

Stanislaus Watershed Team

September 20, 2023

Members Attending

- USBR: Claire Hsu, Zarela Guerrero, Peggy Manza, Amanda Snow, Spencer Marshall
- USFWS: J.D. Wikert, Craig Anderson
- CDFW: Gretchen Murphey, Crystal Rigby, Steve Tsao
- NMFS: Barb Byrne
- DWR: John Ford
- SWRCB: Chris Carr, Yongxuan Gao
- PSMFC: Logan Day, Hunter Morris
- SSJID: Brandon Nakagawa
- Fishbio:
- Stockton East Water District (SEWD): Justin Hopkins
- WAPA:
- Kearns & West: Karis Johnston, Bethany Taylor

Action Items

- Peggy Manza, USBR
 - Inquire about the 8/18/2023 temperature spike
 - Share information with Gretchen Murphey, CDFW, on the time of the day that flows will return to base levels on Monday mornings. [COMPLETE; Flows will be at 350 cfs at 4 a.m. and decrease to 300 cfs at 8 a.m.]
- Dam Tour Attendees – Review recommended PPE list and alert Gretchen Murphey if you can provide extra items to lend other attendees.
- Amanda Snow and Zarela Guerrero, USBR, to share the flow shaping operations plan with Barb Byrne, NMFS, when available.
- Gretchen Murphey, CDFW, to check the run size of the single Chinook salmon caught on 8/14/2023 at Mossdale Trawl. [COMPLETE; The fish measured 98 mm.]
- Amanda Snow, USBR, to share a template for the WY 2023 Summary of Activities Report with the report drafters.
- Kearns & West will distribute an updated meeting packet with corrected New Melones

report.

- Kearns & West to add Summary of high levels Activities Report items to meeting summary

Announcements

- There was no measurable precipitation in the last month.
- Reclamation is following the conditional flood space that ensures enough room in the reservoir for late snow melt inflows.
- Total accumulated precipitation at New Melones was 46.93 inches during the previous month at 182% of average.
- Storage at New Melones is over 2 MAF and is increasing daily.
- Accumulated inflow for WY 2023 is 1.9 MAF and will continue to increase.

Tulloch

- Releasing water as needed for downstream requirements (instream flow and irrigation districts) and storage management.
- Releases are currently high enough to max out the power plant capacity. The rest of the water is being moved through spill and the outlet starting in the middle of May. This is due to significant water demands from irrigation and for higher river releases for storage management.

Goodwin

- Releases from Goodwin Dam are at 1,500 cfs.
- Agricultural demand is approximately 1,200 cfs per day (2.4 TAF). This is typical for this time of year.

Water Temperature Updates

- Water temperatures are still below 60 degrees F at Ripon with lower water temperatures upstream. There is some seasonal warming, but the water flows are helping keep the water temperatures down.
- Vernalis conditions are cooler than usual.

Stanislaus River Forum (SRF) Call Review

- A member of the public (from the rafting community) joined the call and asked for flows in the range of 700-800cfs on the weekends for rafting trips.

Fish Monitoring

Rotary Screw Trap Updates:

- Caswell RST has been sampling Monday – Friday since Memorial Day weekend. As of 6/13/23, 2,242 unmarked Chinook salmon, 1 *O. mykiss*, and 168 lamprey have been sampled.
- The average fork length of Chinook salmon is 93 mm, with a range of 60-110 mm over the last week.
- The majority of salmon are silvery parr and smolt life stages. They are catching roughly 5 unmarked fall-run Chinook salmon a day.
- There were concerns about finishing sampling on June 23, so they have planned to postpone the end of trapping and will continue into the beginning of July.
- Oakdale RST is sampling Monday – Friday.

CDFW Fish Monitoring

- No adult salmonid monitoring is occurring.
- Mossdale trawl is operational and caught many splittail over the last month. Catch has increased recently so sampling will continue for 5-days a week for the time being.

Question/Comments

- CDFW asked Fishbio to follow up with Reclamation on the scheduling of the weir installation in conjunction with the drop in flows for restoration work.

Flow Shaping

- It is past the point of cottonwood recruitment and therefore flow considerations for recruitment of riparian vegetation is less relevant at this time. There is too much water in the system to ramp down slowly.
- USFWS would like to have flows decreased to 400 cfs for two weeks in late- September and early October to do restoration work at the Stanley Wakefield Wilderness Area.
 - NMFS asked if they could do the restoration work earlier to align with weir installation if possible.
 - USFWS responded that it is possible, but start of construction depends on completion of permitting which will determine how quickly they can be ready to make the breach to the river.
 - Reclamation commented that 400 cfs for two weeks look achievable and they encourage trying to schedule weir installation at the same time. It should not matter for New Melones storage management if this drop happens in August or September.
- Rafting companies have requested lower flows on weekends, specifically over the first weekend in July, for safe rafting conditions. Ideally, 700-800 cfs is what they have asked for.
- USFWS requested a target amount of water for the rest of the summer to shape flows in a way that would allow for drops for recreation.

- Reclamation has drafted a plan for dropping to 750 cfs on weekends. They will share the pattern of releases with USFWS but cannot guarantee September flows. This plan has not been approved by management yet.
 - Reclamation draft plans for flows during the summer:
 - Monday – Thursday - 1,500 cfs
 - Friday - 1,000 cfs
 - Saturday - 750 cfs
 - Sunday - 850 cfs (this will be closer to 750 cfs during the day with ramping up beginning in the evening).
 - For the 4th of July weekend
 - June 28th – 1,500 cfs
 - June 29th – 1,000 cfs
 - June 30 – July 4 – 750 cfs
 - June 5th – 1,000 cfs
 - June 6th – 1,500 cfs
 - Move back into the regular pattern afterwards.

Restoration Project Updates

- The Mohler and Tortuga projects are in the pre-project monitoring phase.
- Buffington is at the project design stage and working through the permitting. This would be a summer 2024 construction.
- Caswell is high on the list for funding with the CVPIA.
- Anyone interested in joining RCD planning meetings can reach out to J.D. Wikert to get on the list.

Progress Update on Proposed Action Elements

- No update.

Other Discussion Items

Curtailments

- All curtailments have ended.

Annual Reporting

- No update.

Items to elevate to WOMT

- No items for WOMT.

Next Meeting

Wednesday, July 19, 10:00 am –12:00 pm.



— BUREAU OF —
RECLAMATION

Stanislaus Watershed Team

10:00 AM – 12:00 PM

Conference Line: 1 (321) 209-6143; Meeting ID: 901 988 581#

Webinar: [Join Microsoft Teams Meeting](#)

Wednesday, September 20, 2023

Agenda

1. Introductions
2. Ground Rules¹
3. Announcements
 - a. Meeting will be recorded for notetaking purposes
 - b. Updates on Tulloch and New Melones Dam Tour. October 04, 2023
 - c. In person meeting frequency updates, quarterly versus monthly
4. Operations Update and Forecasts/Hydrology
5. Temperature Updates
6. Flow Planning
7. Stanislaus River Forum (SRF) Call Review
8. Fish Monitoring and Studies

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

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

9. Restoration Project Updates
 - a. Restoration Tracker
10. Other Discussion Items
 - a. WY23 Summary of Activities Report Kickoff
 - b. Items to elevate to WOMT
11. Review Action Items
12. Next Meeting: Wednesday, October 18, 2023 (10am-12pm)



Tables for BDO

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

September 18, 2023

Run Date: September 19, 2023

Table 4. Reservoir Releases in Cubic Feet Per Second

Reservoir	Dam	WY 2020	WY 2021	15-Year Median
Trinity	Lewiston	949	459	700
Sacramento	Keswick	4,106	7,090	6,998
Feather	Oroville (SWP)	2,500	7,000	4,000
American	Nimbus	2,482	3,042	1,775
Stanislaus	Goodwin	205	353	250
San Joaquin	Friant	260	0	350

Table 5. Storage in Major Reservoirs in Thousands of Acre-Feet

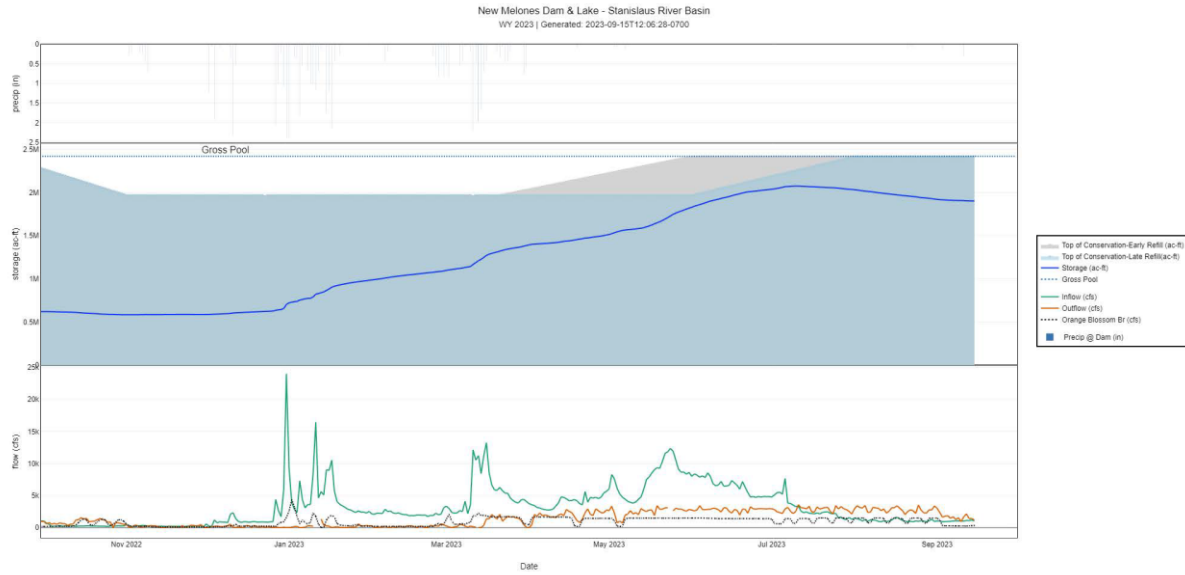
Reservoir	Capacity	15-Yr Avg	WY 2021	WY 2021	% O 15 Yr Avg
Trinity	2,448	1,313	568	1,332	101
Shasta	4,552	2,454	1,534	3,393	138
Folsom	977	482	378	691	144
New Melones	2,420	1,281	619	1,900	148
Fed. San Luis	966	325	212	803	247
Total North CVP	11,363	5,855	3,311	8,119	139
Millerton	521	285	292	0	0
Oroville (SWP)	3,538	1,707	1,261	2,714	159

Table 6. Accumulated Inflow for water Year to Date in Thousands of Acre-Feet

Reservoir	Current WY 2023	WY 1977	WY 1983	15-Yr Avg	% O 15 Yr Avg
Trinity	1,561	690	1,989	1,053	148
Shasta	5,538	3,522	8,920	4,689	118
Folsom	4,669	1,111	6,049	2,626	178
New Melones	2,316	N/A	2,140	1,067	217
Millerton	4,183	788	3,065	1,683	248

Table 7. 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	40.41	24.24	40.37	30.54 (63)	132	0.01
Sacramento at Shasta Dam	76.05	39.17	86.97	59.51 (68)	128	0.00
American at Blue Canyon	77.92	5.09	114.10	64.66 (49)	121	0.00
Stanislaus at New Melones	47.61	N/A	37.40	26.92 (46)	177	0.00
San Joaquin at Huntington LK	67.05	15.90	67.30	40.61 (50)	165	0.00



New Melones Dam & Lake – Stanislaus River Basin 2023-02-14T08:06:21-0800

United States Department of the Interior
 Bureau of Reclamation-Central Valley Project- California
 New Melones Lake Daily Operations, September 2023, Run Date: 09/21/2023

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
N/A	N/A	1,920.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	1,044.68	1,917.1	-2.9	1,039	2,384	0	0	122	0.35	0.00
2	1,044.55	1,915.7	-1.4	946	1,639	0	0	14	0.04	0.14
3	1,044.38	1,913.9	-1.8	941	1,813	0	0	52	0.15	0.00
4	1,044.21	1,912.0	-1.8	992	1,881	0	0	35	0.10	0.00
5	1,044.11	1,911.0	-1.1	994	1,471	0	0	66	0.19	0.00
6	1,043.97	1,909.4	-1.5	1,060	1,723	0	0	97	0.28	0.00
7	1,043.92	1,908.9	-0.5	1,081	1,265	0	0	87	0.25	0.00
8	1,043.81	1,907.7	-1.2	1,075	1,563	0	0	108	0.31	0.00
9	1,043.81	1,907.7	0.0	1,052	951	0	0	101	0.29	0.00
10	1,043.68	1,906.3	-1.4	1,501	1,414	0	282	59	0.17	0.31
11	1,043.47	1,904.1	-2.3	1,135	2,168	0	0	104	0.30	0.00
12	1,043.39	1,903.2	-0.9	1,108	1,433	0	0	108	0.31	0.00
13	1,043.33	1,902.6	-0.6	1,192	1,420	0	0	97	0.28	0.00
14	1,043.29	1,902.1	-0.4	1,067	1,187	0	0	97	0.28	0.00
15	1,043.32	1,902.5	0.3	1,167	910	0	0	94	0.27	0.00
16	1,043.32	1,902.5	0.0	1,077	994	0	0	83	0.24	0.00
17	1,043.28	1,902.0	-0.4	1,217	1,351	0	0	83	0.24	0.00
18	1,043.13	1,900.4	-1.6	975	1,704	0	0	83	0.24	0.00
19	1,043.10	1,900.1	-0.3	1,210	1,300	0	0	73	0.21	0.00
20	1,043.20	1,901.2	1.1	1,056	452	0	0	62	0.18	0.00
Totals	N/A	N/A	-18.7	21,435	29,023	0	282	1,625	4.68	0.45
Acre- Feet	N/A	N/A	-18,700	42,516	57,567	0	559	3,223	N/A	N/A

Comments:

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

Summary Precipitation

This Month 0.45
 July 1, 2021 to Date N/A
 October 1, 2021 to Date 47.61

**Summary: Release
(acre- feet)**

Release (acre-feet)	N/A
Power	57,567
Spill	0
Outlet	559
Total	58.126

United States Department of the Interior
 Bureau of Reclamation-Central Valley Project- California
 New Melones Lake Daily Operations, August 2023, Run Date: 09/10/2023

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
N/A	N/A	2,032.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	1,054.83	2,028.5	-4.4	1,389	3,437	0	0	148	0.41	0.00
2	1,054.84	2,028.6	-3.9	1,302	3,143	0	0	126	0.35	0.00
3	1,054.10	2,020.3	-4.2	1,042	3,063	0	0	115	0.32	0.00
4	1,053.69	2,015.8	-3.6	1,288	3,475	0	0	111	0.31	0.00
5	1,053.42	2,012.8	-3.0	998	2,388	0	0	122	0.34	0.00
6	1,053.18	2,010.1	-2.7	1,231	2,439	0	0	136	0.38	0.00
7	1,052.80	2,005.9	-4.2	1,206	3,195	0	0	136	0.38	0.00
8	1,052.43	2,001.8	-4.1	1,164	3,090	0	0	140	0.39	0.00
9	1,052.04	1,997.5	-4.3	983	3,017	0	0	143	0.40	0.00
10	1,051.71	1,993.8	-3.6	932	2,655	0	0	114	0.32	0.00
11	1,051.36	1,990.0	-3.9	1,105	2,932	0	0	121	0.34	0.00
12	1,051.10	1,987.1	-2.9	945	2,273	0	0	118	0.33	0.00
13	1,050.80	1,983.8	-3.3	1,047	2,588	0	0	125	0.35	0.00
14	1,050.44	1,979.8	-4.0	1,199	3,110	0	0	85	0.24	0.00
15	1,050.13	1,976.4	-3.4	1,555	3,139	0	0	135	0.38	0.00
16	1,049.78	1,972.6	-3.8	1,627	3,418	0	0	146	0.41	0.00
17	1,049.45	1,969.0	-3.6	1,360	3,035	0	0	149	0.42	0.00
18	1,049.15	1,965.7	-3.3	1,154	2,670	0	0	142	0.40	0.00
19	1,048.94	1,963.4	-2.3	1,012	2,045	0	0	127	0.36	0.00
20	1,048.63	1,960.0	-3.4	952	2,547	0	0	113	0.32	0.00
21	1,048.30	1,956.4	-3.6	1,007	2,789	0	0	35	0.10	0.00
22	1,047.98	1,952.9	-3.5	923	2,658	0	0	28	0.08	0.00
23	1,047.75	1,950.4	-2.5	1,065	2,221	0	0	106	0.30	0.00
24	1,047.26	1,945.0	-5.3	989	2,538	0	0	141	0.40	0.00
25	1,046.94	1,941.6	-3.5	1,114	2,746	0	0	123	0.35	0.00
26	1,046.68	1,938.7	-2.8	1,019	2,326	0	0	116	0.33	0.00
27	1,046.41	1,935.8	-2.9	933	2,280	0	0	130	0.37	0.00
28	1,046.08	1,932.2	-3.6	1,077	2,785	0	0	98	0.28	0.00
29	1,045.80	1,929.2	-3.0	1,334	2,771	0	0	91	0.26	0.00
30	1,045.33	1,924.1	-5.1	970	3,397	0	0	136	0.39	0.00
31	1,044.95	1,920.0	-4.1	1,071	3,023	0	0	119	0.34	0.00
Totals	N/A	N/A	-112.8	34,993	88,193	0	0	3,675	10.35	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
Acre- Feet	N/A	N/A	-112,800	69,409	174,931	0	0	7,289	N/A	N/A

Comments:

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

Summary Precipitation

This Month 0.25
 July 1, 2021 to Date N/A
 October 1, 2021 to Date 47.16

Summary: Release (acre-feet)

Release (acre-feet) N/A
 Power 174,931
 Spill 0
 Outlet 0
Total 174,931

United States Department of the Interior
 Bureau of Reclamation-Central Valley Project- California
 Tulloch Reservoir Daily Operations, September 2023, Run Date: 09/19/2023

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	65,757	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	509.06	65,795	38	2,359	2,384	2,239	0	87	14
2	509.01	65,732	-63	1,626	1,639	1,656	0	0	2
3	509.23	66,007	275	1,803	1,813	1,658	0	0	6
4	509.52	66,369	362	1,883	1,881	1,696	0	0	4
5	509.17	65,932	-437	1,445	1,471	1,657	0	0	8
6	509.29	66,082	150	1,713	1,723	1,626	0	0	11
7	508.69	65,338	-744	1,250	1,265	1,615	0	0	10
8	508.57	65,191	-147	1,548	1,563	1,610	0	0	12
9	507.46	63,835	-1,356	948	951	1,621	0	0	11
10	507.76	64,198	363	1,740	1,696	1,550	0	0	7
11	508.91	65,609	1,411	2,169	2,168	1,446	0	0	12
12	509.08	65,820	211	1,443	1,433	1,325	0	0	12
13	509.38	66,194	374	1,419	1,420	1,219	0	0	11
14	509.17	65,932	-262	1,170	1,187	1,291	0	0	11
15	508.66	65,301	-631	893	910	1,190	0	10	11
16	508.21	64,748	-553	984	994	1,253	0	0	10
17	508.43	65,018	270	1,337	1,351	1,191	0	0	10
18	508.28	66,069	1,051	1,733	1,704	1,193	0	0	10
Totals	N/A	N/A	312	27,463	27,553	27,036	0	97	172
Acre-Feet	N/A	N/A	312	54,473	54,651	53,626	0	192	341

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	53,626
Spill	0
Outlet	192
Total	53,818

United States Department of the Interior
 Bureau of Reclamation-Central Valley Project- California
 Tulloch Reservoir Daily Operations, August 2023, Run Date: 09/10/2023

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	64,600	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	508.57	65,191	591	3,396	3,437	2,472	395	215	16
2	508.40	64,981	-21	3,115	3,143	2,472	457	278	14
3	508.15	64,674	-307	3,043	3,063	2,470	493	222	13
4	509.02	65,745	1,071	3,459	3,475	2,468	289	150	12
5	509.06	65,795	50	2,404	2,388	2,365	0	0	14
6	509.04	65,770	-25	2,421	2,439	2,313	76	30	15
7	509.36	66,169	399	3,150	3,195	2,475	302	157	15
8	509.40	66,219	50	3,049	3,090	2,479	304	225	16
9	509.38	66,194	-25	2,982	3,017	2,478	305	196	16
10	508.71	65,363	-831	2,652	2,655	2,474	363	221	13
11	508.80	65,474	111	2,870	2,932	2,457	233	110	14
12	508.84	65,523	49	2,530	2,273	2,355	101	36	13
13	508.84	65,523	0	2,506	2,588	2,355	101	36	14
14	508.81	65,486	-37	3,047	3,110	2,472	396	188	10
15	508.86	65,548	62	3,113	3,139	2,473	398	196	15
16	509.36	66,196	621	3,424	3,418	2,476	400	218	17
17	509.16	65,920	-249	3,025	3,035	2,477	400	257	17
18	508.99	65,708	-212	2,677	2,670	1,960	519	289	16
19	508.54	65,154	-554	2,049	2,045	2,314	0	0	14
20	508.97	65,683	529	2,520	2,547	2,237	0	3	13
21	509.50	66,344	661	2,771	2,789	2,434	0	0	4
22	509.44	66,269	-75	2,641	2,658	2,466	127	83	3
23	508.21	64,748	-1,521	2,203	2,221	2,481	300	177	12
24	509.11	65,857	1,109	3,555	3,538	2,475	299	206	16
25	508.74	65,400	-457	2,633	2,746	2,441	175	233	14
26	508.86	65,548	148	2,388	2,326	2,300	0	0	13
27	508.63	65,265	-283	2,284	2,280	2,308	0	104	15
28	508.28	64,834	-431	2,754	2,785	2,474	100	386	11
29	508.00	64,489	-345	0	2,771	2,474	298	81	0
30	508.76	65,757	936	3,382	3,397	2,470	297	127	16
31	509.03	65,757	332	3,025	3,023	2,475	200	169	14

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)
Totals	NA	NA	1,157	85,068	88,193	74,840	7,328	4,593	405
Acre-Feet	NA	NA	1,157	168,732	174,931	148,445	14,535	9,110	803

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	148,445
Spill	14,535
Outlet	9,110
Total	172,090

Oakdale Irrigation District
 South San Joaquin Irrigation
 District Tri Dams Project-California
 Goodwin Reservoir Daily Operations, September 2023, Run Date: 09/19/2023

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	577	N/A	N/A	N/A	N/A	N/A	N/A
1	359.98	536	-41	2,326	0	972	865	319
2	359.95	534	-2	1,656	0	401	825	243
3	359.95	534	0	1,658	0	400	825	265
4	359.95	534	0	1,696	0	401	853	299
5	359.99	536	2	1,657	0	404	824	290
6	359.96	534	-2	1,626	0	405	687	405
7	359.98	536	2	1,615	0	401	629	443
8	359.98	536	0	1,610	0	405	688	397
9	359.96	534	-2	1,621	0	401	718	379
10	359.98	536	2	1,550	0	405	689	341
11	359.95	534	-2	1,446	0	366	663	321
12	359.93	532	-2	1,325	0	354	555	335
13	359.95	534	2	1,219	0	352	506	280
14	359.95	534	0	1,291	0	372	499	327
15	359.95	534	0	1,200	0	371	488	170
16	359.95	534	0	1,253	0	377	443	268
17	359.95	534	0	1,191	0	365	443	235
18	359.95	534	0	1,193	0	353	445	261
Totals	N/A	N/A	-43	27,133	0	7,505	11,645	5,578
Acre-Feet	N/A	N/A	-43	53,818	0	14,886	23,098	11,064

Joint Main Operated by SSJID and OID.

Summary: Release (acre-feet)

Joint Main Canal	23,098
South Main Canal	11,064
Outlet	0
Spill	14,886
Total	49047.988

Oakdale Irrigation District
 South San Joaquin Irrigation
 District Tri Dams Project-California
 Goodwin Reservoir Daily Operations, August 2023, Run Date: 09/10/2023

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	576	N/A	N/A	N/A	N/A	N/A	N/A
1	360.58	578	2	3,082	0	1,505	914	453
2	360.57	577	-1	3,207	0	1,501	980	502
3	360.57	577	0	3,185	0	1,052	975	481
4	360.20	551	-26	2,907	0	1,283	973	452
5	360.17	549	-2	2,365	0	752	937	464
6	360.57	577	28	2,419	0	933	910	371
7	360.57	577	0	2,934	0	1,500	892	360
8	360.57	577	0	3,008	0	1,505	906	416
9	360.57	577	0	2,979	0	1,504	915	380
10	360.57	577	0	3,058	0	1,501	927	437
11	360.21	552	-25	2,800	0	1,280	932	396
12	360.17	549	-3	2,492	0	751	928	443
13	360.58	578	29	2,492	0	937	929	403
14	360.58	578	0	3,056	0	1,502	920	422
15	360.57	577	-1	3,067	0	1,500	935	421
16	360.57	577	0	3,094	0	1,501	935	444
17	360.57	577	0	3,134	0	1,500	951	470
18	360.20	551	-26	2,768	0	1,275	884	362
19	360.17	549	-2	2,314	0	751	931	392
20	360.57	577	28	2,240	0	920	769	304
21	360.57	577	0	2,434	0	1,501	455	276
22	360.57	577	0	2,676	0	1,512	651	322
23	360.57	577	0	2,958	0	1,501	868	381
24	360.58	578	1	2,980	0	1,512	870	392
25	360.21	552	-26	2,849	0	1,501	910	451
26	360.17	549	-3	2,300	0	1,502	936	403
27	360.58	578	29	2,412	0	1,278	906	363
28	360.57	577	-1	2,960	0	751	873	402
29	360.57	577	0	2,853	0	930	855	326
30	360.57	577	0	2,894	0	1,503	858	361
31	360.57	577	0	2,844	0	1,502	857	295

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
Totals	N/A	N/A	1	86,761	0	39,936	37,482	12,345
Acre-Feet	N/A	N/A	1	172,090	0	79,213	54,511	24,486

Joint Main Operated by SSJID and OID.

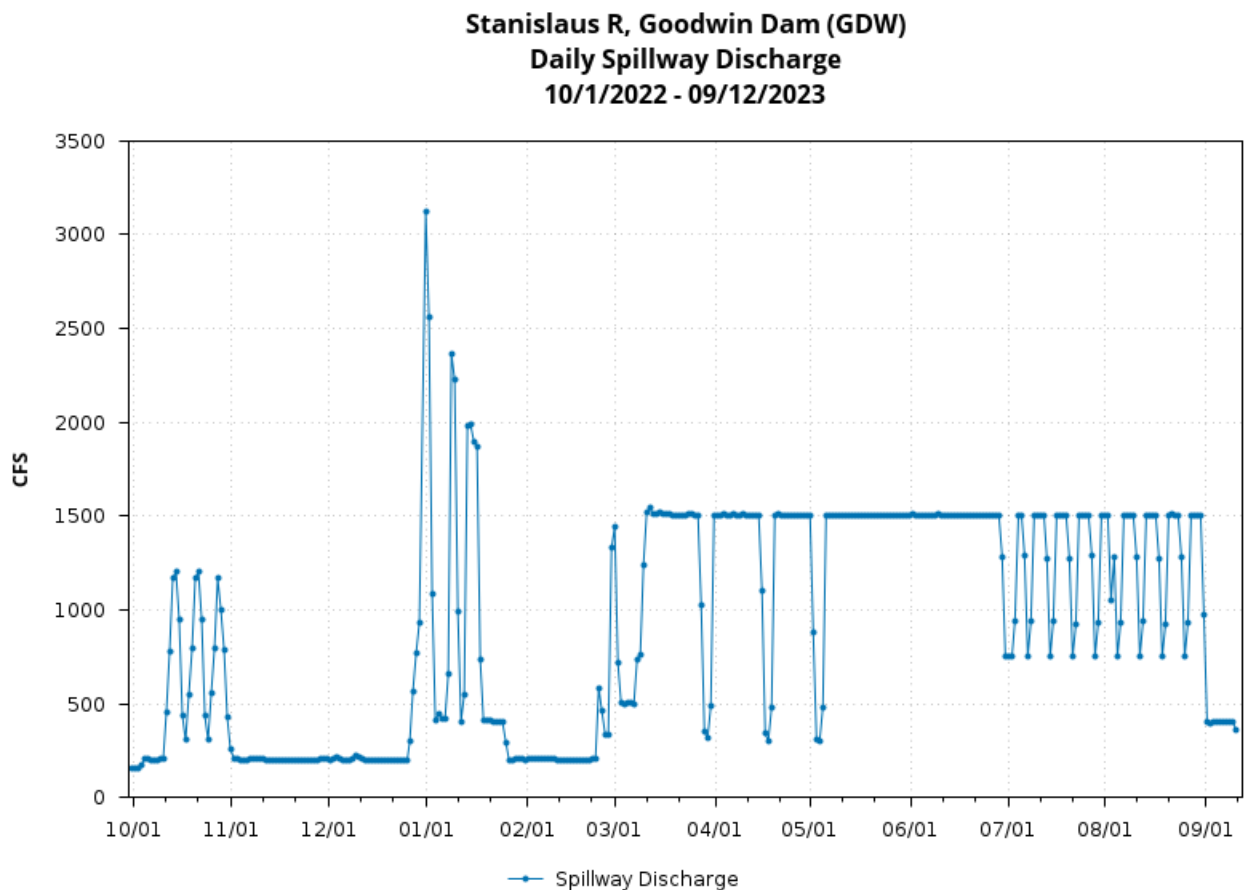
Summary: Release (acre-feet)

Joint Main Canal	54,511
South Main Canal	24,486
Outlet	0
Spill	79,213
Total	158209.9105

September 2023 Water Temperature and Fish Monitoring Update

Year-to-Date Flows

Goodwin releases since October 1, 2022, are shown in Figure 1.



www.cbr.washington.edu/sacramento/

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Figure 1. Goodwin (daily) releases to the Stanislaus River since October 1, 2022. Data from GDW station on CDEC.

Figure 1 is a line graph showing Goodwin Dam daily spillway discharge. The graph shows a peak of 3,000 cfs on January 1, 2023, and several periods of sustained 1,500 cfs discharge between March and July 2023.

Water Temperature

The temperature thresholds included in Figures 2-9, below, are the thresholds used in the 2019 NMFS LTO BiOp (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 August 2023 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 July 2023 are shown below at Vernalis (Figure 5). Current-year water temperatures are plotted along with historical temperatures for 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 2023 is provided in Figure 9.

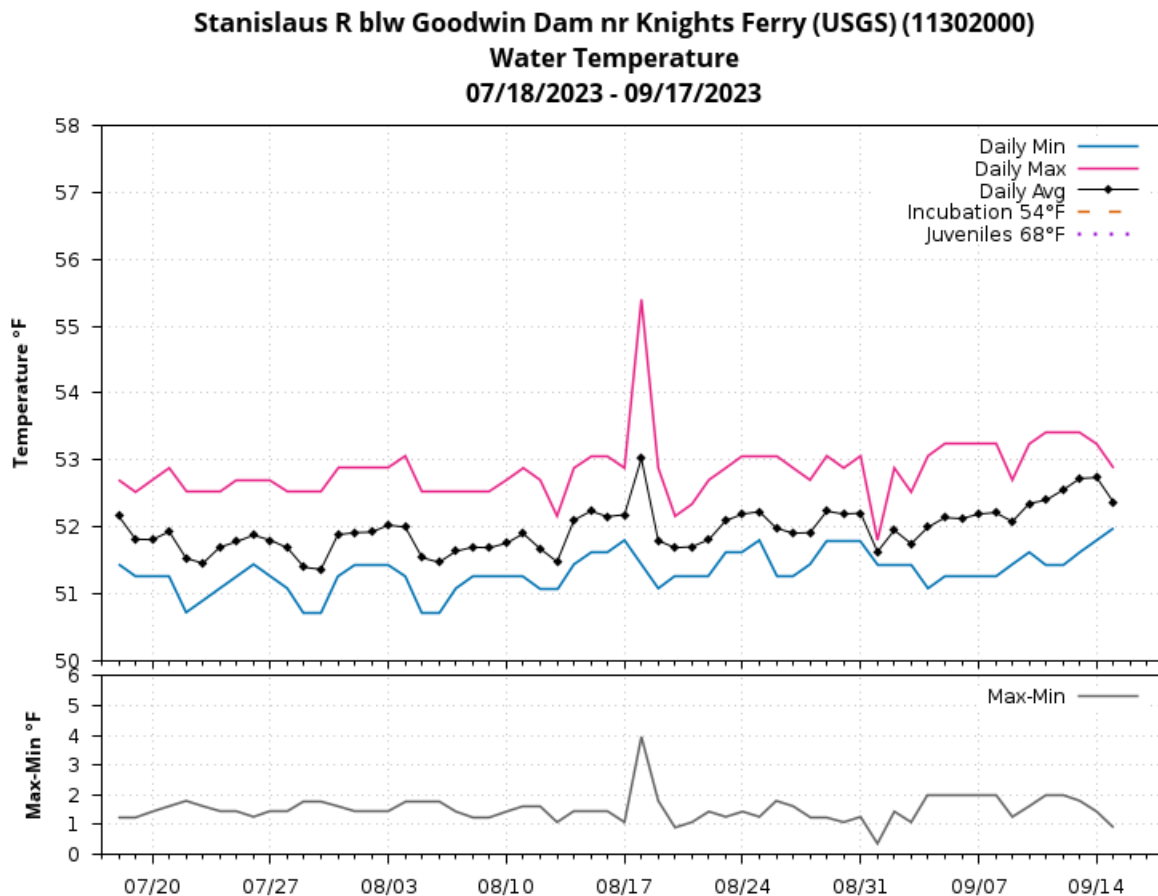
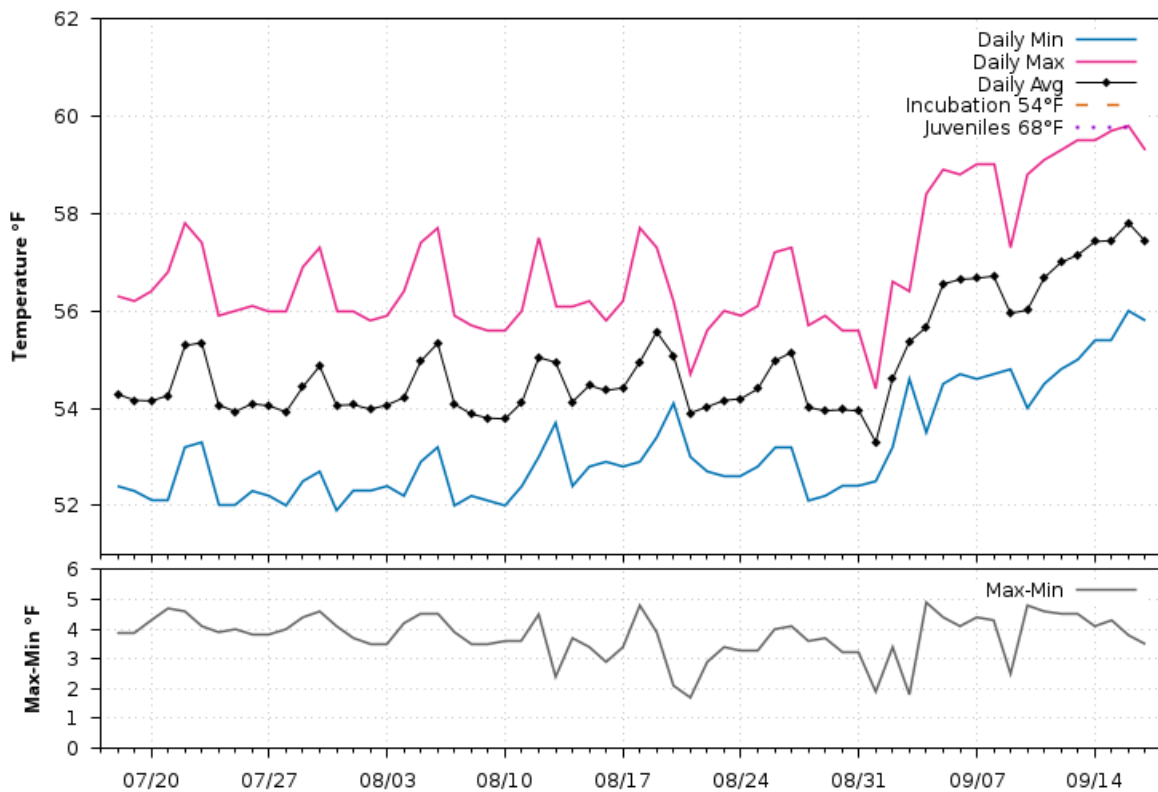


Figure 2. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since July 18, 2023. Data from USGS gage 11302000 on NWIS; temperature threshold reference line added by SWT.

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). For more information, please call (916) 414-2400

Stanislaus R at Orange Blossom Bridge (OBB)
Water Temperature
07/18/2023 - 09/17/2023



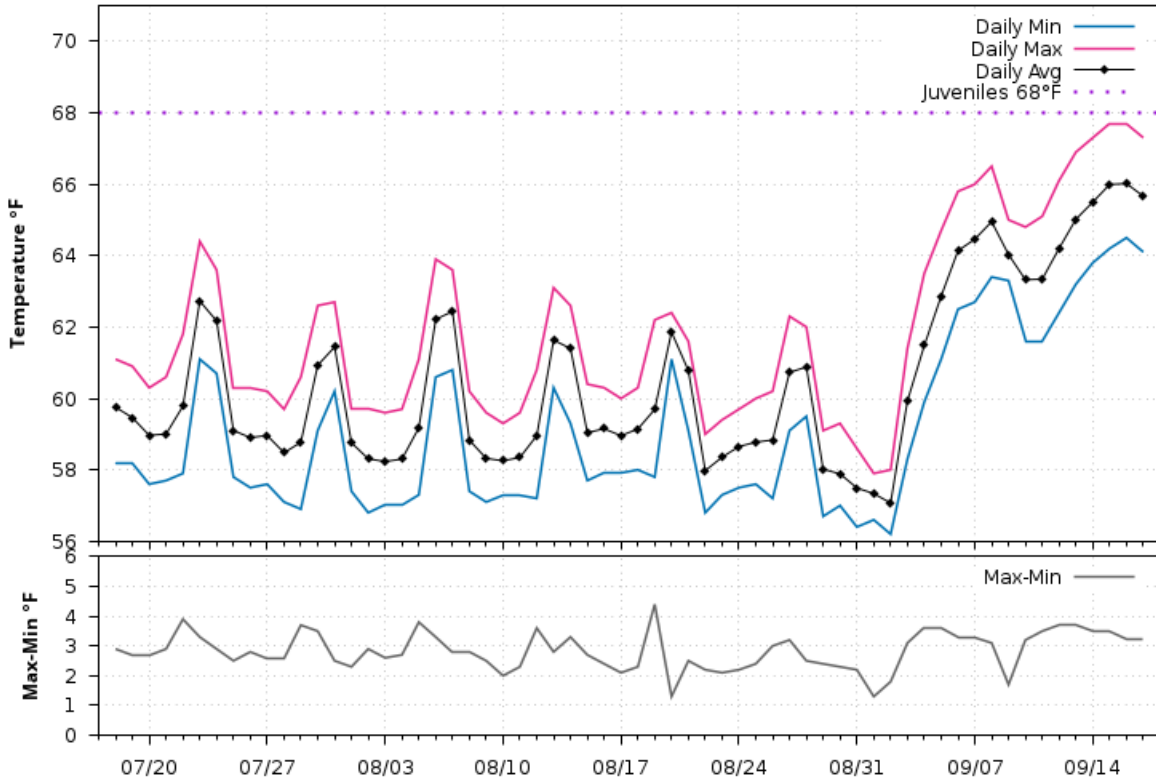
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Figure 3. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since July 18, 2023.

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.

**Stanislaus R at Ripon (USGS) (RIP)
Water Temperature
07/18/2023 - 09/17/2023**



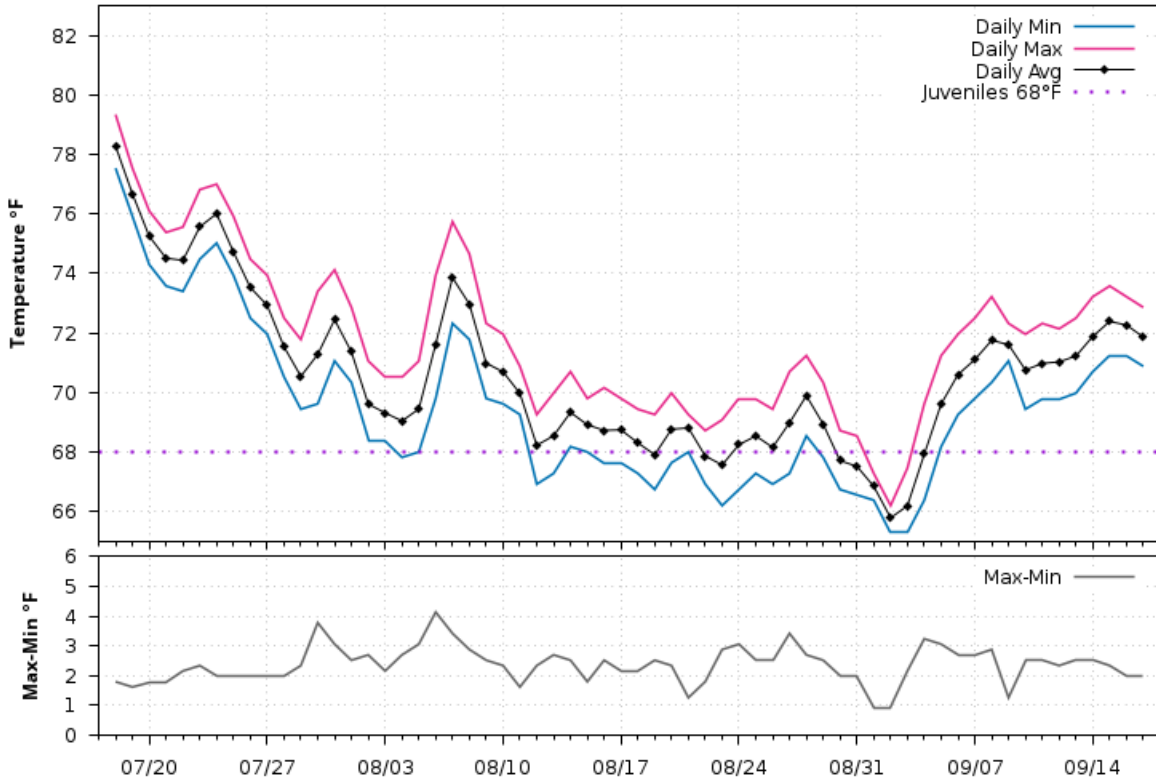
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Figure 4. Stanislaus water temperatures at Ripon since July 18, 2023. Data from RIP station on CDEC.

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). For more information, please call (916) 414-2400

**San Joaquin R nr Vernalis (VNS)
Water Temperature
07/18/2023 - 09/17/2023**



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Figure 5. San Joaquin River (15-minute) water temperatures at Vernalis since July 18, 2023. 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). For more information, please call (916) 414-2400

Stanislaus R at Orange Blossom Bridge (OBB)
2001-2023 Daily Average Water Temperature
Observed Range 48.1-73.1
07/20 - 11/17

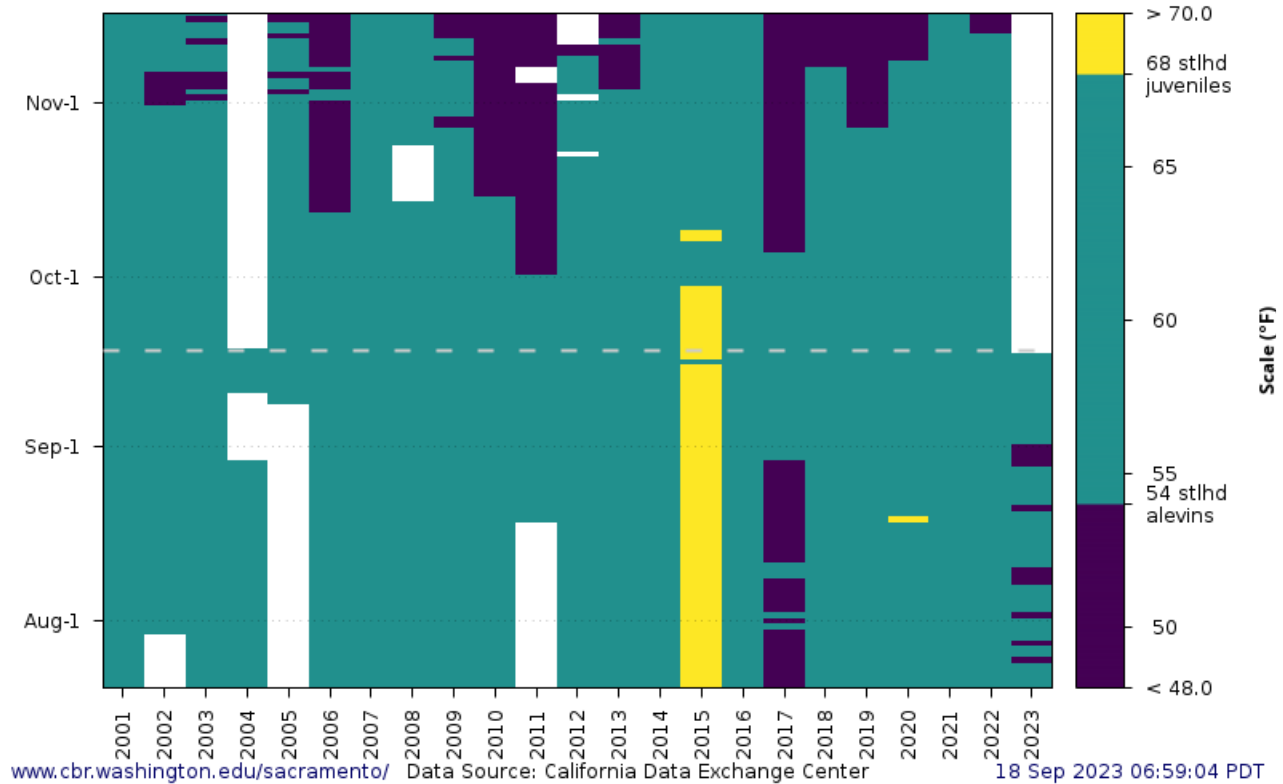


Figure 6. Stanislaus River water temperatures at Orange Blossom Bridge for WY 2001 to present. Data from SacPAS; temperature threshold reference lines added by SWT.
http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

Figure 6 is a bar chart showing water temperatures at Orange Blossom Bridge for WY 2001 to present for August to November. 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.

Stanislaus R at Ripon (USGS) (RIP)
2011-2023 Daily Average Water Temperature
Observed Range 48.1-82.4
07/20 - 11/17



Figure 7. Stanislaus River water temperatures at Ripon for WY 2011 to present. Figure from SacPAS using RIP station data from CDEC; temperature threshold reference line added by SWT. http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

Figure 7 is a bar chart showing water temperatures at Ripon for WY 2011 to present for August to November. The chart shows that during this time, the daily average water temperature was mostly above 68 degrees Fahrenheit with WY2017 being the only year where water temperature remained below 68 degrees Fahrenheit.

**San Joaquin R nr Vernalis (VNS)
2014-2023 Daily Average Water Temperature
Observed Range 50.5-84.8
07/20 - 11/17**

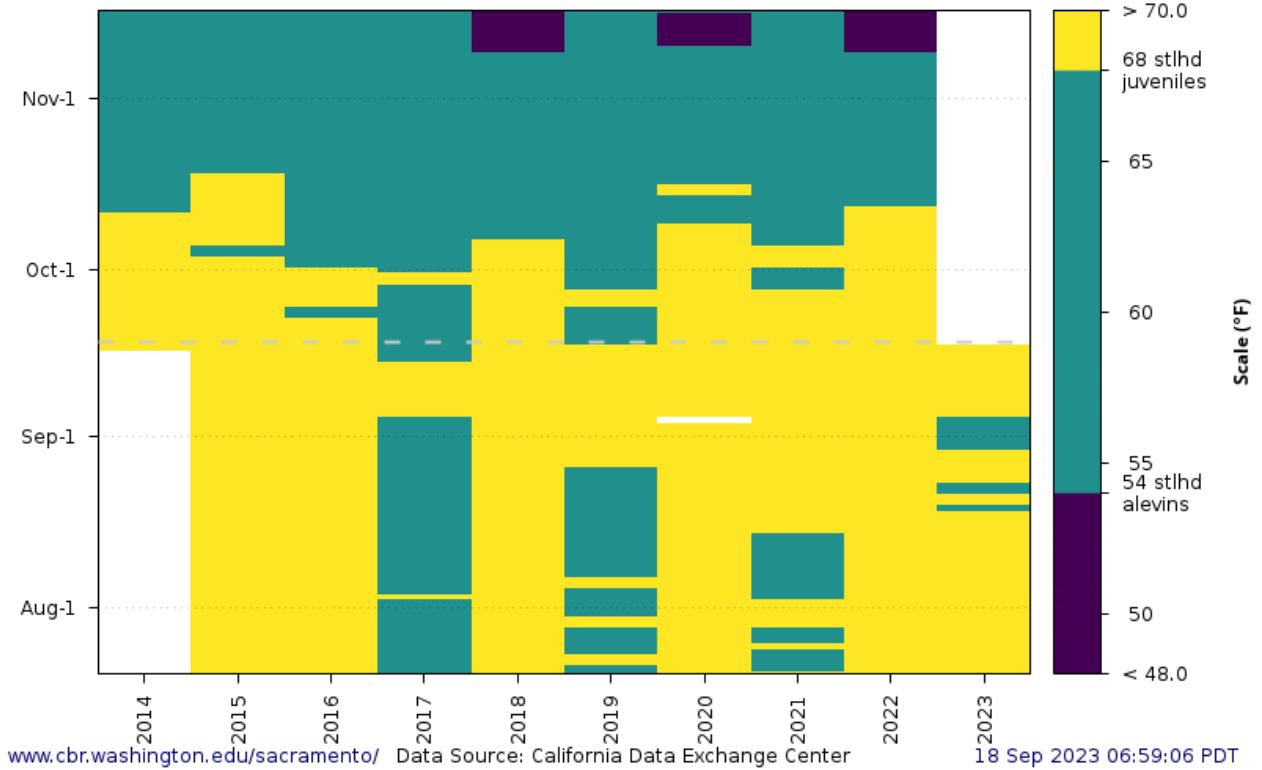


Figure 8. San Joaquin River water temperatures at Vernalis for WY 2014 to present. Figure from SacPAS using VNS station data from CDEC; temperature threshold reference line added by SWT. http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

Figure 8 is a bar chart showing water temperatures at Vernalis for WY 2018 to present for August to November. The chart shows that during this time, the daily average water temperature was mostly above 68 degrees Fahrenheit with WY2017 being the only year where water temperature mostly remained below 68 degrees Fahrenheit.

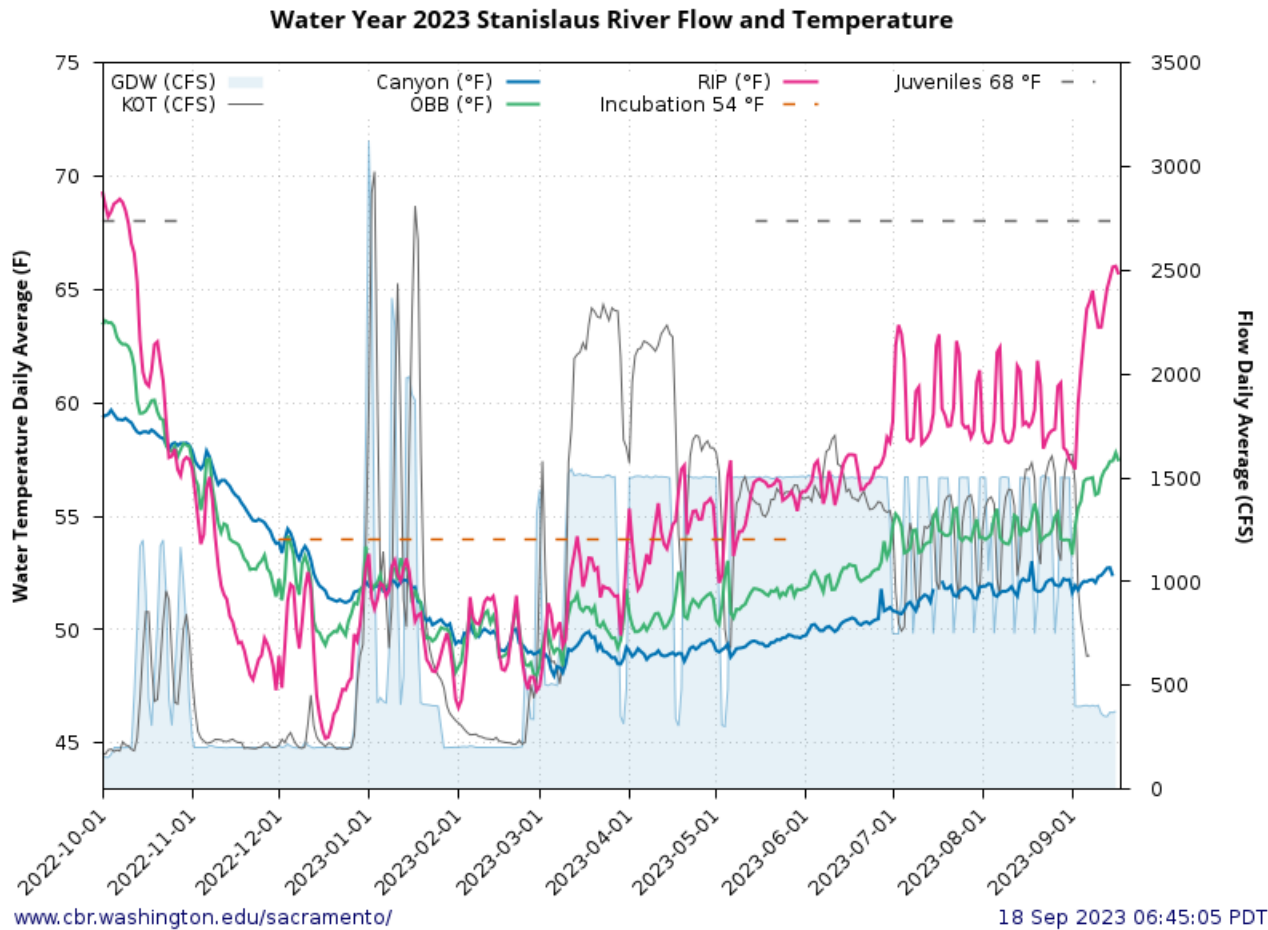


Figure 9. Stanislaus River flow and water temperatures from October 1, 2022 to September 18, 2023. Data (including temperature threshold reference lines) from SacPAS: http://www.cbr.washington.edu/sacramento/data/tc_stanislaus.html

Figure 9 is a line chart showing river flow and water temperatures on the Stanislaus River. The graph shows decreasing temperatures and flow October 2022 – March 2023 and increasing temperatures March – September 2023.

Rotary Screw Traps Update:

Weir near Riverbank:

The weir near Riverbank, which monitors for upstream passage of adult salmonids, was installed on September 5-6, 2023, and began sampling during the afternoon of September 6, 2023. The VAKI RiverWatcher recorded zero adult Chinook salmon and zero adult *O. mykiss* passages at the Stanislaus River weir between 2:00 PM on September 6, 2023 and 11:59 PM on September 12, 2023.

Rotary Screw Traps

Rotary screw trapping is conducted at Oakdale (by FISHBIO) and Caswell [by the Pacific States Marine Fisheries Commission (PSMFC)] for monitoring of outmigrating juvenile salmonids. Sampling for the 2023/2024 outmigration season is expected to begin in December 2023 or January 2024.

CDFW Update

Update on Fish Monitoring (Adults)

Planning to start Carcass Surveys in October.

Update on Fish Monitoring (Juveniles)

Mossdale Trawl:

Table 1. Counts of Chinook catch from July and August 2023. (preliminary data)

Date	Catch	Comments
07/01/2023	19	N/A
07/03/2023	13	N/A
07/05/2023	3	N/A
07/07/2023	13	N/A
07/12/2023	2	N/A
07/14/2023	1	N/A
08/01/2023	2	CDFW gear.
08/14/2023	1	N/A

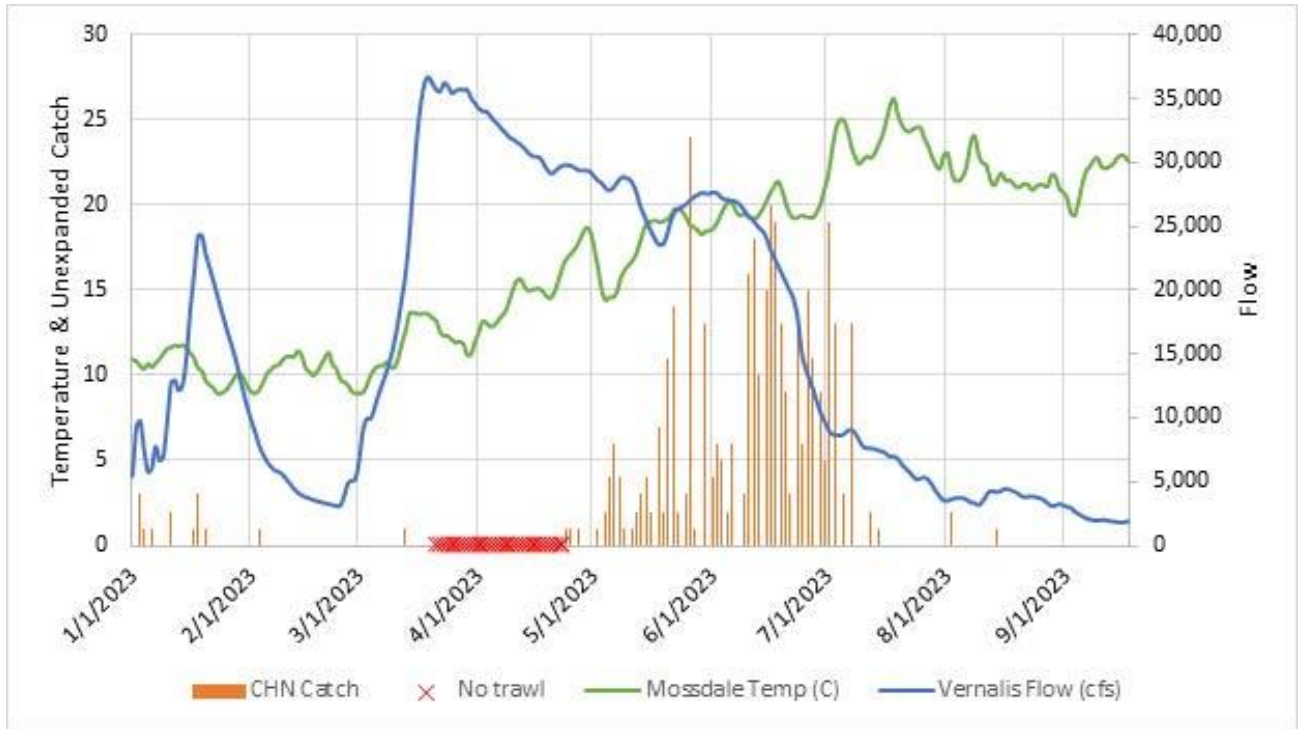


Figure 10. Graph of Chinook catch and temperature at Mossdale and flow at Vernalis. No trawl identifies day trawl was suspended due to river stage (does not denote scheduled “off” days).

Figure 10 is a line chart showing river flow water temperature, and unexpanded catch of Chinook salmon. The majority of Chinook catch occurred May – August 2023.