State Water Resource Planning for Climate Change Resilience

Jeanine Jones, Western States Water Council

WSWC Position 384, updated 10/2015
Two Excerpts

- State primacy is fundamental to a sustainable water future. Federal water planning, policy development, regulation, protection, and management must recognize, defer to, and support state water laws, plans, policies, programs, water rights administration, adjudication and regulation, compacts and settlements. Rather than attempt to dictate water policy, the federal government should engage states early in meaningful consultation and contribute its fair share of funding to support implementation of state water planning and management, thus avoiding, or at least minimizing, the need for federal regulatory mandates.
- All levels of government must prioritize the collection, analysis and open sharing of reliable data regarding water availability, quality, and usage given its importance to research for sound science and data driven decision making

Thoughts About Planning

- Eisenhower: “Plans are worthless, but planning is everything”
- Learn from past experience with federally funded template plans that failed, e.g. state drought plans (DOI:10.1175/BAMS-D-13-00067.1)
- Plans only make sense relative to the legal framework, priorities, and resources of individual states
- Time horizons must be relevant to the resource management issues of interest
- Planning requires a foundation on data

Needs/Gaps from State Perspective

- Data!
- Data!
- Data!
- For ongoing monitoring of present conditions as well as to support adaptation

WESTERN STATES WATER COUNCIL
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November 5, 2015

Ms. Ann Mills, Deputy Under Secretary
Natural Resources and Environment
Department of Agriculture
1400 Independence Avenue SW, Room 240-E
Washington, DC 20250-9821

sent via email: ann.mills@osec.usda.gov

Dear Ann,

On behalf of the Western States Water Council, I am writing to express our concern regarding the current staffing level at the National Water and Climate Center (NWCC) in Portland, Oregon under the Natural Resources Conservation Service (NRCS). The Council has long been a strong supporter of the NWCC, given its critical mission of monitoring the accumulation of snow (or lack thereof) and accurately projecting expected spring/summer runoff. In response to inquiries regarding the program, we have learned that out of nineteen current positions, six are vacant, and three more if not now will be soon. Apparently, hiring practices have not allowed NWCC to fill vacancies in a timely manner.

A fully staffed NWCC should be a priority, particularly given the continuing drought afflicting much of the West, and the potential effects of a strong El Niño. Accurate and timely water supply forecasts will be even more critical this year. As you know much of the water supply in the West upon which we rely for municipal, industrial, agricultural, environmental and other uses first falls as winter snows that melt out in the spring, feeding our rivers, streams, wetlands and aquifers.

NWCC's snow survey and water supply forecasting capabilities are vital in measuring, monitoring and forecasting seasonal water supplies. The NWCC provides state-by-state and basinwide snowpack reports, monthly spring/summer runoff projections, and current reservoir storage levels. Moreover, it provides soil moisture information important not only to farmers and ranchers, but emergency managers assessing the potential for flooding, through its Soil and Climate Analysis Network (SCAN). NWCC provides the data analyses and reporting functions for a westwide system of some 856 automated SNOTEL sites, 1,112 manual snow courses and 219 SCAN sites.

October 1 is the beginning of the new water year, and without the NWCC staff necessary to collect, analyze and prepare the reports upon which our western states depend, many of our members will be faced with greater uncertainty in making decisions related to water rights administration and water supply allocation, including administration of interstate compacts and international treaties. Further, myriad public and private decisionmakers at all levels will lack the data and exceptional services, provided by the NWCC staff, which have become crucial to water managers and water users.

We would appreciate your prompt attention to this matter and consideration of our concerns. If you have any questions, please feel free to contact us.

Sincerely,

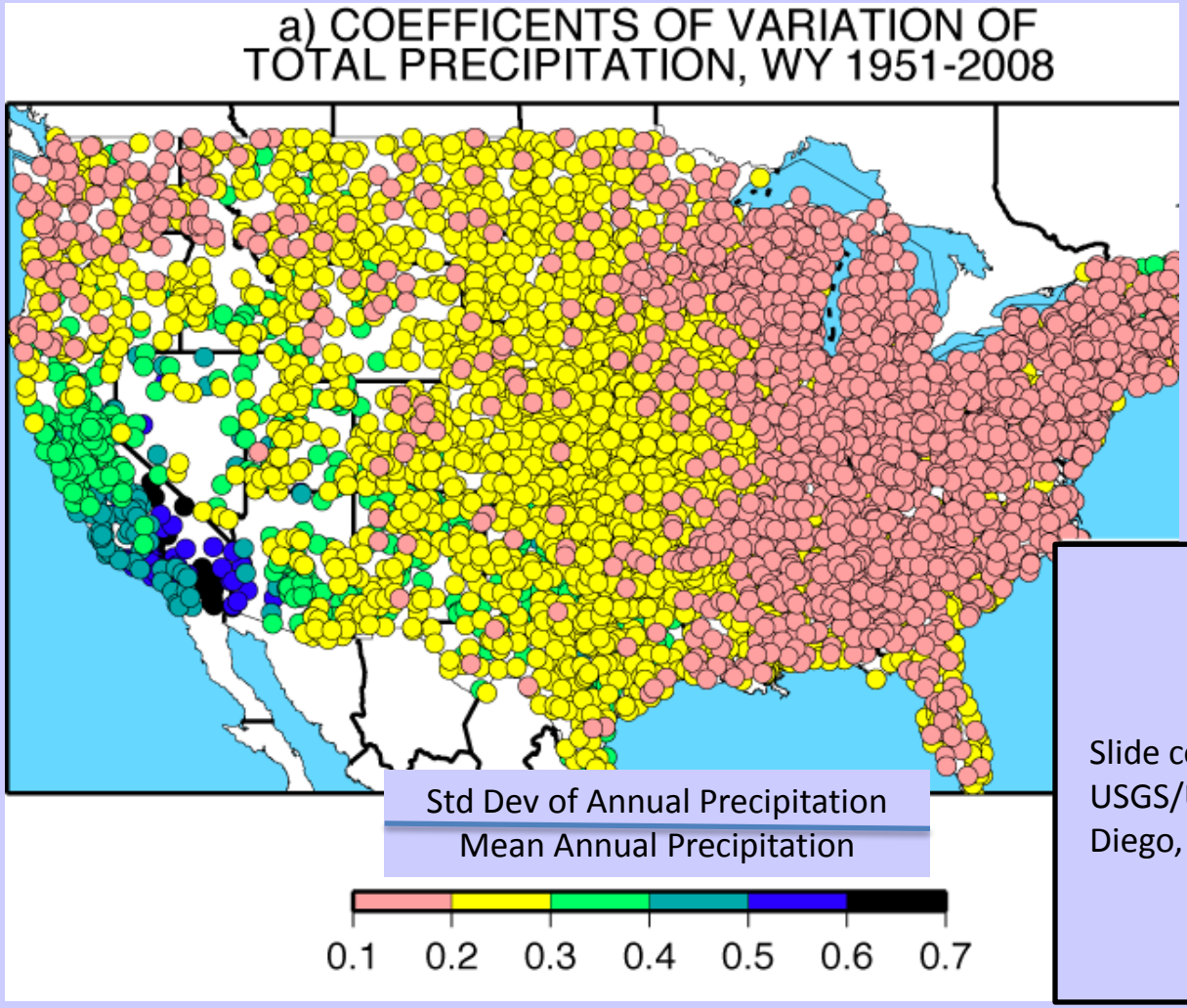
Patrick T. Tyrrell
Chairman

Tony Willardson
Executive Director

cc: Jason Weller, Chief, NRCS

Attachments

Variability of Western Precipitation



Slide courtesy of Mike Dettinger, USGS/University of California San Diego, Scripps

http://www.nws.noaa.gov/om/coop/coopmod.htm

Need to Modernize the Coop

The sensitivity of our nation's citizenry, property, and economy to damaging weather and climate anomalies continues to grow as does its population and economy. Stories of disastrous weather and climate related impacts at the local, regional, and even national levels are all to frequent. In recent years, floods have been documented to cost the nation hundreds of lives and billions in property damage. Ironically, at the same time, devastating droughts have decimated regional and local economies with tens of billions in property damage, lost wages, and reduced productivity. Snowstorms have paralyzed some states for days, resulting in loss of life, economic productivity, and many other socio-economic hardships. Great swings in temperature-related heating requirements between the mild winter of 1999-2000 and the cold winter of 2000 inflicted hardship on heating customers, affecting the nation's economy.

Such disasters require government assistance through mitigation and corporate risk management. The decision-making process currently relies on an airport surface observation network. To better support efforts to reduce impacts and manage risks, we must modernize our nation's ability to monitor weather and climate with greater resolution and frequency.

Modernization of the Coop network has been formally recommended as a high national priority by the following groups:

NWS (1993)

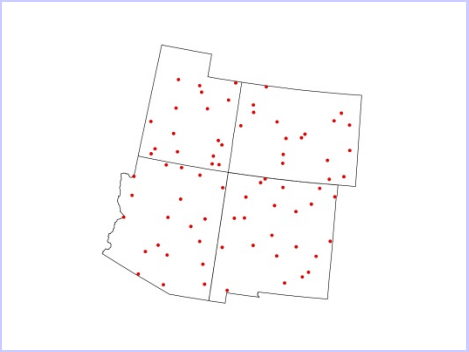
National Research Council (1998)

American Association of State Climatologists (1999)

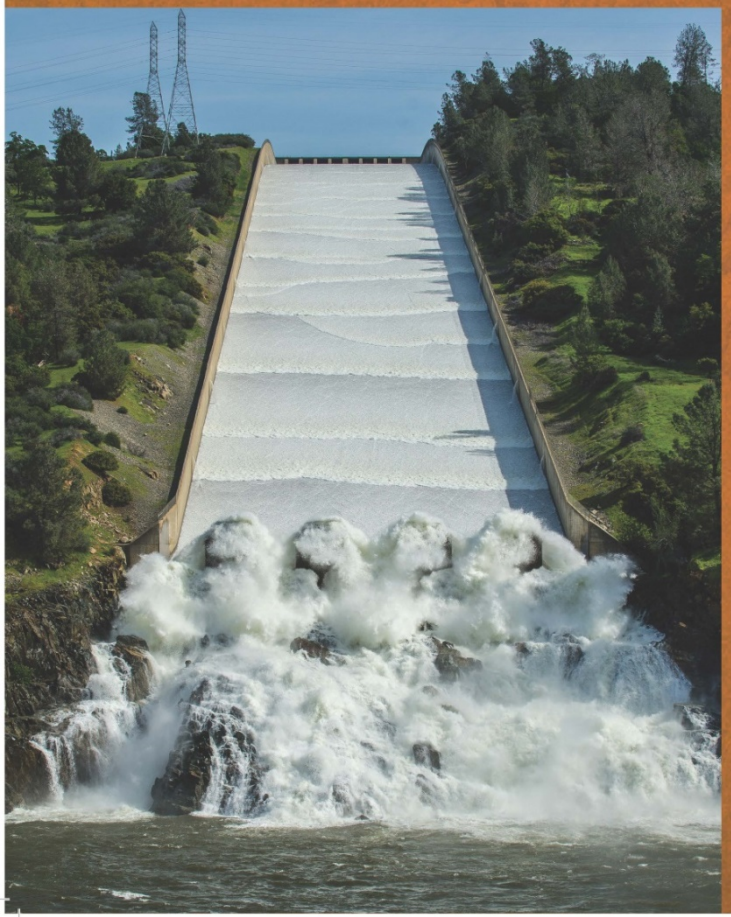
National Drought Policy Commission (2000)

U.S. Regional Climate Reference Network

In accordance with Service Change Notice 14-25 from the National Weather Service, NCEI has stopped providing data from the 72 Southwest Regional Climate Reference Network stations since June 1, 2014. The historical data for these stations will remain available. This change does not affect any station in the Climate Reference Network.



Improving Sub-Seasonal to Seasonal Precipitation Forecasting for Water Management



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Recommendations for Federal Agencies

- Focus on data & tools that address current water management needs and will also support longer-term adaptation
- Ensure continuity of key long-term monitoring programs
- Provide data & tools in a “menu” format that will support whatever planning individual states choose to do