



Congressional Staff Briefing Summary

“A New Frontier in Water Operations: Atmospheric Rivers, Subseasonal-to-Seasonal Predictions and Weather Forecasting Technology”

July 13, 2016

OVERVIEW

An interagency, cross-disciplinary team of experts recently convened in Washington to provide Congressional staff with a briefing on atmospheric rivers, subseasonal-to-seasonal precipitation prediction needs, and the benefits of enhanced predictive forecasting technology to the future of water management.

Attendees heard from a diverse panel of experts representing a broad spectrum of perspectives, including government engagement by the **National Weather Service** and the **U.S. Army Corps of Engineers**, scientific findings presented by the **Scripps Institution of Oceanography**, and regional impacts to stakeholders represented by the **Western States Water Council**.

COMMON THEMES AND KEY TAKEAWAYS

There was broad consensus among panelists on the following themes:

- The Western United States has the largest year-to-year precipitation variability in the nation.
- Atmospheric Rivers drive **both** droughts and floods; they are the primary determining factors for rainfall levels in much of the West.
- Water decisions across the region can benefit from longer lead time information on precipitation from days to weeks to seasons in advance.
- Forecasting enables prudent planning and adaptable operation so water managers are better positioned to maximize water supply while maintaining public safety.
- Enhanced forecasts of atmospheric rivers offer the potential to improve reservoir management by helping to conserve water during drought and to inform proactive water releases in advance of potential flooding during extreme weather events.



*L to R: Shirlee Zane, F. Martin Ralph,
Louis Uccellini, Jeanine Jones, Cary Talbot.
(See next page for titles and affiliations.)*

- The U.S. Army Corps of Engineers (Corps) is working with partners to explore how atmospheric river forecasting could help enhance water management.
- Bipartisan legislative proposals pending in Congress would direct the Corps to review reservoir operations manuals to incorporate present-day scientific data and technological advances in weather prediction.
- Continued federal government funding is needed for the research and implementation of atmospheric river prediction and water management.

PANELISTS AND PRESENTATIONS



Dr. Louis W. Uccellini is Assistant Administrator for Weather Services, National Oceanic and Atmospheric Administration (NOAA), and Director, National Weather Service. His presentation may be found [\[HERE\]](#).



Dr. Cary Talbot is the Program Manager, Engineer Research and Development Center, U.S. Army Corps of Engineers. His presentation may be found [\[HERE\]](#).



Ms. Jeanine Jones serves as the Secretary-Treasurer of the Western States Water Council. Her presentation may be found [\[HERE\]](#) .



Dr. F. Martin Ralph, Director of the Center for Western Weather and Water Extremes, UCSD / Scripps Institution of Oceanography. His presentation may be found [\[HERE\]](#) .

MODERATOR: Ms. Shirlee Zane serves on the Sonoma County Board of Supervisors and is a Director of the Sonoma County Water Agency.



FOR ADDITIONAL INFORMATION

If you are interested in additional information or have questions about the briefing, please contact Brad Sherwood, Community and Government Affairs Manager, Sonoma County Water Agency, at (707) 547-1927 or brad.sherwood@scwa.ca.gov.

Presentations may also be accessed at <http://www.westernstateswater.org/seasonal-forecasting-wswc-workshops-and-materials>.