



AGENDA



Improving Sub-seasonal to Seasonal (S2S) Precipitation Forecasting

Sponsored by Western States Water Council and California Department of Water Resources

May 17 – 19, 2022

**Doubletree Downtown San Diego
1646 Front Street, San Diego**

Improving S2S precipitation forecasting would support many aspects of water management. Seasonal forecasts are crucially needed for improving drought response capacity, and drought is once again gripping much of the western U.S. Sub-seasonal forecasts support more efficient operations of water infrastructure including forecast-informed reservoir operations, which is also a climate change adaptation tool. The fingerprint of climate change in the West is becoming increasingly visible in the 21st century.

Tuesday, May 17

- 11:00** **Registration**

- 1:00** **Welcome and Opening Remarks, Workshop Background**
Tony Willardson, Western States Water Council (WSWC)
Jeanine Jones, California Department of Water Resources (CDWR)

- 1:30** **Weather Research Act Implementation**
Dave DeWitt, National Weather Service, Climate Prediction Center

- 2:15** **NOAA ESRL Statistical S2S Model, Status of Work on Dynamical Models**
Matt Switanek, NOAA Earth System Research Laboratory

- 2:45** **Break**

- 3:00** **Drought Management Uncertainties in the Upper Colorado River Basin**
Chuck Collum, Upper Colorado River Compact Commission

- 3:30** **Climate Change Implications for S2S Forecasting**
Mike Anderson, CDWR

- 4:00** **Overview & Motivation of CDWR Efforts on S2S Forecasting Improvement (drought + climate change)**
Jeanine Jones, CDWR

- 4:30** **Past, Present, and Future Drought in the Colorado River Basin**
Joe Barsugli, Cooperative Institute for Research in Environmental Sciences (CIRES)

- 5:00** **Adjourn**

Wednesday, May 18

- 8:30** **Bridging from Sub-seasonal to Seasonal Forecasts (virtual)**
Angel Muñoz, International Research Institute for Climate & Society
- 9:00** **A Changing Climate in the Klamath Basin**
Phil Mote, Oregon State University
- 9:30** **Overview of Predictability & Experimental Forecasting Work for California & the Upper Colorado River Basin**
Duane Waliser, NASA Jet Propulsion Laboratory
- 10:00** **Break**
- 10:15** **Understanding Relative Skill of Experimental S2S Forecasts**
Mike DeFlorio, UC San Diego
- 10:45** **Challenges in Predicting California Winter Precipitation**
Xianan Jiang, UC Los Angeles
- 11:15** **Atmospheric Drivers in California Precipitation Transitions**
Gudrun Magnúsdóttir, UC Irvine
- 11:45** **Lunch (on your own)**
- 1:15** **Two-stage Seasonal Forecasts including Snowpack**
Xubin Zeng, University of Arizona
- 1:45** **Evolution-centric Statistical Technique for Improving Seasonal Prediction Forecasting**
Agniv Sengupta, UC San Diego
- 2:15** **Approved NASA Proposal for S2S Forecasting**
Agniv Sengupta, UC San Diego
- 2:45** **Lower Colorado River Basin Perspective of Forecasting Needs**
Seth Shanahan, Southern Nevada Water Authority
- 3:15** **Break**
- 3:30** **Potential for Incorporating S2S Forecasting in USBR Colorado River Basin Modeling**
Sarah Baker, US Bureau of Reclamation
- 4:00** **Challenges with Applying S2S Forecasting at Colorado Basin River Forecast Center**
John Lhotak, National Weather Service, Colorado Basin River Forecast Center
- 4:30** **Adjourn**
- 5:00** **Social Hour**

Thursday, May 19th

- 8:00** **Forecast-Improved Reservoir Operations & S2S Forecasting**
Cary Talbot, US Army Corps of Engineers, Engineer Research & Development Center
- 8:30** **S2S Weather Regime Prediction (virtual)**
Andy Robertson, International Research Institute for Climate & Society
- 9:00** **Texas Water Development Board Experience with Summer Precipitation Forecasts, and a Pending Texas FIRO Project (virtual)**
Nelun Fernando, Texas Water Development Board
- 9:30** **CPC's Experimental Water Year Outlook Tool**
Emerson LaJoie, National Oceanic and Atmospheric Administration
- 10:00** Break
- 10:15** **FIRO at Lake Mendocino, Benefits of Better Forecasting**
Jay Jasperse, Sonoma Water
- 10:45** **S2S Precipitation Forecasts & Snowmelt Runoff Forecasting**
Dave Rizzardo, CDWR
- 11:15** **Overview of S2S Funding Sources/Needs**
- 11:45** **Adjourn**
- 12:00** **Wrap-up**