

9th Annual FIRO Workshop – Draft Agenda

August 2-4, 2022

Seaside Forum

Scripps Institution of Oceanography, La Jolla, CA

Remote option available, with 'listen only' mode for non-speaking attendees
(web link provided when registering for the online event)

Date/Time	Agenda Item
Tuesday, August 2nd - 9AM-Noon Location: Ted Scripps Room	
09:00 - 10:00	Pre-workshop Side Meetings (invitation only) FIRO2.0 Committee - Joe Forbis and Cary Talbot, Co-chairs, USACE
10:00 - 12:00	FIRO-MAR- Duncan Axisa, Center for Western Weather and Water Extremes (CW3E) and Jim Wieking, California Dept. of Water Resources (DWR)
Tuesday, August 2nd - 1 PM-5PM Location: Seaside Forum (Ted Scripps overflow room if necessary)	
1:00-1:15	Opening Session - Remarks from FIRO Workshop Steering Committee Marty Ralph, Director, Center for Western Weather and Water Extremes Cary Talbot, USACE ERDC
1:15-1:35	Keynote Speaker Karla Nemeth, Director, California Department of Water Resources
1:35-1:45	Questions and Discussion
1:45-3:15	FIRO Project Updates (Moderator: Duncan Axisa, CW3E) <i>Russian River</i> - Don Seymour, Sonoma Water <i>Prado Dam</i> - Greg Woodside, Orange County Water District <i>Yuba-Feather</i> - John James, Yuba Water and John Leahigh, CA DWR <i>Howard Hanson</i> - Kevin Shaffer, USACE ; Greg Volkhardt, Tacoma Water
3:15-3:30	<i>Break</i>
3:30-4:50	Applying Climate Change Science to FIRO (Moderator: Julie Kalansky, CW3E) <i>Speakers will provide a high-level overview of climate science as it relates to FIRO. Panelists will address this question: How can climate change be incorporated into FIRO?</i> Scott Steinschneider, Cornell University (speaker) Mike Sierks, CW3E (speaker) Mike Dettinger, CW3E (panelist) Karla Nemeth, CA DWR (panelist) John Leahigh, CA DWR (panelist) Sean Smith, USACE (panelist)
4:50-5:00	Wrap Up and Poster Preview
5:00-7:00	Posters and Reception - <i>Seaside Forum and Lawn</i>

Wednesday, August 3 Location: Seaside Forum

8:45-9:05	Keynote Speaker Sean Smith, USACE, Principal H&H and Coastal Community of Practice Leader
9:05-9:15	Questions/Discussion
9:15-10:45	Integration of FIRO and Water Control Plans (Moderator: Elissa Yeates, USACE) <i>This session will discuss: How can FIRO and Water Control Manual Updates be Effectively Integrated?</i> <i>Adaptive WCM Concepts</i> - Rob Hartman, RK Hartman Consulting <i>Fundamentals of Integrating FIRO into WCMs</i> - Joe Forbis, USACE <i>Yuba Feather WCM Update</i> - Jennifer Fromm, USACE <i>Lake Mendocino WCM Update</i> - Nicholas Malasavage, USACE <i>Decision Support Tools Needed for FIRO Integration</i> - Chris Delaney, CW3E
10:45-11:00	Break
11:00-12:00	FIRO Screening Process (Moderator: Elissa Yeates, USACE ERDC) - <i>This session will discuss: Which reservoirs may be suitable for FIRO in California and beyond?</i> Angela Hogan, USACE Los Angeles District Jenny Fromm, USACE Sacramento District Patrick Sing, USACE San Francisco District Nabil Shafike, USACE Albuquerque District
12:00-1:00	Lunch
1:00-2:30	Reducing Precipitation Forecast Uncertainty - Progress and Future Directions (Moderator: Jay Cordeira, CW3E) <i>Summary of "A Report on Priorities for Weather Research (2021)"</i> Marty Ralph, CW3E <i>Current State of QPF Skill Across Season and Region in the US</i> Brian Hurley, NWS Water Prediction Center <i>Advances in Precipitation Forecast Accuracy Supported by Atmospheric River Reconnaissance: Progress & Future Directions</i> Anna Wilson, CW3E <i>CW3E's Forecast Verification Program</i> Rachel Weihs, CW3E
2:30-2:45	Break
2:45-4:15	Improving Inflow Forecasts - Progress on Hydrologic Forecasting (Moderator: Alan Haynes, NOAA NWS CNRFC) <i>National Water Model</i> - Ed Clark, NOAA National Water Center <i>WRF-Hydro</i> - Ming Pan, CW3E <i>GSSHA</i> - Steve Turnbull, USACE ERDC <i>HEFS</i> - Alan Haynes, NOAA
4:15-4:30	Wrap Up
5:00-7:00	9th CW3E Anniversary Celebration - Ballast Point Brewery

Thursday, August 4 - AM Location: Seaside Forum (Robert Scripps overflow room if necessary)	
9:00-9:15	Keynote Speaker Steven LaMar, Board of Directors and Past President, Assoc. of CA Water Agencies and Director, Irvine Ranch Water District
9:15-9:30	Questions/Discussion
9:30-10:45	FloodMAR + FIRO = FIROMAR: What are the Integration Opportunities? (Moderator: Adam Hutchinson) <i>FIRO and AR Program Perspective</i> Mike Anderson, CA DWR <i>USACE FIRO-MAR Operational Perspective</i> Joe Forbis, USACE <i>Merced Flood-MAR study - Technical Aspects</i> David Arrate, CA DWR <i>San Joaquin Basin Watershed Studies - Objectives and Schedule</i> Jim Wieking, CA DWR
10:45-11:00	<i>Break</i>
11:00-Noon	Future Directions for FIRO (Moderator: Arleen O'Donnell, ERG/CW3E) <i>This panel will share take-aways from the workshop and kick-off an open discussion on future FIRO opportunities and challenges.</i> Marty Ralph, CW3E Don Seymour, Sonoma Water Greg Woodside, Orange County Water District John James, Yuba Water John Leahigh, CA DWR Greg Volkhardt, Tacoma Water Cary Talbot, USACE ERDC Mike Anderson, CA DWR
Noon	Workshop Ends
Thursday, August 4 - PM	
12:00-1:00	Post-Workshop Side Meetings (invitation only) Water Affiliates Group (WAG) Luncheon - <i>Ted Scripps Room</i>
1:00-3:00	Requirements for hindcasts (reanalyses and reforecasts) to assess risks in the implementation forecast informed reservoir operations* - <i>Seaside Forum</i> Led by Robin Webb, NOAA OAR

*This session will help define the requirements for the NOAA multidecadal state-of-art coupled high-resolution reanalysis and hindcast datasets of atmospheric forcings for hydrologic modeling-based risk assessments in modernizing flood control/water supply management. The goal is to provide a comprehensive set of requirements in terms of temporal and spatial resolution, number of years, and hydrometeorological variables for hindcast to assess risk of catastrophic infrastructure failure.