BUREAU OF RECLAMATION

Stanislaus Watershed Team

November 20, 2024

Members Attending

- USBR: Brian Willard, Cat Pien, Myrna Girald Perez, Randi Field, Spencer Marshall, Zarela Guerrero
- USFWS: J.D. Wikert
- CDFW: Crystal Rigby, Gretchen Murphey, Steve Tsao, Travis Apgar
- NMFS: N/A
- DWR: N/A
- SWRCB: Yongxuan Gao
- PSMFC: Logan Day, Hunter Morris
- SSJID: Brandon Nakagawa
- Fishbio: N/A
- Stockton East Water District (SEWD): N/A
- WAPA: N/A
- Herum/Crabtree/Suntag Attorneys: Lilliana Selke
- Kearns & West: Karis Johnston, Bethany Taylor

Action Items

- Randi Field, Reclamation – Schedule a meeting with Brian Willard, Reclamation, to discuss flow gauges. Inquire about the 8/18/2023 temperature spike
- Cat Pien, Reclamation – Flag data issues with SacPAS related to Orange Blossom and temperature readings.
- Gretchen Murphey, CDFW

    - Send out current WIF proposed schedule to SWT list, adding in a schedule for Wet year conditions.
    - With Reclamation – Continue to partner to map out schedules with additional precipitation and hourly increments.
- Zarela Guerrero, Reclamation – Send the 2023 Annual Report to Kearns & West for SWT distribution.
- Myrna Girard Perez, Reclamation – Distribute the Draft Annual Report on or around 11/26/2024.
- All
    - Ensure that the most recent email list/roster is used when sending out group emails due to staff changes since WY24. Alternatively, you may reach out to btaylor@kearnswest.com if you require access to the roster.
    - Ensure completion of Annual Report Review by 12/6/2024.

Announcements

- The SWT will plan for an in-person meeting in Jan/Feb for J.D. Wikert's retirement.

Operations Update and Forecasts/Hydrology

New Melones Reservoir Update

- The Stanislaus Basin received a third of an inch of precipitation on 11/12/2024.
- Variations in releases are due to the fall pulse flow.
- New Melones has been steadily accumulating storage since 11/5/2024

Daily CVP Water Supply

- Storage at New Melones is 1.80 MAF as of 11/17/2024, or approximately 139% of the 15-year average.
- Accumulated inflow at New Melones for WY25 is 50 TAF, or 93% of the 15-year average.
- Accumulated precipitation at New Melones is currently at 0.54 inches for WY25, or 19% of average.

Tulloch Dam

- Storage at Tulloch Reservoir showed small changes through November.

Goodwin Dam

- Goodwin Dam is currently releasing a winter base flow of 200 cfs.
- All releases are going through the spill.

Current Conditions

- An atmospheric river event is moving through Northern California as of 11/20/2024. The storm is stalling in some areas, leading to excessive amounts of precipitation.
- Field workers are encouraged to be cautious of large amounts of runoff and potential flash flooding.

Questions and Comments

- USFWS asked if there is a distribution list for Tulloch Dam notifications, given that Tulloch has a flood capacity range to be maintained.
    - Reclamation responded that there is not a separate list and that this falls under a different operator – TriDam Project. Mostly they are going to be operating for the downstream; it's Reclamation's responsibility to determine the flows downstream from Goodwin Dam.
- Reclamation asked if there is a webpage that lists the flows for Tulloch and Goodwin dams, as well as if there are any USGS stream gauges available on the national water dashboard.
    - Reclamation offered to set up a separate call to discuss further.

Water Temperature Updates

- SWT members noticed a discontinuation in flows in the WY25 plot; this appears to be a SacPAS error.
    - Reclamation noted that the Orange Blossom data station has been compromised in the past and may not be completely reliable for the most updated information.
    - USFWS noted that this particular gauge has not been properly synched with the other gauges. This could be due to sediment buildup and may need more frequent calibration.
    - Reclamation will contact SacPAS to alert them to the error.
- NMFS is seeing a cooling pattern in water temperatures throughout the Stanislaus River.

- Water temperatures are below 55°F.
- Have seen some seasonal switch where water downstream is cooler than upstream.
- The mid-temperature at Orange Blossom Bridge is cooler than just below Goodwin Dam.
- Temperatures are suitable for fish spawning between Goodwin Dam and Orange Blossom Bridge.
- USFWS added some background information on Stanislaus River water temperatures.
    - At night, the air temperatures cool, causing the water to cool as it moves downstream.
    - The amount of time that water spends in the river affects the water temperature.
- Questions and Comments
    - N/A

Flow Planning

- CDFW noted there may be a pause in flow planning depending on the timing of the reconsultation and the new Biological Opinion (BiOp) being released on or around 12/20/2024.
    - USFWS noted that the U.S. Fish & Wildlife Service BiOp on the service side is complete.
    - Once NMFS's BiOp is released, there is a comment period of 30 days before a Record of Decision can be signed to approve the BiOp.
    - USFWS said the earliest they may be able to conduct a Winter Instability Flow (WIF) would be in mid-January and recommended planning a January WIF using the current version of the Stepped Release Plan (SRP) as a template.
    - It would be helpful if Reclamation and/or NMFS could provide a breakdown on the operations details with which the WIF will need to comply.
- Reclamation and CDFW shared their proposed WIF plan and next steps.
    - CDFW noted that in the past, the January and February flows have been combined, since January may be early due to the presence of some fish in

redds. Therefore, one question to address is whether to have two smaller, separate flows or to combine the two months' flow volume into one WIF.

- Reclamation and CDFW presented two WIF options: Dry conditions and Below Normal/Above Normal conditions.
    - Option 1: Two separate WIFs
        - Dry peaks at 700 cfs.
        - Below/Above Normal peaks at 800 cfs.
    - Option 2: One combined WIF
        - Dry peaks at 900 cfs.
        - Below/Above Normal peaks at 1,000 cfs.
- Next steps for SWT
    - SWT provides feedback on the draft proposal.
    - Reclamation and CDFW incorporate feedback, and the finalized proposal is submitted to Reclamation's upper management for review. They may require 1-2 weeks of review time due to limited staff.
    - Once approved, the change order and operations plan go into effect.

- Questions and Comments
    - USFWS provided the following comments:
        - A specific challenge is attempting to get a decent flow peak with a limited volume of water while simultaneously complying with the ramping rates which tend to be conservative. These schedules have previously been constructed as an hourly-step frame rather than a day-step frame. This allows for higher flow peaks. USFWS is in favor of trying to get the peaks a little higher than in the presented proposal.
        - The ramping rate issue becomes problematic in Dry to Critically Dry years due to the small volume of water available. In the past, SWT has received approval to ramp at twice the rate.
        - For the February WIF, the SWT has typically targeted the last half of February and attempted to tie it to a precipitation event so that all other cues that fish experience in the river (e.g., overcast days,

turbidity increases, barometric changes) would align with the WIF. If there is no storm event to tie it to, they'll implement it at the end of February regardless.

- CDFW acknowledged that the shape is the most important factor to plan now rather than a primary focus on timing, and whether the flow will be separate or combined.
- USFWS noted that the SWT is transitioning to a new SRP and it makes sense to do a January WIF on the old schedule and a February WIF on the new schedule to allow for a clean break in operations between the two. Don't want to make it seems like water from the old plan is being put into the new plan and.
    - Reclamation agreed that it would be a cleaner break to do two WIFs. However, Reclamation will need to consult with BDO management before making a decision.
    - CDFW shared support for conducting two WIFs as well and noted that two WIFs might make for an easier approval process from BDO.
    - USFWS recommended planning for the existing regulatory framework and then adjusting later as needed to accommodate the new framework.
- USFWS noted that Tulloch Dam staff prefer to make operations changes during regular working hours, when possible.
- Reclamation reiterated Tri-Dam Project's request to make release changes at minimum, on two-hour intervals.
- Reclamation recommended adding in a schedule to the proposal that includes Wet year conditions.
- CDFW will send the proposal out to the SWT for two separate WIFs that include schedules for Wet, Above/Below Normal, and Dry year conditions.

Stanislaus River Forum (SRF) Call Review

- Overall, the 11/19/2024 meeting went smoothly.
- A member of the public attended and inquired about the weather forecast. Reclamation provided him with the necessary information.

Fish Monitoring

CDFW Fish Monitoring

- Chinook salmon carcass surveys
    - CDFW began conducting fall-run Chinook salmon carcass and redd surveys the week of 9/23/2024 for the Stanislaus River.
    - The Tuolumne River and Merced River carcass surveys started on 9/16/2024.
    - Crews at the Stanislaus River observed 649 redds and 852 live Chinook salmon during the week of 11/11/2024.
    - The Merced Hatchery has now undergone three rounds of spawning, the first occurring on 11/9/2024. As of the end of the week of 11/11/2024, five females had spawned. On 11/18, only two females spawned, which is low for this time of year.
    - During the week of 11/11/2024, an *O. mykiss* carcass was found on the Stanislaus River.
    - Additional carcass survey data for the three San Joaquin River tributaries through the week of 11/11/2024 are included in the November meeting handout.
- Steelhead *O. mykiss* redd surveys
    - Surveys will start in January 2025.
    - Usually these overlap with the end of the carcass surveys.

Mossdale Trawl

- Trawl operations and sampling are ongoing, but salmonid catch is rare outside of the spring months.
- Reporting on the trawl will resume in March 2025 or when salmonids are caught.

FISHBIO Monitoring

- Chinook salmon adult weir monitoring began on 9/5/2024.
- As of 11/16/2024:
    - A total of 2,263 adult Chinook salmon have passed upstream of the Stanislaus River weir.

        - 370, or 17% of these were adipose fin-clipped, indicating hatchery origin. This number is lower than what has been observed in previous years.
    - 9 O. mykiss have been observed passing the Stanislaus River weir.
        - 4 of these were over 16 inches.
        - 33% were adipose fin-clipped.
- Questions and Comments
    - USFWS noted that the Mokelumne River is having a significant escapement year. There are close to 30,000 Chinook salmon in the river. The day-use area by the Mokelumne Fish Hatchery is a good location for those interested in observing the fish spawning.

PSMFC Monitoring

- PSMFC expects to install two Caswell traps the week of 12/30/2024.
- Sampling will begin the first week of January 2025 on a 7 days per week schedule.
- The Caswell RST data is now updated through 2024 on the Environmental Data Initiative (EDI) portal.

Restoration Project Updates

- N/A

Other Discussion Items

Curtailments

- N/A

SWRCB Updates

- N/A

Annual Reporting

- The deadline to complete the report is 12/27/2024.
- Reclamation shared a draft of the updated report schedule.
    - Reclamation is currently preparing the draft and are still waiting on one section from a contributor. The deadline goal for finishing the draft is 11/22/2024.

    - Reclamation is proposing 9 business days for SWT review of the first draft and requested feedback on this timeline. No SWT members shared concerns about this timeframe.
- CDFW asked where these reports are posted.
    - Reclamation said they were previously located on Reclamation's SWT site, but they are working to find a new location for these.
    - K&W suggested distributing it to the SWT when completed.
    - Reclamation responded that it likely gets sent out once completed.

Items to elevate to WOMT

- N/A

Next Meeting

Wednesday December 18, 10:00 am –12:00 pm. The meeting will be virtual

BUREAU OF RECLAMATION

Stanislaus Watershed Team

10:00 a.m. – 12:00 p.m.
Conference Line: 1 (321) 209-6143; Meeting ID: 901 988 581#
Webinar: Join Microsoft Teams Meeting

Wednesday, November 20, 2024

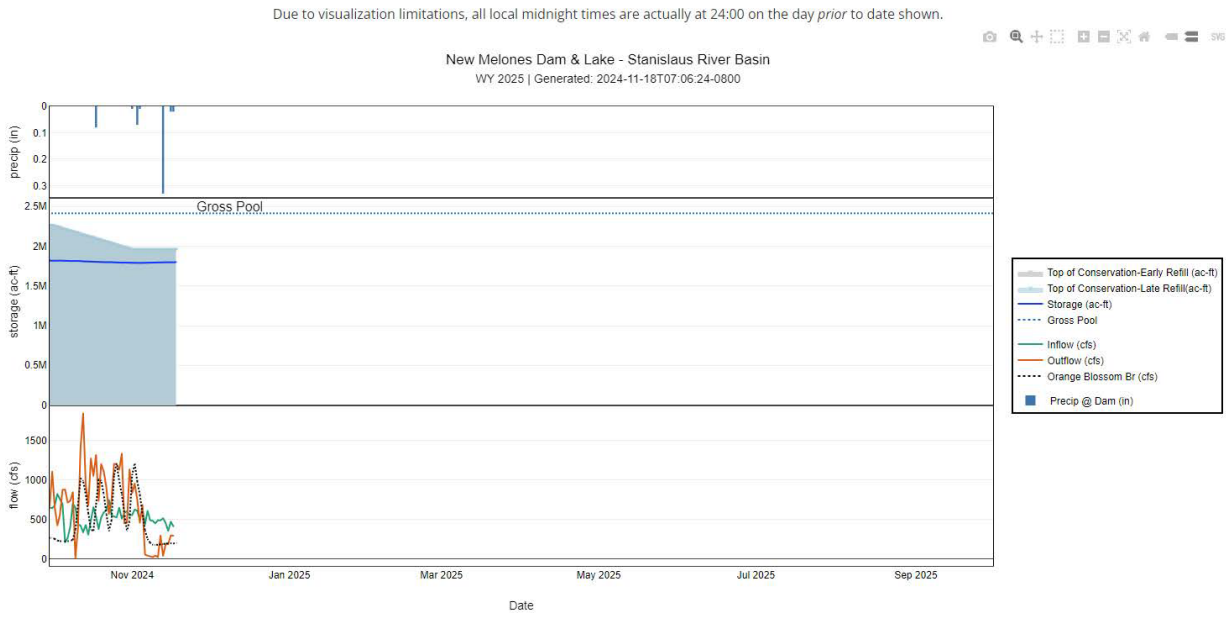
Agenda

1. Introductions
2. Ground Rules[1]
3. Announcements
    a. Meeting will be recorded for notetaking purposes – Karis Johnston, Kearns & West
4. Operations Update and Forecasts/Hydrology - Randi Field, USBR
5. Temperature Updates - Barbara Byrne, NMFS
6. Winter Flow Planning - Zarela Guerrero, USBR and Gretchen Murphey, CDFW
7. Stanislaus River Forum (SRF) Call Review - Myrna Girald Perez, USBR
8. Fish Monitoring and Studies - CDFW, FISHBIO, NMFS, PSMFC

[1] The Stanislaus Watershed Team's Ground Rules are as follows:

- Seek to understand and respect opposing views and suggestions for change (w/in the parameters of the Guidance Document).
- Seek to leverage collective expertise (including from agencies' & stakeholders' consultants).
- Hold questions/discussion at the discretion of the presenter.
- Honor time limits - keep comments and discussion succinct and focused on meeting objectives as needed.
- Make constructive proposals and suggestions to seek mutually agreeable solutions for all parties.
- Keep a record of discussion and dialogue.
- One speaker at a time
- Take space/make space

9. Restoration Project Updates
    a. Restoration Tracker - JD (John) Wikert, USFWS
    b. Caterina Pien, USBR
10. Other Discussion Items
    a. SWRCB Updates
    b. Annual Reporting Updates – Myrna Girald Perez, USBR
    c. Items to elevate to WOMT
11. Review Action Items – Karis Johnston, Kearns & West
12. Next Meeting: December 18, 2024



New Melones Dam & Lake – Stanislaus River Basin, 2024-11-18T07:06:24-0800

Graph shows the flow, storage, and precipitation for New Melones Dam and Lake from November 2024 to September 2025. The graph shows storage approximately 1.8M ac-ft in November 2024, with an outflow peak at 1900 cfs, and inflow drop below 500 cfs.

Tables for BDO

United States Department of the Interior
Bureau of Reclamation
Central Valley Project – California Daily CVP Water Supply Report

November 17, 2024
Run Date: November 18, 2024

Table 1. Reservoir Releases in Cubic Feet Per Second

Reservoir	Dam	WY 2024	WY 2025	15-Year Median
Trinity	Lewiston	312	306	305
Sacramento	Keswick	4,992	4,349	4,612
Feather	Oroville (SWP)	1,750	1,750	1,750
American	Nimbus	2,082	1,987	1,873
Stanislaus	Goodwin	209	202	205
San Joaquin	Friant	428	0	428

Table 2. Storage in Major Reservoirs in Thousands of Acre-Feet

Reservoir	Capacity	15-Yr Avg	WY 2024	WY 2025	% of 15 Yr Avg
Trinity	2,448	1,271	1,210	1,604	126
Shasta	4,552	2,295	3,103	2,526	110
Folsom	977	384	509	351	91
New Melones	2,420	1,294	1,908	1,804	139
Fed. San Luis	966	385	713	351	91
Total North CVP	11,363	5,630	7,443	6,636	118
Millerton	521	247	153	0	0
Oroville (SWP)	3,538	1,514	2,352	1,646	109

Table 3. Accumulated Inflow for water Year to Date in Thousands of Acre-Feet

Reservoir	Current WY 2025	WY 1977	WY 1983	15-Yr Avg	% O 15 Yr Avg
Trinity	14	14	63	32	44
Shasta	266	369	445	322	83
Folsom	72	71	269	98	74
New Melones	50	N/A	136	54	93

Reservoir	Current WY 2025	WY 1977	WY 1983	15-Yr Avg	% O 15 Yr Avg
Millerton	64	41	178	87	74

Table 4. Accumulated Precipitation for Water Year to Date in Inches

Reservoir	Current WY 2023	WY 1977	WY 1983	Avg (N Yrs)	% of Avg	Last 24 Hours
Trinity at Fish Hatchery	2.37	1.22	5.74	3.99 (64)	59	0.00
Sacramento at Shasta Dam	2.95	1.63	7.23	7.06 (69)	42	0.00
American at Blue Canyon	5.37	3.19	10.92	7.05 (50)	76	0.14
Stanislaus at New Melones	0.54	N/A	5.20	2.84 (47)	19	0.00
San Joaquin at Huntington LK	0.01	1.80	9.60	4.19 (51)	0	0.00

United States Department of the Interior
Bureau of Reclamation – Central Valley Project – California

New Melones Lake Daily Operations, November 2024, Run Date: 11/18/2024

Day	Elev	Stor-age 1000-Acre-Feet in Lake	Storage 1000-Acre-Feet Change	Com-puted Inflow C.F.S.	Release C.F.S. Power	Release C.F.S. Spill	Release C.F.S. Outlet	Evap. C.F.S.	Evap. Inches	Precip Inches
N/A	N/A	1,797.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	1,033.26	1,796.3	-0.7	629	958	0	0	37	0.11	0.00
2	1,033.23	1,796.0	-0.3	615	755	0	0	17	0.05	0.07
3	1,033.23	1,796.0	0.0	495	461	0	0	34	0.10	0.01
4	1,033.22	1,795.9	-0.1	643	688	0	0	7	0.02	0.00
5	1,033.29	1,796.6	0.7	441	55	0	0	20	0.06	0.00
6	1,033.39	1,797.6	1.0	611	44	0	0	44	0.13	0.00
7	1,033.47	1,798.5	0.8	492	33	0	0	40	0.12	0.00
8	1,033.55	1,799.3	0.8	486	24	0	0	44	0.13	0.00
9	1,033.62	1,800.0	0.7	453	42	0	0	44	0.13	0.00
10	1,033.70	1,800.9	0.8	492	24	0	0	50	0.15	0.00
11	1,033.73	1,801.2	0.3	491	297	0	0	37	0.11	0.00
12	1,033.82	1,802.1	0.9	519	41	0	0	7	0.02	0.33
13	1,033.87	1,802.6	0.5	458	186	0	0	10	0.03	0.00
14	1,033.90	1,802.9	0.3	358	191	0	0	10	0.03	0.00
15	1,033.93	1,803.2	0.3	474	300	0	0	17	0.05	0.02
16	1,033.95	1,803.5	0.2	416	294	0	0	17	0.05	0.02
17	1,033.97	1,803.7	0.2	345	220	0	0	20	0.06	0.00
Totals	N/A	N/A	6.4	8,418	4,613	0	0	455	1.35	0.45
Acre-Feet	N/A	N/A	6,400	16,697	9,150	0	0	902	N/A	N/A

Comments:

* Computed inflow is the sum of change in storage, releases, and evaporation.

Summary Precipitation

This Month	0.45
October 1, 2024 to Date	0.54

Summary: Release (acre- feet)

Release (acre-feet)	N/A
Power	9,150
Spill	0
Outlet	0
Total	**9,150**

United States Department of the Interior
Bureau of Reclamation – Central Valley Project – California

New Melones Lake Daily Operations, October 2024, Run Date: 11/17/2024

Day	Elev	Storage 1000-Acre-Feet in Lake	Storage 1000-Acre-Feet Change	Compu-ted Inflow C.F.S.	Release C.F.S. Power	Re-lease C.F.S. Spill	Re-lease C.F.S. Outlet	Evap. C.F.S.	Evap. Inches	Precip. Inches
N/A	N/A	1,823.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	1,035.85	1,823.3	-0.1	679	651	0	0	81	0.24	0.00
2	1,035.90	1,823.8	0.5	827	428	0	0	135	0.40	0.00
3	1,035.91	1,823.9	0.1	759	561	0	0	146	0.43	0.00
4	1,035.85	1,823.3	-0.6	699	880	0	0	135	0.40	0.00
5	1,035.70	1,821.7	-1.6	214	883	0	0	122	0.36	0.00
6	1,035.59	1,820.6	-1.1	267	717	0	0	129	0.38	0.00
7	1,035.51	1,819.7	-0.8	410	740	0	0	91	0.27	0.27
8	1,035.46	1,819.2	-0.5	707	849	0	0	122	0.36	0.00
9	1,035.55	1,820.1	0.9	654	14	0	0	166	0.49	0.00
10	1,035.54	1,820.0	-0.1	442	400	0	0	95	0.28	0.00
11	1,035.34	1,817.9	-2.1	425	1,415	0	0	64	0.19	0.00
12	1,035.04	1,814.8	-3.1	340	1,850	0	0	71	0.21	0.00
13	1,034.93	1,813.7	-1.1	431	948	0	0	61	0.18	0.00
14	1,034.85	1,812.8	-0.8	306	679	0	0	47	0.14	0.00
15	1,034.69	1,811.2	-1.7	499	1,285	0	0	54	0.16	0.00
16	1,034.60	1,810.2	-0.9	658	1,056	0	0	74	0.22	0.00
17	1,034.45	1,808.7	-1.6	537	1,322	0	0	3	0.01	0.08
18	1,034.37	1,807.8	-0.8	381	740	0	0	61	0.18	0.00
19	1,034.23	1,806.4	-1.5	528	1,206	0	0	57	0.17	0.00
20	1,034.12	1,805.2	-1.1	592	1,113	0	0	57	0.17	0.00
21	1,034.05	1,804.5	-0.7	622	913	0	0	77	0.23	0.00
22	1,034.07	1,804.7	0.2	750	574	0	0	71	0.21	0.00
23	1,034.02	1,034.02	-0.5	558	740	0	0	81	0.24	0.00
24	1,033.88	1,802.7	-1.5	540	1,209	0	0	64	0.19	0.00

Day	Elev	Storage 1000-Acre-Feet in Lake	Storage 1000-Acre-Feet Change	Computed Inflow C.F.S.	Release C.F.S. Power	Release C.F.S. Spill	Release C.F.S. Outlet	Evap. C.F.S.	Evap. Inches	Precip. Inches
25	1,033.74	1,801.3	-1.5	531	1,207	0	0	57	0.17	0.00
26	1,033.64	1,800.2	-1.0	652	1,135	0	0	40	0.12	0.00
27	1,033.47	1,798.5	-1.8	510	1,339	0	0	60	0.18	0.00
28	1,033.49	1,798.7	0.2	587	453	0	0	30	0.09	0.00
29	1,033.51	1,798.9	0.2	607	462	0	0	40	0.12	0.00
30	1,033.39	1,797.6	-1.2	557	1,138	0	0	47	0.14	0.00
31	1,033.33	1,797.0	-0.6	561	838	0	0	37	0.11	0.01
Totals	N/A	N/A	-26.2	16,830	27,745	0	0	2,375	7.04	0.09
Acre-Feet	N/A	N/A	-26,200	33,382	55,032	0	0	4,711	N/A	N/A

Comments:

* Computed inflow is the sum of change in storage, releases, and evaporation.

Summary Precipitation

This Month	0.09
October 1, 2021 to Date	0.09

Summary: Release (acre-feet)

Release (acre-feet)	N/A
Power	55,032
Spill	0
Outlet	0
Total	**55,032**

United States Department of the Interior
Bureau of Reclamation – Central Valley Project – California

Tulloch Reservoir Daily Operations, November 2024, Run Date: 11/18/2024

Day	Elev	Storage (Acre Feet) Res.	Storage (Acre-Feet) Change	Computed Inflow C.F.S.	New Melones Release	Release C.F.S. Power	Release C.F.S. Spill	Release C.F.S. Outlet	Evap. C.F.S. (1)
N/A	N/A	57,203	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	501.42	56,850	-353	1,076	958	1,250	0	0	4
2	501.18	56,586	-264	865	755	996	0	0	2
3	500.58	55,932	-654	502	461	828	0	0	4
4	501.09	56,486	554	800	688	520	0	0	1
5	500.61	55,964	-522	59	55	320	0	0	2
6	500.22	55,541	-423	51	44	259	0	0	5
7	499.87	55,164	-377	34	33	220	0	0	4
8	499.51	54,780	-384	22	24	212	0	0	4
9	499.19	54,439	-341	43	42	211	0	0	4
10	498.82	54,047	-392	18	24	211	0	0	5
11	499.08	54,321	274	353	297	211	0	0	4
12	498.76	53,984	-337	43	41	212	0	0	1
13	498.76	53,984	0	214	186	213	0	0	1
14	498.75	53,973	-11	207	191	212	0	0	1
15	499.01	54,247	274	352	300	212	0	0	2
16	499.24	54,492	245	336	294	210	0	0	2
17	499.30	54,556	64	247	220	213	0	0	2
Totals	NA	NA	2,647	5,222	4,613	6,510	0	0	48
Acre-Feet	NA	NA	2,647	10,358	9,150	12,913	0	0	95

Comments:

* Computed inflow is the sum of change in storage, releases, and evaporation.
(1) Evaporation records taken from New Melones Pan.

Summary: Release (acre-feet)

Release (acre-feet)	N/A
Power	12,913
Spill	0
Outlet	0
Total	**12,913**

United States Department of the Interior
Bureau of Reclamation – Central Valley Project – California

Tulloch Reservoir Daily Operations, October 2024, Run Date: 11/10/2024

Day	Elev	Storage (Acre Feet) Reservoir	Storage (Acre-Feet) Change	Computed Inflow C.F.S.	New Melones Release	Release C.F.S. Power	Release C.F.S. Spill	Release C.F.S. Outlet	Evap. C.F.S. (1)
N/A	N/A	61,754	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	505.37	61,342	-412	758	651	957	0	0	9
2	504.70	60,560	-782	492	428	871	0	0	15
3	504.39	60,201	-359	629	561	794	0	0	16
4	504.76	60,629	428	1,013	880	782	0	0	15
5	505.14	61,072	443	1,027	883	790	0	0	14
6	505.29	61,248	176	820	717	717	0	0	14
7	505.47	61,460	212	809	740	692	0	0	10
8	505.80	61,848	388	890	849	680	0	0	14
9	504.27	60,062	-1,786	1	14	883	0	0	18
10	502.71	58,285	-1,777	393	400	593	0	686	10
11	502.04	57,535	-750	1,428	1,415	1,799	0	0	7
12	502.60	58,162	627	1,892	1,850	1,568	0	0	8
13	501.99	57,479	-683	1,001	948	1,339	0	0	6
14	501.25	56,663	-816	749	679	1,155	0	0	5
15	502.20	57,714	1,051	1,551	1,285	1,015	0	0	6
16	502.28	57,804	90	1,242	1,056	1,189	0	0	8
17	502.42	57,960	156	1,516	1,322	1,437	0	0	0
18	500.94	56,322	-1,638	800	740	1,620	0	0	6
19	500.96	56,344	22	1,393	1,206	1,376	0	0	6
20	501.12	56,519	175	1,289	1,113	1,195	0	0	6
21	501.47	56,905	386	1,064	913	861	0	0	8
22	501.41	56,839	-66	629	574	655	0	0	7
23	501.20	56,608	-231	871	740	843	0	135	9
24	500.67	56,029	-579	1,391	1,209	1,676	0	0	7
25	500.35	55,682	-347	1,388	1,207	1,557	0	0	6
26	500.28	55,607	-75	1,300	1,135	1,334	0	0	4
27	501.16	56,563	956	1,542	1,339	1,053	0	0	7
28	500.78	56,149	-414	522	453	708	0	20	3
29	501.14	56,541	392	525	462	323	0	0	4
30	502.37	57,904	1,363	1,348	1,138	656	0	0	5

Day	Elev	Storage (Acre Feet) Reservoir	Storage (Acre-Feet) Change	Computed Inflow C.F.S.	New Melones Release	Release C.F.S. Power	Release C.F.S. Spill	Release C.F.S. Outlet	Evap. C.F.S. (1)
31	501.74	57,203	-701	1,008	838	1,357	0	0	4
Totals	N/A	N/A	-4,551	31,281	27,745	32,475	0	841	257
Acre-Feet	N/A	N/A	-4,551	62,046	55,032	64,414	0	1,668	510

Comments:

* Computed inflow is the sum of change in storage, releases, and evaporation.
(1) Evaporation records taken from New Melones Pan.

Summary: Release (acre-feet)

Release (acre-feet)	N/A
Power	64,414
Spill	0
Outlet	1,668
Total	**66,082**

Oakdale Irrigation District South San Joaquin Irrigation
District Tri Dams Project-California

Goodwin Reservoir Daily Operations, November 2024, Run Date: 11/18/2024

Day	Elev	Storage (1000 Acre-Feet) in Reservoir	Storage (1000 Acre-Feet) Change	Tulloch Release	Release C.F.S. – River Outlet	Release C.F.S. – Spill	Canals-Joint Main	Canals – South Main
N/A	N/A	573	N/A	N/A	N/A	N/A	N/A	N/A
1	360.40	565	-8	1,250	0	1,290	0	0
2	360.27	556	-9	996	0	1,035	0	0
3	360.17	549	-7	828	0	861	0	0
4	359.98	536	-13	520	0	550	0	0
5	359.85	527	-9	320	0	339	0	0
6	359.80	523	-4	259	0	258	0	0
7	359.77	521	-2	220	0	217	0	0
8	359.77	521	0	212	0	202	0	0
9	359.77	521	0	211	0	202	0	0
10	359.77	521	0	211	0	202	0	0
11	359.79	522	1	211	0	205	0	0
12	359.79	522	0	212	0	204	0	0
13	359.79	522	0	213	0	203	0	0
14	359.79	522	0	212	0	203	0	0
15	359.77	521	-1	212	0	203	0	0
16	359.77	521	0	210	0	201	0	0
17	359.79	522	1	213	0	202	0	0
Totals	N/A	N/A	-51	6,510	0	6,577	0	0
Acre-Feet	N/A	N/A	-51	12,913	0	13,045	0	0

Joint Main Operated by SSJID and OID.

Summary: Release (acre-feet)

Joint Main Canal	0
South Main Canal	0
Outlet	0
Spill	13,045
Total	**13,045**

Oakdale Irrigation District South San Joaquin Irrigation
District Tri Dams Project-California

Goodwin Reservoir Daily Operations, October 2024, Run Date: 11/10/2024

Day	Elev	Storage (1000 Acre- Feet) in Lake	Storage (1000 Acre-Feet) Change	Tulloch Release	Release C.F.S. – River Outlet	Release C.F.S. – Spill	Canals– Joint Main	Canals– South Main
N/A	N/A	525	N/A	N/A	N/A	N/A	N/A	N/A
1	359.83	525	0	957	0	254	454	327
2	359.83	525	0	871	0	253	374	327
3	359.82	524	-1	794	0	253	363	265
4	359.83	525	1	782	0	253	365	251
5	359.83	525	0	790	0	255	377	240
6	359.83	525	0	717	0	253	327	221
7	359.83	525	0	692	0	254	280	247
8	359.86	527	2	680	0	289	261	213
9	359.99	536	9	883	0	459	278	232
10	360.29	557	21	1,279	0	888	282	206
11	360.42	566	9	1,799	0	1,192	437	269
12	360.27	556	-10	1,568	0	1,034	449	193
13	360.17	549	-7	1,339	0	856	432	158
14	359.98	536	-13	1,155	0	548	478	231
15	359.85	527	-9	1,015	0	344	567	191
16	359.99	536	9	1,189	0	441	571	251
17	360.27	556	20	1,437	0	877	355	292
18	360.40	565	9	1,620	0	1,186	242	293
19	360.27	556	-9	1,376	0	1,037	242	211
20	360.17	549	-7	1,195	0	856	227	222
21	359.98	536	-13	861	0	550	211	200
22	359.85	527	-9	655	0	339	215	190
23	360.14	547	20	978	0	654	162	236
24	360.52	573	26	1,676	0	1,366	162	243

Day	Elev	Storage (1000 Acre- Feet) in Lake	Storage (1000 Acre-Feet) Change	Tulloch Release	Release C.F.S. – River Outlet	Release C.F.S. – Spill	Canals– Joint Main	Canals– South Main
25	360.40	565	-8	1,557	0	1,283	150	231
26	360.27	556	-9	1,334	0	1,034	145	255
27	360.17	549	-7	1,053	0	855	77	215
28	359.96	534	-15	728	0	548	70	196
29	359.85	527	-7	323	0	338	12	0
30	360.14	547	20	656	0	655	12	0
31	360.52	573	26	1,357	0	1,369	12	0
Totals	N/A	N/A	48	33,316	0	20,773	8,589	6,606
Acre Feet	N/A	N/A	48	66,082	0	41,203	17,036	13,103

Joint Main Operated by SSJID and OID.

Summary: Release (acre-feet)

Joint Main Canal	17,036
South Main Canal	13,103
Outlet	0
Spill	41,203
Total	**71,343**

November 2024 Water Temperature and Fish Monitoring Update

Year-to-Date Flows

Goodwin releases since October 1, 2024, are shown in Figure 1.

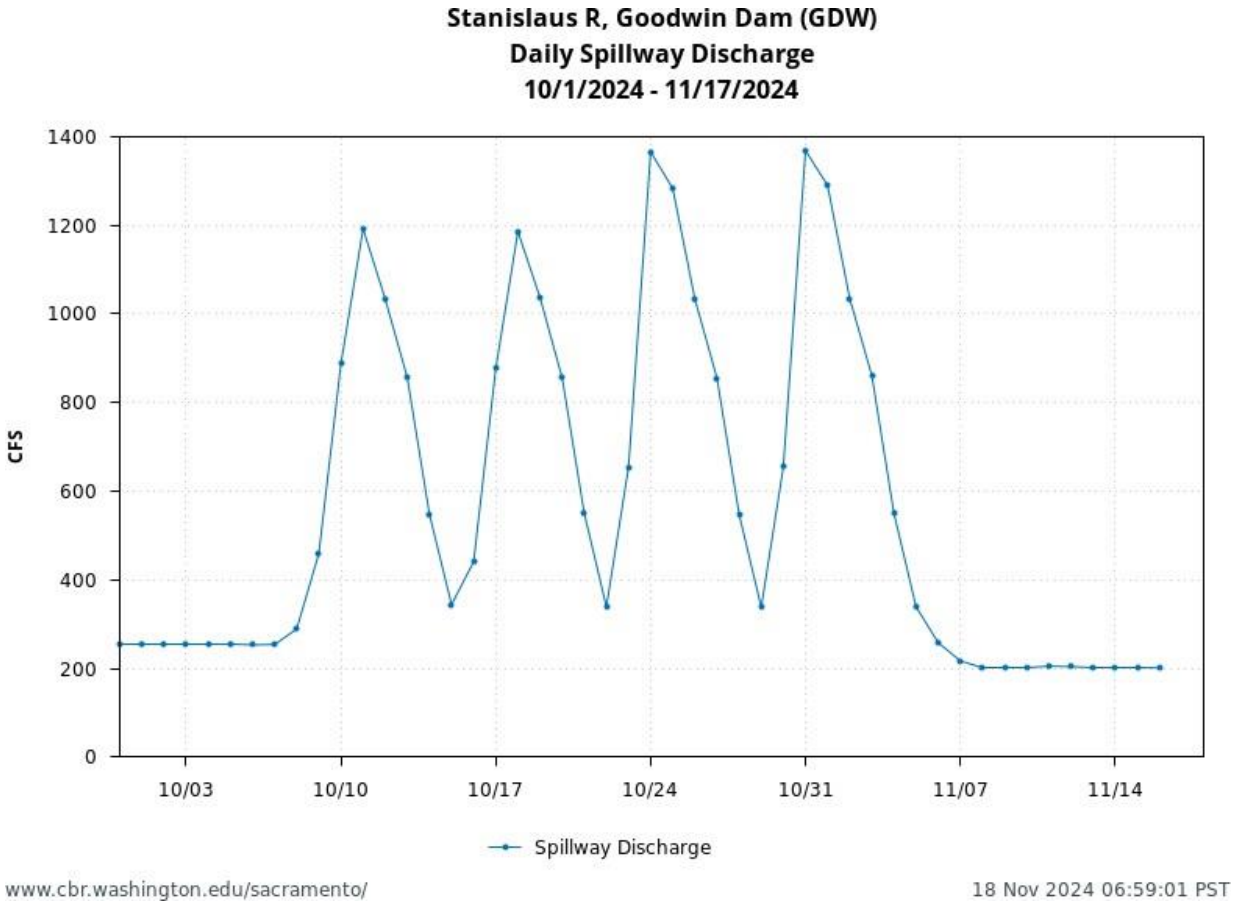


Figure 1. Goodwin (daily) releases to the Stanislaus River since October 1, 2024. Data from GDW station on CDEC.

Figure 1 is a line graph showing Goodwin Dam daily spillway discharge. The graph shows two periods of 1,350 cfs on October 24 and October 31, 2024 and two periods of 1,200 cfs discharge on October 11 and October 18, 2024.

Water Temperature

The temperature thresholds included in Figures 2-10, below, are the thresholds used in the 2019 NMFS LTO BiOp1 (see Incidental Take Statement on p. 807) to define the extent of take anticipated from water temperature effects in the Stanislaus River. It is important to note that many of the temperature figures provide subdaily information or information at locations other

than Orange Blossom Bridge and thus don't reflect the specific metrics for take in the 2019 NMFS LTO BiOp. Temperature thresholds have been added to these figures at the request of Stanislaus Watershed Team members to provide a general reference of water temperature suitability.

Water temperatures in the Stanislaus River since September 2024 are shown below at Goodwin Canyon (Figure 2), Orange Blossom Bridge (Figure 3), and at Ripon (Figure 4). Water temperatures in the San Joaquin River since September 2024 are shown below at Vernalis (Figure 5). Current-year water temperatures are plotted along with historical temperatures for upstream of Orange Blossom Bridge (Figure 6), Ripon (Figure 7), and Vernalis (Figure 8). A compilation of Stanislaus River water temperatures and Goodwin releases for water year 2024 and the start of 2025 is provided in Figure 9.

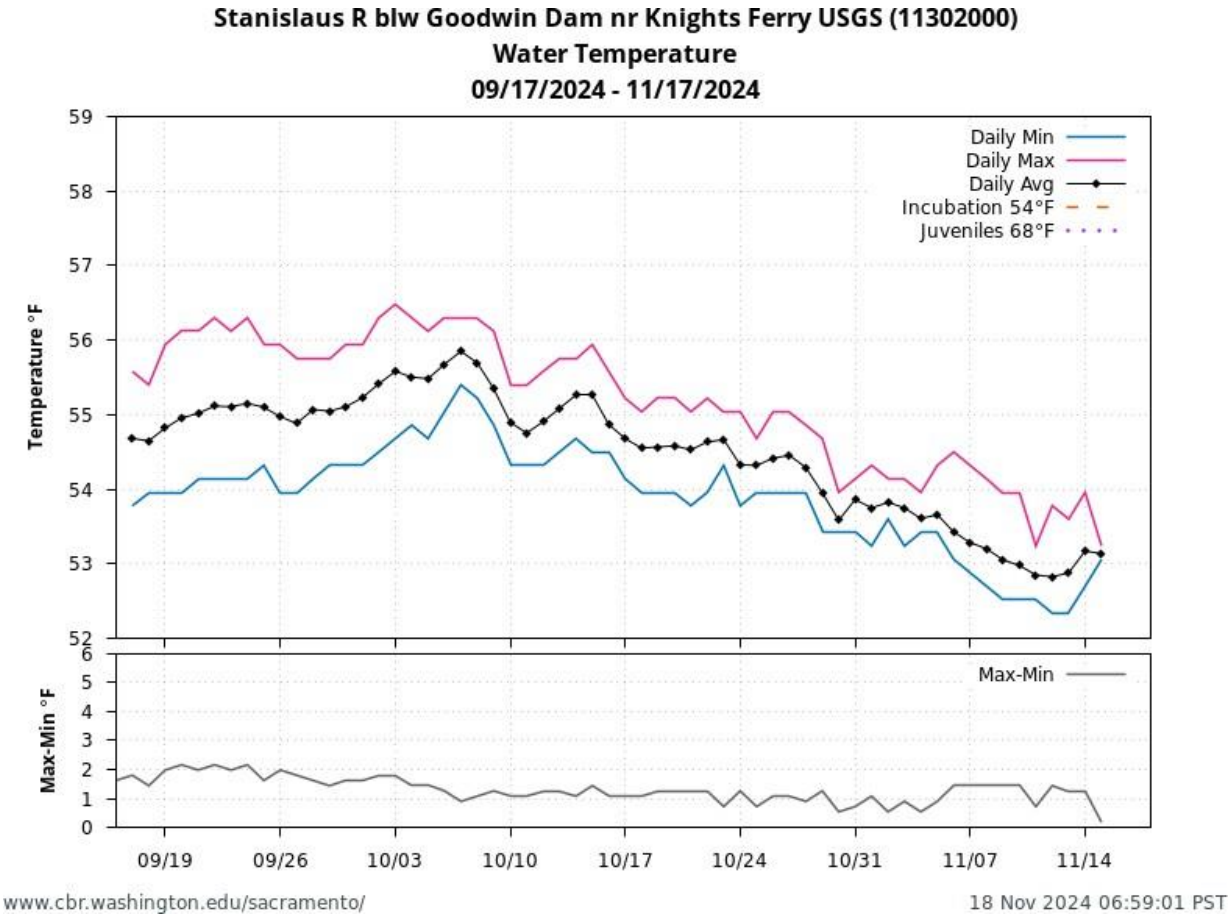


Figure 2. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since September 17, 2024. Data from USGS gage 11302000 on NWIS; temperature threshold reference line added by SWT.

Chart: Stacked chart for daily water temperatures Stanislaus River upstream of Knights Ferry for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines).

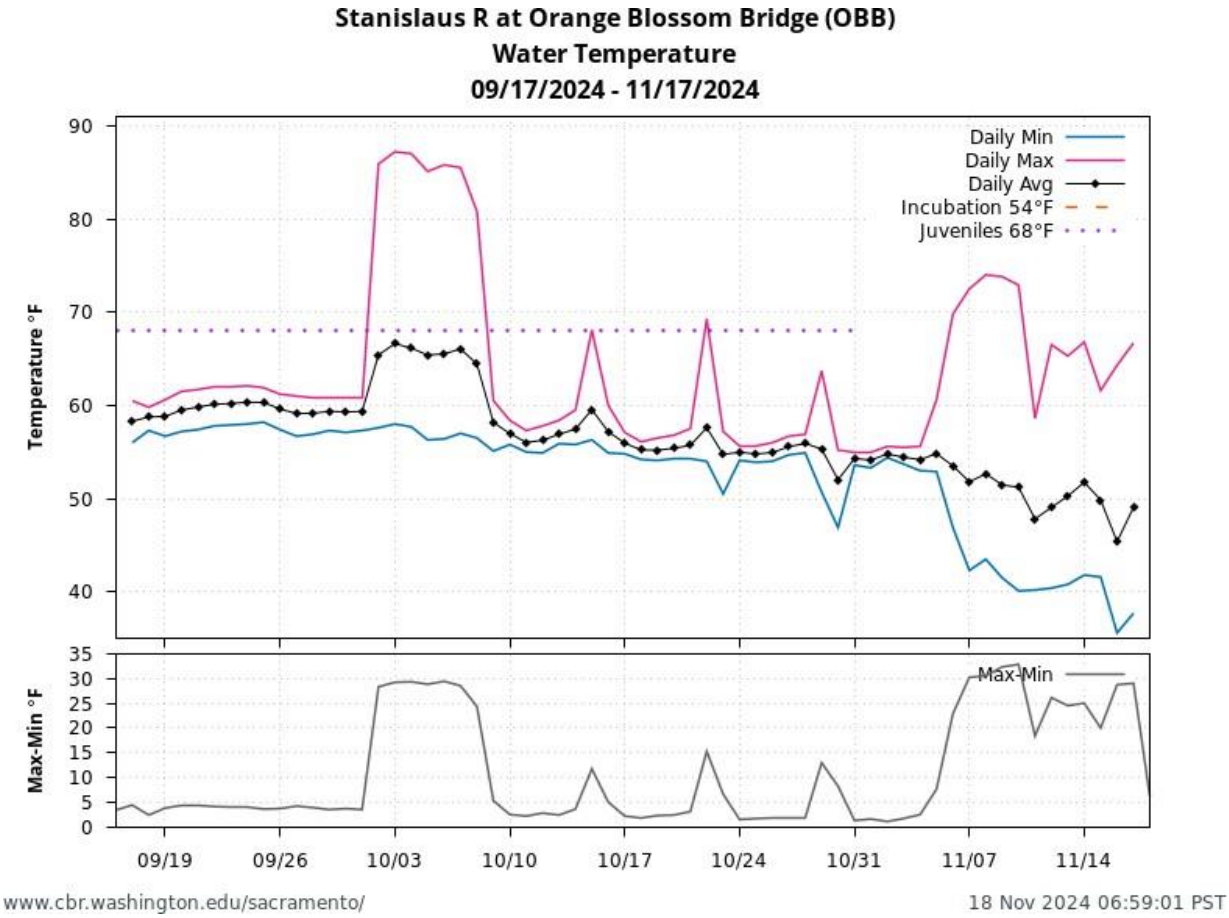


Figure 3. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since September 17, 2024. Data from OBB station on CDEC

Chart: Stacked chart for daily water temperatures Stanislaus River at Orange Blossom Bridge for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines). For more information, please call (916) 414-2400.

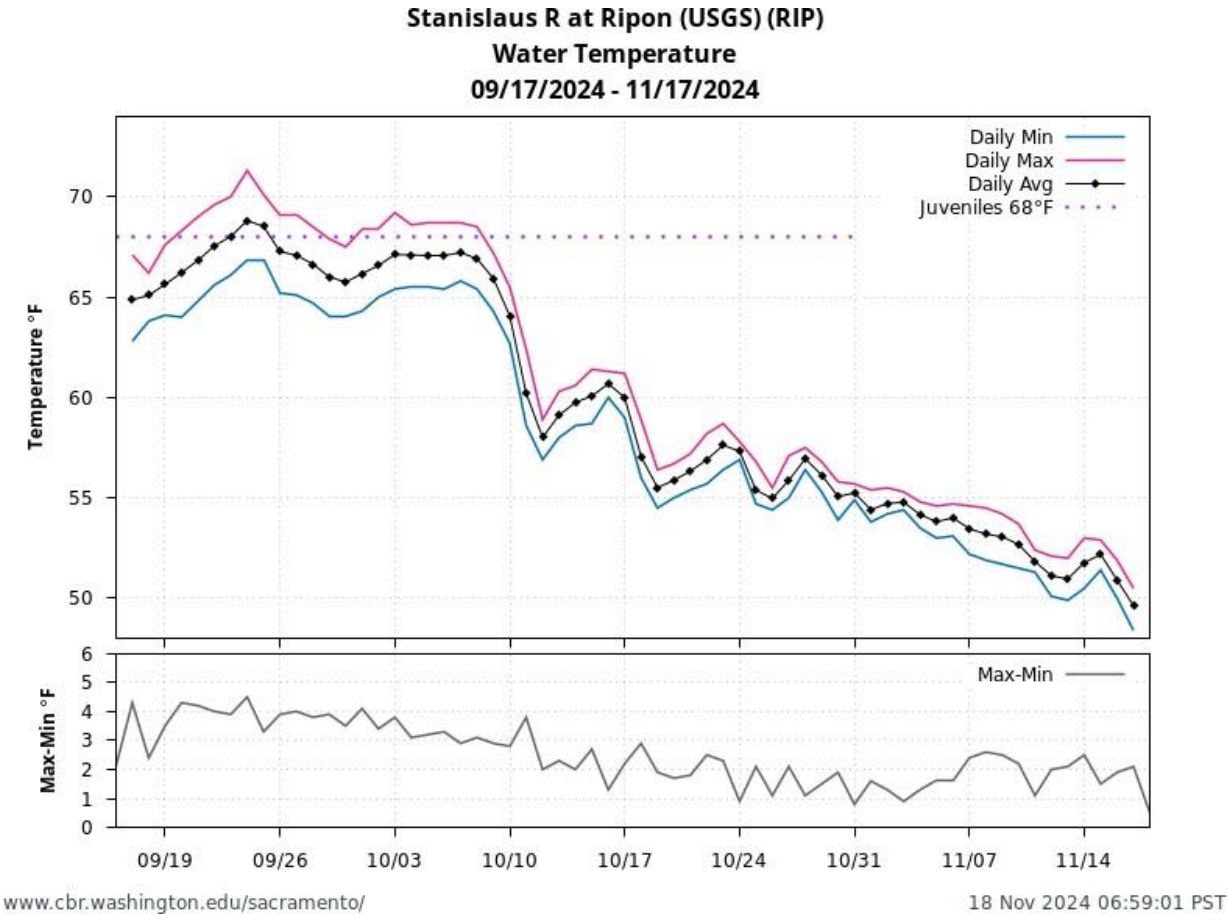


Figure 4. Stanislaus water temperatures at Ripon since September 17, 2024. Data from RIP station on CDEC.

Chart: Stacked chart for daily water temperatures Stanislaus River at Ripon for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines).

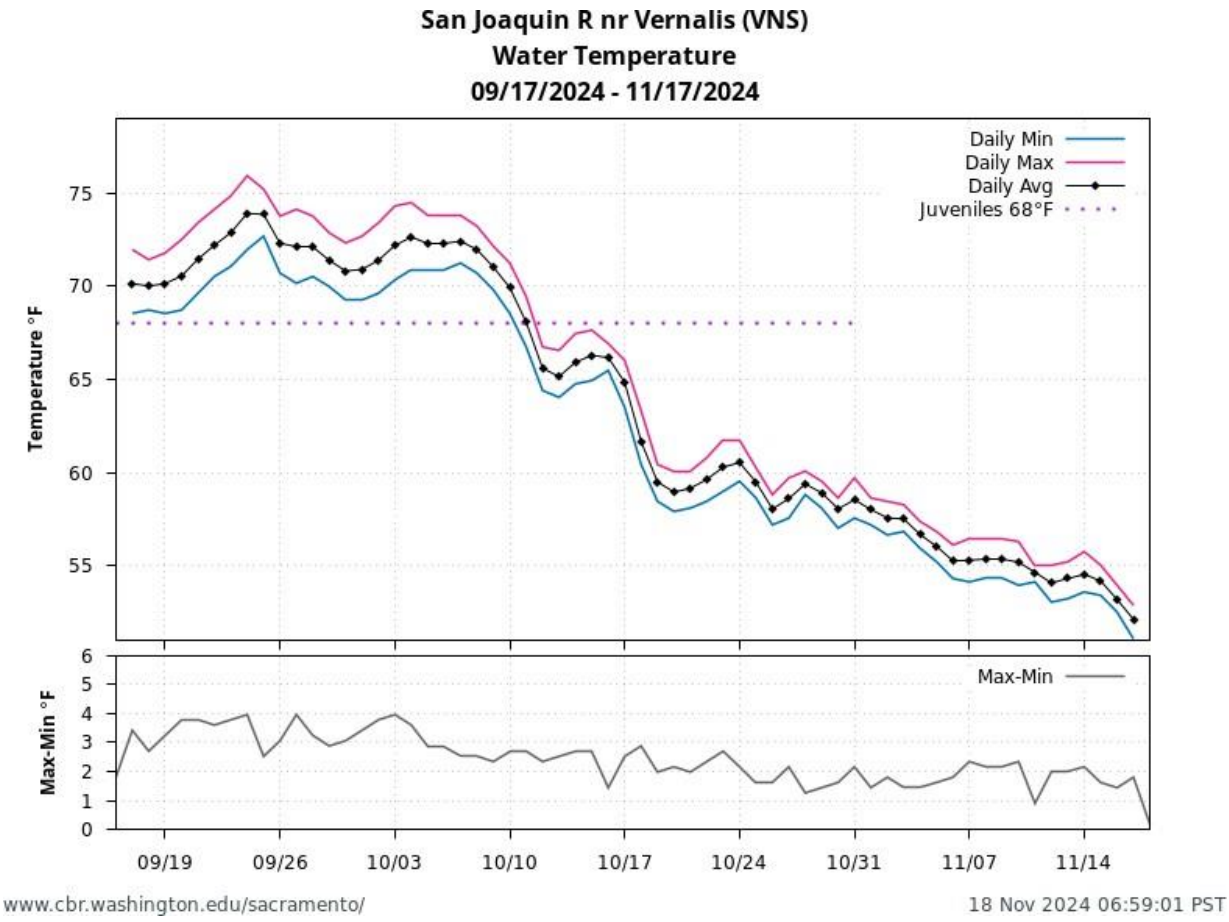


Figure 5. San Joaquin River (15-minute) water temperatures at Vernalis since September 17, 2024. Data from VNS station on CDEC. Note that, unlike in the previous figures, temperature is reported in degrees Celsius. 8°C=46.4°F; 10°C=50°F; 12°C=53.6°F; 14°C=57.2°F; 16°C=60.8°F; 18°C=64.4°F; 20°C=68.0°F; 22°C=71.6°F; 24°C=75.2°F; 26°C=78.8°F; 28°C=82.4°F.

Chart: Stacked chart for daily water temperatures Stanislaus River at Vernalis for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines).

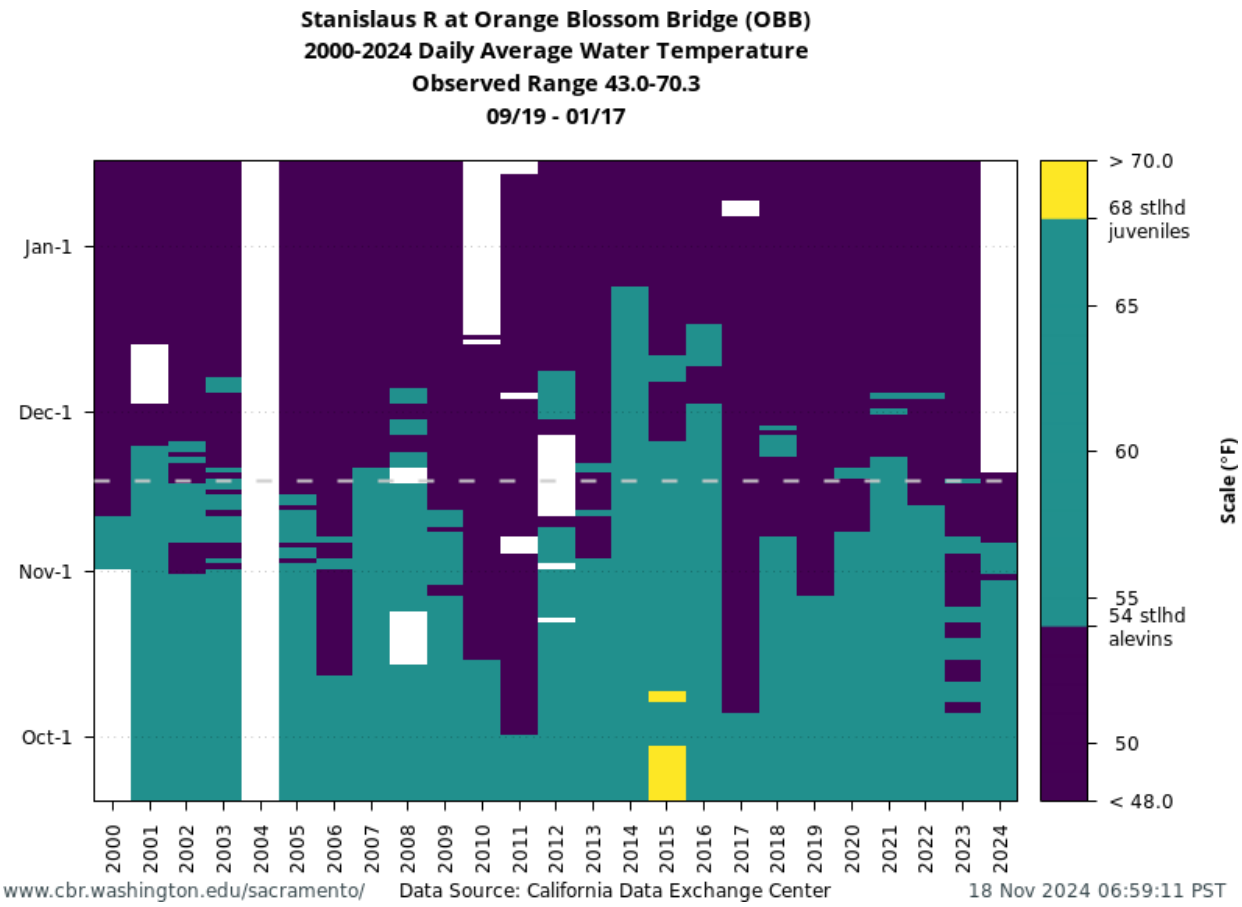


Figure 6. Stanislaus River water temperatures at Orange Blossom Bridge for WY 2001 to present. Data from SacPAS website; temperature threshold reference lines added by SWT.

Figure 6 is a bar chart showing water temperatures at Orange Blossom Bridge for WY 2001 to present for Sepptember to January. The chart shows that during this time, the daily average water temperature was mostly between 54 and 68 degrees Fahrenheit with 2015 being mostly above 68 degrees Fahrenheit. Orange Blossom readings were flagged due to incomplete or potentially inaccurate data due to unidentified equipment issues.

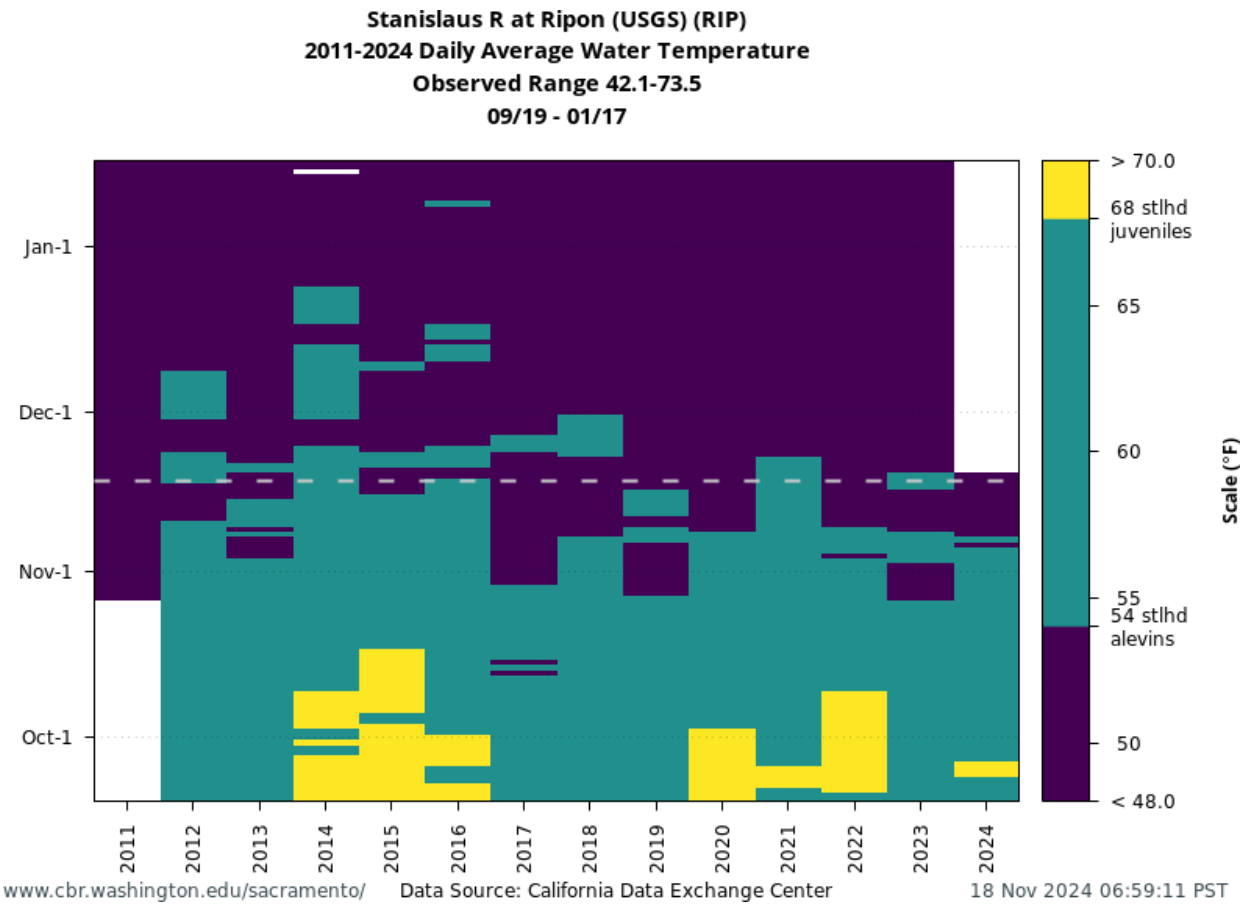


Figure 7. Stanislaus River water temperatures at Ripon for WY 2011 to present. Figure from SacPAS website using RIP station data from CDEC; temperature threshold reference line added by SWT.

Figure 7 is a bar chart showing water temperatures at Ripon for WY 2011 to present for September to January. The chart shows that during this time, the daily average water temperature was mostly between 54 and 68 degrees Fahrenheit, and with temperatures exceeding 68 degrees Fahrenheit in October of November of WY2014, WY2015, WY2016, WY 2020, WY2021, and WY 2022.

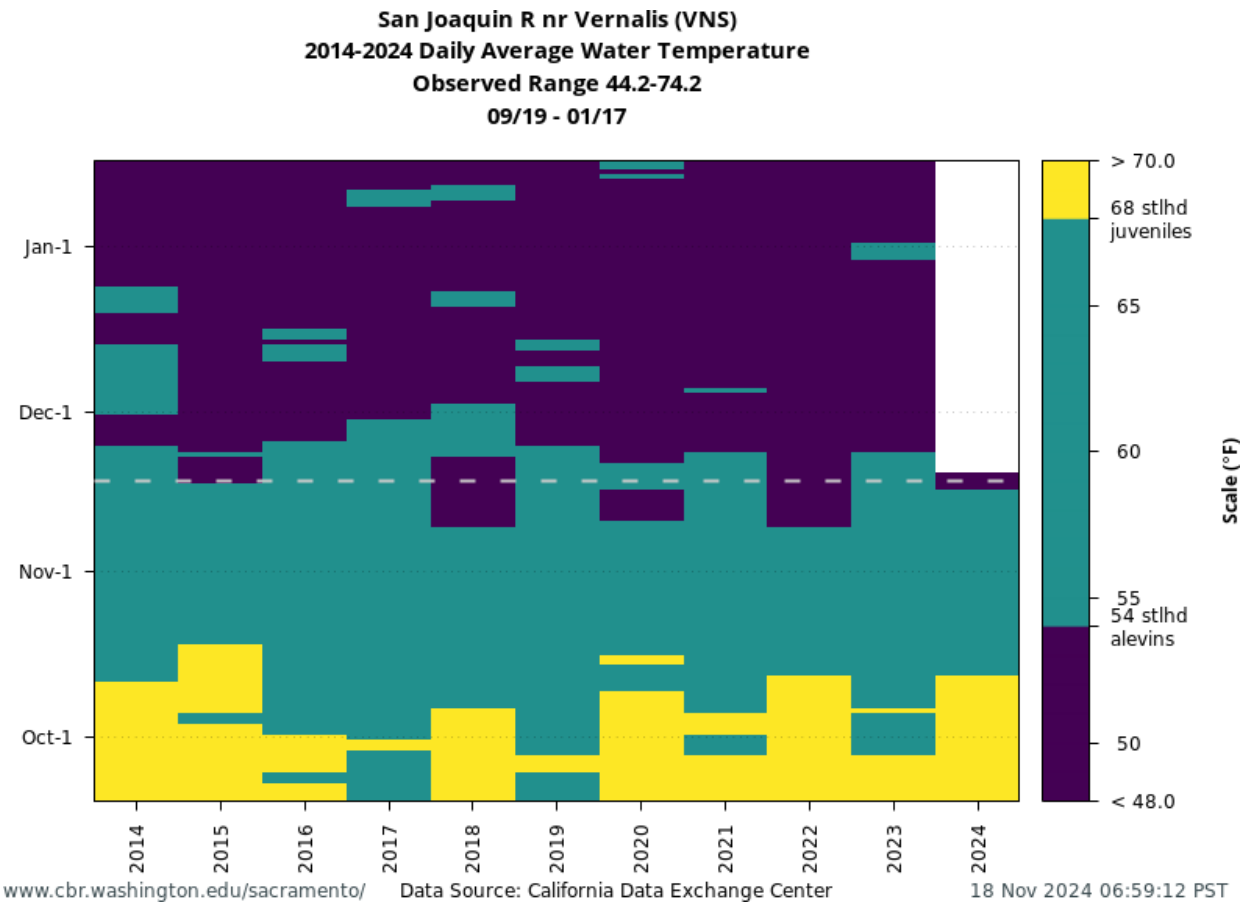


Figure 8. San Joaquin River water temperatures at Vernalis for WY 2014 to present. Figure from SacPAS website using VNS station data from CDEC; temperature threshold reference line added by SWT.

Figure 8 is a bar chart showing water temperatures at Vernalis for WY 2014 to present for September to January. The chart shows that during this time, the daily average water temperature was mostly between 54 and 68 degrees Fahrenheit. The chart shows that during this time, the daily average water temperature was mostly above 68 degrees Fahrenheit from September through early November with WY2017 and WY 2019 being the only years where water temperature mostly remained below 68 degrees Fahrenheit during those months.

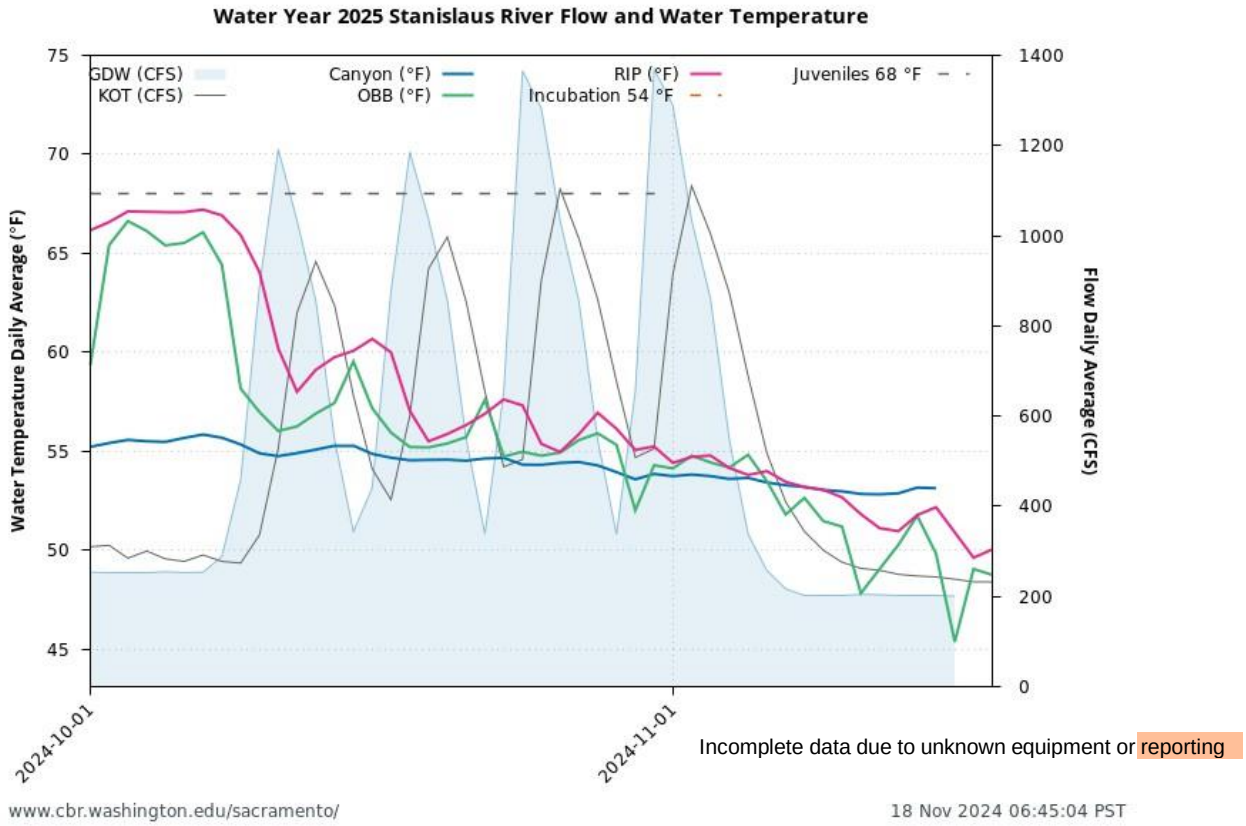


Figure 9. Stanislaus River flow and water temperatures from October 1, 2024 to November 15, 2024. Data (including temperature threshold reference lines) from SacPAS website.

Figure 9 is a line chart showing river flow and water temperatures on the Stanislaus River. The graph shows decreasing temperatures and flow October 2024 – November 2024 and increasing temperatures in early October 2024.

Item 6. Flow Planning

CDFW & USBR Updates

Updates to be shared/discussed at the 11/20 meeting.

Item 7. Stanislaus River Forum (SRF) Call Review

USBR Updates

Receive live update from USBR staff on the 11/19 call.

Item 8. Fish Monitoring and Studies

CDFW Update on Fish Monitoring (Adults)

Chinook carcass and redd surveys: The California Department of Fish & Wildlife (CDFW) began conducting fall-run Chinook salmon carcass and redd surveys the week of September 23, 2024 for the Stanislaus River. The Tuolumne and Merced carcass surveys started on September 16. Carcass survey data for all three San Joaquin River tributaries through the week of November 11, 2024 are reported in Table 1.

Update on Fish Monitoring (Juveniles)

Table 5. Data from the fall 2024 CDFW carcass survey for the San Joaquin tributaries.

River	Week	Date	# Live	# Redds	# Skeletons	# Tagged	# Ad-Clipped	# Scale Samples	# Recove-red	Average Flow (cfs)
Stanislaus	1	9/23/2024	8	0	0	1	1	1	0	250
Stanislaus	2	9/30/2024	10	1	0	1	1	1	0	250
Stanislaus	3	10/7/2024	*12*	1	1	1	1	1	0	400
Stanislaus	4	10/14/2024	65	4	1	2	1	2	0	433
Stanislaus	5	10/21/2024	35	8	0	0	0	0	0	683
Stanislaus	6	10/28/2024	109	40	0	0	0	0	0	683
Stanislaus	7	11/4/2024	638	270	9	11	0	11	0	267
Stanislaus	8	11/11/2024	852	649	27	92	17	92	1	200
Tuolumne	1	9/16/2024	0	0	0	0	0	0	0	300
Tuolumne	2	9/23/2024	0	0	0	0	0	0	0	300
Tuolumne	3	9/30/2024	4	0	0	0	0	0	0	315
Tuolumne	4	10/7/2024	8	0	0	0	0	0	0	300
Tuolumne	5	10/14/2024	23	0	0	0	0	0	0	322
Tuolumne	6	10/21/2024	82	0	1	0	0	0	0	372
Tuolumne	7	10/28/2024	92	8	0	0	0	0	0	382
Tuolumne	8	11/4/2024	289	103	2	6	0	6	0	415
Tuolumne	9	11/11/2024	234	130	10	17	2	17	0	385
Merced	1*	9/16/2024	0	0	0	0	0	0	0	325
Merced	2*	9/23/2024	1	0	0	0	0	0	0	275
Merced	3	9/30/2024	3	0	0	1	1	1	0	200

River	Week	Date	# Live	# Redds	# Skeletons	# Tagged	# Ad-Clipped	# Scale Samples	# Recove-red	Average Flow (cfs)
Merced	4	10/7/02024	12	0	0	0	0	0	0	198
Merced	5**	10/14/2024	1	0	0	0	0	0	0	228
Merced	6	10/21/2024	1	0	0	0	0	0	0	243
Merced	7	10/28/2024	36	1	0	0	0	0	0	227
Merced	8	11/4/2024	132	43	1	0	0	0	0	199
Merced	9	11/11/2024	238	86	1	7	1	7	0	187

*- Section 1 only; **- Section 4 not surveyed; Numbers on *Italics* are revised from last month's meeting12

CDFW plans to start the steelhead redd surveys in January 2025.

Update on Fish Monitoring (Juveniles)

Mossdale Trawl

- There has been no salmonid catch since June 28, 2024.
- Sampling is ongoing, but catch is rare outside of the spring months.
- Reporting on the trawl will resume in March 2025 or when salmonids are caught.

Stanislaus Weir

As of November 16, 2024, a total of 2,263 adult Chinook salmon have passed upstream of the Stanislaus River weir (Table 1). Three-hundred seventy (17%) of the adults were adipose fin clipped (indicating hatchery origin). A total of nine *O. mykiss* (Table 2) have been observed passing the Stanislaus River weir as of November 16, with four being over 16 inches. Three out of nine (33%) of the *O. mykiss* were adipose fin clipped.

Table 6. Chinook passage at the Stanislaus River Weir - Updated through: 11/16/2024

Year	Monitoring Start date	Net Passage To Date	Season Total
2024	9/5/24	2,263	2,263
2023	9/6/23	1,697	2,443
2022	9/15/22	1,947	3,798
2021	9/8/21	4,433	6,032
2020	9/10/20	1,668	1,906

Year	Monitoring Start date	Net Passage To Date	Season Total
2019	8/29/19	2,053	2,594
2018	9/5/18	4,113	4,777
2017	9/15/17	6,384	8,500
2016	9/8/16	10,725	14,399
2015	9/15/15	7,736	12,707
2014	9/5/14	3,490	5,527
2013	9/3/13	4,611	5,452
2012	9/11/12	6,150	7,248
2011	11/8/11	267	776
2010	9/7/10	1,173	1,364
2009	9/9/09	1,039	1,303
2008	9/9/08	779	928
2007	9/22/07	328	439
2006	9/8/06	2,570	3,074
2005	9/8/05	3,271	4,124
2004	9/10/04	3,834	4,448
2003	9/5/03	3,850	4,848

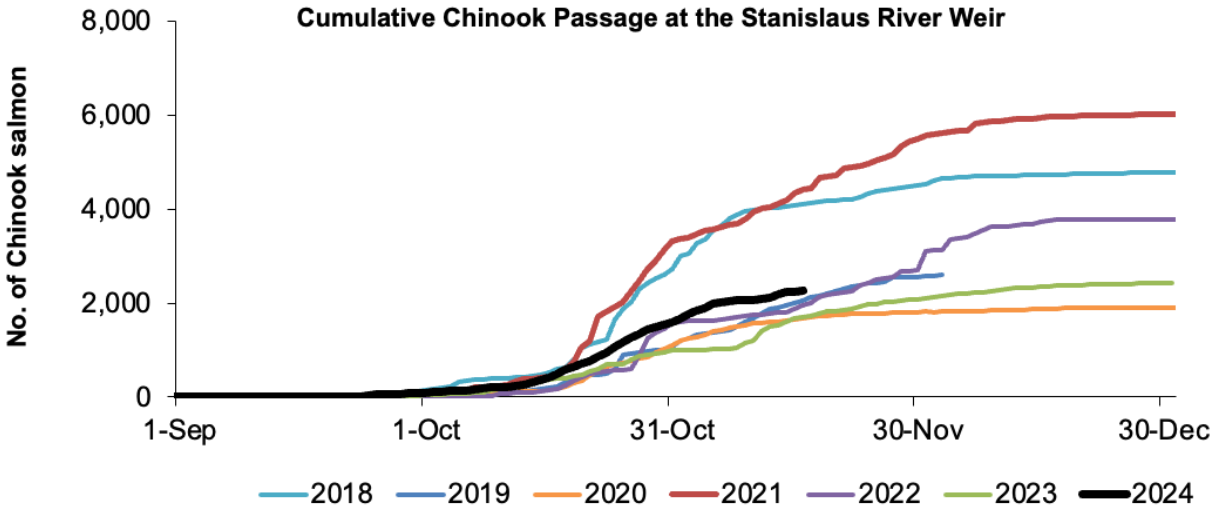


Figure 10. Cumulative Chinook passage at the Stanislaus River weir.

Figure 10 is a line chart showing the cumulative Chinook passage. The majority of Chinook passage occurred October – December 2022.

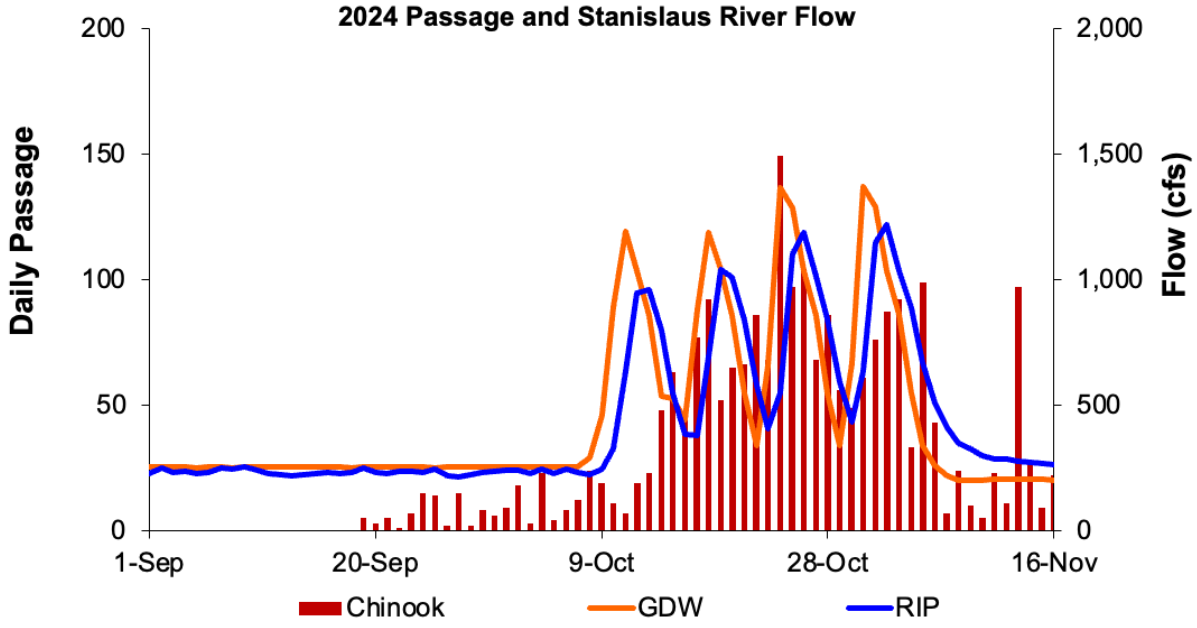


Figure 11. 2024 passage and Stanislaus River flow

Figure 11 is a bar chart showing the 2024 passage and Stanislaus Rive flow, with the highest peaks occurring throughout October.

Table 7. O. mykiss passage at the Stanislaus River Weir as of 11/16 of each year and the season totals, updated through November 16, 2024.

Year	Monitoring Start date	Net Passage To Date	Season Total
2024	9/5/24	9	9
2023	9/6/23	27	55
2022	9/15/22	1	6
2021	9/8/21	10	35
2020	9/10/20	2	8
2019	8/29/19	29	31
2018	9/5/18	19	25
2017	9/15/17	8	11
2016	9/8/16	17	26
2015	9/15/15	1	5
2014	9/5/14	1	8
2013	9/3/13	13	39
2012	9/11/12	12	101
2011	11/8/11	3	86
2010	9/7/10	1	6
2009	9/9/09	6	9
2008	9/9/08	9	15
2007	9/22/07	2	2
2006	9/8/06	6	12
2005	9/8/05	0	0
2004	9/10/04	0	1
2003	9/5/03	0	0

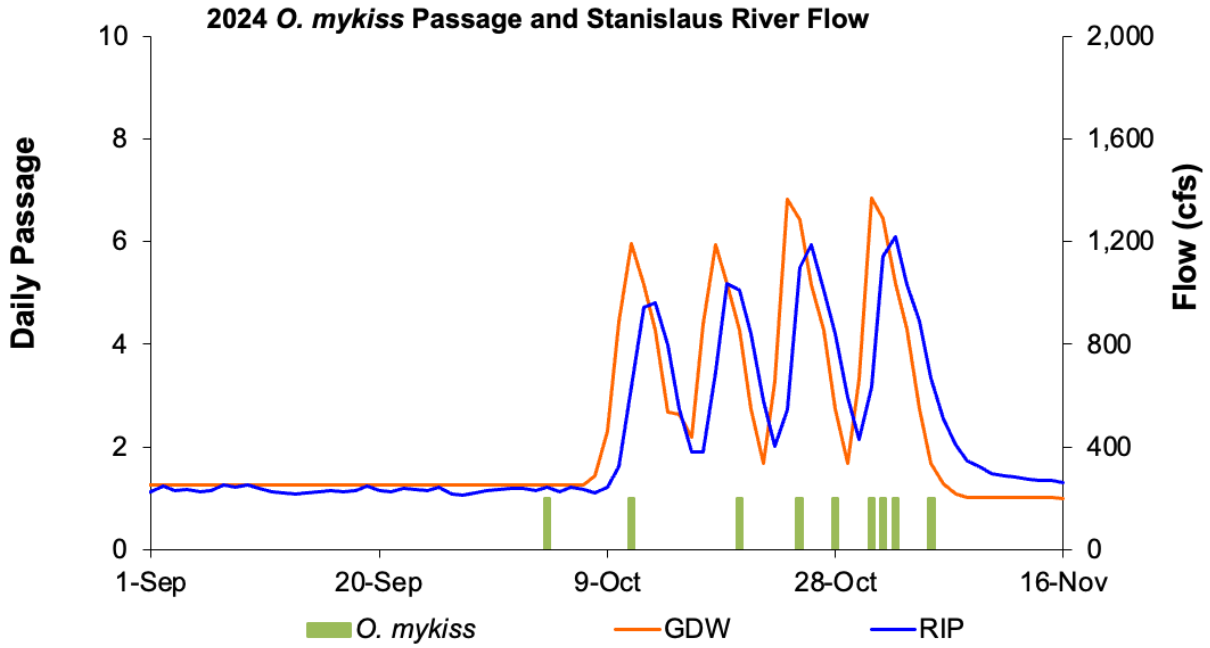


Figure 12. Graph of 2024-2025 O. mykiss passage and Stanislaus River flow.

Figure 12. Graph is a bar chart and line graph showing daily O. mykiss passage at the Stanislaus River weir and river flow at Goodwin (GDW) and Ripon (RIP), 2024. The highest peaks occur throughout October.

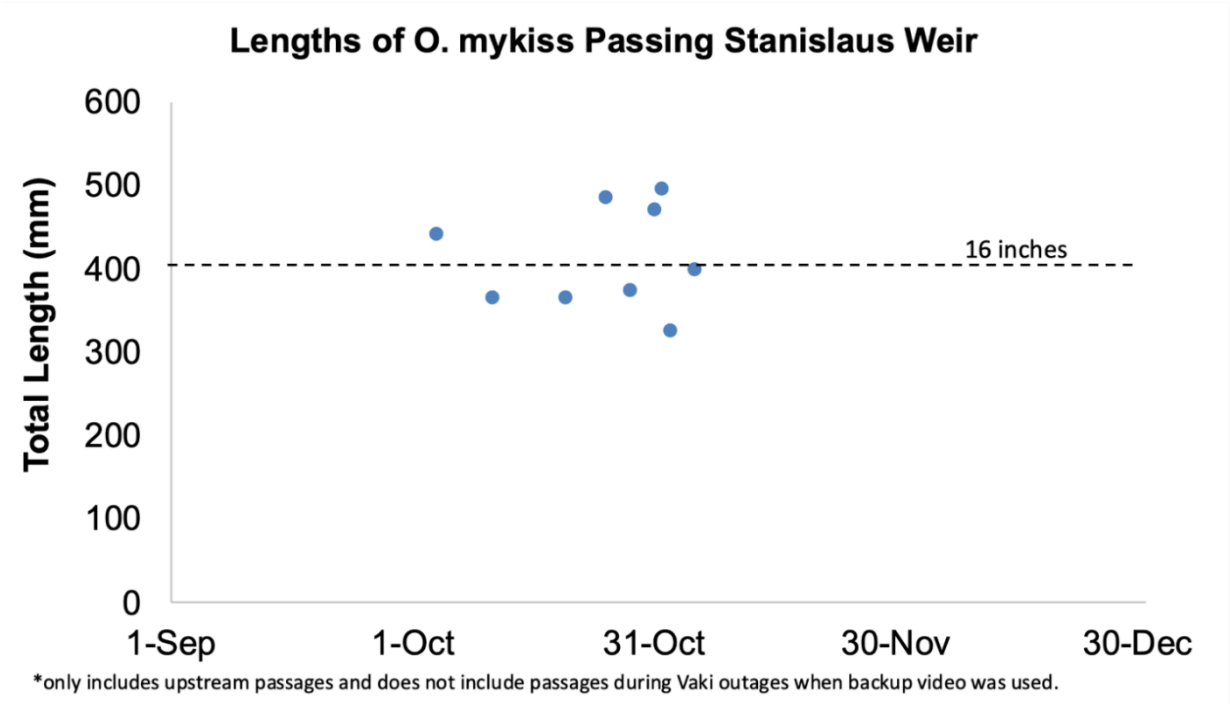


Figure 13. Lengths of O. mykiss passing Stanislaus River Weir

Figure 13. Graph is a scatter plot showing forklengths and timing of O. mykiss passages at the Stanislaus River Weir, 2024.

PSMFC

No updates for November 2024.

Archived information can be found at the Caswell RST CalFish webpage, which includes catch spreadsheets, annual reports, and other project information: [CalFish Stanislaus River (Caswell) – RST Monitoring]

Item 9. Restoration Project Updates

No updates shared in advance of the 11/20 meeting.