HWY 93 E | Polson, Montana 59860

Workshop Objectives:

- Provide a forum for Tribal Nations and Tribal Colleges and Universities (TCUs) in the Upper Columbia and Missouri Basins to share successes, challenges, opportunities, and ideas for managing current and future drought in the context of a changing climate and associated climate extremes.
- Bring Tribal Nations, TCUs, and their partners together to discuss best practices for communicating and collaborating on projects and responding to funding opportunities that address current and future drought.
- Discuss high-priority data and information needs and gaps to inform NOAA-NIDIS's Tribal Drought Engagement Strategy and other efforts to support tribal drought resilience in the Upper Columbia and Missouri Basins.

Expected Outcomes:

- Strengthen communication networks among Tribal Nations and TCUs in the Upper Columbia and Missouri Basins to further information exchange and ideas on how to prepare for, mitigate, and respond to drought.
- Identify solutions for enhancing communication with Tribal Nations and TCUs to increase awareness of funding opportunities.
- Enumerate tangible, high-priority next steps to address pressing drought information needs.

Note: In the context of this workshop, “partners” refers to those who collaborate with Tribal Nations and/or TCUs on climate-related work: e.g., federal/state agencies, non-tribal academic institutions, NGOs, private sector organizations, etc.

Tuesday, September 26, 2023		
Time (MT)	Session	Who
8:00 AM	Registration + Continental Breakfast (<i>provided</i>)	
Session I: Welcome! <i>Session purpose: To welcome participants, provide background on NIDIS and the workshop goals, and get to know each other.</i> Moderator: Crystal Stiles, NOAA National Integrated Drought Information System (NIDIS)		
8:30 AM	Opening Ceremony	Posting of Colors <i>Mission Valley Honor Guard</i> Drum <i>Eagle Pass Drum Group</i> Elder Opening <i>Stephen Small Salmon</i> Welcome from the Confederated Salish and Kootenai Tribes (CSKT) Tribal Council <i>Carole Lankford, CSKT Tribal Council Representative</i>
9:00 AM	Introduction from NIDIS and Workshop Goals	Crystal Stiles <i>Tribal Engagement Coordinator, NOAA NIDIS</i> Veva Deheza <i>Director, NOAA NIDIS</i> James Rattling Leaf, Sr. <i>Principal, Wolakota Lab LLC</i>
9:30 AM	Icebreaker Activity	James Rattling Leaf, Sr. <i>Principal, Wolakota Lab LLC</i>
10:00 AM	Break (<i>snacks/drinks provided</i>)	
Session II: Drought in the Upper Columbia and Missouri Basins <i>Session purpose: To share and discuss the latest science, information, and knowledge on past, current, and future drought episodes in these basins.</i> Moderator: TBD		

10:30 AM	Drought at the Missouri and Columbia Headwaters: Forest, Fishery, and Water Resource Impacts on Drought on the Flathead Reservation	Michael Durglo, Jr. <i>Tribal Historic Preservation Department Head, CSKT</i> Brian Lipscomb <i>CEO, Energy Keepers, Inc.</i>
11:00 AM	First Foods First in a Columbia Basin Drought Early Warning System	Kate Ely <i>Umatilla Basin Hydrologist, Confederated Tribes of the Umatilla Indian Reservation</i>
11:30 AM	Native Waters in the Great Plains: Protecting and Preserving Tribal Water Rights to Enhance Drought Resilience	Doug CrowGhost <i>Department of Water Resources Director, Standing Rock Sioux Tribe and Great Plains Tribal Water Alliance Board Member</i>
12:00 PM	Drought in a Changing World: The Past, Present, and Future of Drought Adaptation and Resilience in the Columbia and Missouri River Basins	Kyle Bocinsky <i>Director of Climate Extension and Assistant Research Professor, Montana Climate Office, University of Montana</i>
12:30 PM	Working Lunch (<i>provided</i>) Moderator: Vicki Hebb, <i>Native Climate Tribal Ag Fellow, University of Nevada, Reno</i>	
	Tentative Title: Tribal Farmers and Ranchers Talk Drought - What's Happening, How they are Responding, and What they Need to be More Resilient	TBD <i>Intertribal Buffalo Council</i> Beau LaSalle <i>Natural Resources Program Specialist, Intertribal Agriculture Council</i> Craig Harry <i>Technical Assistance Specialist, Intertribal Agriculture Council Rocky Mountain Region</i> Kole Fitzpatrick <i>Loan Officer, Akiptan</i>
Session III: Successes, Challenges, and Opportunities for Managing Drought on Tribal Lands in the Upper Columbia and Missouri Basins <i>Session purpose: To have Tribal Nations share their knowledge and experiences with managing drought and associated climate extremes on their lands to promote learning and generate new ideas. Discussion will be included.</i> Moderator: TBD		

1:30 PM	Interweaving Traditional Knowledge and Mainstream Science to Enhance Long-Term Climate and Drought Resilience on Tribal Lands	Maureen McCarthy <i>Research Professor, Desert Research Institute and University of Montana-Montana Climate Office</i>
1:50 PM	Sicangu Climate Center	Phil Two Eagle <i>Executive Director, Sicangu Lakota Treaty Council</i>
2:10 PM	Strengthening Drought Preparedness on the Coeur d'Alene Reservation through Wetland Restoration and Monitoring	Mažeika Patricio Sulliván <i>Director and Professor, Baruch Institute of Coastal Ecology and Forest Science, Clemson University</i>
2:30 PM	Oglala Sioux Tribe Drought Declaration	Reno Red Cloud <i>Director of Water Resources Department, Oglala Sioux Tribe</i>
2:50 PM	Break (snacks/drinks provided)	
3:20 PM	Drought Impacts to Cultural Sites and Resources	Michael Durglo, Jr. <i>Tribal Historic Preservation Department Head, CSKT</i>
3:40 PM	Blackfoot Confederacy Native Trout Recovery Project	Elliot Fox <i>Consultant, Blackfoot Confederacy Tribal Council and Member of the Kainai First Nation in Canada</i>
4:00 PM	Nueta Hidatsa Sahnish College's Food and Water Sovereignty Initiatives	Ruth Plenty Sweet Grass-She Kills <i>Director of Food Sovereignty, Nueta Hidatsa Sahnish College</i>
4:20 PM	The Missouri River and Indigenous Placemaking	Paige Johnson <i>Native Climate Data Fellow and Graduate Student, University of Montana</i>
4:40 PM	Closing Comments and Setting the Stage for Day 2	James Rattling Leaf, Sr. <i>Principal, Wolakota Lab LLC</i>
4:55 PM	Adjourn for the Day	
5:00 PM	Evening Reception	

Wednesday, September 27, 2023		
Time (MT)	Session	Who
8:00 AM	Continental Breakfast <i>(provided)</i>	
8:30 AM	Welcome Day 2 and Charge for the Day	James Rattling Leaf, Sr. <i>Principal, Wolakota Lab LLC</i>
Session IV: Support from Partners of Tribal Nations and TCUs: Drought and Climate-Related Programs, Tools and Resources, Funding Opportunities, and Technical Capacity <i>Session purpose: For partners of Tribal Nations and TCUs to share information that supports tribes in their efforts to increase their resilience to drought and climate change, and to provide an opportunity for Tribal Nations to discuss their drought information needs with partners.</i> Moderator: TBD		
9:00 AM	Rapid Response to Extreme Weather Funding Opportunity through the U.S. Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) (Recorded presentation)	Ashley Mueller <i>National Program Leader, Institute of Youth, Family, and Community, USDA NIFA</i> Amy Ganguli <i>National Program Leader, Institute of Bioenergy, Climate, and Environment, USDA NIFA</i>
9:05 AM	USDA Farm Services Agency (FSA) Drought Relief Programs	Les Rispens <i>Farm Programs Director in Montana, USDA FSA</i>
9:10 AM	Bureau of Indian Affairs (BIA) Tribal Climate Resilience Funding and Resources	Matt Laramie <i>Regional Coordinator, BIA Branch of Tribal Climate Resilience</i>
9:15 AM	U.S. Bureau of Reclamation (BOR) Drought Mitigation Funding	Jessica Asbill-Case <i>Native American Affairs Advisor, BOR</i>
9:20 AM	NIDIS Coping with Drought Building Tribal Drought Resilience Funding	Britt Parker <i>Regional Drought Information Coordinator, NOAA NIDIS</i>
9:25 AM	U.S. Environmental Protection Agency (EPA) Bipartisan Infrastructure Law/Inflation Reduction Act Programs	Andrew Wynne <i>Senior Advisor for Climate Change, U.S. EPA Region 7</i>

	The Environmental Justice Thriving Communities Technical Assistance Centers (TCTAC) Program	
9:35 AM	Impact of Multidecadal Wet and Dry Climate Cycles on Forest Disturbances across the Conterminous U.S., 2000-2022	Joel Egan <i>Forest Health Monitoring Coordinator, R1/R4 State, Private and Tribal Forestry, U.S. Forest Service</i>
9:40 AM	Tribal Drought Planning	Mary Baker <i>Resiliency Strategist, JEO Consulting</i>
9:45 AM	National Drought Mitigation Center (NDMC) Tribal Assistance	Cody Knutson <i>Planning Coordinator, NDMC</i>
9:50 AM	Upper Missouri River Basin Soil Moisture and Plains Snow Monitoring Build-Out	Catherine Wiechmann <i>UMRB Network Program Coordinator, University of Montana</i>
9:55 AM	Upper Missouri River Basin Soil Moisture and Plains Snow Monitoring Project Data Value Study	Marina Skumanich <i>National Coordinated Soil Moisture Monitoring Network Program Specialist, NOAA NIDIS</i>
10:00 AM	Climate-Smart Tools for Tribal Soil Climate Analysis Network (SCAN) and SCAN	Natalie Umphlett <i>Climatologist, Northeast Regional Climate Center</i>
10:05 AM	Community Collaborative Rain, Hail and Snow (CoCoRaHS) Network	Noah Newman <i>Education Coordinator, CoCoRaHS</i>
10:10 AM	Partners Fair Overview	TBD
10:15 AM	Break (<i>snacks/drinks provided</i>)	
10:45 AM	Partners Fair and Tools Cafe Participating Partners: <i>Intertribal Agriculture Council</i> <i>Bureau of Indian Affairs</i> <i>National Aeronautics and Space Administration</i> <i>NOAA National Integrated Drought Information System</i> <i>NOAA National Weather Service</i> <i>U.S. Army Corps of Engineers</i> <i>U.S. Bureau of Reclamation</i> <i>U.S. Department of Agriculture</i>	

	U.S. Environmental Protection Agency U.S. Forest Service U.S. Geological Survey High Plains Regional Climate Center Northeast Regional Climate Center Western Regional Climate Center National Drought Mitigation Center JEO Consulting Community Collaborative Rain, Hail, and Snow (CoCoRaHS) Network State Mesonets University Corporation for Atmospheric Research COMET	
12:15 PM	Working Lunch (provided) Moderator: Maranda Compton, President, Lepwe Discussion: Legal and political barriers to progress on building drought resilience on tribal lands	
Session V: Finding Solutions: Addressing Challenges and Opportunities to Increase Tribal Resilience to Drought across the Upper Columbia and Missouri Basins <i>Session purpose: To hold solution- and topic-oriented working sessions with Tribal Nations, TCUs, and their partners that integrate Indigenous and Western knowledge systems to address the greatest challenges Tribal Nations face as they continue to strengthen drought resilience. Discussions on data sovereignty and Indigenous Knowledge/Traditional Ecological Knowledge will be integrated throughout the working sessions. These working sessions will be tribally-led and participants will develop a road map that identifies the specific short-term and long-term actions and resources needed to take meaningful steps toward addressing these challenges.</i>		
1:15 PM	Working Session Topics	Facilitators
	Increasing drought and climate change research and capacity with Tribal Colleges and Universities Location: TBD	Ruth Plenty Sweet Grass-She Kills <i>Director of Food Sovereignty, Nueta Hidatsa Sahnish College</i> TBD
	Building capacity and identifying technical assistance to apply for drought and climate-related funding opportunities Location: TBD	Matt Laramie <i>Regional Coordinator, BIA Branch of Tribal Climate Resilience</i> Kynser Wahwahsuck <i>Tribal Climate Resilience Liaison, Great</i>

		<i>Plains Tribal Water Alliance</i>
	Enhancing drought monitoring (e.g., increasing the availability of data, identifying most suitable indicators by season/location, products/tools available) Location: TBD	James Rattling Leaf, Sr. <i>Principal, Wolakota Lab LLC</i> Kyle Bocinsky <i>Director of Climate Extension and Assistant Research Professor, Montana Climate Office, University of Montana</i>
	Streamlining drought and climate-related planning efforts (e.g., incorporating drought into other planning efforts, integrating management of drought and other extremes like flooding and heat) Location: TBD	Paula Antoine <i>Director, Sicangu Oyate Land Office</i> Cody Knutson <i>Planning Coordinator, National Drought Mitigation Center</i>
	Determining best practices for collecting and documenting drought impacts (including understanding cascading impacts, how impacts inform planning) Location: TBD	Vicki Hebb <i>Native Climate Tribal Ag Fellow, University of Nevada, Reno</i> Michael Durglo, Jr. <i>Tribal Historic Preservation Department Head, CSKT</i>
2:45 PM	Break (<i>snacks/drinks provided</i>)	
3:15 PM	Working sessions continued	
4:15 PM	Closing Comments and Setting the Stage for Day 2	James Rattling Leaf, Sr. <i>Principal, Wolakota Lab LLC</i>
4:30 PM	Adjourn for the Day	

Thursday, September 28, 2023		
Time (MT)	Session	Who
8:00 AM	Continental Breakfast (<i>provided</i>)	
8:30 AM	Welcome Day 3 and Charge for the Day	James Rattling Leaf, Sr. <i>Principal, Wolakota Lab LLC</i>
Session VI: Final Discussion and Next Steps		

<p><i>Session purpose: To have leaders report out from their working sessions, facilitate discussion as a whole group on working session outcomes, and identify tangible next steps for NIDIS and partners on how to best support the solutions identified during these working sessions.</i></p> <p>Moderator: TBD</p>		
9:00 AM	Report out from Working Sessions	TBD
10:15 AM	Break (<i>snacks/drinks provided</i>)	
10:45 AM	Report out from Working Sessions	TBD
11:15 AM	Discussion and Next Steps	<p>Crystal Stiles <i>Tribal Engagement Coordinator, NOAA NIDIS</i></p> <p>Natalie Umphlett <i>Climatologist, Northeast Regional Climate Center, Cornell University</i></p>
12:00 PM	Workshop Adjourns	
Lunch (<i>provided - boxed lunches</i>)		
1:30 PM	<p>Field Trip: Tour of Confederated Salish and Kootenai Tribes Bison Range, Visitor Center, and Mesonet Station 58355 Bison Range Road Moiese, MT</p> <p><i>The formal portion of the tour will end at 3:00 PM but attendees can stay longer if desired.</i></p>	

A big thank you from NIDIS to the meeting planning team!

Confederated Salish and Kootenai Tribes; Wolakota Lab LLC; Montana Climate Office; Desert Research Institute; NOAA National Centers for Environmental Information; Northeast Regional Climate Center; Bureau of Indian Affairs; North Central Climate Adaptation Science Center/Great Plains Tribal Water Alliance; Nueta Hidatsa Sahnish College; Oglala Sioux Tribe; National Drought Mitigation Center.

We would also like to thank the University Corporation for Atmospheric Research (UCAR)/Cooperative Programs for the Advancement of Earth System Science (CPAESS) for coordinating logistical and travel support for the workshop.

