

## 8<sup>th</sup> ANNUAL FIRO WORKSHOP – DRAFT AGENDA

October 12-14, 2021

Seaside Forum (with virtual option) Scripps Institution of Oceanography, La Jolla, CA

Date/Time	Agenda Item
Tuesday, October 12	
Morning	Side Meetings as Planned
1:00-1:15	Opening Session
1:15-1:30	Keynote 1 (Karla Nemeth or Sean Smith, invited)
1:30-1:40	Questions/Discussion
1:40-3:00	FIRO Project Updates
3:00-3:20	Break
3:20-4:50	FIRO as a Climate Resiliency Strategy
4:50-5:00	Wrap Up
5:30-7:30	CW3E Celebration - Stone Brewery (tentative)
Wednesday, October 13	
8:45-9:00	Keynote 2 (Karla Nemeth or Sean Smith, invited)
9:00-9:10	Questions/Discussion
9:10-10:30	FIRO Science & Technology - Advancements to Date (1)
10:30-10:50	Break
10:50-12:00	FIRO Science & Technology - Advancements to Date (2)
12:00-1:00	Lunch
1:00-2:15	Expanding FIRO – Fast and Careful?
2:15-2:30	Break
2:30-4:00	FIRO and Water Control Manual Updates
4:00-4:15	Wrap up
4:15-6:00	Posters and Reception (Seaside Forum)
Thursday, October 14	
8:45-9:00	Keynote 3 (TBD)
9:00-9:10	Questions/Discussion
9:10-10:30	FIRO Science & Technology - Innovations
10:30-10:50	Break
10:50-12:00	Open Discussion - Lessons Learned
12:00-1:00	Lunch break (on your own)
1:00-5:00	Side Meetings as Planned



FIRO Project Update

• Share project progress including status, accomplishments, upcoming milestones, challenges, findings, needs. Includes: Prado Dam, Lake Mendocino, Yuba-Feather and possibly Howard Hansen and Seven Oaks Dam.

FIRO as a Climate Resiliency Strategy (science and policy)

- How do projected future storm/flood regimes compare to the historical and synthetic "stress tests" that are being used to evaluate FIRO viability and safety?
- How might long-term hydrologic responses to climate change influence the benefits and risks estimated from FIRO implementation?
- How might take into account climate change in FIRO viability assessments?

FIRO Science & Technology - Advancements to date

• What major science advancements to date have most benefited FIRO? These include improved physical understanding of atmospheric rivers (ARs), AR reconnaissance and data assimilation, West-WRF and probabilistic forecast products.

Expanding FIRO – Fast and Careful?

- Demand for FIRO expansion is high, but experience at the pilot sites has shown that each reservoir is unique, and implementing FIRO requires careful consideration. How do we expand the program to meet demand and to bring FIRO benefits everywhere possible, while balancing the need for rigor and care?
- What's the plan for FIRO screening level assessments?
- Can FIRO be viable in locations that are not dominated by atmospheric rivers?.

FIRO and Water Control Manual Updates

- How can FIRO and the Water Control Manual (WCM) updates be most effectively integrated? Aspects to be discussed include alignment of timing, studies, modeling, data needs, and analysis.
- What FIRO concepts can be applied towards an adaptive management approach as forecast skill improves?
- How can the process work for triggering incremental improvements?

FIRO Science & Technology - Innovations

- What novel science work has progressed to the point that it could potentially be applied to FIRO in the future?
- What science advancements have made progress but have not been applied to FIRO to date? How can these help advance FIRO? These include machine learning, synthetic forecasts, and sub-seasonal to seasonal prediction.