



# FRIANT WATER UPDATE

May 10, 2024

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

Data current as of May 8<sup>th</sup>, 2024, unless otherwise noted.

## Meteorology, Climate, and Hydrology

### Recent Precipitation Events

- Over the past week, the North Coast and Northern Sierra received 1.5 to 5 inches of precipitation, the Central and Southern Sierra received 1 to 1.5 inches of precipitation, the Central Valley and northeastern part of the State received 0.25 to 0.5 inches of precipitation, and the South Coast received trace amounts of precipitation.

### Water Year 2024 Precipitation (October 2023 – September 2024)

- **Sacramento Valley:** 96% of normal for this week (Link: [HERE](#)) (93% last week)
- **San Joaquin Valley:** 88% of normal for this week (Link: [HERE](#)) (86% last week)
- **Tulare Lake Region:** 85% of normal for this week (Link: [HERE](#)) (83% last week)

### Water Year 2024 Snow Accumulation

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

- **Northern Sierra:** 78% of April 1<sup>st</sup> Average; 131% of normal for this week (83/111 last week)
- **Central Sierra:** 65% of April 1<sup>st</sup> Average; 99% of normal for this week (73/92 last week)
- **Southern Sierra:** 47% of April 1<sup>st</sup> Average; 77% of normal for this week (69/92 last week)
- **Statewide:** 65% of April 1<sup>st</sup> Average; 103% of normal for this week (75/97 last week)

### Looking forward:

- Throughout the next week, temperatures are expected to be 5 to 15 degrees above normal throughout the State. Next week, trace amounts to 0.25 inches of precipitation are expected in the Central and Southern Sierras.
- The National Weather Service's May outlook shows a 40-50% chance of near normal temperatures in Southern California, 33-40% chance of near normal temperatures in an area encompassing the Central Coast, San Joaquin Valley, and 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](#)).
- **ALERT:** DWR released the May 1<sup>st</sup> water supply forecast for water year 2024 on May 8<sup>th</sup>. The forecast indicates a Sacramento Valley Index of 8.4 (Above Normal) at the 50% exceedance level and a San Joaquin Valley Index of 3.4 (Above Normal) at the 75% exceedance level (Link: [HERE](#)). The April forecast showed a Sacramento Valley Index of 8.4 (Above Normal) and a San Joaquin Valley Index of 3.2 (Above Normal).

- DWR completed the fourth manual snow survey of the season at Phillips Station on April 2<sup>nd</sup>. 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](#)).

**North of Delta Operations**

- Keswick Reservoir releases increased to 11,000 cfs on May 7<sup>th</sup> as part of a spring pulse flow.
- Folsom Reservoir releases (below Nimbus) remained at 4,000 cfs.
- Oroville Reservoir releases (below Thermalito) increased to 11,000 cfs on May 8<sup>th</sup> for flood control.
- North of Delta Reservoir Summary (TAF):

	Reservoir	Capacity	15 year Avg	WY 2023	WY 2024	% of Avg	Weekly Change
CVP	Trinity	2,448	1,706	937	2,072	121	-1
	Shasta	4,552	3,702	4,458	4,397	119	33
	Folsom	977	757	835	873	115	24
SWP	Oroville	3,538	2,691	3,322	3,525	131	64

- North of Delta Reservoir Release Summary (cfs):

	Reservoir	Dam	WY 2023	WY 2024	15 Yr Median	Weekly Change
CVP	Trinity	Lewiston	2,018	4,222	2,796	-914
	Sacramento	Keswick	12,971	10,944	7,999	4,795
	American	Nimbus	7,975	3,961	3,961	49
SWP	Feather	Oroville	7,000	10,000	3,000	6,000

- 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 22<sup>nd</sup> (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 will continue to slowly recede through early July to around 500 cfs and ultimately to 450 cfs in early August. Flows are currently at 4,000 cfs.
- Whiskeytown releases remained at 200 cfs.

**Looking forward:**

- Keswick Reservoir releases are likely to increase to meet downstream Sacramento River Settlement Contractor demands. One additional spring pulse flow may occur on the Sacramento River this 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 this month.
- Oroville releases will continue to be adjusted over the next several weeks based on flood control needs. Oroville storage is essentially full.

## 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 1<sup>st</sup>, the D-1641 E/I ratio export cap is 35%, and the ratio is currently at 4% (14-day average).
  - As of May 1<sup>st</sup>, the Delta Outflow requirement is for 31 days at Chipps Island (11,400 cfs or 2.64 mmhos/cm) and 13 days at Port Chicago (29,200 cfs or 2.64 mmhos/cm). There are eleven carryover days from March for Port Chicago. The monthly average net Delta outflow index is currently 28,800 cfs and salinity at Chipps Island is currently 0.25 mmhos/cm (daily) and 0.16 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 28,300 cfs (7-day average).
- Delta inflow is about 34,800 cfs. Inflow is 28,500 cfs on the Sacramento River at Freeport, and 4,200 cfs on the San Joaquin River at Vernalis.
- Jones Pumping Plant remained at a one-unit operation of approximately 900 cfs.
- Banks Pumping Plant pumping is approximately 600 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	677	953	847	125	-44

- SWP San Luis storage decreased by 6 TAF to 533 TAF.
- The Delta Cross Channel gates closed on November 27<sup>th</sup> and will remain closed per the seasonal fishery closure (Link: [HERE](#)).
- Reclamation’s SOD daily operations report is available (Link: [HERE](#)).
- On April 23<sup>rd</sup>, 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 1<sup>st</sup> (Link: [HERE](#)).
- Increases to 2024 CVP SOD allocations were announced on April 24<sup>th</sup>. 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 600 to 2,500 cfs due to multiple spring pulse flows occurring on the Stanislaus River. The next pulse flow will peak on May 15<sup>th</sup> at 2,500 cfs before ramping down to 1,000 cfs on May 18<sup>th</sup>.

### Looking forward:

- As of April 10<sup>th</sup>, the Projects have been operating to a San Joaquin River Inflow:Export (I:E) ratio of 4:1, consistent with the Above Normal year type for the San Joaquin River. Per the Interim Operations Plan (IOP), Reclamation is required to operate to the 4:1 ratio and forego 100 TAF of exports in an Above Normal water year type. After increasing to a two-unit operation at Jones on April 26<sup>th</sup>, Reclamation decreased to a one-unit operation on May 3<sup>rd</sup> to contribute the remainder of the 100 TAF of foregone exports at a faster rate. Reclamation currently

estimates the full 100 TAF will be satisfied by mid-May. Following this, Reclamation will likely be restricted to a two-unit operation based on the CVP’s share of a -2,500 cfs OMR requirement. SWP exports are limited to the 4:1 ratio through May 31<sup>st</sup>. 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 25<sup>th</sup> – May 3<sup>rd</sup>. Flight #5 funding is subject to a developing contract and agencies are seeking funding for Flight #6.

## Friant Division Operations

- **ALERT:** There were multiple water supply updates and announcements in late April and early May:
  - On April 18<sup>th</sup>, Reclamation announced an increase in the Friant water supply allocation from 95% to 100% Class 1 and from 0% to 5% Class 2.
  - On April 26<sup>th</sup>, Reclamation announced the availability of a second block of 40 TAF of Tier 1 Unreleased Restoration Flows (URF) that must be used by May 14<sup>th</sup>.
  - On April 29<sup>th</sup>, Reclamation announced the availability of 50 TAF of ratably allocated Uncontrolled Season (UcS) Class 2 supply that must be used by May 14<sup>th</sup>.
  - On May 1<sup>st</sup> Reclamation announced the availability of an additional 60 TAF of ratably-allocated limited-duration Uncontrolled Season Class 2 available as of May 2<sup>nd</sup> that must be used by May 24<sup>th</sup>.
  - **On May 3<sup>rd</sup>, a third block of 40 TAF of Tier 1 URF was made available for use by May 24<sup>th</sup>.**
  - 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)	Uncontrolled Season Class 2
100% (800 TAF)	5% (70 TAF)	133.1 TAF	Block A: 40 TAF* Block B: 40 TAF** Block C: 40 TAF***	110 TAF***

\*Must be used by May 5<sup>th</sup>

\*\*Must be used by May 15<sup>th</sup>

\*\*\* Limited duration UcS and URF Block C must be used by May 24<sup>th</sup>

- **ALERT:** On May 8<sup>th</sup> there were 1,001 cfs diversions to the Madera Canal, 4,110 cfs diversions to the Friant-Kern Canal, 708 cfs of releases to the river and 653 cfs average spillway discharge. On May 5<sup>th</sup> and 7<sup>th</sup>, there were 38 cfs and 125 cfs, average daily spills, respectively.
- 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 510,428 AF on May 8<sup>th</sup>. Storage decreased by about 4,300 AF compared to last week.
- On May 8<sup>th</sup>, the calculated Full Natural River flow was 5,839 cfs and Inflow to Millerton was 4,184 cfs.

## Recent/Forecast Precipitation

- Total measured precipitation for the 7 days ending May 8<sup>th</sup> in the San Joaquin 5-station area was 1.3 inches. Seasonal total through May 8<sup>th</sup> is 32.6 inches which is 87% of average, compared to 85% last week.
- Long-range forecast models are indicating the potential for 0.4 to 0.75 inches of precipitation in the next 16 days in the upper SJR watershed.
- The Reclamation Joint Forecast Team is projecting the following probability of water year type based on National Weather Service data: **Normal-Wet – 100%**; The blended runoff forecast as of April 4<sup>th</sup> is 1,488 TAF and 1,713 TAF at 90% and 50% exceedance, respectively.

## Looking forward:

- **ALERT:** Millerton Lake is essentially full. Conditions surrounding Millerton operations (hydrology, runoff and demands) continue to be very dynamic. There were incidental spills over the spillway at the top of the dam last weekend and earlier this week. The recent additional supplies of URF and Uncontrolled Season Class 2 are part of flood management actions by Reclamation to control reservoir storage in Millerton Lake while also preserving residual schedulable supplies after the flood risk is passed. Friant Contractors have engaged in daily coordination calls to determine how to maximize use of the limited capacity in portions of the FKC with the primary objective of avoiding flood releases from Friant Dam.

## San Joaquin River Settlement Implementation

### Restoration Flow Releases

- On April 26<sup>th</sup>, the Restoration Administrator (RA) submitted an updated Restoration Flow Schedule based on the April 11<sup>th</sup> updated Allocation for the 2024/25 water year. The current allocation is 325,804 AF of Restoration Flows as measured at Gravelly Ford. The revised schedule includes a brief pulse from April 27<sup>th</sup> through May 5<sup>th</sup> of approximately 650 cfs at Gravelly Ford for the purpose of attracting returning Spring Run salmon.
- **ALERT:** The Gravelly Ford Restoration flow target was 650 cfs from April 27<sup>th</sup>, through May 5<sup>th</sup>, then reducing to 180 cfs by May 16<sup>th</sup>. Total Restoration Flows at Gravelly Ford on May 8<sup>th</sup> were 670 cfs (675 cfs total flow). The expected rate of Restoration Flows passing Sack Dam for May 8<sup>th</sup> was as occurs up to 500 cfs.

### Recapture/Recirculation

- **Mendota Pool:** Some incidental MP recapture may occur in May due to seepage limitations below Sack Dam and the scheduled pulse flow.
- **PID and BCID:** PID recaptured 2,131 AF and BCID recaptured 3,062 AF in April for a total of 5,193 AF. Recapture in May will likely be limited to available capacity in the PID system (in the range of 2 TAF) because BCID has other conveyance obligations. 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 April will be distributed to Class 2 Contractors.

### River Settlement, Restoration Biological Monitoring

- Reclamation and CDFW have continued Rotary Screw Trap monitoring with the following results:
  - 25 wild juvenile salmon smolt captured in the last sampling period (April 29<sup>th</sup> – May 5<sup>th</sup>)
  - 482 total juvenile salmon have been captured at Owl Hollow, Scout Island, Highway 99 and Thomas Farms (above Gravelly Ford)

- 1,904 non-salmonids were captured in the last week for a total of 26,556 “bycatch” for the season.
- Adult Spring-run Chinook Monitoring was initiated on April 15<sup>th</sup> in the lower reaches of the SJRRP Restoration Area with the following activities/results:
  - Fyke traps/nets deployed at Hills Ferry Barrier and 2 locations in the Eastside Bypass.
  - 2 adult spring run salmon were captured in April.
- Steelhead monitoring is complete for the season.