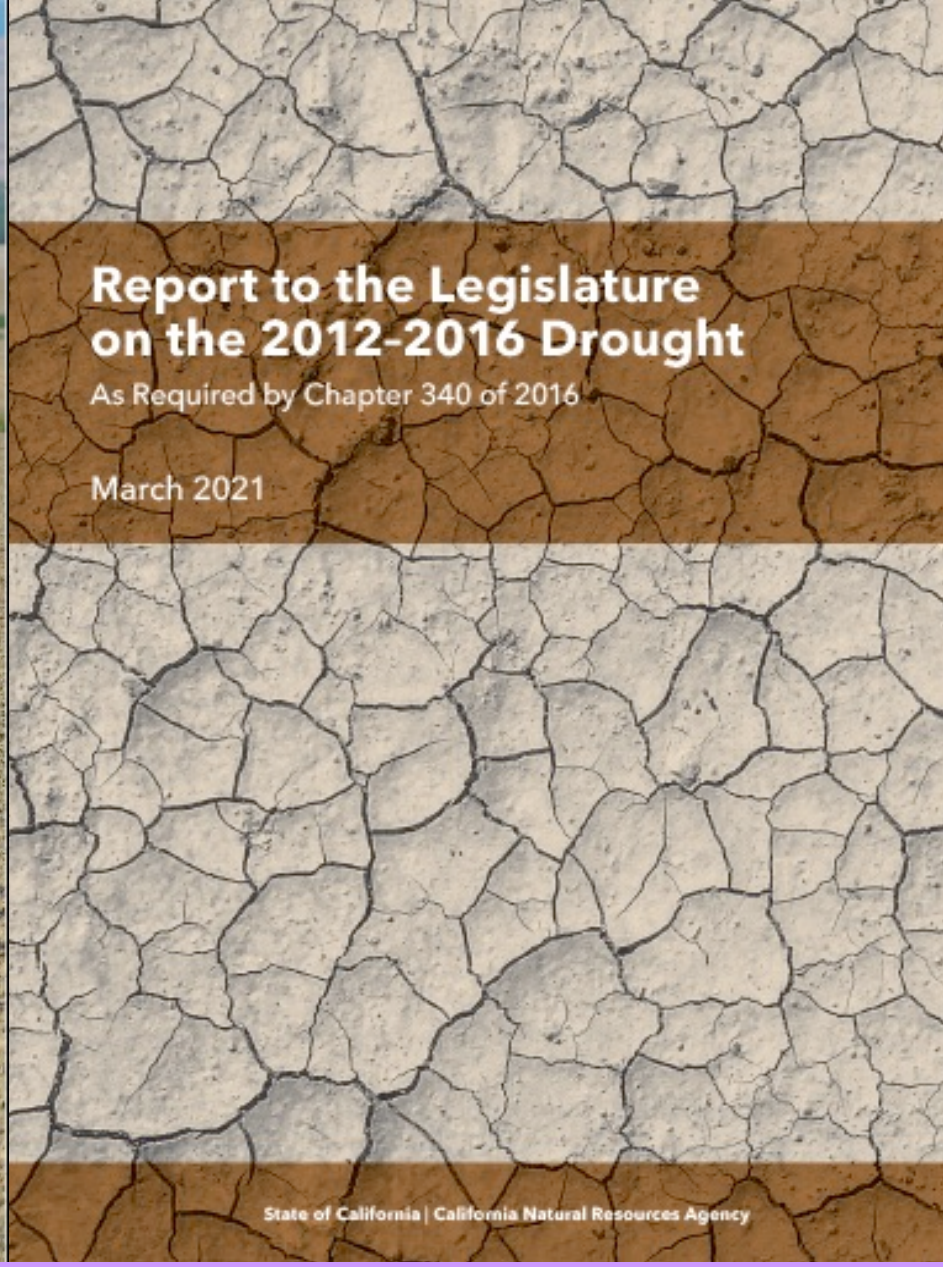

CALIFORNIA EXPERIENCE WITH DROUGHT

Jeanine Jones, Department of Water Resources

Lessons Learned from Recent Droughts

- Act sooner when dry conditions emerge, lead time is golden
- Recognize that increased temperatures are creating new or intensified impacts (e.g. wildfire)
- Transition from thinking of drought as an occasional emergency to thinking in terms of creating resiliency in a more arid climate
- Invest in preparedness & resilience

Key Drought Challenges, California's Progress Since 2007-09

- Statewide coverage of groundwater level data in major aquifers ?
  - CASGEM legislation in 2009, SGMA legislation in 2014
- Small water systems ?
  - Multiple legislative provisions for mandatory system consolidation beginning in 2016, long-term resilience funding legislation in 2019 ($130M annually for 10 years), drought response grants in 2021 ($200M for small systems)
- Seasonal precipitation forecasting X
  - No improvement (requires action by NOAA)

Things Are Changing

Old

- Multi-year drought normal in reconstructed paleo & historical records
- Severely reduced CVP & SWP allocations
- Groundwater overdraft & land subsidence
- Impacts in San Joaquin Valley

New

- Droughts occur in warming climate, exacerbates impacts
- First-ever Lower Colorado River Basin shortage declared (although CA not cut yet)
- Early stages of SGMA implementation
- Impacts in Sac Valley

Near-Term Opportunities

- Accelerate use of new technologies
  - In 2021-16 drought, DWR operationalized InSAR for land subsidence monitoring
- Begin planning for the inevitable
  - About that vanishing snowpack….
- Implement institutional & operational efficiencies (e.g. FIRO, ARSS)
  - Requires resources such as improved S2S precipitation forecasts