

Observing and Detecting ARs and its Application to Water Management in California

Michael Anderson¹, Allen White², Michael Dettinger³

¹California Department of Water Resources, 3310 El Camino Avenue Room 200, Sacramento, CA
95821, (916) 574-2830

²NOAA Earth System Research Laboratory, Boulder, CO

³US Geological Survey, 2730 N Deer Run Road, Carson City, NV 89701

Recent research has illustrated how important a handful of storms are to California's water year outcomes both for supply and flood management. These storms have been tied to atmospheric river (AR) events. Interannual and decadal scale variability has also been tied to the number, strength, and character of AR events. As the State moves further in its effort toward integrated water management, there is a growing need to understand, observe, and detect atmospheric river conditions. To that end, California has invested in a network of new observations designed to identify, track, and characterize atmospheric river events making landfall in California. This talk will review the components of that network, and present avenues for incorporating the observations into water management planning and operational activities that make up integrated water management. Next steps on this path that identify observation gaps, explore opportunities for expanding and adding to the network, and managing operations and maintenance costs will be identified as well.