

# FIRO Research Activities

- **Scripps/CW3E (Marty Ralph):** requirements development, forecast evaluations, survey and advance AR science, case studies, forecast error source identification, West-WRF model development, field data collection
- **USACE (Cary, others at USACE):** preliminary viability assessment activities at HEC, GSSHA, water quality and decision science modeling.
- **NOAA Fisheries (Pat Rutten, Josh Fuller, Natalie Manning):** Salmonids and FIRO, habitat blueprint activities.
- **NOAA OAR (Robin Webb):** forecasting dry periods, better precipitation observation info; better 0-12-hr forecasts of heavy precipitation (AQPI), habitat blueprint.
- **USGS (Mike Dettinger, Lorrie and Alan Flint):** AR hydrologic impacts diagnostics, hydrologic modeling studies, precipitation gage network design.
- **DWR (Mike Anderson, Jeanine Jones):** AR monitoring, AR landfall prediction method development, subseasonal to seasonal AR outlook development
- **USBR (Levi Brekke):** Potential sources of skill to inform Subseasonal to Seasonal AR outlooks

# Scripps/CW3E FIRO Science Tasks - FY 2016

PI: F.M. Ralph

- Task 2: Requirements development (**Dave Reynolds, Marty Ralph**)
- Task 3: Evaluation of past performance, including case studies of recent events (**Scott Sellers**)
- Task 4: Synthesize and advance atmospheric river science (**Sam Iacobellus, Marty Ralph**)
- Task 5: Develop tailored weather model - “West-WRF” - optimized for FIRO (**Andrew Martin**)

# FIRO Science Task Group - Members

- **Marty Ralph group co-lead (Scripps)**
- **Cary Talbot group co-lead (USACE/ERDC)**
- Mike Anderson (DWR)
- David Boughton (NOAA)
- Levi Brekke (USBR)
- Mike Dettinger (USGS)
- Alan Flint (USGS)
- Lorrie Flint (USGS)
- Josh Fuller (NOAA)
- Pat Rutten (NOAA)
- Robin Webb (NOAA)