

Final FIRO Science Task Group Workshop Agenda
May 30-31, 2017
NOAA Earth System Research Laboratory Building 33
325 Broadway, Boulder, CO 80305

<https://www.gotomeet.me/PSDIT>

Calling in by phone: (1) (224) 501-3412, Access Code: 566-865-597

Security Requirements - Foreign national visitors should email or call Madeline Sturgill at 303.497.5223 (madeline.sturgill@noaa.gov) as soon as possible. Green card holders must bring their Original Green Card (photo copies will not be accepted). Attendees who hold a DOC CAC card can enter the site without stopping at the Visitor Center. Other attendees must stop at the Visitor Center to receive a visitor badge.

Lunch Orders: Please respond to lunch order request; see emails from Madeline Sturgill Sent 5/17 and 5/18; contact her if you need more information 303.497.5223 (madeline.sturgill@noaa.gov).

Workshop Objectives

- Share scientific research (both short-term and longer-term horizons) contributing to Forecast Informed Reservoir Operations
- Take stock of progress to date on Lake Mendocino FIRO Preliminary Viability Assessment (PVA) and discuss transition to Final Viability Assessment
- Discuss related matters and opportunities

AGENDA

Day One: Tuesday May 30th

8:30-9:00 Arrival/Coffee

9:00-9:40 Framing the Discussion

- Introductions and workshop objectives (10 min)
- Results from Lake Mendocino FIRO Preliminary Viability Assessment and the role of science (20 min)
- Final viability framework and where science fits in (10 min)

9:40-10:45 **Presentations from NOAA ESRL** (introduced by Robin Webb)

Matt Newman, NOAA ESRL - Skillful seasonal forecasts from model-based analogs

Andrew Hoell, NOAA ESRL - Reliability of West Coast extreme precipitation events as drought busters

Kelly Mahoney, NOAA ESRL - A 21st century HRRR-based approach to estimating probable maximum precipitation to enhance dam safety and community resilience

10:45-11:00 Break

11:00-12:15 **Atmospheric Rivers** (Introduced by Marty Ralph)

Marty Ralph, CW3E Atmospheric rivers: scale and categories

Mike Dettinger, USGS - How large do atmospheric rivers get in Northern California?

Michael Scheuerer, NOAA ESRL - Using GEFS ensemble forecasts for decision making in reservoir management in California

12:15-1:00 PM Lunch (cafeteria)

1-2:30 PM **Observations and Forecasting** (Introduced by Marty Ralph)

Anna Wilson, CW3E – Observations of land-falling atmospheric rivers in Northern California during early 2017

Stan Benjamin, NOAA ESRL - Experimental and operational RAP and HRRR forecasting of West Coast extreme precipitation events

Maryam Asgari-lamjiri, CW3E - Validation of SMAP soil moisture products in central and northern California using in-situ observations

2:30-2:45 Break

2:45-4:15 **Observations and Forecasting, continued**

Marty Ralph, CW3E - Atmospheric river reconnaissance

Anna Wilson (for Andy Martin, CW3E) -Meso-scale frontal waves

Ken Nowak, US Bureau of Reclamation - Sub-seasonal climate forecasting competition: evaluation and results

4:15-4:30 Discussion

4:30 Wrap-up

Day Two: Wednesday, May 31st

8:00-8:30 Arrival/Coffee

8:30-9:00 Opening remarks

9:00-10:45 **Hydrologic Observations, Forecasting and Modeling** (Introduced by Cary Talbot)

Bob Zamora, NOAA ESRL - Evaluating full physics and conceptual hydrological model soil moisture simulations with observations

Brian Henn, CW3E - Framework for assessing sensitivity of Lake Mendocino inflow simulations to high-resolution precipitation forecasts

Chuck Downer and Stephen Turnbull, USACE ERDC - FIRO Russian River distributed hydrologic modeling using GSSHA

Chuck Downer and Stephen Turnbull, USACE ERDC - Watershed and groundwater modeling data collection to support distributed hydrologic modeling

10:45-11:00 Break

11:00-Noon **Hydrologic Observations, Forecasting and Modeling, continued**

Rich Niswonger and Lorrie Flint, USGS – Infiltration sliding scale based on soil type- looking to synch with MS4 standards

Andy Wood, NCAR – Report on joint USBR, USACE and NCAR project: “Over the loop” stream-flow forecast system

Lynn Johnson, NOAA ESRL - Russian River Modeling: a) Real-time flash flood forecasting prototype, b) Assessment of Lake Mendocino Reservoir operating rules using coupled optimization and simulation models

Noon-12:45 PM Lunch (cafeteria)

12:45 -1:45 Looking Back/Looking Ahead

- Progress to date
- Thoughts about FIRO science priorities for next 3 years
- Ideas on what needs to be done/who needs to be involved
- Planning for FIRO workshop

1:45-2:00 Other thoughts, collaboration ideas

2:00 Adjourn

2:00-4:00 Time for Side Meetings / Networking

