Summary of Day 1 Needs

NOAA's NIDIS Drought Forum
Sacramento, CA
May 16, 2014

Water Utilities

- Improved understanding of regional drought hydrology
- Better information and forecasts - for State Project; August 15 Pale Verde decision; rain, snow and temp not only for California but Colorado River Basin
- Narrowing of forecast uncertainty - Currently look at entire spectrum of outcomes with equal possibility and could use a narrowed down conditional probability
- Estimate historical climate through tree ring analysis
- Develop regionally appropriate drought indicators and actionable measures to respond to drought conditions
- Better Prediction of Atmospheric Rivers
- Need scientific foundation of best available information to guide water management
- Facilitate Coordination of Federal Agencies and Reservoir
- Hard to connect reservoir levels to groundwater and water quality issues
- Small systems on surface water have less usage
- Improved awareness of and collaboration on grant opportunities esp for Smaller
- Lack of Information on local drought conditions and access to information on state response and assistance
- Infrastructure is a major challenge to maintain for small systems with aging infrastructure and inefficient wells and pumps requiring more water
- Lack of metering contributes to incomplete records of water usage and accounting for water losses

Agriculture

- Changing rules, law, and policy around water are affecting decision makers
- Improved information or forecasts not readily translatable to improved decision making
- Challenging year for agriculture
  - $3B in direct costs for lost citrus
  - Lack of feed availability for cattle
- Conservation alone won't solve problem
- Many farmers skeptical of climate change
- Growers need like better tools to help predict irrigation needs, both on a daily/weekly level as well for the season.
- Growers need better tools to help knowing how much water to apply when – need to help growers calculate those ETCs on a weekly basis
- Better access to evapotranspiration, evaporation, and an atmospheric water vapor information
- Main issue is how to communicate changes in variability or trends as variability is the nature of their business
- Leverage various audit tools to promote water/energy savings
- Greater Marketing such as sector based marketing materials for Water Agencies, Agriculture, Industrial, and Food Processing industries for targeted promotions

Tribes

- Communication Challenge: indicator to depict drought conditions due to limited imported water supplies even when local precipitation is great than average
- Advanced knowledge of Colorado River allocation reductions will improve efficiency and economic decisions
- Use of traditional ecological knowledge in decision making
- Cultural impacts on both ceremonial and way of life
- Many water contract decisions made a year in advance so need annual outlook
- Water not as a commodity but part of life/right

Natural Resources, Energy, and Recreation

- CA DFW engaged with NWS this year and is dependent on forecasting
- Strong need for forecasts on next year
- USFS very engaged with climate adaptation and climate science based management
- USFS needs data and prediction for post fire recovery efforts
- Analysis of climate change model results to better understand possible future extremes
- PG&E needs for data and forecasting for public safety and water management. Depends on California data sets through DWR and CalFire