

# 2021 Water Conditions

Drought Conditions in the Northern San Joaquin Valley

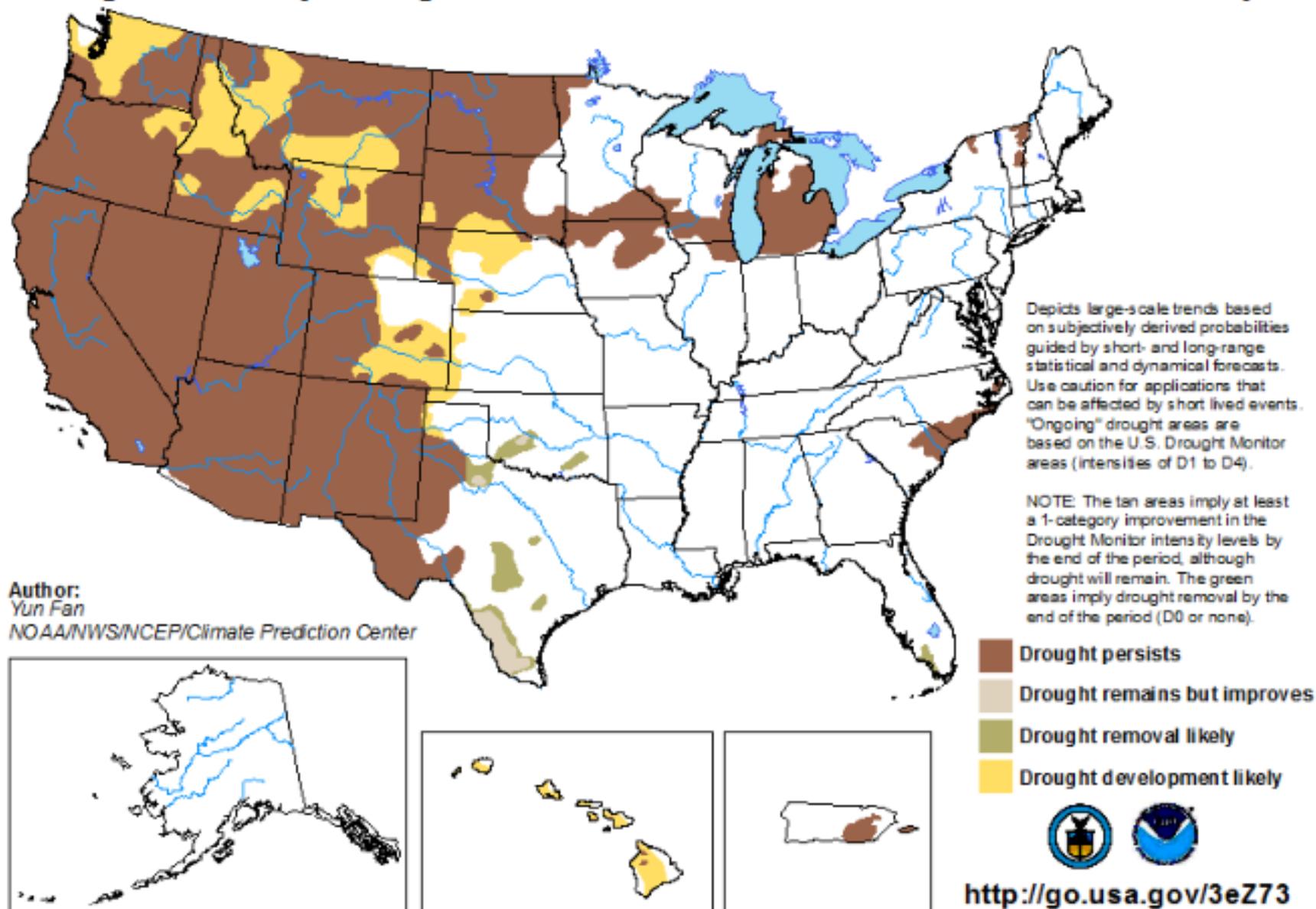
Presented to the Stanislaus County Water Advisory Committee

May 26, 2021

# U.S. Seasonal Drought Outlook

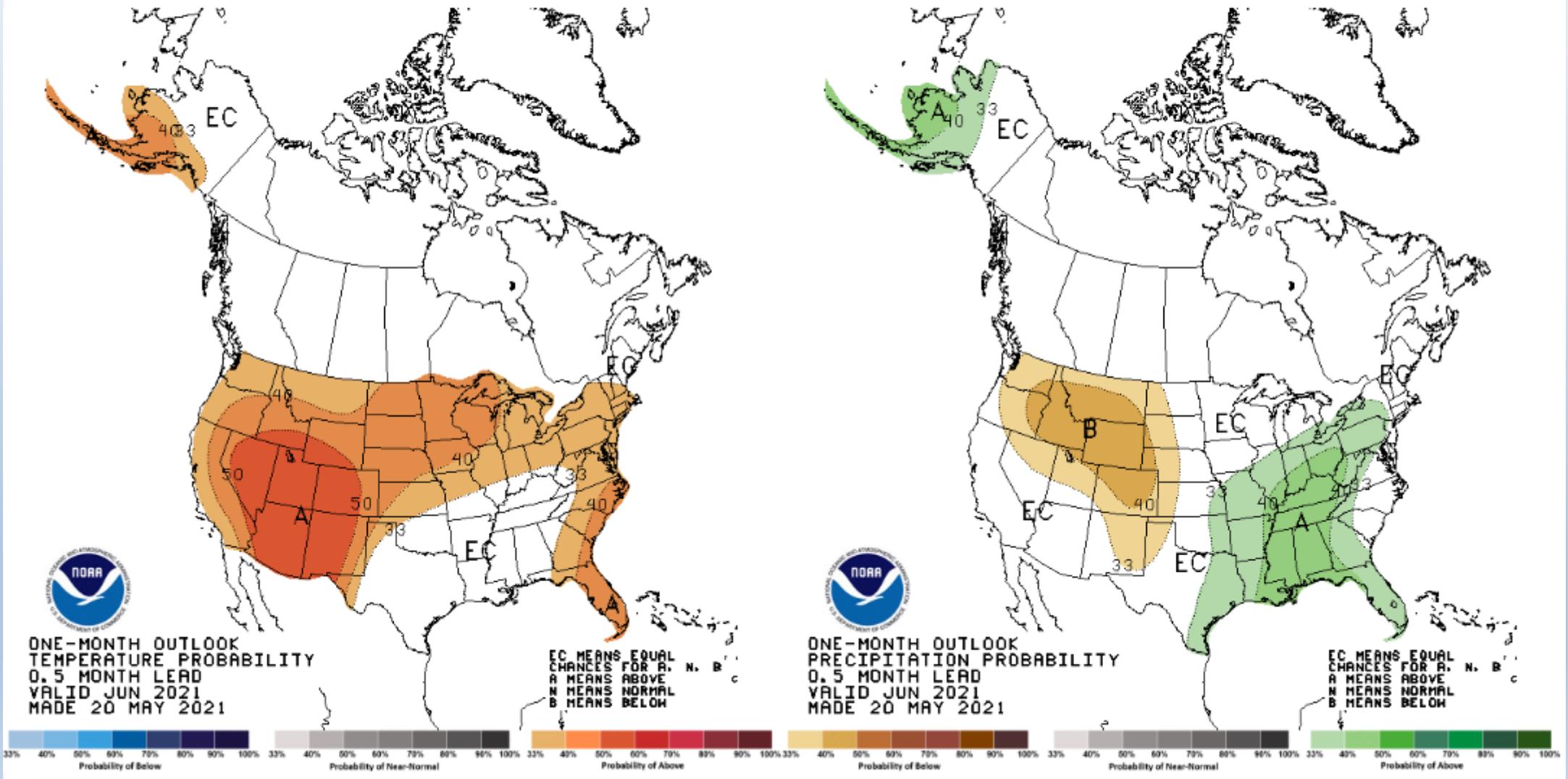
## Drought Tendency During the Valid Period

Valid for May 20 - August 31, 2021  
Released May 20



# OFFICIAL 30-Day Forecasts

Issued: May 20, 2021

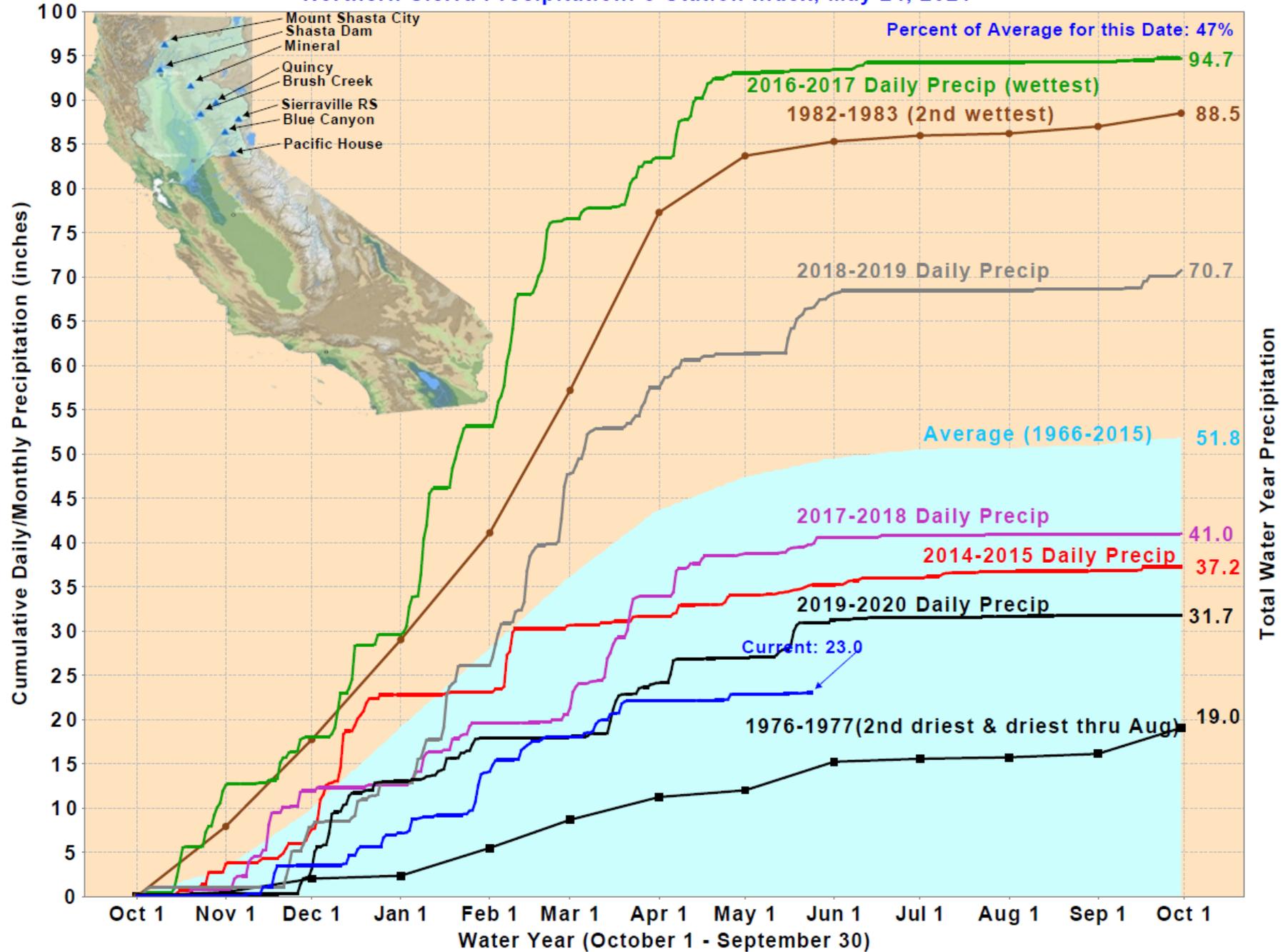


Year	San Joaquin Water Year Index
1973	AN
1974	W
1975	W
<b>1976</b>	<b>C</b>
<b>1977</b>	<b>C</b>
1978	W
1979	AN
1980	W
1981	D
1982	W
1983	W
1984	AN
1985	D
1986	W
<b>1987</b>	<b>C</b>
<b>1988</b>	<b>C</b>

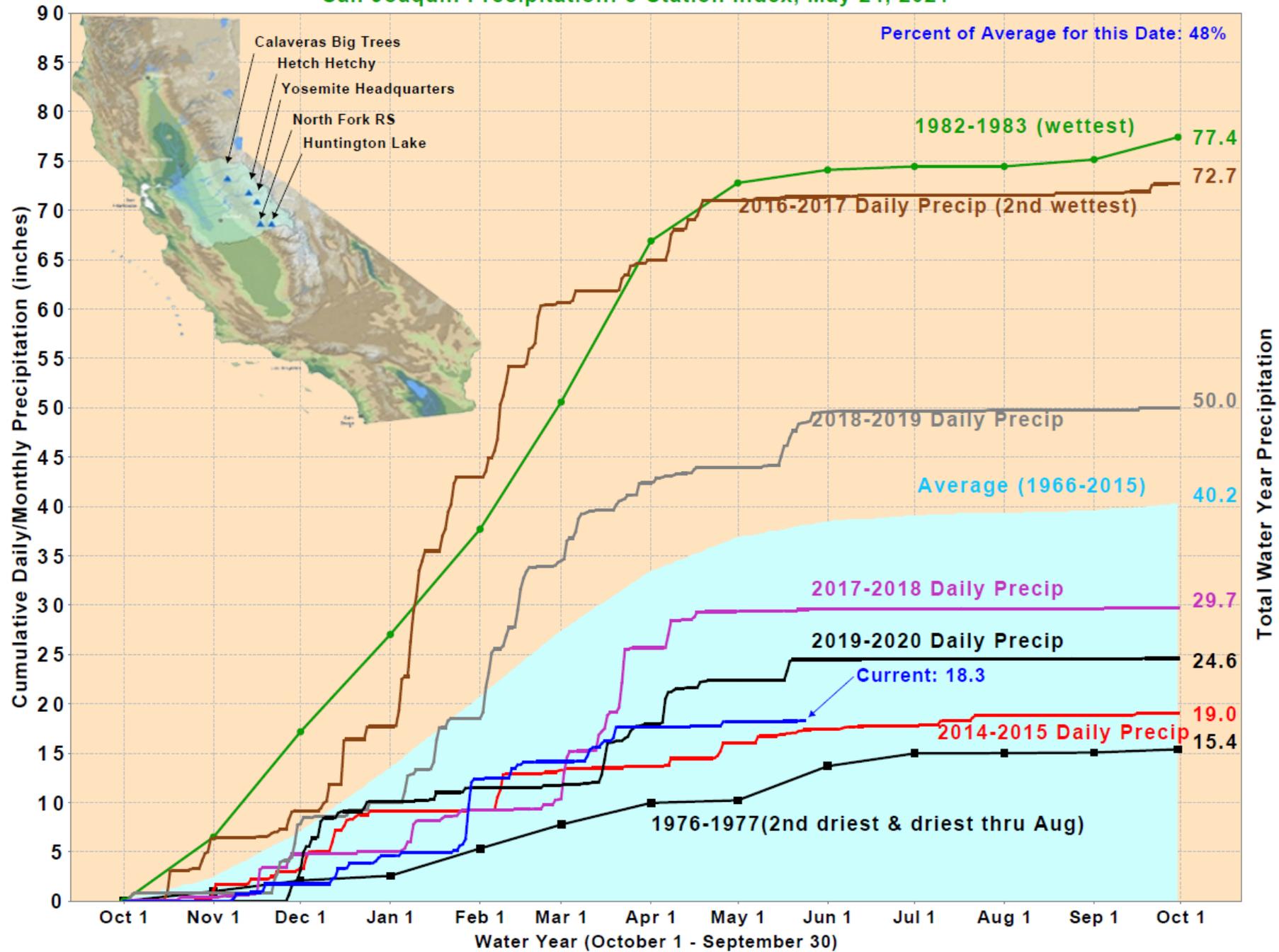
Year	San Joaquin Water Year Index
<b>1989</b>	<b>C</b>
<b>1990</b>	<b>C</b>
<b>1991</b>	<b>C</b>
<b>1992</b>	<b>C</b>
1993	W
1994	C
1995	W
1996	W
1997	W
1998	W
1999	AN
2000	AN
2001	D
2002	D
2003	BN
2004	D

Year	San Joaquin Water Year Index
2005	W
2006	W
2007	C
2008	C
2009	BN
2010	AN
2011	W
<b>2012</b>	<b>D</b>
<b>2013</b>	<b>C</b>
<b>2014</b>	<b>C</b>
<b>2015</b>	<b>C</b>
<b>2016</b>	<b>D</b>
2017	W
2018	BN
2019	W
2020	D

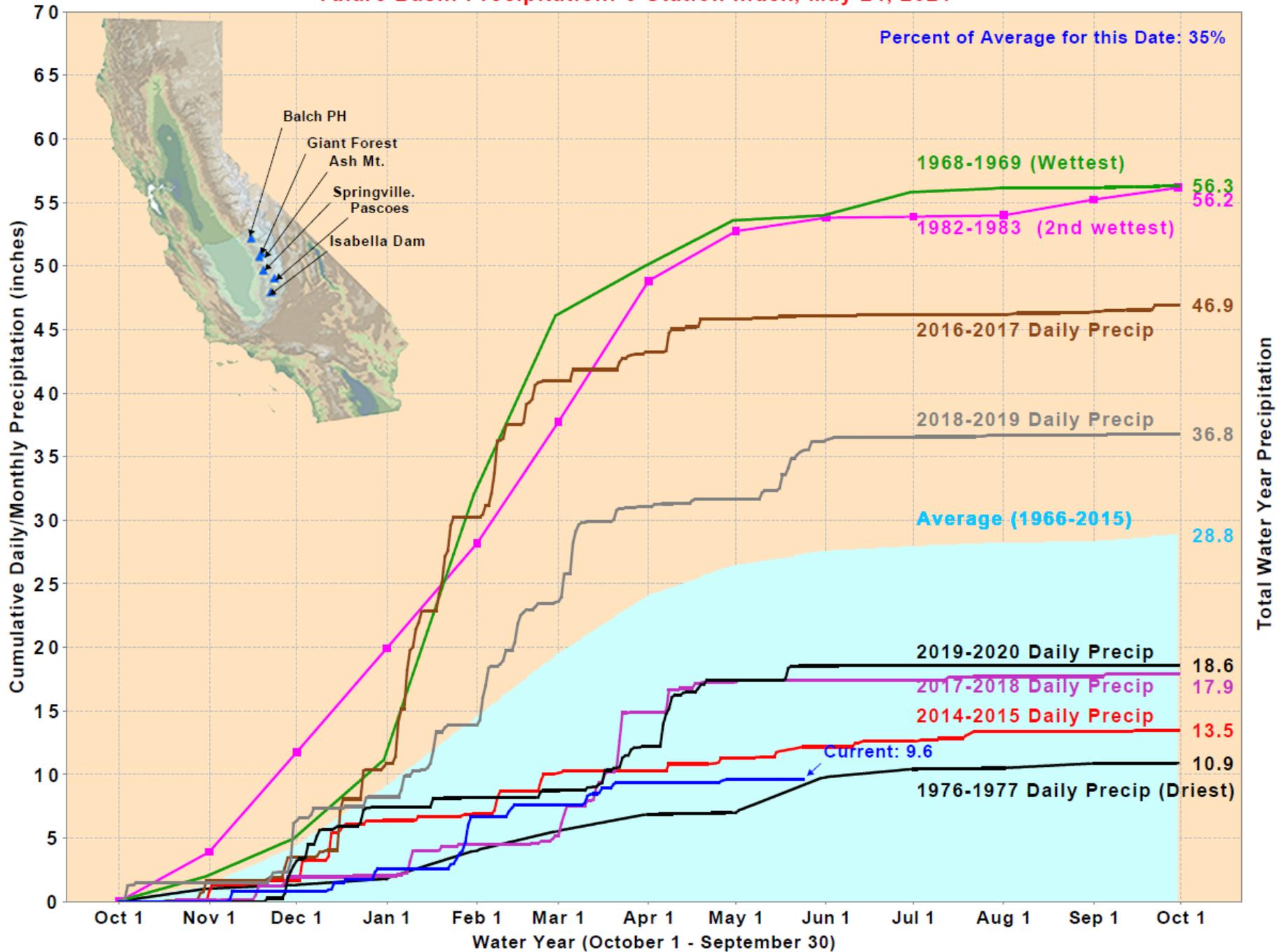
# Northern Sierra Precipitation: 8-Station Index, May 24, 2021



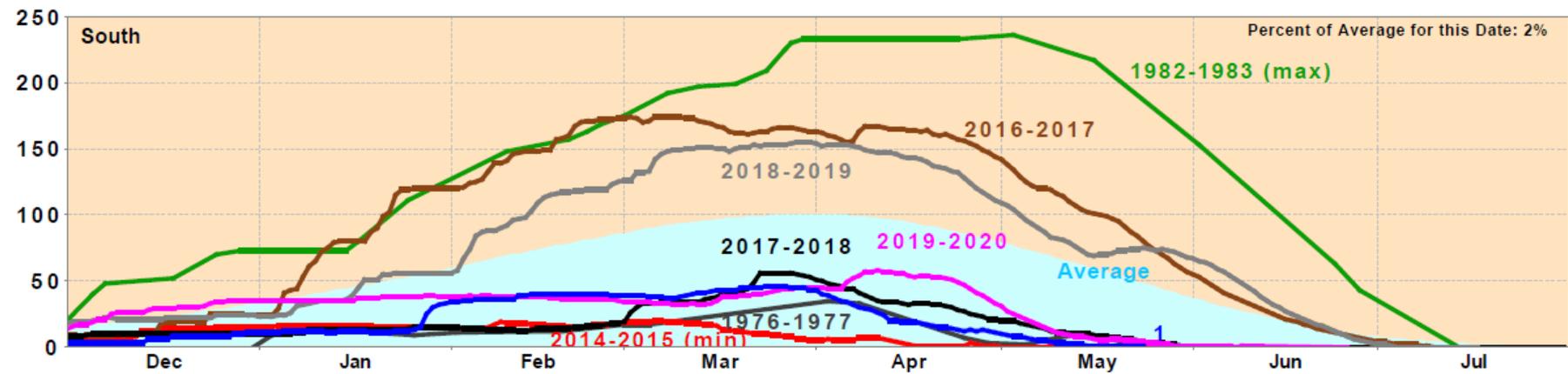
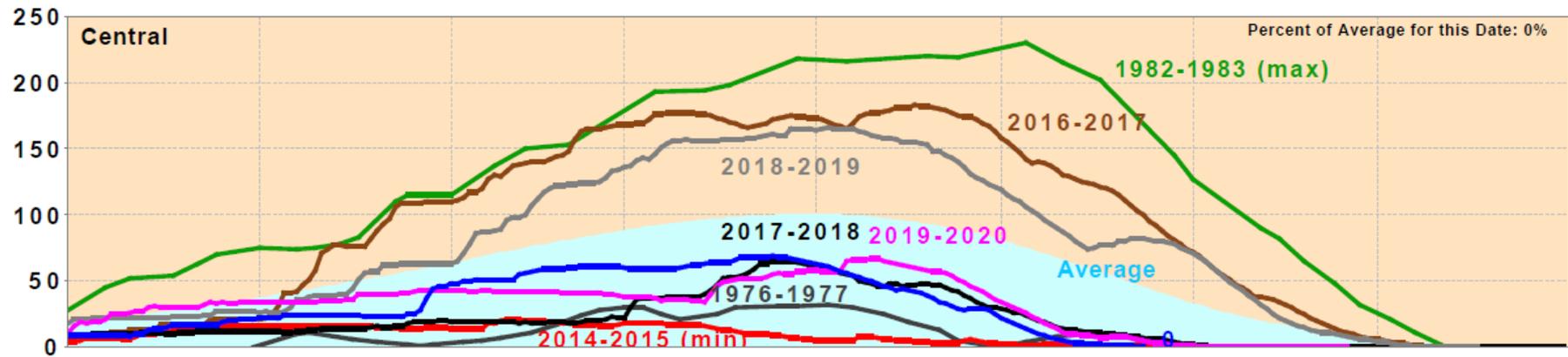
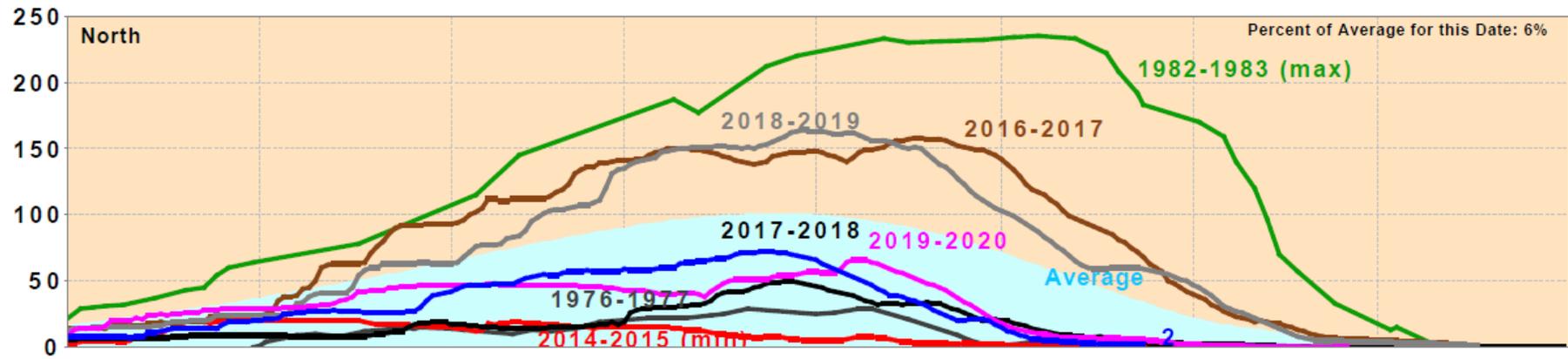
### San Joaquin Precipitation: 5-Station Index, May 24, 2021



# Tulare Basin Precipitation: 6-Station Index, May 24, 2021



# California Snow Water Content, May 24, 2021, Percent of April 1 Average

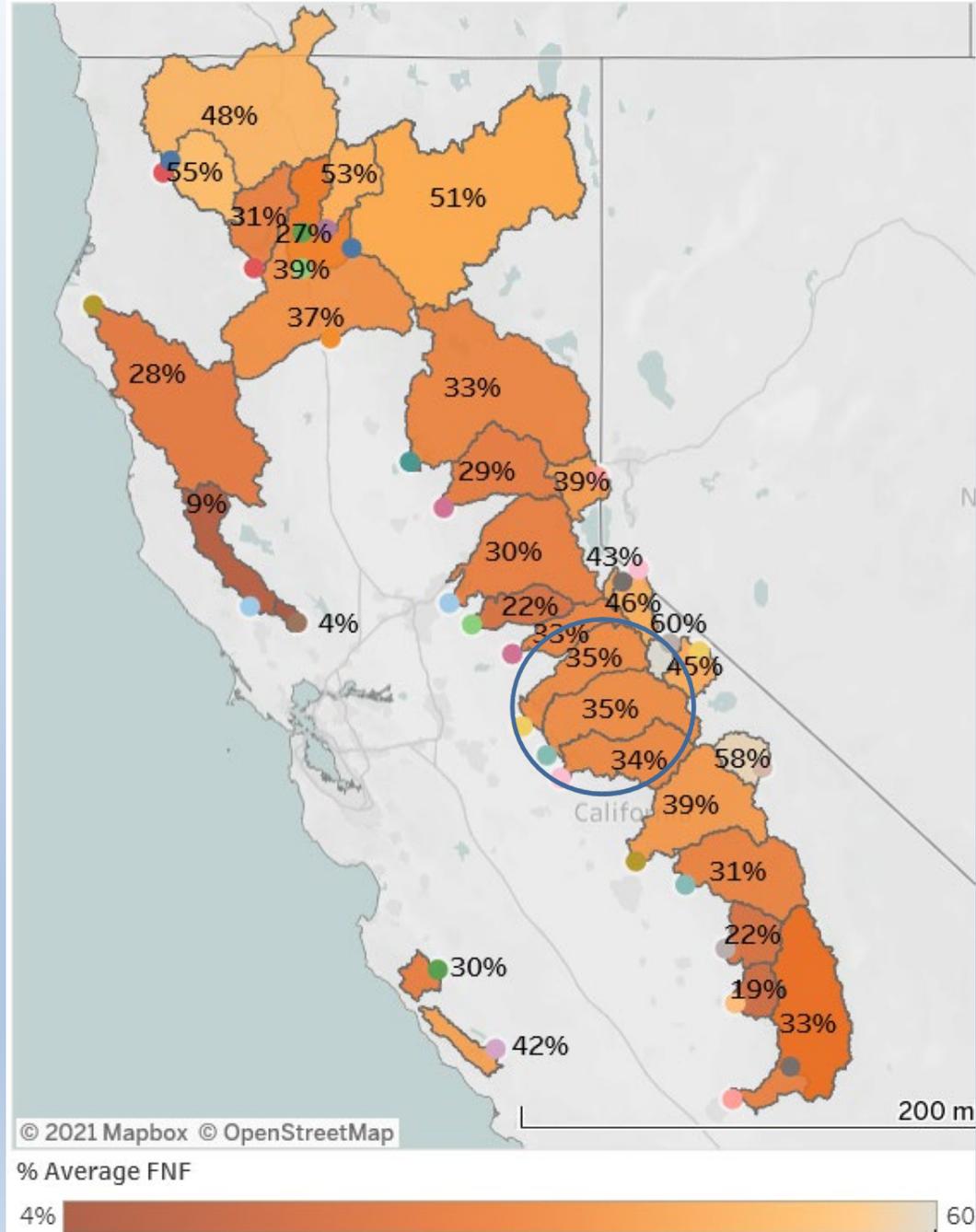


Statewide Percent of April 1: 1%

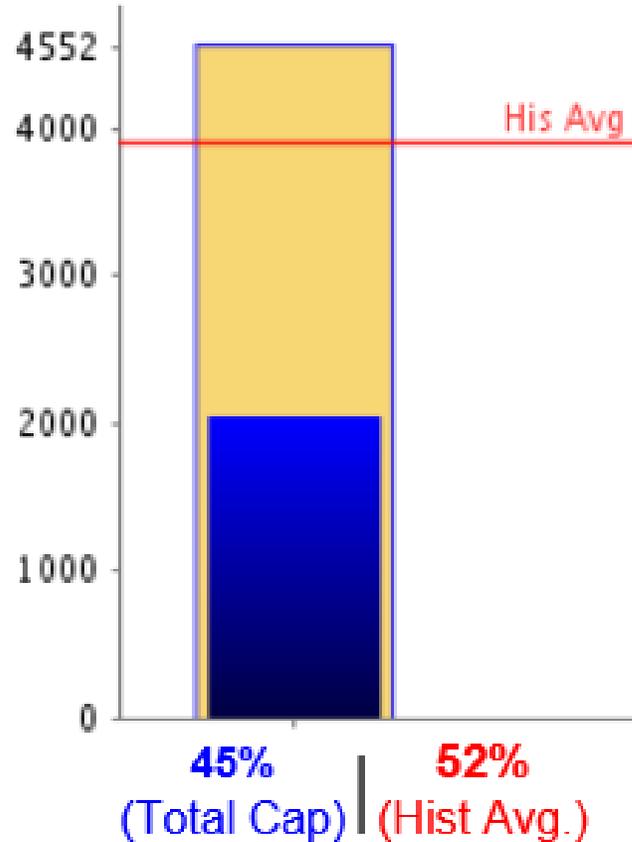
Statewide Percent of Average for Date: 2%

# Water Year Full Natural Flow (% of avg.)

Dry Antecedent Conditions interfered with Runoff



## SHASTA - STORAGE CONDITIONS AS OF MAY 23, 2021

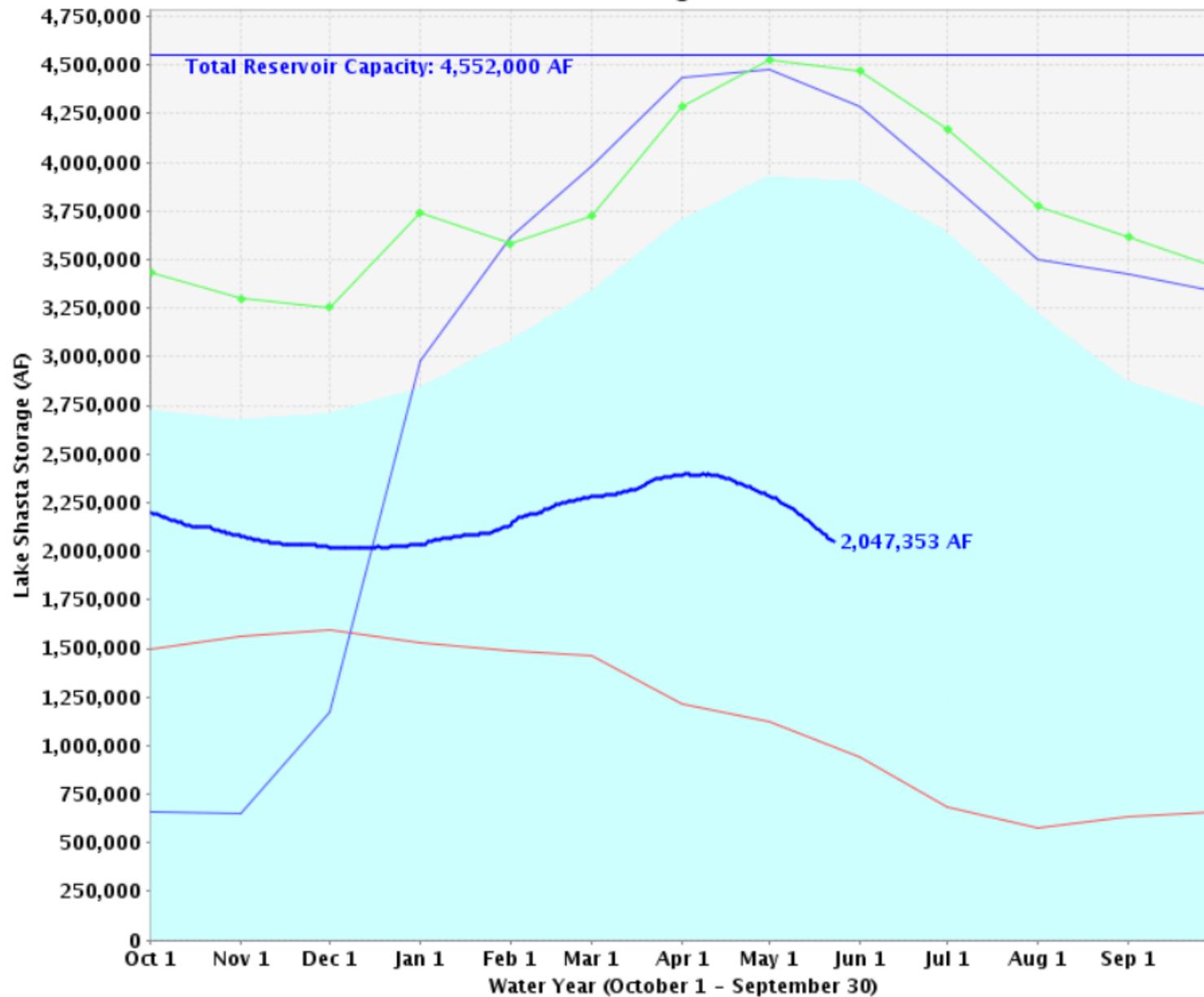


Data as of Midnight: May 23, 2021

- Storage: 2,047,353 AF
- Reservoir Elevation: 960.03 FT
- **45% of Total Capacity**
- **52% of Historical Avg. For This Date**
- Total Capacity: 4,552,000 AF
- Avg. Stor. for May 23: 3,906,716 AF

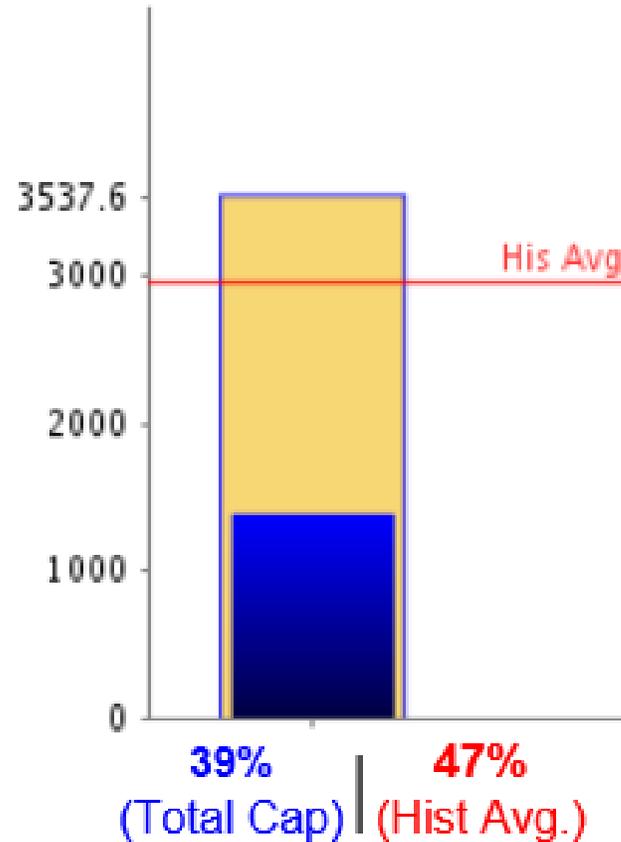
Change Date:  23-May-2021

# Lake Shasta Storage Levels



Historical Average — Total Reservoir Capacity — 1976-1977 (dry) — 1977-1978 — 1982-1983 (wet)  
— 2020-2021(current)

# OROVILLE - STORAGE CONDITIONS AS OF MAY 23, 2021

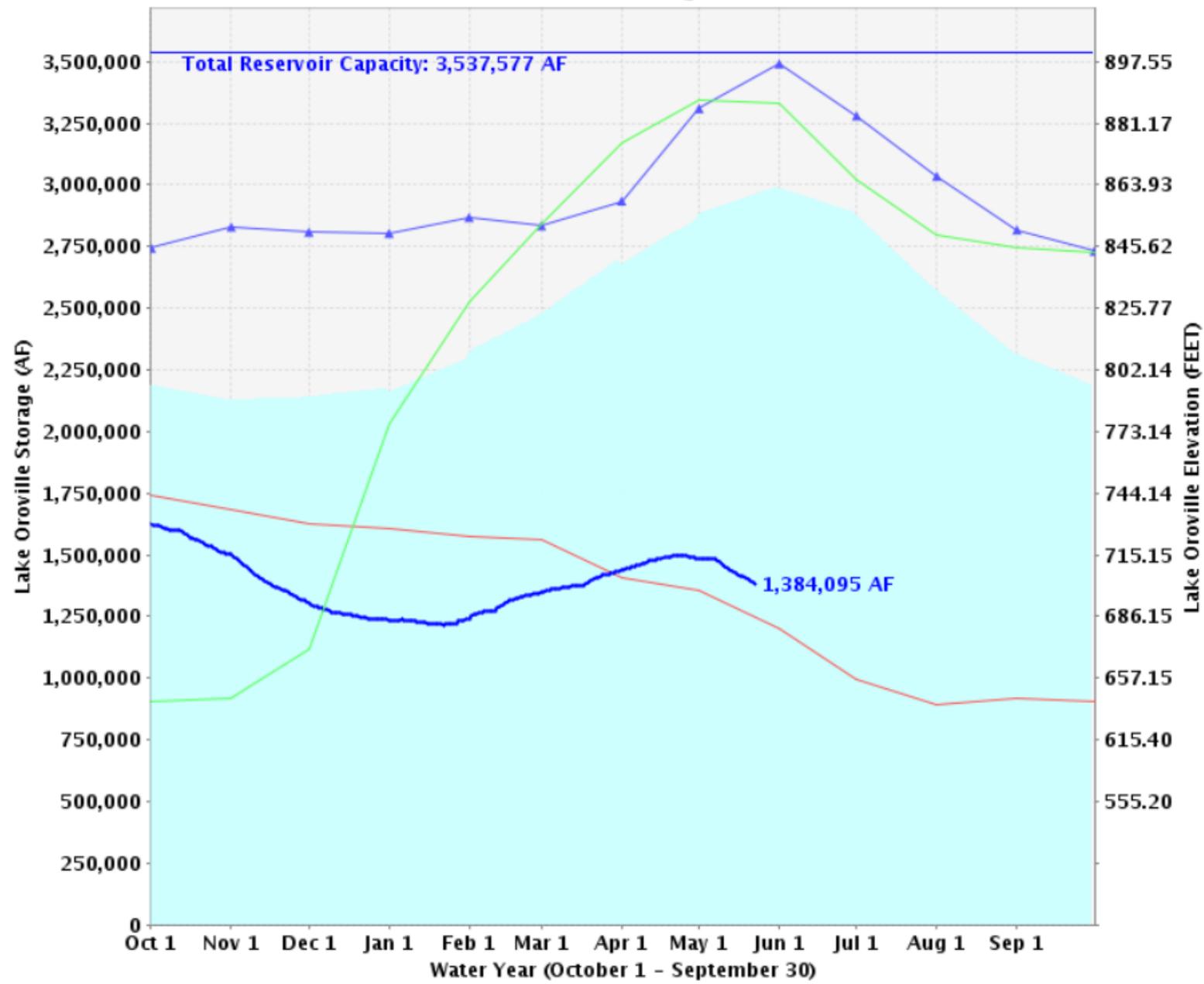


Data as of Midnight: May 23, 2021

- Storage: 1,384,095 AF
- Reservoir Elevation: 716.40 FT
- **39% of Total Capacity**
- **47% of Historical Avg. For This Date**
- Total Capacity: 3,537,577 AF
- Avg. Stor. for May 23: 2,960,811 AF

Change Date:  23-May-2021

# Lake Oroville Storage Levels

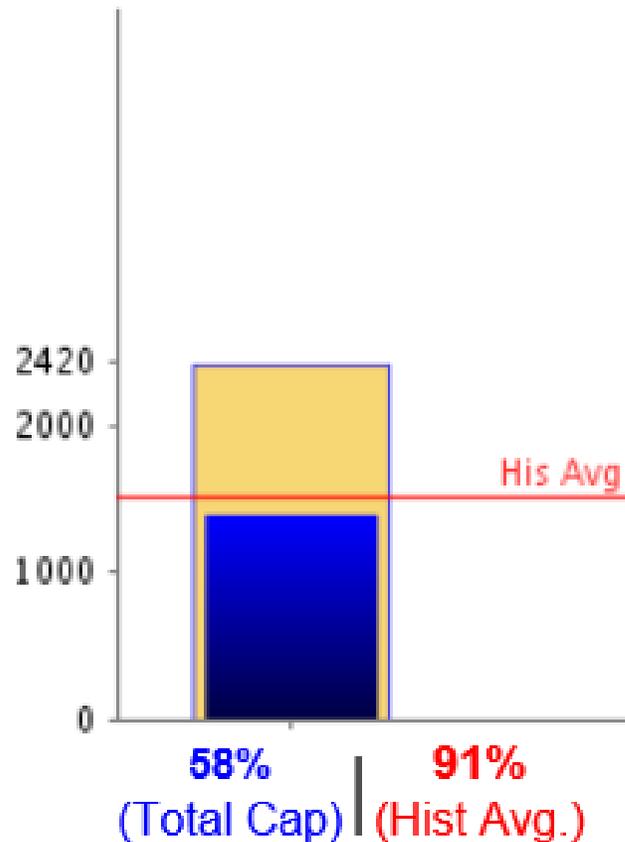


■ Historical Average 
 —▲— Total Reservoir Capacity 
 — 1976-1977 (dry) 
 — 1977-1978 
 —▲— 1982-1983 (wet) 
 — 2020-2021(current)

## MELONES - STORAGE CONDITIONS AS OF MAY 23, 2021



**New Melones  
Lake**

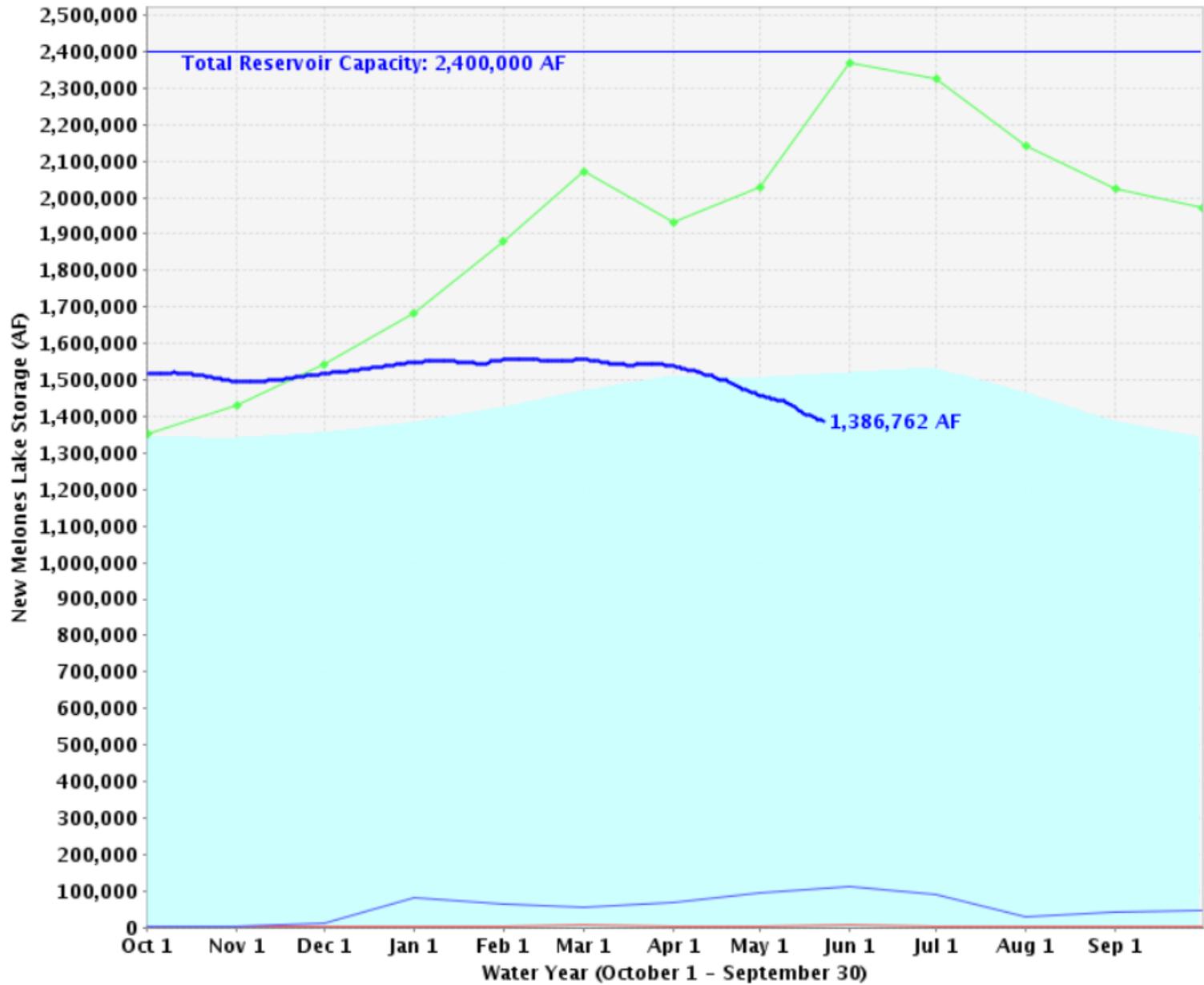


Data as of Midnight: May 23, 2021

- Storage: 1,386,762 AF
- Reservoir Elevation: 990.64 FT
- **58% of Total Capacity**
- **91% of Historical Avg. For This Date**
- Total Capacity: 2,400,000 AF
- Avg. Stor. for May 23: 1,515,762 AF

Change Date:  23-May-2021

## New Melones Lake Storage Levels

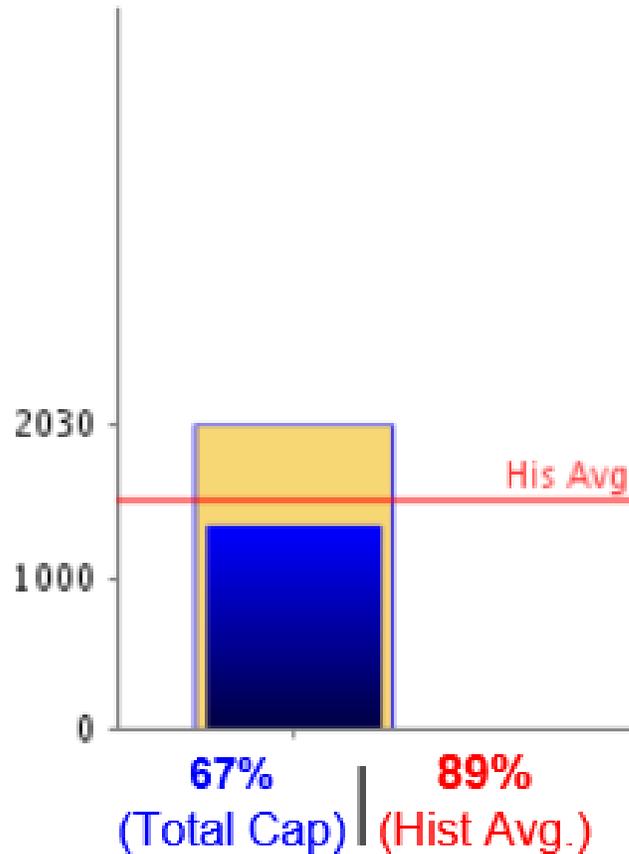


■ Historical Average  
 — Total Reservoir Capacity  
 — 1976-1977 (dry)  
 — 1977-1978  
 —◆ 1982-1983 (wet)  
 — 2020-2021 (current)

## DON PEDRO - STORAGE CONDITIONS AS OF MAY 23, 2021



**Don Pedro  
Reservoir**

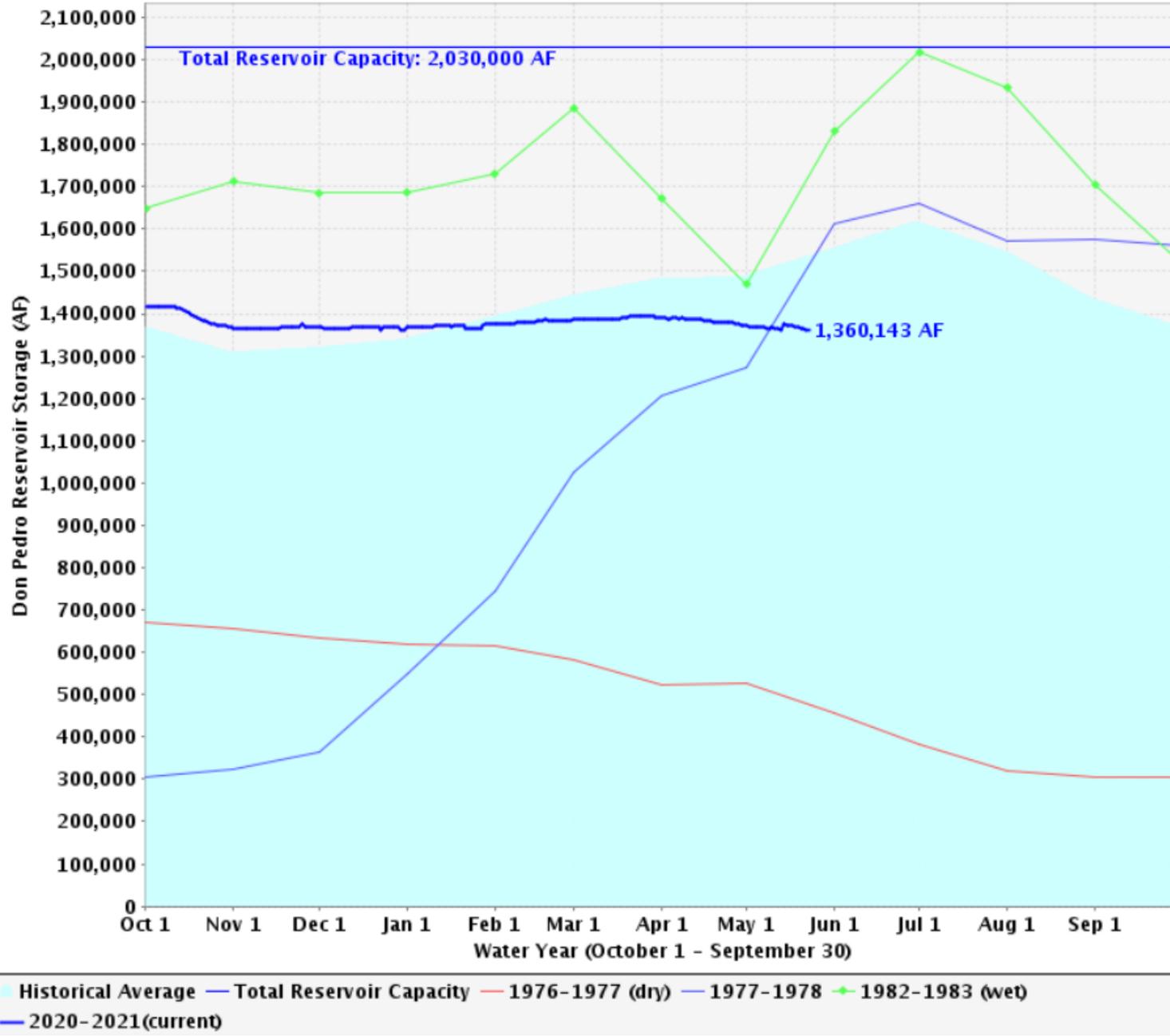


Data as of Midnight: May 23, 2021

- Storage: 1,360,143 AF
- Reservoir Elevation: 770.11 FT
- **67% of Total Capacity**
- **89% of Historical Avg. For This Date**
- Total Capacity: 2,030,000 AF
- Avg. Stor. for May 23: 1,536,010 AF

Change Date:  23-May-2021

# Don Pedro Reservoir Storage Levels



**GOVERNOR GAVIN NEWSOM**  
**PROCLAMATION OF A STATE OF EMERGENCY**  
**(May 10, 2021)**

- **WHEREAS** climate change is intensifying the impacts of droughts on our communities, environment, and economy, and California is in a second consecutive year of dry conditions, resulting in drought or near-drought throughout many portions of the State; and
- **WHEREAS** recent warm temperatures and extremely dry soils have further depleted the expected runoff water from the Sierra-Cascade snowpack, resulting in a historic and unanticipated estimated reduction of 500,000 acre feet of water - or the equivalent of supplying water for up to one million households for one year - from reservoirs and stream systems, especially in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watersheds; and
- **WHEREAS** the extreme drought conditions through much of the State present urgent challenges, including the risk of water shortages in communities, greatly increased wildfire activity, diminished water for agricultural production, degraded habitat for many fish and wildlife species, threat of saltwater contamination of large fresh water supplies conveyed through the Sacramento-San Joaquin Delta, and additional water scarcity if drought conditions continue into next year; and
- **WHEREAS** Californians have saved water through conservation efforts, with urban water use approximately 16% below where it was at the start of the last drought years, and I encourage all Californians to undertake actions to further eliminate wasteful water practices and conserve water; and

# Governor's Drought Declaration

- **WHEREAS** on April 21, 2021, I issued a proclamation directing state agencies to take immediate action to bolster drought resilience and prepare for impacts on communities, businesses, and ecosystems, and proclaiming a State of Emergency to exist in Mendocino and Sonoma counties due to severe drought conditions in the Russian River Watershed; and
- **WHEREAS** additional expedited actions are now needed in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watersheds; and
- **WHEREAS** it is necessary to expeditiously mitigate the effects of the drought conditions within the Klamath River Watershed Counties (Del Norte, Humboldt, Modoc, Siskiyou, and Trinity counties), the Sacramento-San Joaquin Delta Watershed Counties (Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Shasta, Sierra, Siskiyou, Solano, Stanislaus, Sutter, Tehama, Trinity, Tuolumne, Yolo, and Yuba counties), and the Tulare Lake Watershed Counties (Fresno, Kern, Kings, and Tulare counties) to ensure the protection of health, safety, and the environment; and

# Governor's Drought Declaration

- **WHEREAS** under Government Code Section 8558(b), I find that the conditions caused by the drought conditions, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and
- **WHEREAS** under Government Code Section 8625(c), I find that local authority is inadequate to cope with the drought conditions; and
- **WHEREAS** to protect public health and safety, it is critical the State take certain immediate actions without undue delay to prepare for and mitigate the effects of, the drought conditions statewide, and under Government Code Section 8571, I find that strict compliance with various statutes and regulations specified in this proclamation would prevent, hinder, or delay the mitigation of the effects of the drought conditions in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties.
- **NOW THEREFORE, I, GAVIN NEWSOM**, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties due to drought.

# Governor's Drought Declaration

- **IT IS HEREBY ORDERED THAT:**

1. The orders and provisions contained in my April 21, 2021 Proclamation remain in full force and effect, except as modified. State agencies shall continue to implement all directions from that proclamation and accelerate implementation where feasible.
2. To ensure that equipment and services necessary for drought response can be procured quickly, the provisions of the Government Code and the Public Contract Code applicable to procurement, state contracts, and fleet assets, including, but not limited to, advertising and competitive bidding requirements, are hereby suspended to the extent necessary to address the effects of the drought in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties. Approval of the Department of Finance is required prior to the execution of any contract entered into pursuant to this provision.

# Governor's Drought Declaration

3. To support voluntary approaches where hydrology and other conditions allow, the Department of Water Resources and the State Water Resources Control Board (Water Board) shall expeditiously consider requests to move water, where appropriate, to areas of need, including requests involving voluntary water transfers, forbearance agreements, water exchanges, or other means. Specifically, the Department of Water Resources and Water Board shall prioritize transfers that retain a higher percentage of water in upstream reservoirs on the Sacramento, Feather, and American Rivers for release later in the year. If necessary, the Department of Water Resources shall request that the Water Board consider changes to water rights permits to enable such voluntary movements of water. For actions taken in the Klamath River and Sacramento-San Joaquin Delta Watershed Counties pursuant to this paragraph, the following requirements of the Water Code are suspended:
  - a. Section 1726(d) requirements for written notice and newspaper publication, provided that the Water Board shall post notice on its website and provide notice through electronic subscription services where interested persons can request information about temporary changes; and
  - b. Section 1726(f) requirement of a 30-day comment period, provided that the Water Board shall afford a 15-day comment period.

# Governor's Drought Declaration

4. To ensure adequate, minimal water supplies for purposes of health, safety, and the environment, the Water Board shall consider modifying requirements for reservoir releases or diversion limitations-including where existing requirements were established to implement a water quality control plan-to conserve water upstream later in the year in order to protect cold water pools for salmon and steelhead, improve water quality, protect carry over storage, or ensure minimum health and safety water supplies. The Water Board shall require monitoring and evaluation of any such changes to inform future actions. For actions taken in the Sacramento-San Joaquin Delta Watershed Counties pursuant to this paragraph, Water Code Section 13247 is suspended.

# Governor's Drought Declaration

5. To ensure protection of water needed for health, safety, and the environment in the Klamath River and Sacramento-San Joaquin Delta Watershed Counties, the Water Board shall consider emergency regulations to curtail water diversions when water is not available at water right holders' priority of right or to protect releases of stored water. The Department of Water Resources shall provide technical assistance to the Water Board that may be needed to develop appropriate water accounting for these purposes in the Sacramento-San Joaquin Delta Watershed.
6. To ensure critical instream flows for species protection in the Klamath River and Sacramento-San Joaquin Delta Watersheds, the Water Board and Department of Fish and Wildlife shall evaluate the minimum instream flows and other actions needed to protect salmon, steelhead, and other native fishes in critical streams systems in the State and work with water users and other parties on voluntary measures to implement those actions. To the extent voluntary actions are not sufficient, the Water Board, in coordination with the Department of Fish and Wildlife, shall consider emergency regulations to establish minimum drought instream flows.

# Governor's Drought Declaration

7. Operative paragraph 4 of my April 21, 2021 Proclamation is withdrawn and superseded by the following, which shall apply to the Russian River Watershed identified in my April 21, 2021 Proclamation as well as the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties: To prioritize drought response and preparedness resources, the Department of Water Resources, the Water Board, the Department of Fish and Wildlife, and the Department of Food and Agriculture, in consultation with the Department of Finance, shall:
  - a. Accelerate funding for water supply enhancement, water conservation, or species conservation projects.
  - b. Identify unspent funds that can be repurposed to enable projects to address drought impacts to people, ecosystems, and economic activities.
  - c. Recommend additional financial support for groundwater substitution pumping to support Pacific flyway habitat needs in the lower Sacramento River and Feather River portions of the Central Valley in the Fall of 2021.

# Governor's Drought Declaration

8. Consistent with operative paragraph 13 of my April 21, 2021 Proclamation, the Department of Water Resources shall take actions, if necessary, to implement plans that address potential Delta salinity issues. Such actions may include, among other things, the installation and removal of, Emergency Drought Salinity Barriers at locations within the Sacramento-San Joaquin Delta Estuary. These barriers shall be designed to conserve water for use later in the year to meet state and federal Endangered Species Act requirements, preserve to the extent possible water quality in the Delta, and retain water supply for human health and safety uses. The Water Board and the Department of Fish and Wildlife shall immediately consider any necessary regulatory approvals needed to install Emergency Drought Salinity Barriers. For actions taken pursuant to this paragraph, Section 13247 and the provisions of Chapter 3 (commencing with Section 85225) of Part 3 of Division 35 of the Water Code are suspended.

# Governor's Drought Declaration

9. To support the movement of water from areas of relative plenty to areas of relative scarcity in the Sacramento-San Joaquin Delta and Tulare Lake Watershed Counties, the Department of Water Resources shall expedite the consideration and, where appropriate, the implementation of pump-back delivery of water through the State Water Project on behalf of local water agencies.
10. To proactively prevent situations where a community runs out of drinking water, the Water Board, the Department of Water Resources, the Office of Emergency Services, and the Office of Planning and Research shall assist local agencies in identifying acute drinking water shortages in domestic water supplies, and shall work with local agencies in implementing solutions to those water shortages.

# Governor's Drought Declaration

11. For purposes of carrying out or approving any actions contemplated by the directives in operative paragraphs 3, 4, 5, 6, 8, and 9, the environmental review by state agencies required by the California Environmental Quality Act in Public Resources Code, Division 13 (commencing with Section 21000) and regulations adopted pursuant to that Division are hereby suspended to the extent necessary to address the impacts of the drought in the Klamath River, Sacramento-San Joaquin Delta and Tulare Lake Watershed Counties. For purposes of carrying out the directive in operative paragraph 10, for any ( a) actions taken by the listed state agencies pursuant to that directive, (b) actions taken by a local agency where the Office of Planning and Research concurs that local action is required, and (c) permits necessary to carry out actions under (a) or (b), Public Resources Code, Division 13 (commencing with Section 21000) and regulations adopted pursuant to that Division are hereby suspended to the extent necessary to address the impacts of the drought in counties where the Governor has proclaimed a drought state of emergency. The entities implementing these directives shall maintain on their websites a list of all activities or approvals for which these provisions are suspended.

# Governor's Drought Declaration

12. To ensure transparency in state agency actions, the Water Board and Department of Water Resources will maintain on their websites a list of the activities or approvals by their agencies for which provisions of the Water Code are suspended under operative paragraphs 3, 4, or 8 of this proclamation.
13. To ensure that posting and dissemination of information related to drought emergency activities is not delayed while accessible versions of that information are being created, Government Code Sections 7405 and 11546.7 are hereby suspended as they pertain to the posting of materials on state agency websites as part of responding to the drought emergency, provided that any state agencies failing to satisfy these code sections shall make and post an accessible version on their websites as soon as practicable.

**The 2012-2016 drought helped usher in some important water resilience policies that position the state to better handle another drought. These include:**

- Enactment in 2014 of the Sustainable Groundwater Management Act to require and empower local agencies to bring over drafted groundwater basins into sustainable conditions by 2040.
- Enactment of legislation to establish new standards for indoor, outdoor and industrial use of water.
- Funding for disadvantaged communities lacking access to safe drinking water through the Safe and Affordable Drinking Water Act.
- Increase in the frequency of water use reporting.
- Expanded state authority to order failing public water systems to consolidate with better-run systems.
- Tighter landscape efficiency standards for new developments.

## Other recent actions by state agencies to address dry conditions include:

- The state has launched a new [drought preparedness website](#) detailing current conditions, the state's response and informational resources for the public.
- The State Water Board has identified water suppliers at extreme financial risk that may need additional support due to the combined impacts of COVID and drought.
- The Department of Water Resources (DWR) has updated its [Dry Well website](#) that tracks reports of water supply outages.

## Other recent actions by state agencies to address dry conditions include:

- DWR has drafted a [Drought Contingency Plan](#) that explains how it will manage the State Water Project in a manner that protects fish and wildlife.
- The State Water Board has issued letters to approximately 40,000 water right holders across the state, advising them to [plan for potential shortages](#) by closely managing water use.
- Last month, [DWR released a report](#), prepared with extensive stakeholder involvement, that evaluates the water shortage risk of more than 4,000 small water providers.

## Other recent actions by state agencies to address dry conditions include:

- Informed by that report, this month the State Water Board completed its first-ever comprehensive look at California [water systems that are struggling](#) to provide safe drinking water to communities and how to help them. The assessment identifies both failing water systems and those at risk of failing, offering the most in-depth view of long-term drinking water safety the state has ever had.
- CDFA is coordinating closely with the USDA to provide aid to growers and ranchers in the Klamath Basin, and the Department of Fish and Wildlife is working with California Native American tribes and commercial and recreational salmon representatives to manage impacts to iconic salmon in the basin.

# Local Water Suppliers Drought Response

- Agricultural Water Management Plan – recently updated and include Drought Contingency Plans
- Urban Water Management Plans – recently updated and include Drought Contingency Plans
- Expand Conjunctive Use: GW is a “drought bank” for dry times
- Sole-source, self-supplied (duration, frequency and magnitude)
- Demand-side measures (indoor/outdoor Water Conservation)
- Supply-side measures (evaluate full portfolio of options)
  - West County – Largely dependent on imported water
  - East County – Primarily depend on local watershed stored water/reservoirs

# Stanislaus County Agricultural Response

- Oakdale ID – No planned reduction in deliveries at this time
- Modesto ID – 36”/42” (14%) [*same applies to SW deliveries to COM*]
- Turlock ID – 34”/48” (30%)
- Eastside WD- 100% GW
- Patterson ID – Not rationing...yet (SJR direct diversions subject to SWB)
- West Stanislaus ID – 21% reduction in supply (pump more GW)
- Del Puerto WD – carryover storage in San Luis Reservoir, GW pumping, water transfers (\$\$), North Valley recycled urban wastewater (19 TAF)
  - DP Canyon Reservoir ?
- Eastin WD – 100% GW (no change from historical usage)
- Out-of-District (County “white areas”) – 100% GW

# Stanislaus County Drought Response

- Stanislaus County Water Conservation Ordinance 14.12 remains in effect
  - **No outdoor water use** between 9:00 am and 7:00 pm
  - 2 days/week depending on ODD or EVEN street address
    - ODD: Sundays and Wednesdays
    - EVEN: Tuesdays and Saturdays
- Stanislaus County Office of Emergency Services
  - Threat Assessment Group (TAG): Monitor Conditions and Meet Monthly with expanded participation
    - Next Meeting @ 10:00 a.m. on June 22, 2021
  - Status may change based upon prevailing conditions (Local Drought Declaration)
- <https://mavensnotebook.com>

# Questions & Discussion