DWR Drought Response, Current Drought

Jeanine Jones, California Department of Water Resources

State Water Project

- Project allocations: 20% in 2020, 5% in 2021 & 2022, 5% for 2023 to date
- Temporary Urgency Change Petitions to SWRCB 2021-22
- West False River temporary emergency drought barrier 2021-22
- Provides conveyance for voluntary water transfers

General Fund Drought Grant Programs

- Prior FY, $300M for small urban supplier and large urban/multi-benefit grants
- Current FY, $500M for small & large urban supplier grants, conservation & turf removal grants
- $25M Landflex block grants to GSAs
- Other grant programs not specific to drought (e.g. IRWM, SGMA)

Additional Assistance

- Leak detection surveys for small water systems
- Household water shortage reporting website
- County drought planning handbook & planning grants
- Data programs (e.g. forecasting, groundwater)

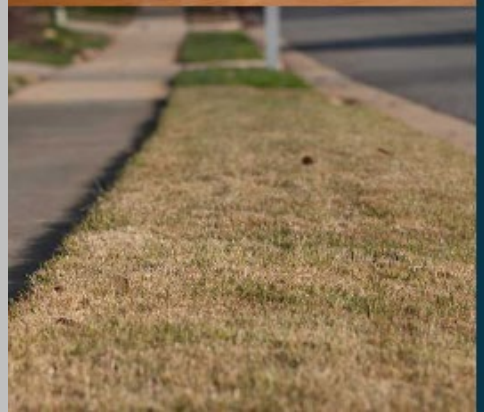
SB 552 (in coordination with SWRCB)

- Requires small systems (1,000 to 2,999 connections) & defined schools to prepare water shortage contingency plans by July 1, 2023, templates developed
- Requires counties to have standing drought task force (state small water systems, private wells), draft guidebook developed
- Requires standing state drought task force, being developed & periodic updates of risk vulnerability tool

AUG 2022

CALIFORNIA'S WATER SUPPLY STRATEGY

Adapting to a Hotter, Drier Future



California ALL

California Natural Resources Agency

California Water Boards

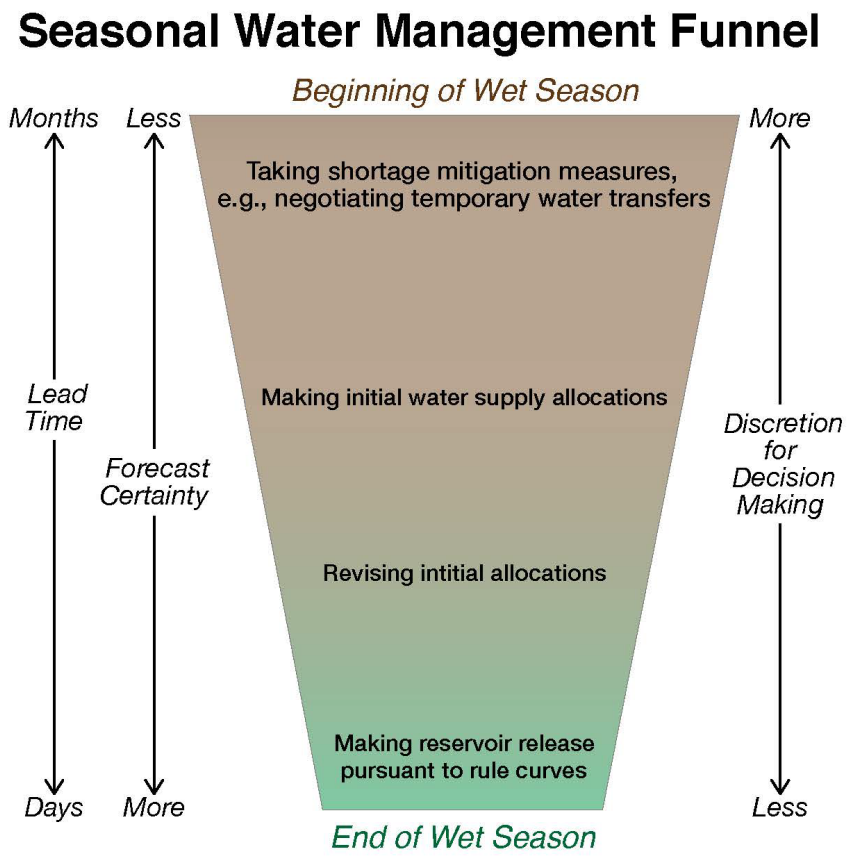
CalEPA California Environmental Protection Agency

cdfa

Transitioning to a Warmer, Drier Climate – State Capacity Building

- Sub-seasonal to seasonal precipitation forecasting
- Aerial snowpack monitoring
- Improving snowmelt runoff forecasting
- Forecast-informed reservoir operations

Lead Time for Drought Preparedness & Response

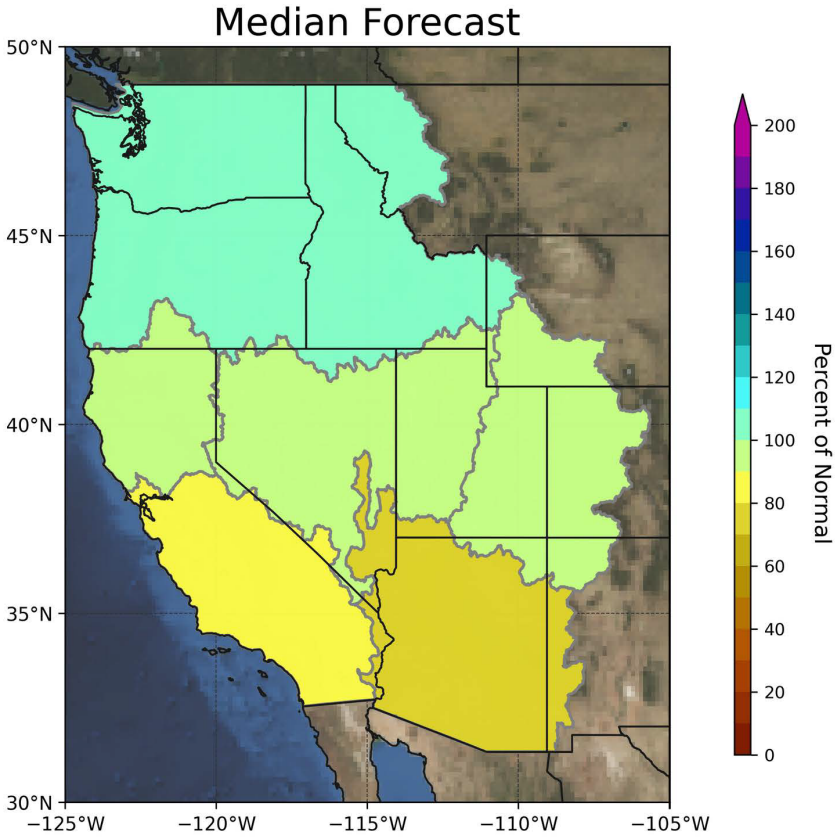


Life Beyond a Weather Forecast: Sub-Seasonal to Seasonal (S2S) Precipitation Forecasting

- Operational weather models – typically 2 weeks out (higher skill in first week)
- Sub-seasonal – 2 weeks to about 60 days
- Seasonal – up to 12-24 months

Experimental Seasonal Forecast Funded by DWR

Forecast of November-March 2022/2023



Probabilistic Forecast for

Northern California

10th percentile = 60% of normal

50th percentile = 95% of normal

90th percentile = 143% of normal

Southern California

10th percentile = 46% of normal

50th percentile = 82% of normal

90th percentile = 110% of normal

Upper Colorado

10th percentile = 68% of normal

50th percentile = 92% of normal

90th percentile = 127% of normal

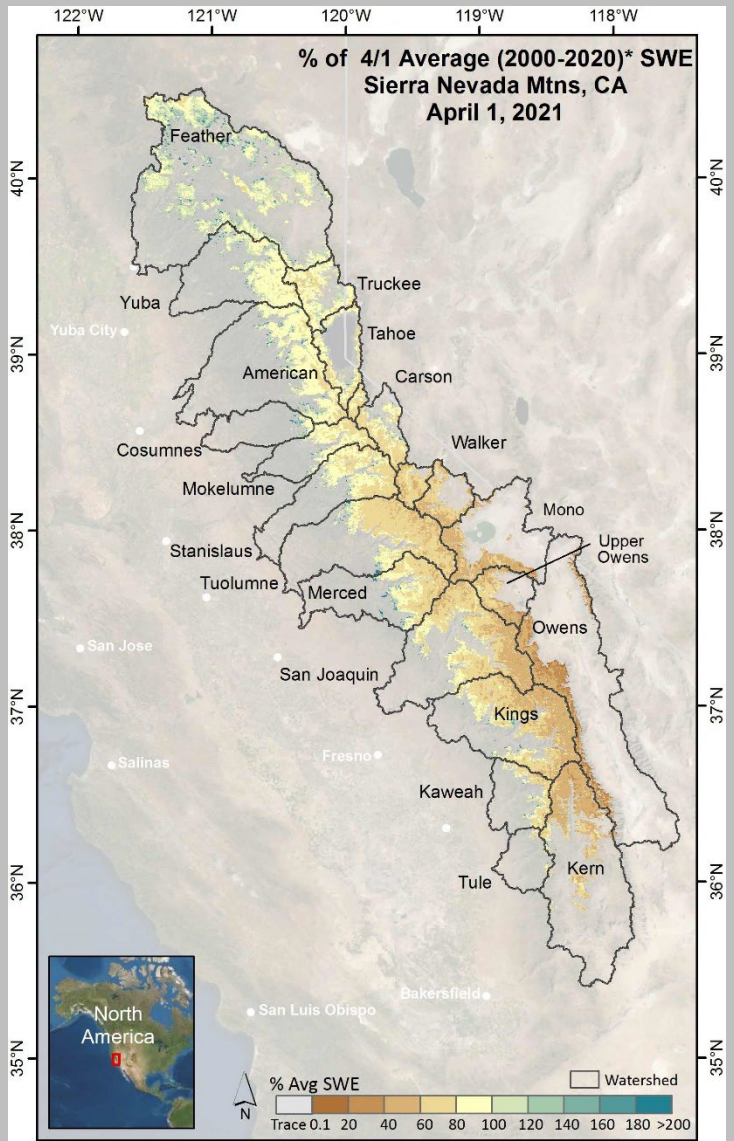
Matt Switanek

Consolidated Appropriations Act of 2023

- Subseasonal to Seasonal (S2S) Weather Prediction. The agreement provides $12,100,000 across NOAA line offices for its efforts to improve S2S Weather Prediction. This includes $5,000,000 in NWS Science and Technology Integration for the development of the Seasonal Forecast System and $7,100,000 for the S2S research program in the OAR U.S. Weather Research Program, including $1,000,000 to seed innovative research testbeds. As part of these efforts, NOAA is encouraged to pursue a pilot project for S2S precipitation forecasts for water management in the western United States. The pilot project should be carried out in coordination with NWS and should be focused on achieving measurable objectives for operational forecast improvement, including forecasts of seasonal mountain snowpack accumulation and total seasonal precipitation. The S2S work should be integrated, as much as is practicable, with the Water in the West Initiative and Fire Weather.

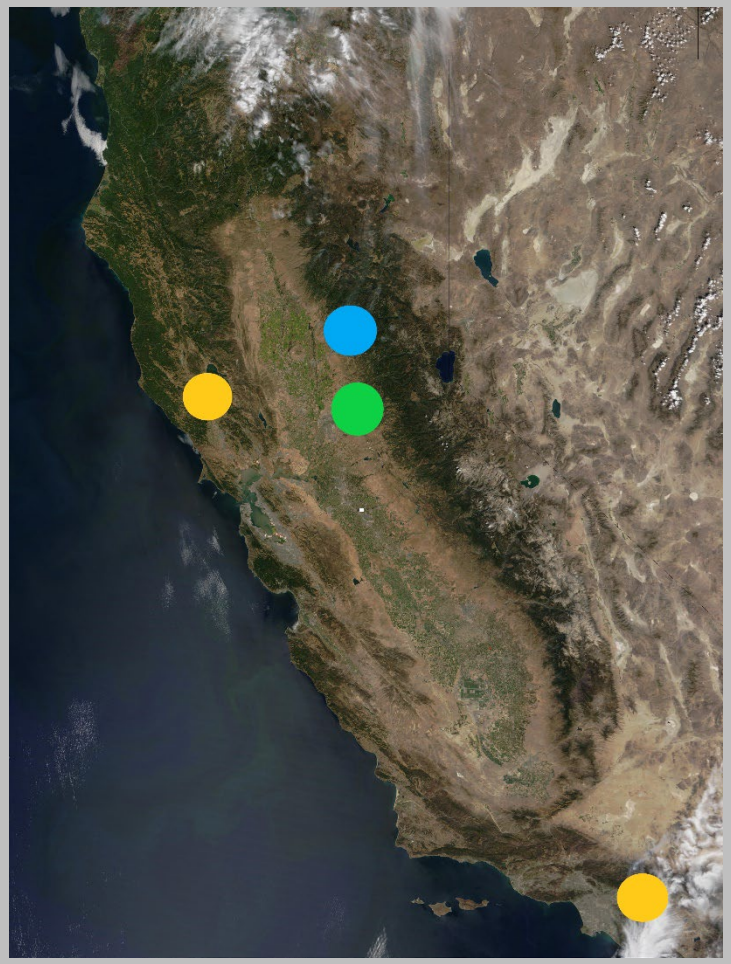
Improving Snowmelt Runoff Forecasting

- Better snowpack data from aircraft-based monitoring
- Moving away from regression equations based on historical models to physically-based watershed models



Forecast-Informed Reservoir Operations

- Research pilot projects underway in California
- Congressional action to support moving from research side of USACE to operational side
- Analogous FloodMAR effort in nascent stages




DANGER
KEEP OFF
ROCK BARRIER