



FRIANT WATER UPDATE

April 26, 2024

NOTE: Five Friant ALERT items, on pages 4 and 5.

Data current as of April 24th, 2024, unless otherwise noted.

Meteorology, Climate, and Hydrology

Recent Precipitation Events

- Over the past week, parts of the Central and Southern Sierra received trace amounts to 0.5 inches of precipitation.

Water Year 2024 Precipitation (October 2023 – September 2024)

- **Sacramento Valley:** 93% of normal for this week (Link: [HERE](#)) (95% last week)
- **San Joaquin Valley:** 87% of normal for this week (Link: [HERE](#)) (89% last week)
- **Tulare Lake Region:** 84% of normal for this week (Link: [HERE](#)) (86% last week)

Water Year 2024 Snow Accumulation

Reporting of snow water content for WY 2024 by DWR automated snow sensors (Link: [HERE](#)):

- **Northern Sierra:** 96% of April 1st Average; 112% of normal for this week (115/125 last week)
- **Central Sierra:** 82% of April 1st Average; 92% of normal for this week (101/108 last week)
- **Southern Sierra:** 79% of April 1st Average; 92% of normal for this week (99/108 last week)
- **Statewide:** 86% of April 1st Average; 99% of normal for this week (105/113 last week)

Looking forward:

- Throughout the weekend, temperatures are expected to be near normal to 5 degrees below normal throughout the State. As the week progresses, temperatures are expected to be 5 to 15 degrees below normal along the Coast, in some parts of the Central Valley, and in northeastern portion of the State. Elsewhere, temperatures are expected to be near normal to 10 degrees above normal. Next week, 0.5 to 1.5 inches of precipitation are expected in the North Coast, 0.25 to 0.5 inches of precipitation are expected in the Sierra and northeastern portion of the State, and trace amounts of precipitation are expected in the Central Valley, Bay Area, South Coast, and Inland Deserts. Long range forecasts suggest a change to a slightly cooler and relatively unsettled pattern starting this weekend.
- The National Weather Service's May outlook shows a 30-40% chance of above normal temperatures in Northern California, 33-40% chance of near normal temperatures in the Southern Sierra, and equal chances of above normal, normal, and below normal temperatures elsewhere in the State. It also shows equal chances of above normal, normal, and below normal precipitation throughout the State. (Link: [HERE](#)).
- DWR released the April 1st water supply forecast for water year 2024 on April 9th. The forecast indicates a Sacramento Valley Index of 8.4 (Above Normal) at the 50% exceedance level and a San Joaquin Valley Index of 3.2

(Above Normal) at the 75% exceedance level (Link: [HERE](#)). The March forecast showed a Sacramento Valley Index of 8.2 (Above Normal) and a San Joaquin Valley Index of 3.1 (Below Normal).

- DWR completed the fourth manual snow survey of the season at Phillips Station on April 2nd. The survey recorded 64 inches of snow depth and a snow water equivalent of 27.5 inches (113% of average) (Link: [HERE](#)).

Other resources:

- Authoritative California climate and meteorology blog by Weather West (Link: [HERE](#)).
- Interactive, real-time meteorology updates from Ventusky (Link: [HERE](#)).
- Weather updates from the National Weather Service Sacramento office (Link: [HERE](#)).
- DWR’s “California Water Watch” provides a snapshot of California Hydroclimate and Water Supply Conditions (Link: [HERE](#)).
- The California Nevada River Forecast Center (CNRFC) posted a Water Year 2023 Summary detailing the climatic conditions and historic storm events that occurred during the past water year (Link: [HERE](#))

North of Delta Operations

- Keswick Reservoir releases increased to 11,000 cfs on April 23rd as part of a spring pulse flow.
- Folsom Reservoir releases (below Nimbus) increased to 5,000 cfs on April 22nd but will decrease to 4,000 cfs on April 26th.
- Oroville Reservoir releases (below Thermalito) gradually increased from 3,500 cfs to 6,500 cfs on April 23rd as part of a pulse flow for fish migration. Releases then began decreasing to 5,000 cfs on April 25th for a post-pulse ramp-down.
- North of Delta Reservoir Summary (TAF):

	Reservoir	Capacity	15 year Avg	WY 2023	WY 2024	% of Avg	Weekly Change
CVP	Trinity	2,448	1,702	851	2,096	123	26
	Shasta	4,552	3,675	4,333	4,377	119	21
	Folsom	977	708	737	822	116	39
SWP	Oroville	3,538	2,617	3,173	3,343	128	123

- North of Delta Reservoir Release Summary (cfs):

	Reservoir	Dam	WY 2023	WY 2024	15 Yr Median	Weekly Change
CVP	Trinity	Lewiston	9,696	8,148	1,517	7,510
	Sacramento	Keswick	4,528	10,910	5,505	2,864
	American	Nimbus	7,004	5,012	2,006	849
SWP	Feather	Oroville	15,000	6,500	1,350	1,500

- Reclamation’s daily CVP water supply report is available on the Reclamation website (Link: [HERE](#)).
- Increases to the 2024 CVP North of Delta allocations were announced on March 22nd (Link: [HERE](#)):
 - 100% for Sacramento River Settlement Contractors and CVP Refuge supplies
 - 100% of historical use for M&I Water Service and Repayment Contractors
 - 100% for Agricultural Service Contractors
- Releases to the Trinity River from Lewiston are being operated to the wet year ROD flow schedule. Flows peaked at 8,500 cfs on April 23rd and will slowly recede through early July to around 500 cfs and ultimately to 450 cfs in early August.
- Whiskeytown releases remained at 200 cfs.

Looking forward:

- Keswick Reservoir releases will remain at 11,000 cfs until April 27th. Releases will then gradually decrease to 6,000 cfs by April 30th. Two additional spring pulse flows are expected to occur on the Sacramento River throughout May. Reclamation currently expects Shasta to completely fill within the next month.
- Folsom releases are likely to remain in the 4,000 to 5,000 cfs range for the near future to manage inflow and flood control space. Reclamation expects Folsom to completely fill sometime in May.
- Oroville releases will continue to be adjusted over the next several weeks based on flood control needs.

Delta/South of Delta Operations

Flow values in this section are rounded to the nearest 100 cfs.

- **Controlling Factor(s) in the Delta:** San Joaquin River Inflow/Export Ratio (per [DWR Delta Ops report](#))
 - As of February 1st, the D-1641 E/I ratio export cap is 35%, and the ratio is currently at 4% (14-day average).
 - As of April 1st, the Delta Outflow requirement is for 30 days at Chipps Island (11,400 cfs or 2.64 mmhos/cm) and 19 days at Port Chicago (29,200 cfs or 2.64 mmhos/cm). There are four carryover days from March for Port Chicago. The monthly average net Delta outflow index is currently 41,200 cfs and salinity at Chipps Island is currently 0.15 mmhos/cm (daily) and 0.14 mmhos/cm (14-day average).
 - The DWR Delta Ops Report indicates that the Delta is currently in an Excess with Restrictions condition.
- Daily Delta outflow index is 37,400 cfs (7-day average).
- Delta inflow is about 37,000 cfs. Inflow is 28,500 cfs on the Sacramento River at Freeport, and 5,500 cfs on the San Joaquin River at Vernalis.
- Jones Pumping Plant remained at a 1-unit operation of about 900 cfs, but will increase to a two-unit operation of approximately 1,800 cfs on April 26th.
- Banks Pumping Plant pumping is approximately 500 cfs.
- CVP San Luis Storage Summary: Storage is declining as DWR exchanges are paid back and demands exceed current exports.

	Capacity	15 year Avg	WY 2023	WY 2024	% of Avg	Weekly Change
Federal San Luis	966	710	961	920	130	-22

- SWP San Luis storage remained at 547 TAF.
- The Delta Cross Channel gates closed on November 27th and will remain closed per the seasonal fishery closure (Link: [HERE](#)).
- Reclamation's SOD daily operations report is available (Link: [HERE](#)).
- **ALERT:** On April 23rd, the SWP announced that the allocation for 2024 increased to 40% of requested supplies (was previously 30%). The increase is relative to runoff conditions as of April 1st (Link: [HERE](#)).
- **ALERT:** Increases to 2024 CVP SOD allocations were announced on April 24th. Allocations are based on current conditions and forecasting of potential future hydrology (Link: [HERE](#)):
 - 100% for San Joaquin River Exchange Contractors and CVP Refuge supplies
 - 100% for Eastside Water Service Contractors
 - 75% of historical use for M&I Water Service and Repayment Contractors
 - 40% of contract maximum for Agricultural Service and Repayment Contractors (was previously 35%)
 - The announcement also noted that Reclamation is reserving 83,000 acre-feet of storage currently in CVP San Luis Reservoir for contribution to a drought reserve pool. This water is not considered as a volume available for water supply allocations.

- Releases from Goodwin will fluctuate between 300 cfs to 2,500 cfs due to multiple spring pulse flows occurring on the Stanislaus River. The next pulse flow will peak on April 29th at 2,500 cfs before ramping down to 2,250 cfs on April 30th.

Looking forward:

- Through the first week of April, the Projects were operating to a -2,500 cfs OMR requirement due to the San Joaquin River Inflow: Export (I:E) ratio requirement being off-ramped. As of April 10th, the Projects are operating to an I:E ratio of 4:1 due to the shift to Above Normal year type for the San Joaquin River. With the shift to an Above Normal year type, Reclamation is required to operate to the 4:1 ratio and forego 100 TAF of exports as defined in the Interim Operations Plan (IOP). Reclamation is expecting to increase to a two-unit operation at Jones on April 26th as the fish agencies have requested that the remaining 100 TAF of foregone exports be shifted into May. SWP exports are limited to the 4:1 ratio through May 31st. As such, Banks exports are expected to be limited to approximately 600 cfs for the foreseeable future.
- An outage is currently scheduled to occur at O’Neill Pumping Plant for approximately six weeks due to transformer rehabilitation. The outage had originally been planned for mid-April through late-May, but will now be delayed until early in the fall due to operational constraints that will be more easily accommodated at that time as opposed to April and May.

NASA Airborne Snow Observatory

- The fourth ASO flight, is scheduled for April 25th-May 3rd. Flight #5 funding is subject to a developing contract and agencies are seeking funding for Flight #6.

Friant Division Operations

- ALERT:** On April 18th, Reclamation announced an increase in the Friant water supply allocation from 95% to 100% Class 1 and from 0% to 5% Class 2. The Friant Division WY 2024/25 supply is now as follows:

Class 1 Allocation	Class 2 Allocation	Rescheduled from 2023	Tier 1 Unreleased Restoration Flows (URF) (Net)	Other
100% (800 TAF)	5% (70 TAF)	133.1 TAF	Block 1: 40 TAF*	TBD

*Must be used by May 5th

- ALERT:** On April 24th there were 876 cfs diversions to the Madera Canal, 2,572 cfs diversions to the Friant-Kern Canal, and 560 cfs of releases to the river.
- Millerton Lake daily operations report (Link: [HERE](#)), CDEC information (Link: [HERE](#)), and a Water Year accumulation plot (Link: [HERE](#)) are available.
- ALERT:** Storage in Millerton was 483,796 AF on April 24th. Storage increased by about 24,900 AF compared to last week.
- On April 24th, the calculated Full Natural River flow was 9,466 cfs and Inflow to Millerton was 7,919 cfs.

Recent/Forecast Precipitation

- Total measured precipitation for the 7 days ending April 24th in the San Joaquin 5-station area was 0.1 inches. Seasonal total through April 24th is 31.1 inches which is 86% of average, compared to 88% last week.
- The Reclamation Joint Forecast Team is projecting the following probabilities of water year types based on National Weather Service data: Critical Low, Critical High and Dry – 0%; Normal Dry – 0%; Normal Wet – 100%;

Wet – 0%. The blended runoff forecast as of April 4th is 1,488 TAF and 1,713 TAF at 90% and 50% exceedance, respectively.

Looking forward:

- **ALERT:** It is currently anticipated that an additional 40-50 TAF of Tier 1 URF may be made available soon. It is likely that there will be a time limitation associated with the availability depending on the need for flood management actions. There is also a possibility of an increase in Class 2 supply, most likely as Uncontrolled Season use.

San Joaquin River Settlement Implementation

Restoration Flow Releases

- On April 11th, the SJRRP transmitted to the Restoration Administrator (RA) an updated Restoration Allocation for the 2024/25 water year. The Allocation was based on a 50% Exceedance forecast for the water year of 1,753 TAF, which is a Normal-Wet year type, compared to the prior month's forecast of 1,382 TAF, a Normal-Dry year. The current allocation is 325,804 AF of Restoration Flows as measured at Gravelly Ford, compared to 274,201 AF in the prior month. The RA was requested to provide a flow recommendation by April 23rd.
- It is anticipated that much of the increase will either be made available as URF, subject to a Water Supply Test to schedule any URF after May 28th.
- **ALERT:** The Gravelly Ford Restoration flow target is 375 cfs through April 27th, reducing to 175 cfs by May 15th. Total Restoration Flows at Gravelly Ford on April 24th were 351 cfs (356 cfs total flow). The expected rate of Restoration Flows passing Sack Dam for April 24th was approximately 270 cfs.

Recapture/Recirculation

- **Mendota Pool:** Some incidental MP recapture occurred in March due to seepage limitations below Sack Dam. Seepage limitations have resulted in a reduction in scheduled releases by the RA for the remainder of April, but any time there are excess flows reaching Mendota Pool, there is incidental recapture.
- **PID and BCID:** PID recaptured 1,689 AF and BCID recaptured 3,255 AF in March for a total of 4,944 AF. Recapture in April will likely be in the range of 4-5 TAF based on preliminary estimates by the two districts. The CVP share of San Luis Reservoir is currently on a downward trajectory, so there is currently no expectation of the need for direct delivery or loss of any Recaptured Water.
- **Distribution of Recaptured Water:** Given the current status of the Friant Division Class 1 allocation (100%) for WY 2024, water recaptured in March was distributed to participating Class 2 contractors and April recapture will be distributed the same way.

River Settlement, Restoration Biological Monitoring

- Reclamation and CDFW have continued Rotary Screw Trap monitoring with the following results:
 - 35 wild juvenile salmon smolt captured in the last sampling period (April 15th – April 21st)
 - 464 total juvenile salmon have been captured at Owl Hollow, Scout Island, Highway 99 and Thomas Farms (above Gravelly Ford)
 - 383 non-salmonids were captured in the last week for a total of 24,314 “bycatch” for the season.
- Adult Steelhead Monitoring was initiated on April 1st in the lower reaches of the SJRRP Restoration Area with the following activities/results:
 - Fyke traps/nets deployed at Hills Ferry Barrier, Salt Slough, Mud Slough, Van Clief SJR and 2 locations in the Eastside Bypass.

- 862 non-steelhead or salmon were captured in April.
- **Breaking News: the first adult return Spring-Run Chinook Salmon was captured at the Eastside Bypass Control Structure**
- All Steelhead monitoring for the remainder of the adult spring-run Chinook Salmon immigration season in the Restoration Area will be considered part of the SJRRP Adult Trap and Haul Program,