

2nd National Flash Drought Workshop AGENDA

May 2-4, 2023 | Boulder, Colorado ([UCAR Center Green](#))

Workshop Objectives

1. Bring together the flash drought research community and practitioners to learn from one another, build stronger connections and increase coordination.
2. Establish the state of the science on flash drought research, monitoring, prediction, planning, and communication, and share new and emerging areas of flash drought research.
3. Build a better understanding of practitioner needs for improved flash drought preparedness, response, and communication.
4. Share research, tools, case studies, and regional/seasonal characteristics of flash drought in order to improve management and response.
5. Develop an updated list of outstanding research and information needs since the 2020 workshop for flash drought monitoring, prediction, planning and response.

DAY 1: Tuesday, May 2, 2023		
Time (MT)	Topic	Speaker/Moderator
8:30 AM	Welcome & Introductions	Sylvia Reeves, NOAA/NIDIS
9:00 AM	Progress since 2020 Virtual Workshop	Marina Skumanich, NOAA/NIDIS
Session 1: State of the Science <i>This session will provide a framing context for the workshop, by reviewing the latest research on the physical science, social science, and policy components of flash drought.</i> Moderator: Dan McEvoy, Western Regional Climate Center		
9:20 AM	Framing Flash Drought and Monitoring	Jason Otkin, University of Wisconsin Madison
9:40 AM	Flash Drought Prediction and Predictability	Hailan Wang, NOAA Climate Prediction Center Andy Hoell, NOAA Physical Sciences Laboratory
10:00 AM	Flash Drought Impacts	Amanda Cravens, USGS Forest and Rangeland Ecosystem Science Center - VIRTUAL
10:20 AM	Break	
10:40 AM	Incorporating Flash Drought into Planning, Policy, and Decision Making	Mark Svoboda, National Drought Mitigation Center
11:00 AM	Projections of Flash Drought in a Warming Climate Across the United States	Jordan Christian, University of Oklahoma

11:20 AM	Group Discussion	Moderator: Dan McEvoy, Desert Research Institute
12:00 PM	Lunch (Provided)	
Session 2: Practitioner Perspective <i>This session will provide an in-depth discussion of how practitioners assess, respond to, and provide guidance to the public on flash drought.</i> Moderator: Pam Knox, University of Georgia Extension		
1:00 PM	Practitioner Presentations & Panel Discussion	Panelists: <ul style="list-style-type: none">● Beckie Maddox, Senior Environmental Specialist - Constellation Nuclear● Klaus Albertin, Water Supply Planning Engineer - North Carolina Department of Environmental Quality, Division of Water Resources● Miranda Meehan, Extension Disaster Education Coordinator and Livestock Environmental Specialist - North Dakota State University Extension● Sumit Sharma, Extension Specialist for High Plains Irrigation and Water Management - Oklahoma State University Extension
2:30 PM	Group Discussion	Moderator: Pam Knox, University of Georgia Extension
3:00 PM	Introduction to Tools Cafe and Poster Session	Sylvia Reeves, NOAA/NIDIS
3:05 PM	Break	
Session 3: Flash Drought Tools Cafe and Poster Session <i>This session will provide a hands-on opportunity for participants to explore current flash drought web-based maps and other tools, and to discuss emerging research with poster presenters.</i>		
3:20 PM	Flash Drought Tools Cafe and Poster Session Confirmed Tools: <ul style="list-style-type: none">● Climate Engine● Climate Smart Farming● CPC Week-2 Hazards, Including Rapid Onset Drought● Evaporative Drought Demand Index (EDDI)● Evaporative Stress Index (ESI)● FLASH: FLASH drought Assessment using SMAP Hydrology● High Plains Regional Climate Center Water Deficit Trends & Other Tools	

	<ul style="list-style-type: none"> • Midwestern Regional Climate Center Flash Drought Risk Tool (Flash-DRT) • National Drought Mitigation Center Flash Drought Monitor & QuickDRI • Standardized Evaporative Stress Ratio (SESR) • U.S. Drought Portal: Overall Resources • U.S. Drought Portal: Soil Moisture Product Dashboard <p>Confirmed Posters:</p> <ul style="list-style-type: none"> • Quantifying the Frequency of Flash Drought in the Southeastern United States and Estimating Its Effects on Corn and Cotton Yields (Jasia Jannat, University of Georgia) • Understanding Sub-seasonal Predictability of Soil Moisture Flash Drought in the SE US Based on Causal Analysis of Large-Scale Climate Patterns (Sudhanshu Kumar, Auburn University) • Characterization of Rapid Drought Change Across the United States (Ronald Leeper, Cooperative Institute for Satellite Earth System Studies (CISS)) • A Climatology of High Reference Evapotranspiration Events in Colorado (Peter Goble, Colorado State University) 	
4:45 PM	Day 1 Adjourn	Sylvia Reeves, NOAA/NIDIS
5:00-7:00 PM	Optional Social Event	Location: Rayback Collective 2775 Valmont Rd, Boulder, CO 80304

DAY 2: Wednesday, May 3, 2023		
Time (MT)	Topic	Speaker/Moderator
8:30 AM	Welcome Back & Overview of Day 2	Sylvia Reeves, NOAA/NIDIS
8:35 AM	<p>Morning Coffee Panel Chat</p> <p><i>This session will provide an opportunity for flash drought researchers and practitioners to have a back-and-forth discussion on how best to work together to deliver early warning and effective management of flash drought.</i></p>	<p>Panelists:</p> <ul style="list-style-type: none"> • Pam Knox, Agricultural Climatologist - University of Georgia Extension • Dannele Peck, Director - Northern Plains Climate Hub • Art DaGaetano, Professor - Cornell University and Director - Northeast Regional Climate Center • Trent Ford, Illinois State Climatologist - University of Illinois/ Illinois State Water Survey <p>Moderator: Sylvia Reeves, NOAA/NIDIS</p>

Session 4: Case Studies of Flash Drought

This session will showcase regional responses to flash drought events, and the successes, challenges, and/or lessons learned from the experience.

Moderator: Carson MacPherson-Krutsky, Boise State and University of Colorado

9:30 AM	Massachusetts – On a Path to Better Drought Preparedness	Vandana Rao, Massachusetts Executive Office of Energy & Environmental Affairs
9:45 AM	Flash Drought in South Carolina: Overcoming Barriers through Investments in Relationships, Collaboration, and Communication	Elliot Wickham, South Carolina State Climatology Office
10:00 AM	Break	
10:20 AM	2021 Drought in the Pacific Northwest: A Different Flavor	Karin Bumbaco, WA State Climatologist, <i>VIRTUAL</i>
10:35 AM	2017-2018 Flash Drought Event in Argentina: Characteristics, Impacts and Lessons Learned	Pablo Spennemann, Servicio Meteorologico Nacional-CONICET, Argentina
10:50 AM	Table Brainstorm & Group Discussion	
12:00 PM	Lunch (Provided)	

Session 5: Break Out Group Sessions

This session will explore opportunities to better integrate and apply what we have discussed so far in a regional place based context, to strengthen the regional flash drought community, and to identify opportunities to strengthen flash drought understanding and response at the regional level.

Moderators: Meredith Muth and Joel Lisonbee, NIDIS

1:00 PM	Regional Case Study: Flash Drought Science to Action at the Regional Level	Lee Ellenberg, University of Alabama Huntsville and Meredith Muth, NOAA/NIDIS
1:20 PM	Introduction to Breakout Groups	Meredith Muth, NOAA/NIDIS
1:30 PM	Breakout 1: Flash Drought in a Regional Context	
2:30 PM	Break	
2:50 PM	Brief Plenary Report-out Breakout 1	
3:10 PM	Breakout 2: Table-top Exercise by Region	Joel Lisonbee, NOAA/NIDIS
4:25 PM	Plenary Close Out - Day 2	Sylvia Reeves, NOAA/NIDIS
4:30 PM	Adjourn for the Day	

Day 3: Thursday, May 4, 2023		
Time (MT)	Topic	Speaker/Moderator
8:30 AM	Welcome Back & Overview of Day 3	Sylvia Reeves, NOAA/NIDIS
Session 6: Emerging Flash Drought Science <i>This session will highlight current research and provide an opportunity for discussions of new research directions.</i> Moderator: Ronnald Leeper, Cooperative Institute for Satellite Earth System Studies (CISESS)		
8:40 AM	A Framework for Flash Drought Development and Progression	Jeff Basara, University of Oklahoma
8:55 AM	Subseasonal Flash Drought Prediction Skill in the Contiguous United States	Kyle Lesinger, Auburn University
9:10 AM	Assessing the performance of Sub-Seasonal Solar-Induced Fluorescence trajectory as an early warning system for flash droughts in the US regions and Ecosystems	Koushan Mohammadi, University of Connecticut
9:25 AM	Using the El Niño-Southern Oscillation and Madden Julian Oscillation Modes of Variability to Predict Rapid Drought Change	Emma Scott, North Carolina Institute for Climate Studies
9:40 AM	Table Brainstorm & Group Discussion	
10:30 AM	Break	
Session 7: Reflection + Forward Thinking <i>This session will synthesize our progress in meeting the priority actions identified from the 2020 Flash Drought Workshop, incorporate additional gaps and needs, and identify tangible opportunities for making progress in addressing those needs.</i> Moderators: Meredith Muth and Sylvia Reeves, NOAA/NIDIS		
10:50 AM	Synthesizing and Addressing Outstanding Needs	Meredith Muth, NOAA/NIDIS
11:50 AM	Reflections	Sylvia Reeves, NOAA/NIDIS
12:00 PM	Workshop Adjourns	