



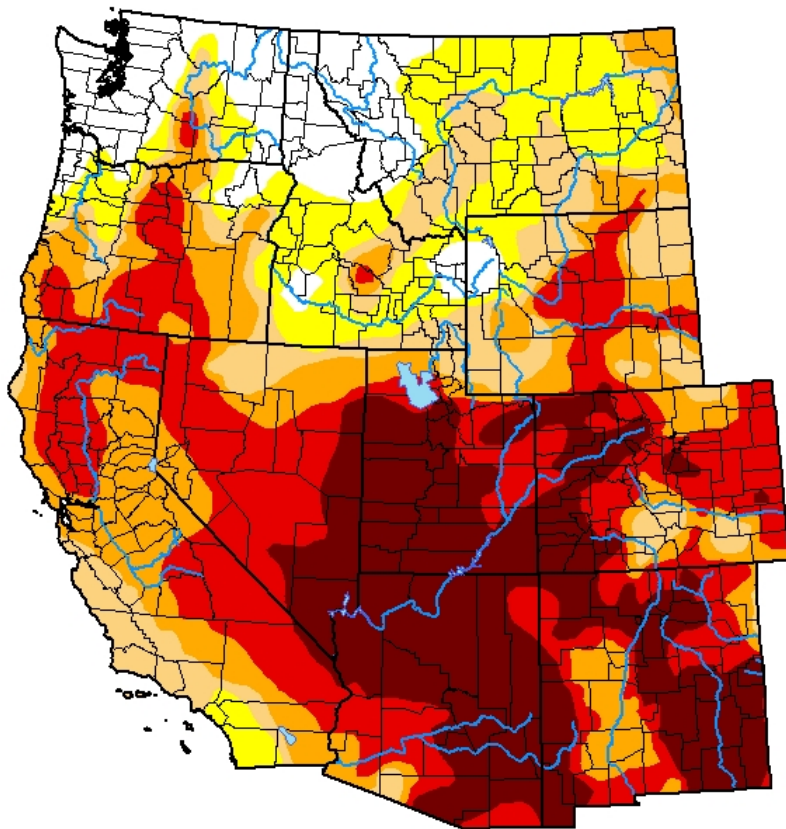
# **Drought and Climate Change Impact on the Monterey Peninsula Water Supply**

*Carmel Climate Committee  
January 21, 2021*

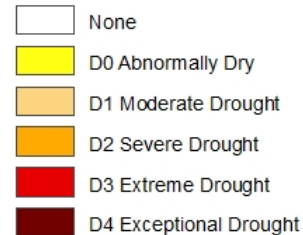
# Drought Monitor – Western States January 12, 2021

## U.S. Drought Monitor West

**January 12, 2021**  
(Released Thursday, Jan. 14, 2021)  
Valid 7 a.m. EST



***Intensity:***



*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

***Author:***

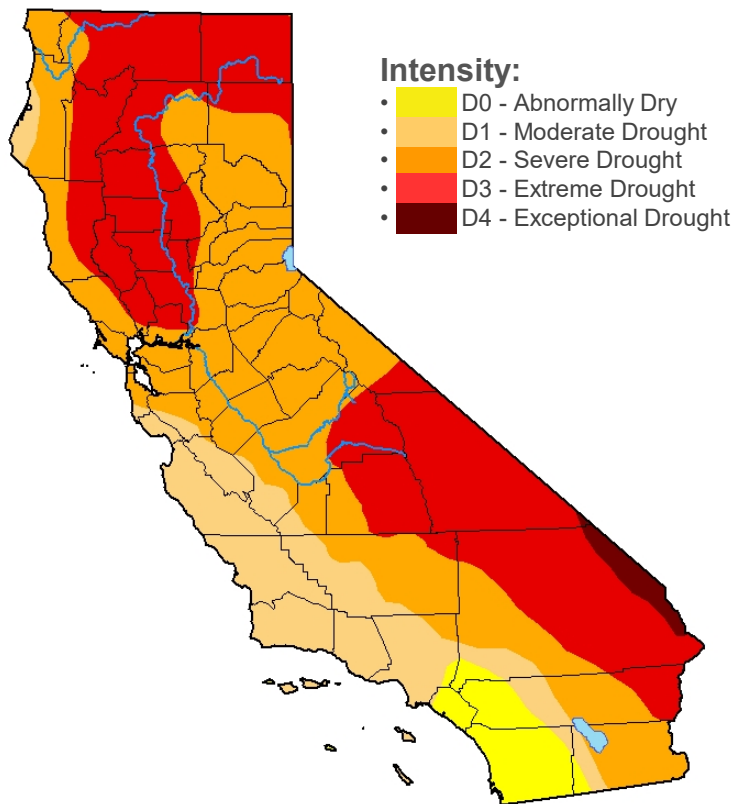
Deborah Bathke  
National Drought Mitigation Center



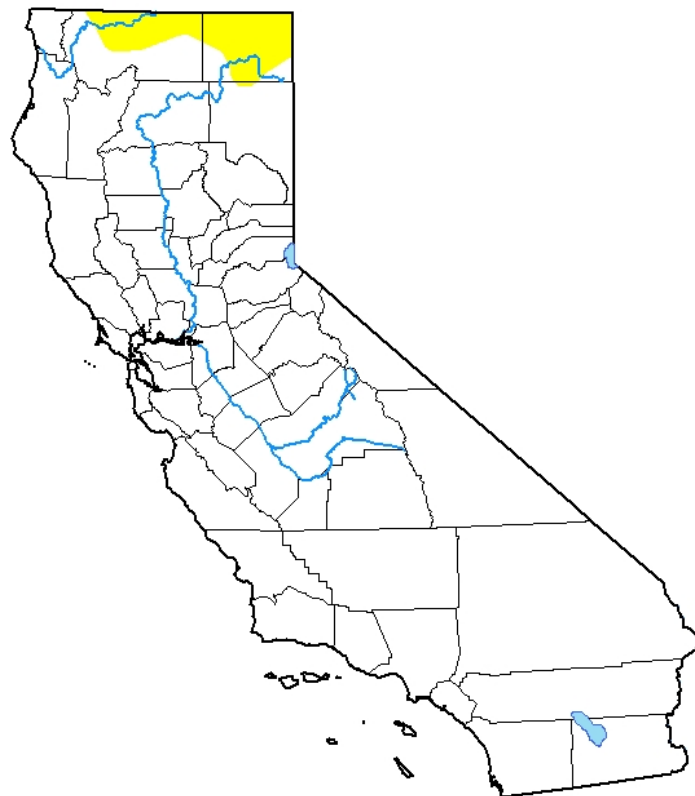
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

# Drought Monitor – California Second Week of January

Today (2021)

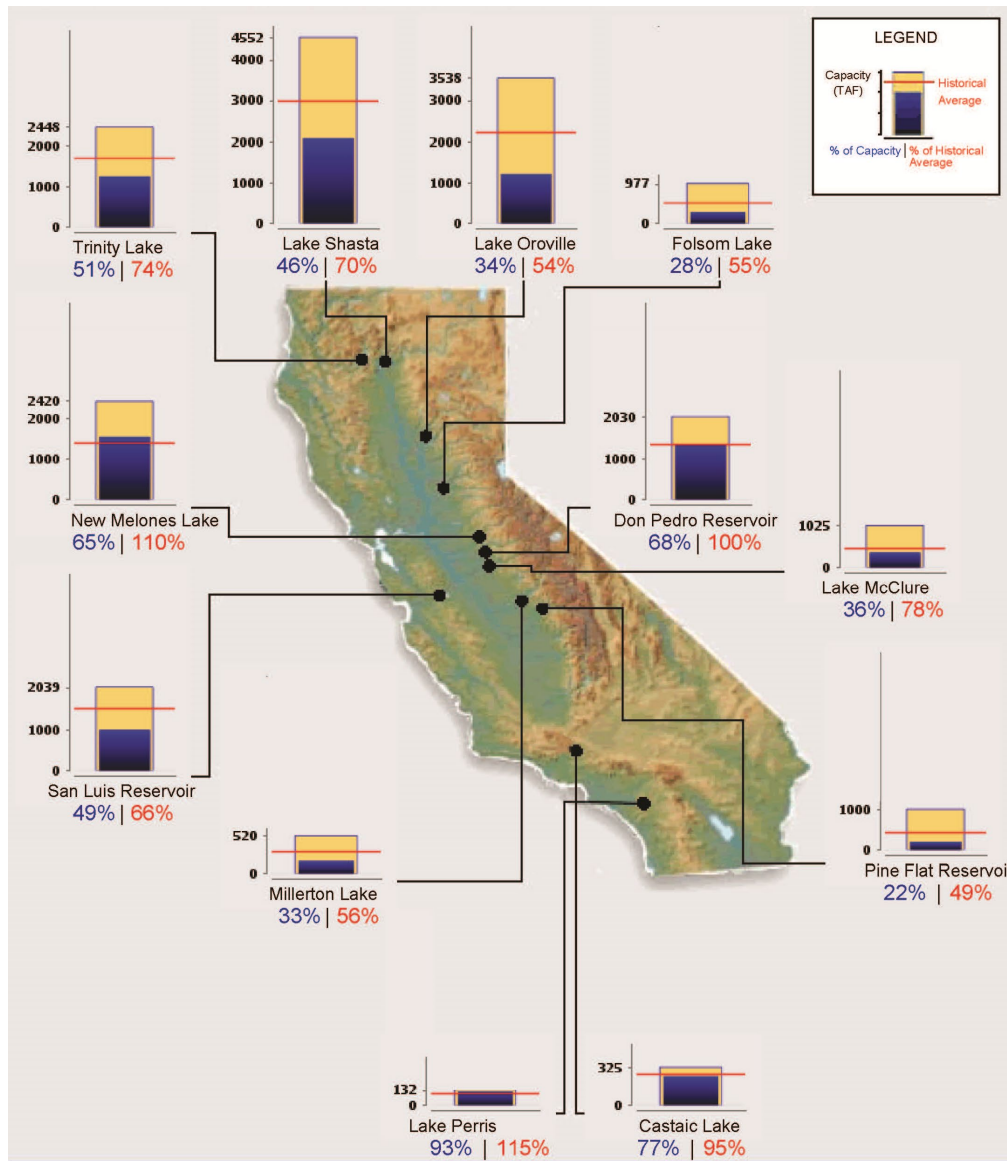


1 Year Ago

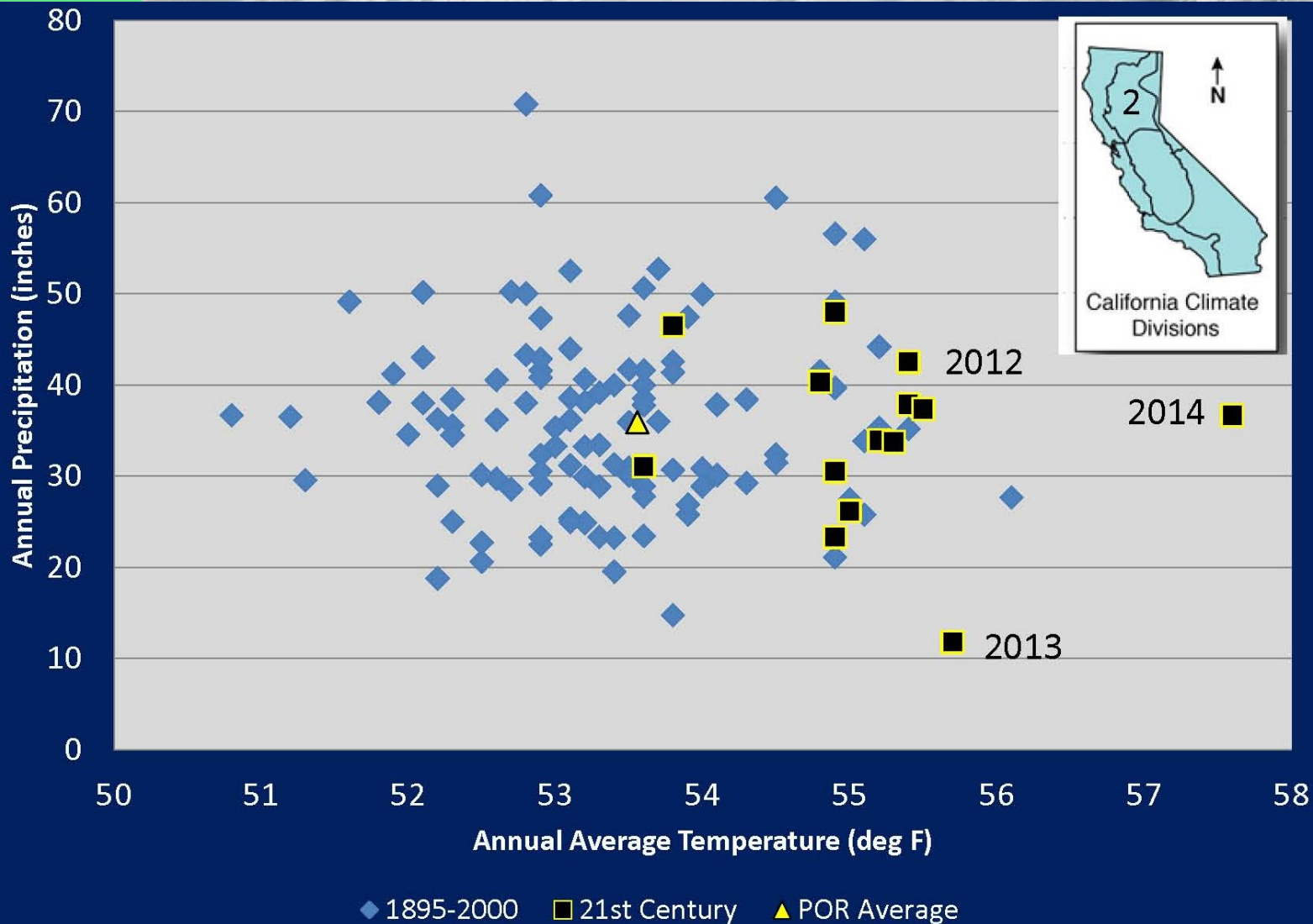




# January 19, 2021 Reservoir Conditions

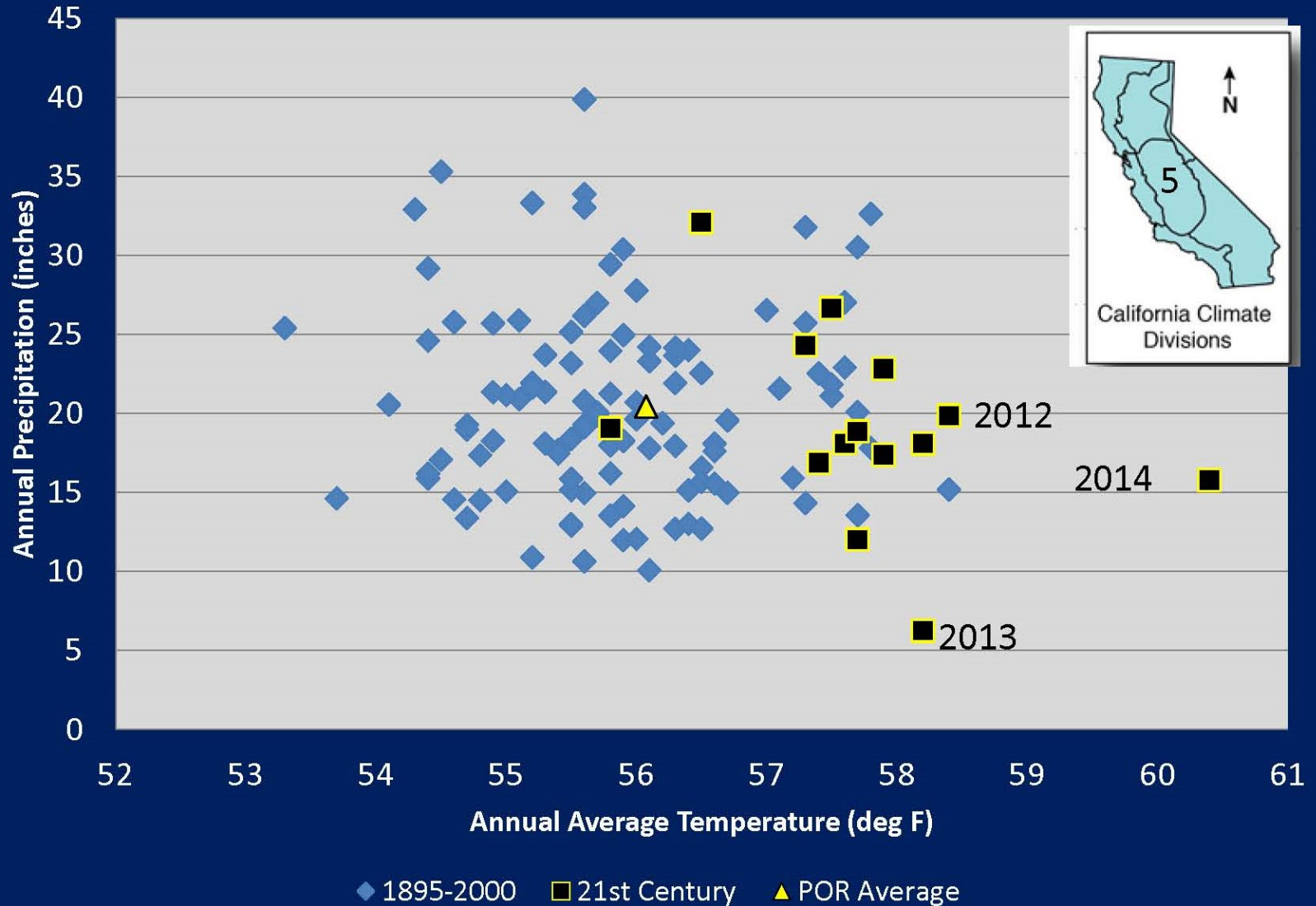


# 2015 Drought Data: Its Getting Warmer – Sacramento Valley



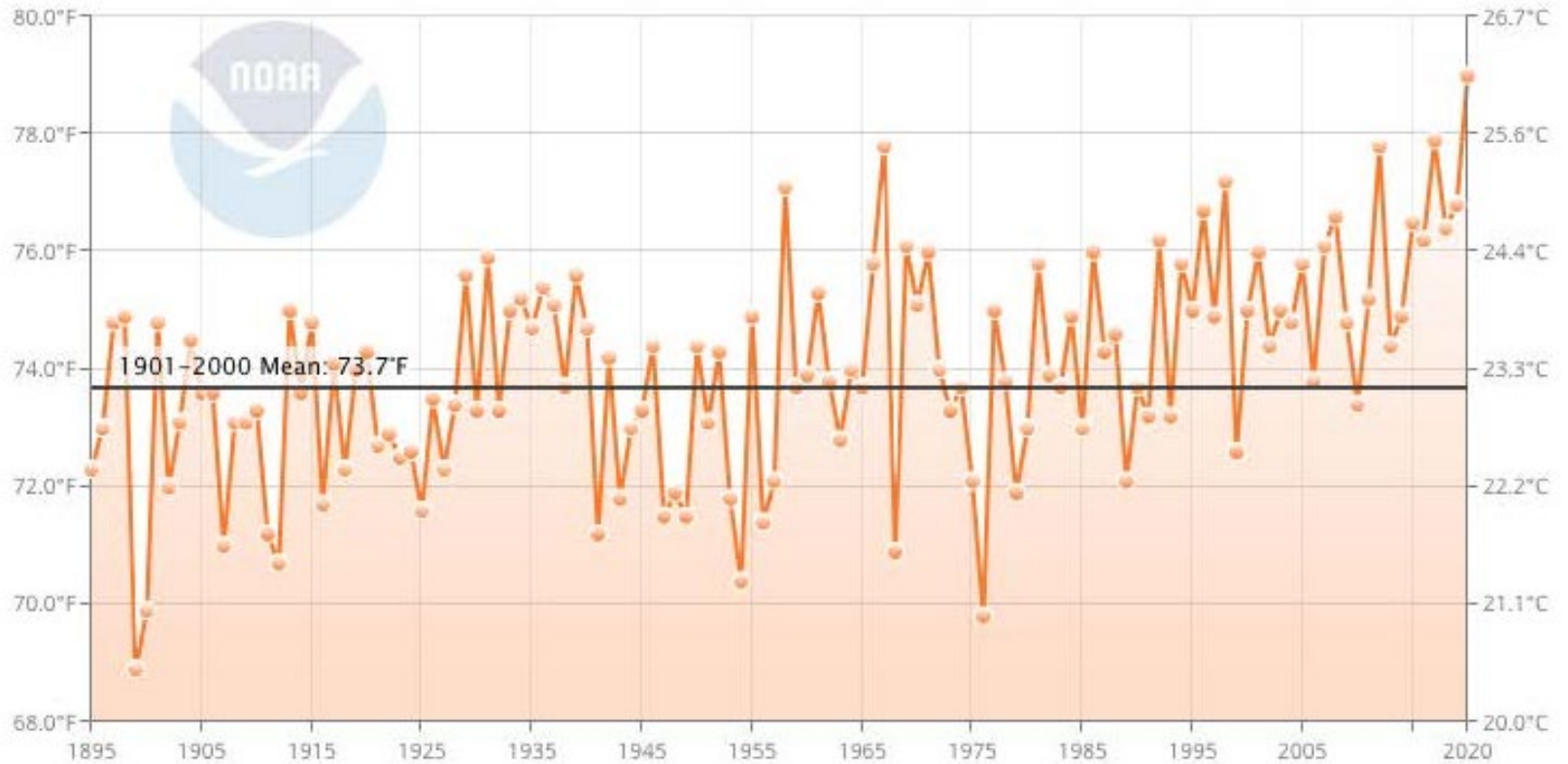


# 2015 Drought Data: Its Getting Warmer – San Joaquin Valley



# Was California's August 2020 Hottest Ever or Coolest of Next 100 Years?

California Average Temperature  
August

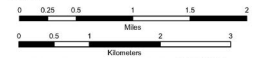




# 55 Inches of Sea Level Rise Monterey Quadrangle



- Interstate
- US Highway
- State Highway
- County Highway
- Current Coastal Base Flood (Approximate 100-year flood extent)
- Sea Level Rise Scenario
- Coastal Base Flood + 1.4 meters (55 inches)
- Landward Limit of Ocean High Tided Zone in 2100
- Coastal Zone Boundary



Adjoining Quadrangles

1	2	3
4	5	6



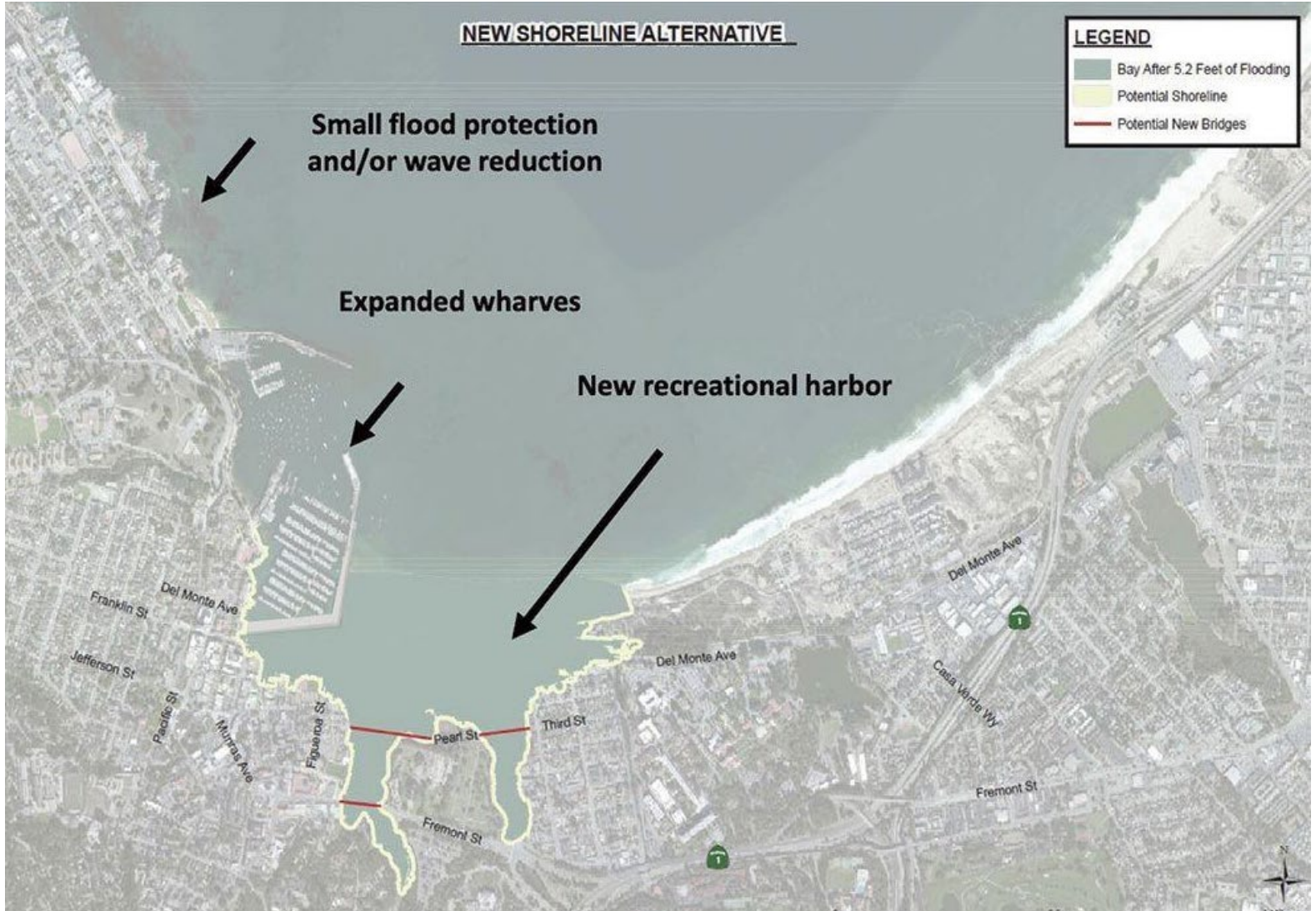
This information is being made available for informational purposes only. Users of this information agree to their use to avoid lawsuits the State of California, and its respective officers, employees, agents, contractors, and subcontractors for any liability associated with its use in any form. This work shall not be used to assess actual coastal hazards, insurance requirements, or property values, and specifically shall not be used to find of Flood Insurance Studies and Flood Insurance Rate Maps.

Created by the Pacific Institute, Oakland, California, 2006.  
 Project funded by the California Energy Commission's  
 Public Interest Energy Research Program, CalTrans,  
 and the California Coastal Protection Council.

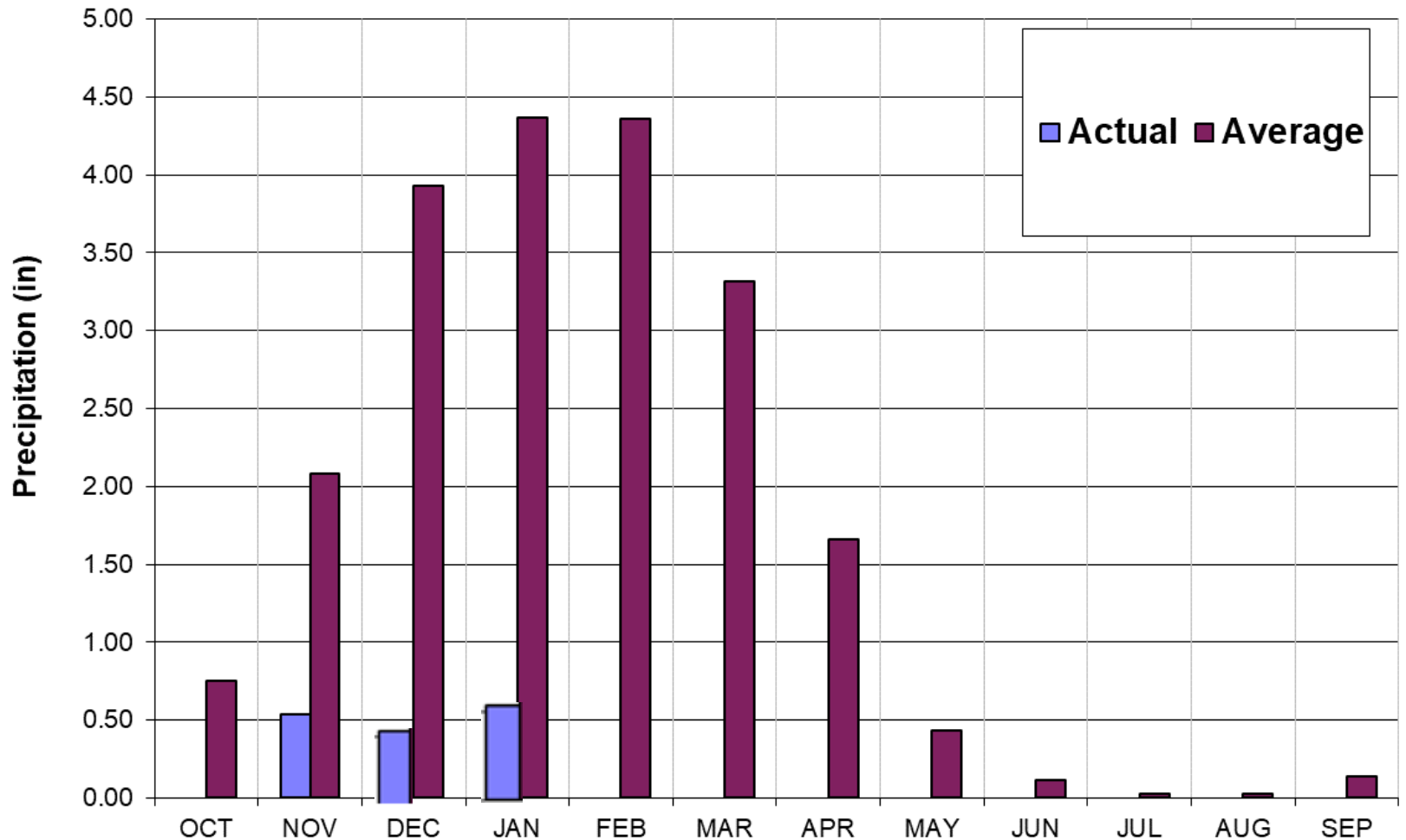
Grid coordinates:  
 UTM Zone 19N meters  
 NAD83 (4) in degrees



# 62 Inches of Sea Level Rise City of Monterey

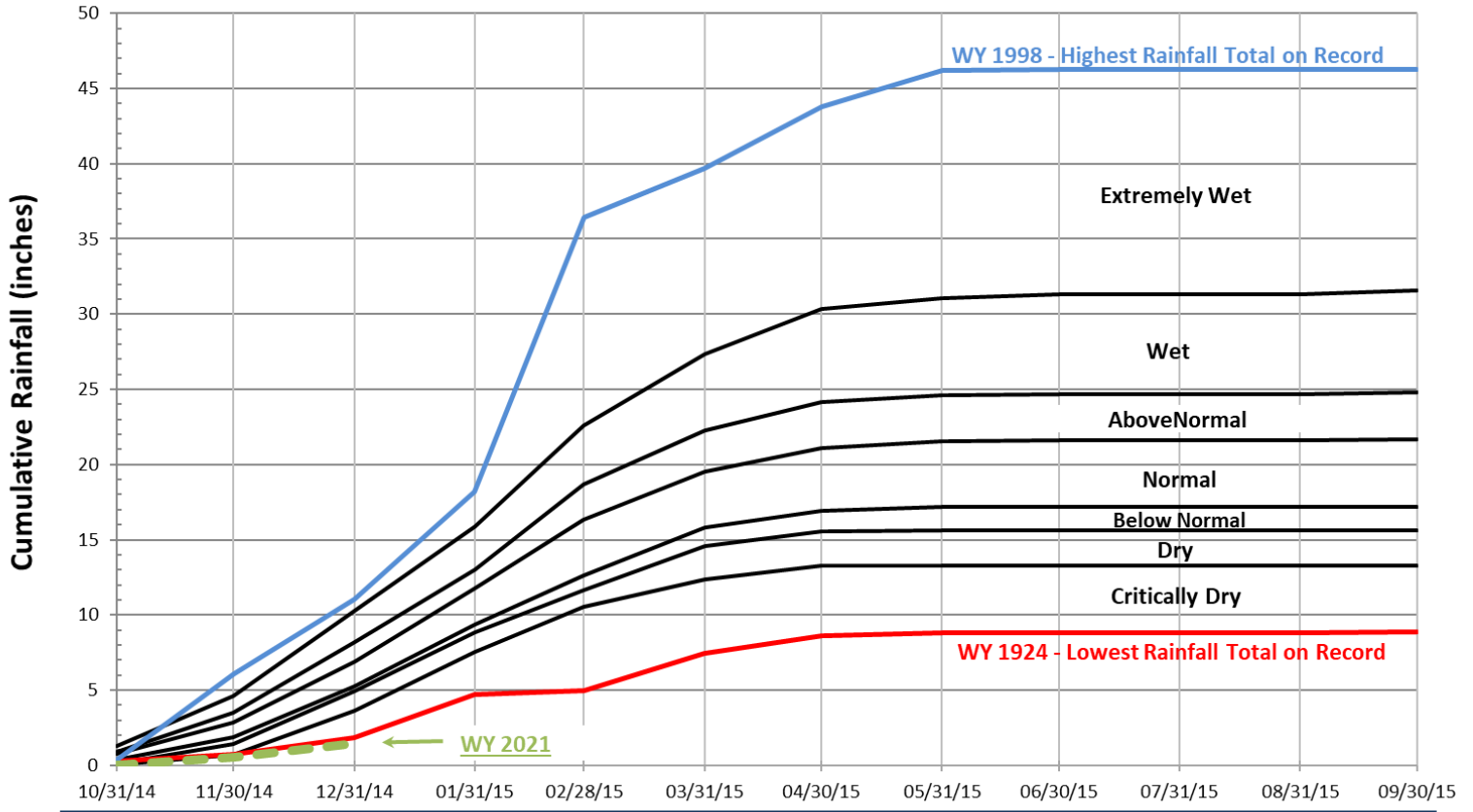


# Recorded Rainfall at San Clemente Dam: Water Year 2021 to Date

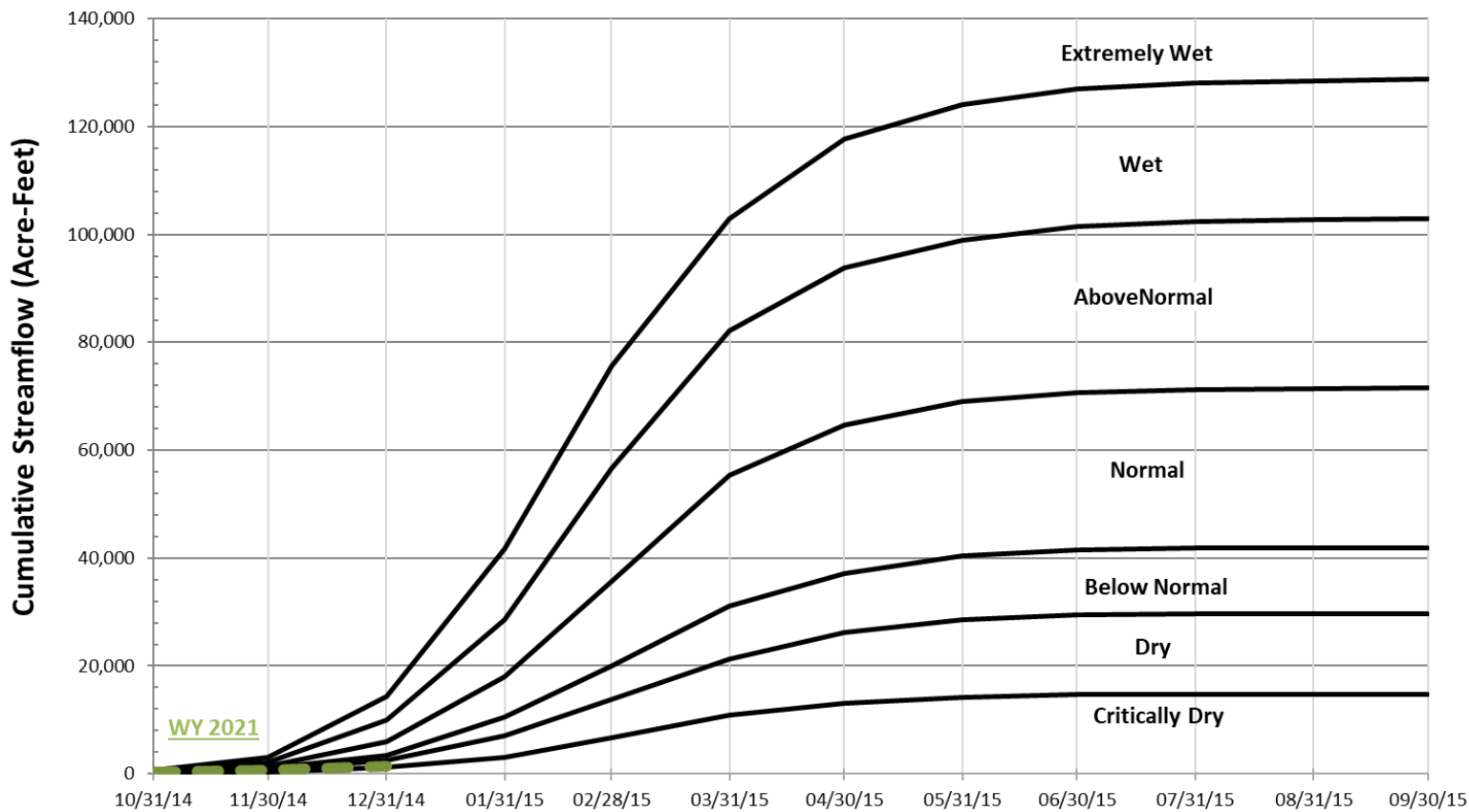




# Monterey Peninsula Water Year Classes By Recorded Rainfall

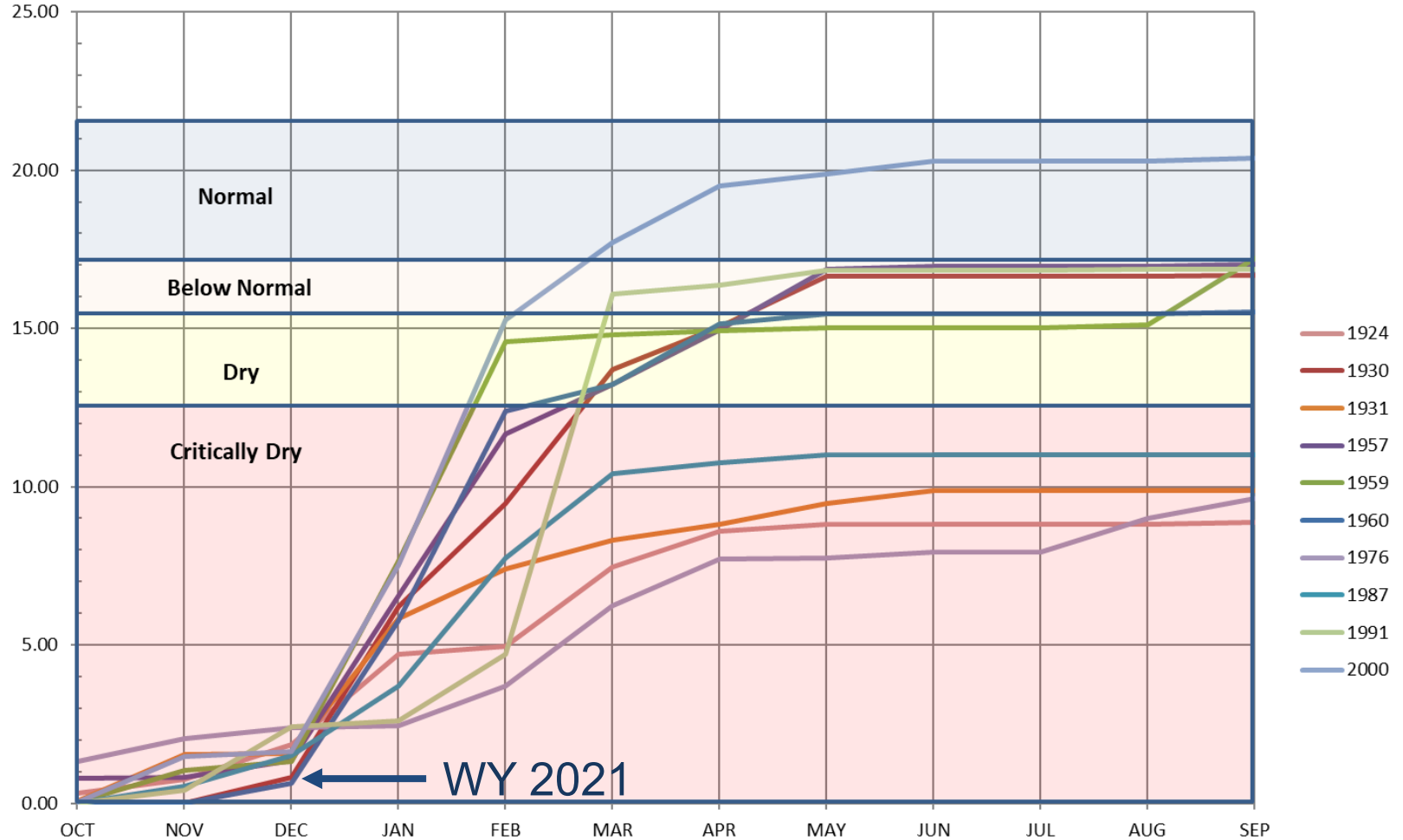


# Monterey Peninsula Water Year Classes By Unimpaired Streamflow





# 10 Worst First 3 Months Rainfall



# Local Impacts of Climate Change Desalination Plant Intake Wells





# Local Impacts of Climate Change Pure Water Monterey



Wastewater



Agricultural Water



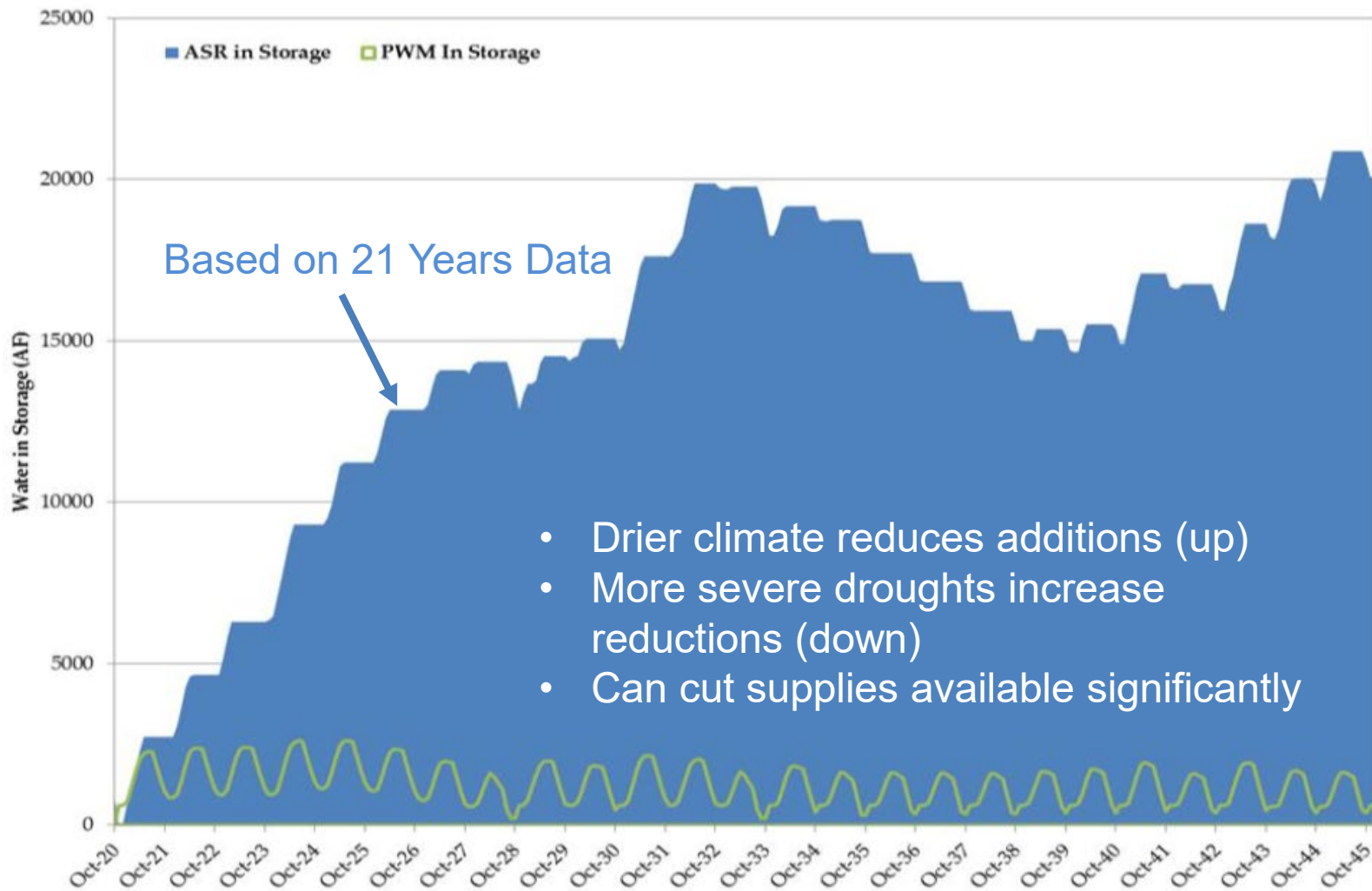
Storm Water



Produce Wash Water

Each source water is impacted differently by climate warming and drought, but the project has right of first of refusal for each.

# Local Impacts of Climate Change Aquifer Storage & Recovery







# QUESTIONS?