

11th Annual FIRO Workshop – Agenda

August 6-8, 2024

Forecast Informed Reservoir Operations – 11th Annual Workshop
Center for Western Weather and Water Extremes
Scripps Institution of Oceanography, U.C. San Diego - La Jolla, CA
Seaside Forum

Workshop Objectives:

- **Grow FIRO from Pilot Projects to National Scale**
- **Facilitate FIRO Operational Integration**
- **Share Lessons Learned for Strengthening FIRO Research And Operations Partnership**

Date/Time	Agenda Item
Tuesday, August 6 - Scripps Seaside Forum Complex	
10:00-12:00	<p>FIRO 101 (Joe Forbis, USACE ERDC) - Ted Scripps Meeting Room 165</p> <p>Environmental Justice and FIRO (Tom Corringham, CW3E) - Buzzelli Loeb Meeting Room 155</p>
Tuesday, August 6 - Scripps Seaside Forum	
12:30-1:00	Check in and Light Refreshments
1:00-1:15	<p>Opening Remarks (Moderator: Arleen O’Donnell, ERG)</p> <p>Marty Ralph, Director, Center for Western Weather and Water Extremes and Chief Scientist, FIRO Phase III, the National Expansion Pathfinder</p>
1:15-1:35	FIRO Phase 3 National Expansion Pathfinder (Cary Talbot, National Lead, FIRO Program, USACE Engineer Research and Development Center)
1:35-1:50	USACE: Division-Level Operations Perspective (COL Michael Baim, Deputy Commander,) USACE South Pacific Division)
1:50-2:15	USACE: H&H / Water Management Operations Perspective (Cuong Ly, USACE South Pacific Division and Steve Barton, USACE Northwestern Division)
2:15-2:35	Future Research Directions to Enable FIRO (Marty Ralph, CW3E)
2:35-3:00	National FIRO Engagement Strategy (Ed Clark, NOAA/NWS, Director, National Water Center and Deputy Director, Office of Water Prediction and Sean Smith, USACE, Principal H&H Engineer, Headquarters)

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3:00-3:30	Break
3:30-5:00	FIRO and WCM Updates (Moderator: Joe Forbis, Water Management Integration Lead, USACE ERDC) <ul style="list-style-type: none"> • Paradigm Shift: Challenges and Opportunities – Joe Forbis, USACE ERDC • WCM Case Studies – Jenny Fromm, USACE Sacramento District • National FIRO Screening Process – Elissa Yeates, USACE ERDC
5:00-7:00	Reception and Posters – <i>Seaside Forum and Lawn</i>
Wednesday, August 7 - Scripps Seaside Forum Complex	
8:00-8:30	Coffee and Conversation – <i>Continental Breakfast Provided</i>
8:30-8:45	Welcome and Keynote Speaker Introduction: Marty Ralph, CW3E
8:45-9:00	Keynote Speaker: Karla Nemeth, Director, California Department of Water Resources
9:00-10:30	Enabling FIRO in Reservoir Operations Modeling (Moderator: Jay Jasperse, Sonoma Water and CW3E) <ul style="list-style-type: none"> • Evaluating FIRO WCP Alternatives – Rob Hartman, RK Hartman Consulting • Ensemble Forecasting: Strategies, Benefits, and Future Directions – Erfan Goharian, CW3E • Synthetic Ensembles for FIRO Assessments – Scott Steinschneider, Cornell University
10:30-10:45	Break
10:45-12:00	Breakout Sessions - Part I <p>Topic 1: FIRO as a Climate Adaptation Strategy (Moderator: Jay Jasperse, Sonoma Water and CW3E) Speakers: Romain Maendly, California DWR; Julie Kalansky and Mahdi Erfani, CW3E; Mike Warner, USACE Seattle District</p> <p>Topic 2: Modeling Session - HEC Enhancements of CWMS, HEC WAT (Moderator: Joe Forbis, ERDC) Speakers: Beth Faber and Simon Evans, USACE HEC</p> <p>Topic 3: Update on NWS Hydrology Program Process and Vision (Moderator: Alan Haynes, NOAA/NWS California Nevada River Forecast Center) Speakers: Ed Clark, NOAA/NWS/National Water Center; Jeff Zimmerman, NOAA/NWS/Office of Water Prediction</p>
12:00-1:30	Lunch - <i>Provided</i>

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1:30-3:00	<p>Improving Observations, Forecast Skill and Forecast Tools (Moderator: Rachel Weihs, CW3E)</p> <ul style="list-style-type: none"> ● Forecast Skill Assessment for National FIRO Screening Process – Jay Cordeira, CW3E ● Importance of Strengthening Observational Networks – Anna Wilson, CW3E ● Forecast Tools for Situational Awareness in FIRO – Chad Hecht, CW3E
3:00-3:30	Break
3:30-5:00	<p>Breakout Sessions - Part II</p> <p>Topic 1: Precipitation Forecast Improvements – NCEP and CW3E (Moderator: Jay Cordeira, CW3E) Speakers: Brian Hurley, DOC/NOAA/NWS Weather Prediction Center; Luca Delle Monache, CW3E</p> <p>Topic 2: Lessons Learned from FIRO Pilot Projects (Moderator: Duncan Axisa, CW3E) Facilitated Discussion</p> <p>Topic 3: RFC Capacity Needs to Meet FIRO Demands (Moderator: Taylor Dixon, CW3E) Speakers: Alan Haynes and Brett Whitin, NOAA/NWS California-Nevada RFC; John Lhotak, NOAA/NWS Colorado Basin RFC; Stephen King, NOAA/NWS Northwest RFC</p>
Thursday, August 8 - Scripps Seaside Forum	
8:30-9:00	Coffee and Conversation – <i>Continental Breakfast Provided</i>
9:00-10:30	<p>Partner- and State-led FIRO (Moderator: Arleen O’Donnell, ERG)</p> <ul style="list-style-type: none"> ● Truckee River Watershed - Kara DiFrancesco, U.S. Bureau of Reclamation ● American River Watershed - Gary Bardini, Sacramento Area Flood Control Agency ● California DWR's FIRO Strategic Plan - Mike Anderson, California Department of Water Resources
10:30-10:45	Break
10:45-11:45	Key Take-Aways from Breakout Sessions
11:45-12:00	Closing Comments and Adjourn (Marty Ralph, CW3E and Cary Talbot, USACE ERDC)