



— BUREAU OF —
RECLAMATION

Stanislaus Watershed Team

10:00 AM – 12:00 PM

[Stanislaus Watershed Team Notes](#)

Wednesday, July 21, 2021

Notes

1. Actions

- JD Wikert – develop an initial fall pulse flow proposal for the next SWT meeting. Contact JD if interested in reviewing initial draft.
- Sarah Perrin - check in with Levi on the status of Proposed Action Elements.
- Erin Foresman – check on status of publicly available materials related to a potential water sale and share with SWT.
- Sarah Perrin - contact JD, as needed, for guidance on impacts to fish associated with proposed water sale.
- Sarah Perrin – check in with Levi regarding SWT annual reporting requirements.
- Erin Foresman – confirm Functional Flows presentation for September SWT meeting.
- Barb Byrne and JD Wikert – check in regarding next steps associated with ramping rates proposal and presentation
- Kearns & West - add Ramping Rate Proposal update to SWT August agenda.

2. Introductions

- USBR: Peggy Manza, Liz Kiteck, Sarah Perrin, Suzanne Manugian, Zarela Guerrero
- NMFS: Barb Byrne
- USFW: JD Wikert, Craig Anderson
- CDFW: Crystal Rigby, Gretchen Murphey, Steve Tsao

- SWRCB: Erin Foresman, Chris Carr, Yongxuan Gao
- DWR: Matt Meyers, Vinh Giang
- WAPA: Mike Prowatzke
- Kearns & West: Rafi Silberblatt, Susan Ellsworth

3. Ground Rules

- Ground rules were included as a footnote to the agenda.

4. Announcements

- No announcements were provided.

5. Operations Update and Forecasts/Hydrology

- New Melones:
 - Current storage is at 1.1 MAF and declining by approximately 6 TAF a day.
 - Cumulative water-year inflow to date is 316 TAF and cumulative precipitation remains unchanged at 16.78 inches. USBR anticipates New Melones will end the water year at ~400 TAF of inflow. Currently, the reservoir remains in significantly better condition with regard to storage than other reservoirs.
 - Heat spells can be clearly identified by increasing evaporation rates.
- Tulloch Reservoir:
 - Currently at full summer storage, +/- approx. 1'.
- Goodwin Reservoir:
 - Current releases are 1500 cfs.
- No operations forecast was included in the meeting packet in light of rapidly changing conditions, however the following update was provided:
 - A daily average release of 700 cfs to the Stanislaus River is anticipated for August in support of delta needs.
 - September average releases are expected to be 400 cfs or less, to maintain dissolved oxygen at Ripon.
 - October average releases are expected to be 600 cfs. Flows during the fall pulse flow will exceed 600 cfs and will likely be ~200 cfs (minimum Stepped Release Plan flow in a Critical year) before and after the pulse, if salinity and dissolved oxygen allow.
- See meeting handout for details.

6. Temperature Updates

- Water temperatures in Goodwin Canyon remain below 60°F. There have been no significant changes subsequent to flows stabilizing at 1500 cfs, after a drop in flows in May.
- A similar pattern is seen at Orange Blossom Bridge, Ripon and Vernalis, where temperatures have generally stabilized and remain somewhat cooler than recent years, on average.
- NMFS noted a shift in the temperature scale for Figures 6-8 to improve resolution at warmer temperatures, which is the end of the scale of concern during the summer. NMFS provided a brief tutorial on SacPAS (<http://www.cbr.washington.edu/sacramento/>) regarding scale and resolution of the historical data figures.
- See meeting handout for details.

7. Flow Planning

- USFWS noted the need for a draft fall pulse flow proposal to be developed in the next month, recalling that in hot, dry years, the fall pulse flow is typically pushed until mid-to-late October to avoid drawing fish into the system when temperatures can't be maintained.
- [Action Item]: JD Wikert will draft an initial fall pulse flow proposal for the next SWT meeting. Contact JD if you would like to review before the draft proposal is shared with SWT.
 - JD noted that the drafting will be an iterative process with ample opportunity for feedback.

8. Stanislaus River Forum (SRF) Call Review

- Stanislaus River Forum was held via Teams on July 22, 2021. Barbara Byrne (NMFS), Denise Barnard (EBMUD), Zarela Guerrero (USBR), Jason Guignard (FishBio), Peggy Manza (USBR), Spencer Marshall (USBR), Gretchen Murphey (CDFW), Sarah Perrin (USBR), Cory Starr (PSMFC) and J.D. Wikert (USFWS) were in attendance. Updates on operations, temperature and fish monitoring were provided.

9. Fish Monitoring and Studies

- NMFS provided an update on RST data from FishBio and PSMFC, noting that traps from FishBio at Oakdale ran through the end of June with almost no catch during the month. All traps are now pulled and trapping will resume in late December or early January for the next outmigration season.
- CDFW provided an update on its operations of the Mossdale trawl, which it concluded on 7/2/21. Most catch occurred in the first two weeks of May then dropped down to almost nothing (note: no sampling occurred during April).

Very few fish were caught in June. Going forward, FWS will conduct trawling three days per week.

- Updated CDFW COVID-19 protocols allow for use of face coverings when 6' can't be maintained between individuals, which (along with the repair of some non-functioning boats) should minimize disruption in data collection going forward.
- See handout for details.

10. Restoration Project Updates

- A migratory corridor project restoration site has been selected in collaboration with the San Joaquin National Wildlife Refuge slightly upstream from the confluence of the Stanislaus River with the San Joaquin River.
- Gravel augmentation in Goodwin Canyon is planned for August and early September, with a total of 7200 tons of gravel to be placed at the Float Tube Pool and Cable Crossing.
- A fire on the Mohler property burned most of the revegetated area; it is hoped the vegetation will recover.
- Honolulu Bar could benefit from additional gravel augmentation (after the call, USFWS provided an estimate on the order of approximately 1400 cubic yards). Contact JD Wikert with suggestions.

11. Progress Update on Proposed Action Elements

- Currently awaiting feedback from USBR.
 - [Action Item]: Sarah Perrin to follow-up with Levi on the status of review

12. Other Discussion Items

- USFW inquired about the status of a proposed 100 TAF water sale as advanced by OID and SSJID.
 - SWRCB noted that it has received the petition and the public comment period is now closed.
 - a. [Action Item]: Erin Foresman will circulate any publicly available documents to the group.
 - NMFS noted that if the transfer happens before 10/31/21, it will fall within the authorized transfer window within the Proposed Action.
 - USFWS indicated concern about potential ecological impacts and a desire to provide feedback on how the proposal might be shaped to make it optimal for fish. USFWS also noted the potential for impacts to recreation in light of high flows.
 - a. [Action Item]: Sarah Perrin to reach out to JD Wikert, if desired, for feedback on environmental assessment.

- NMFS inquired with regard to any SWT-related annual reporting for USBR.
 - [Action Item]: Sarah Perrin will inquire with Levi on annual report needs for SWT. Kearns & West will add it as agenda item for the September meeting.
- Future presentations
 - A presentation on Functional Flows will be pursued for September's SWT meeting. [Action Item]: Erin Foresman will follow-up with presenters to confirm.
 - NMFS noted that there may not be sufficient time to develop a Ramping Rates presentation for the August meeting. [Action Item]: Barb Byrne will coordinate with JD Wikert regarding next steps for a ramping rate proposal and presentation. Kearns & West will add it as agenda item for the August SWT meeting.
- Items to elevate to WOMT
 - No items to elevate to WOMT

13. Housekeeping

- No housekeeping items were noted

14. Next Meeting

- Wednesday, August 18, 2021 (10am-12pm)



— BUREAU OF —
RECLAMATION

Stanislaus Watershed Team

10:00 AM – 12:00 PM

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

MS Teams [webinar](#)

Stanislaus Watershed Team Notes: <https://www.usbr.gov/mp/bdo/stanislaus-watershed-team.html>

Wednesday, July 21, 2021

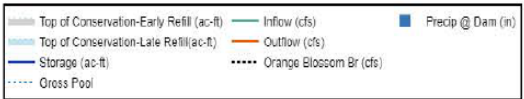
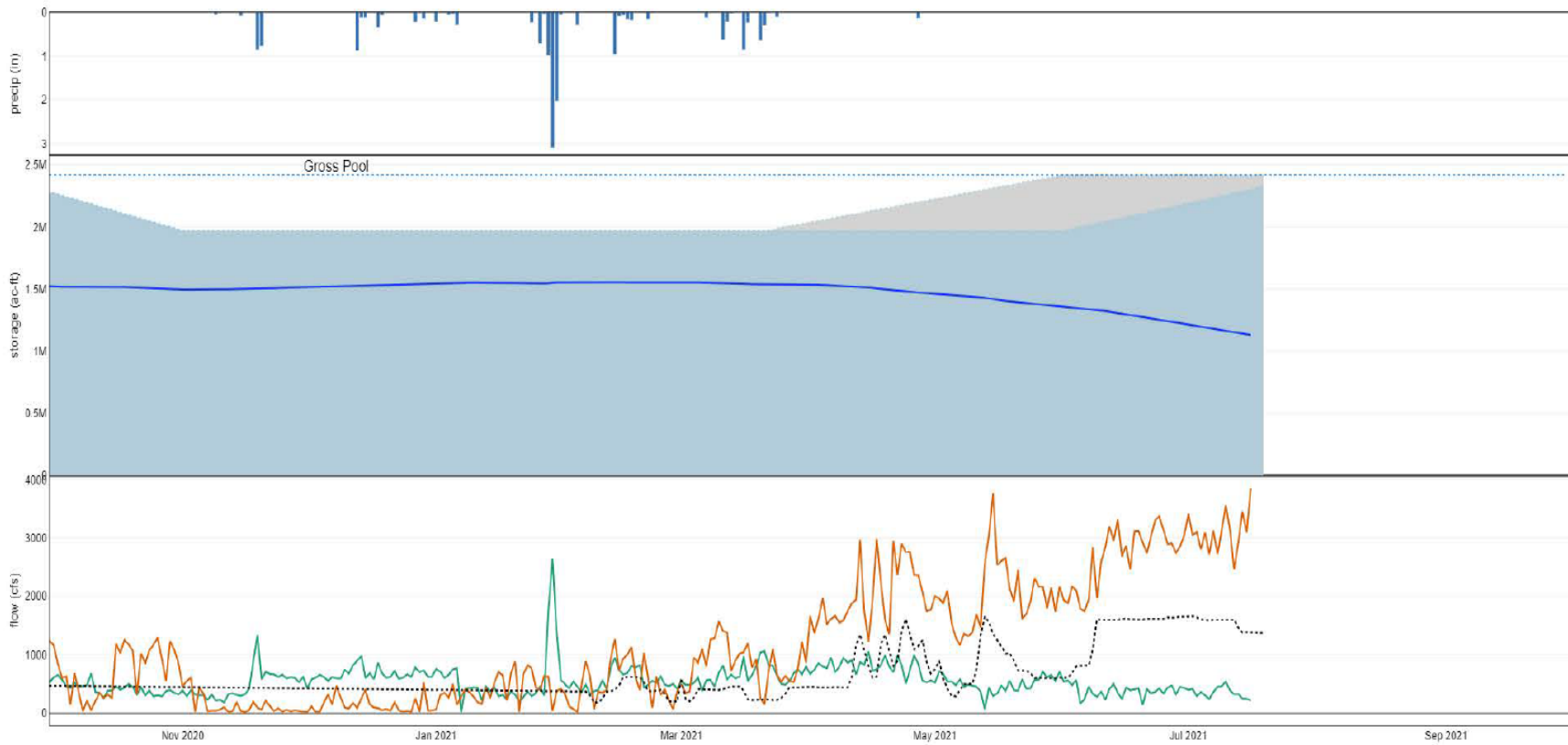
Agenda

1. Introductions
2. Ground Rules¹
3. Announcements
4. Operations Update and Forecasts/Hydrology
5. Temperature Updates
6. Flow Planning
 - a. Drought Planning
7. Stanislaus River Forum (SRF) Call Review
8. Fish Monitoring and Studies
9. Restoration Project Updates
10. Progress Update on Proposed Action Elements
11. Other Discussion Items
 - a. Items to elevate to WOMT
 - b. Future presentations
12. Review Action Items
13. Next Meeting
 - a. Wednesday, August 18, 2021 (10am-12pm)

¹ 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

New Melones Dam & Lake - Stanislaus River Basin
 2021-07-19T13:20:31-0700



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

Daily CVP Water Supply Report, June 13, 2021; Run Date: June 14, 2021
(Reservoir Releases in Cubic Feet/Second)

Reservoir	Dam	WY 2020	WY 2021	15-Year Median
Trinity	Lewiston	820	478	1,131
Sacramento	Keswick	11,917	7,571	10,275
Feather	Oroville (SWP)	3,300	2,550	2,550
American	Nimbus	2,766	1,865	3,014
Stanislaus	Goodwin	874	1,504	501
San Joaquin	Friant	370	238	352

Storage in Major Reservoirs in Thousands of Acre-Feet

Reservoir	Capacity	15-Year Avg	WY 2020	WY 2021	% O 15 Yr Avg
Trinity	2,448	1,733	1,822	1,219	70
Shasta	4,552	3,442	3,399	1,880	55
Folsom	977	763	783	336	44
New Melones	2,420	1,478	1,783	1,307	88
Fed. San Luis	966	461	353	226	49
Total North CVP	11,363	7,877	8,140	4,968	63
Millerton	520	383	447	268	70
Oroville (SWP)	3,538	2,485	2,336	1,262	51

Accumulated Inflow for Water Year to Date in Thousands of Acre-Feet

Reservoir	Current WY 2020	WY 2020	WY 1977	WY 1983	15 Yr Avg
Trinity	325	183	2,313	936	35
Shasta	1,937	1,909	9,529	4,027	48
Folsom	678	290	5,352	2,018	34
New Melones	291	----	2,006	744	39
Millerton	416	153	2,990	980	42

Accumulated Precipitation for Water Year to Date in Inches

Reservoir	Current Water Year 2021	WY 1977	WY 1983	AVG (N Yrs)	% of Avg	Last 24 Hours
Trinity at Fish Hatchery	16.21	12.76	54.65	30.59 (59)	53	0.00
Sacramento at Shasta Dam	23.52	17.24	112.33	59.78 (64)	39	0.00
American at Blue Canyon	31.59	15.64	103.88	64.64 (46)	49	0.00
Stanislaus at New Melones	16.78	----	45.33	26.85 (43)	62	0.00
San Joaquin at Huntington LK	17.68	17.20	81.40	40.31 (46)	44	0.00

United States Department of the Interior
 U.S. Bureau of Reclamation-Central Valley Project-California

New Melones Lake Daily Operations, July 2021, Run Date: July 19, 2021

Day	Elev	Storage 1,000 Acre-Feet In Lake	Storage 1,000 Acre-Feet Change	Computed* Inflow cfs	Release-cfs Power	Release-cfs Spill	Release-cfs Outlet	Evap cfs	Evap Inches	Precip Inches
n/a	n/a	1,215.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1	969.88	1,210.5	-5.5	420	3,051	0	0	121	.46	.00
2	969.17	1,204.7	-5.8	297	3,103	0	0	100	.38	.00
3	968.54	1,199.6	-5.1	366	2,811	0	0	126	.48	.00
4	967.83	1,193.9	-5.7	303	3,092	0	0	102	.39	.00
5	967.19	1,188.7	-5.2	251	2,723	0	0	125	.48	.00
6	966.48	1,183.0	-5.7	363	3,124	0	0	112	.43	.00
7	965.89	1,178.3	-4.7	457	2,726	0	0	114	.44	.00
8	965.20	1,172.8	-5.5	465	3,131	0	0	111	.43	.00
9	964.42	1,166.6	-6.2	545	3,563	0	0	111	.43	.00
10	963.70	1,160.9	-5.7	392	3,139	0	0	133	.52	.00
11	963.13	1,156.4	-4.5	329	2,462	0	0	141	.55	.00
12	962.44	1,150.9	-5.4	332	2,927	0	0	148	.58	.00
13	961.60	1,144.3	-6.6	256	3,456	0	0	130	.51	.00
14	960.85	1,138.4	-5.9	252	3,100	0	0	116	.46	.00
15	959.90	1,131.0	-7.4	221	3,855	0	0	106	.42	.00
16	959.19	1,125.5	-5.5	308	2,976	0	0	116	.46	.00
17	958.43	1,119.6	-5.9	292	3,153	0	0	110	.44	.00
18	957.71	1,114.0	-5.6	309	2,995	0	0	120	.48	.00
TOTALS	n/a	n/a	-101.9	6,158	55,387	0	0	2,142	8.34	.00
ACRE- FEET	n/a	n/a	-101,900	12,214	109,860	0	0	4,249	n/a	n/a

COMMENTS: *COMPUTED INFLOW IS THE SUM OF CHANGE IN STORAGE, RELEASES AND EVAPORATION.

SUMMARY

RELEASE (ACRE-FEET)

Power 109,860

Spill 0

Outlet 0

Total 109,860

PRECIPITATION

This month = .00

July 1, 2021 to Date= .00

Oct 1, 2020 to Date=16.78

United States Department of the Interior
 U.S. Bureau of Reclamation-Central Valley Project-California

Tulloch Reservoir Daily Operations, July 2021, Run Date: July 19, 2021

Day	Elev	Storage Acre-Feet Res.	Storage Acre-Feet Change	Computed* Inflow cfs	New Melones Release-cfs	Release-cfs Power	Release-cfs Spill	Release cfs Outlet	Evap cfs (1)
n/a	n/a	66,269	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1	509.28	66,069	-200	3,063	3,051	2,478	402	265	19
2	509.23	66,007	-62	3,143	3,103	2,384	471	304	15
3	508.70	65,351	-656	2,812	2,811	2,462	503	159	19
4	508.81	65,486	+135	3,101	3,092	2,481	495	41	16
5	508.42	65,006	-480	2,761	2,723	2,481	423	80	19
6	508.57	65,191	+185	3,158	3,124	2,490	397	161	17
7	508.09	64,600	-591	2,714	2,726	2,447	395	153	17
8	508.30	64,858	+258	3,185	3,131	2,485	392	161	17
9	509.20	65,970	+1,112	3,610	3,563	2,487	396	149	17
10	509.28	66,069	+99	3,193	3,139	2,490	402	230	21
11	508.26	64,809	-1,260	2,438	2,462	2,490	398	163	22
12	507.99	64,477	-332	2,961	2,927	2,489	448	168	23
13	508.39	64,969	+492	3,448	3,456	2,485	490	205	20
14	508.27	64,821	-148	3,113	3,100	2,489	495	186	18
15	509.33	66,132	+1,311	3,803	3,855	2,490	496	139	17
16	509.12	65,870	-262	3,022	2,976	2,491	498	147	18
17	509.16	65,920	+50	3,170	3,153	2,489	502	136	18
18	509.22	65,995	+75	3,055	2,995	2,483	499	16	19

*COMPUTED INFLOW IS SUM OF CHANGE IN STORAGE, RELEASES, AND EVAPORATION.

(1) EVAPORATION RECORDS TAKEN FROM NEW MELONES PAN.

SUMMARY

RELEASE (ACRE-FEET)

Power 88,446

Spill 16,070

Outlet 5,679

Total **110,195**

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

Goodwin Reservoir Daily Operations, July 2021, Run Date: July 19, 2021

Day	Elev	Storage Acre-Feet Res	Storage Acre-Feet Change	Tulloch Release	Release-cfs River Outlet	Release-cfs River Spill	Release-cfs Canals Joint Main	Release-cfs Canals South Main
n/a	575	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1	360.54	575	+0	3,145	0	1,505	92	496
2	360.52	573	-2	3,159	0	1,505	924	496
3	360.52	573	+0	3,124	0	1,503	925	477
4	360.52	573	+0	3,017	0	1,502	905	421
5	360.52	573	+0	2,984	0	1,501	866	406
6	360.52	573	+0	3,048	0	1,502	867	453
7	360.52	573	+0	2,995	0	1,502	838	453
8	360.52	573	+0	3,038	0	1,504	835	452
9	360.52	573	+0	3,032	0	1,503	876	405
10	360.52	573	+0	3,122	0	1,502	920	451
11	360.52	573	+0	3,051	0	1,503	894	401
12	360.52	573	+0	3,105	0	1,506	933	435
13	360.54	575	+2	3,180	0	1,502	976	490
14	360.52	573	-2	3,170	0	1,503	977	479
15	360.54	575	+2	3,125	0	1,501	953	462
16	360.52	573	-2	3,136	0	1,500	973	461
17	360.54	575	+2	3,127	0	1,502	989	446
18	360.54	575	+0	2,998	0	1,503	917	386

Join Main Operated by SSJID and OID.

Summary – Release (acre-feet)

Joint Main Canal	31,062
South Main Canal	16,007
Outlet	0
Spill	53,652
Total	100,721

United States Department of the Interior
 U.S. Bureau of Reclamation-Central Valley Project-California

New Melones Lake Daily Operations, June 2021, Run Date: July 08, 2021

Day	Elev	Storage 1,000 Acre-Feet In Lake	Storage 1,000 Acre-Feet Change	Computed* Inflow cfs	Release- cfs Power	Release- cfs Spill	Release- cfs Outlet	Evap cfs	Precip Inches
n/a	n/a	1,362.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1	987.54	1,359.5	-2.9	563	1,887	0	130	.46	.00
2	987.13	1,355.9	-3.6	482	2,170	0	119	.42	.00
3	986.75	1,352.6	-3.3	571	2,109	0	133	.47	.00
4	986.38	1,349.4	-3.2	168	1,793	0	0	.00	.00
5	986.01	1,346.1	-3.2	245	1,748	0	121	.43	.00
6	985.64	1,342.9	-3.2	458	1,950	0	126	.45	.00
7	985.04	1,337.7	-5.2	334	2,846	0	112	.40	.00
8	984.63	1,334.2	-3.5	286	1,969	0	103	.37	.00
9	984.10	1,329.6	-4.6	370	2,595	0	84	.30	.00
10	983.48	1,324.3	-5.3	233	2,843	0	81	.29	.00
11	982.82	1,318.6	-5.7	417	3,194	0	83	.30	.00
12	982.23	1,313.5	-5.1	506	2,955	0	100	.36	.00
13	981.52	1,307.5	-6.1	350	3,318	0	91	.33	.00
14	980.93	1,302.4	-5.0	251	2,686	0	102	.37	.00
15	980.34	1,297.4	-5.0	443	2,872	0	99	.36	.00
16	979.83	1,293.1	-4.3	395	2,463	0	115	.42	.00
17	979.17	1,287.5	-5.6	409	3,111	0	115	.42	.00
18	978.51	1,281.9	-5.6	428	3,116	0	120	.44	.00
19	977.82	1,276.1	-5.8	145	2,935	0	139	.51	.00
20	977.24	1,271.3	-4.9	415	2,740	0	130	.48	.00
21	976.57	1,265.7	-5.6	343	3,033	0	138	.51	.00
22	975.84	1,259.6	-6.1	371	3,305	0	140	.52	.00
23	975.10	1,253.4	-6.2	427	3,374	0	159	.59	.00
24	974.41	1,247.7	-5.7	341	3,128	0	99	.37	.00
25	973.80	1,242.6	-5.1	443	2,898	0	91	.34	.00
26	973.19	1,237.6	-5.0	477	2,907	0	109	.41	.00
27	972.58	1,232.6	-5.0	328	2,748	0	112	.42	.00
28	971.97	1,227.5	-5.0	454	2,860	0	122	.46	.00
29	971.31	1,222.1	-5.4	436	3,049	0	111	.42	.00

Day	Elev	Storage 1,000 Acre-Feet In Lake	Storage 1,000 Acre-Feet Change	Computed* Inflow cfs	Release- cfs Power	Release- cfs Spill	Release- cfs Outlet	Evap cfs	Precip Inches
30	970.55	1,215.9	-6.2	400	3,413	0	116	.44	.00
TOTALS	n/a	n/a	-146.4	11,489	82,015	0	3,300	12.06	n/a
ACRE- FEET	n/a	n/a	-146,400	22,788	162,677	0	6,546		n/a

COMMENTS:

*COMPUTED INFLOW IS THE SUM OF CHANGE IN STORAGE, RELEASES AND EVAPORATION.

SUMMARY

RELEASE (ACRE-FEET)

Power 162,677

Spill 0

Outlet 0

Total 162,677

PRECIPITATION

This month = .00

July 1, 2021 to Date= 16.81

Oct 1, 2020 to Date= 16.78

United States Department of the Interior
 U.S. Bureau of Reclamation-Central Valley Project-California

Tulloch Reservoir Daily Operations, June 2021, Run Date: July 08, 2021

Day	Elev	Storage Acre-Feet Res.	Storage Acre-Feet Change	Computed* Inflow cfs	New Melones Release-cfs	Release-cfs Power	Release-cfs Spill	Release cfs Outlet	Evap cfs (1)
n/a	n/a	66,332	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1	509.48	66,319	-13	1,899	1,887	1,338	0	549	19
2	509.67	66,556	+237	2,179	2,170	1,962	0	81	17
3	509.66	66,544	-12	2,126	2,109	2,113	0	0	19
4	509.35	66,157	-387	1,961	1,793	2,156	0	0	0
5	508.91	65,609	-548	1,888	1,748	2,147	0	0	17
6	508.62	65,252	-357	1,966	1,950	2,128	0	0	18
7	509.07	65,807	+555	2,817	2,846	2,364	84	73	16
8	507.53	63,919	-1,888	1,888	1,969	2,490	198	137	15
9	507.10	63,398	-521	2,544	2,595	2,483	194	118	12
10	507.05	63,338	-60	2,786	2,843	2,488	196	121	11
11	507.61	64,016	+678	3,162	3,194	2,484	195	129	12
12	507.79	64,234	+218	2,906	2,955	2,487	197	98	14
13	508.79	65,461	+1,227	3,308	3,318	2,480	111	85	13
14	508.77	65,437	-24	2,701	2,686	2,495	50	153	15
15	508.99	65,708	+271	2,875	2,872	2,389	105	230	14
16	508.30	64,858	-850	2,507	2,463	2,491	200	228	17
17	508.45	65,043	+185	3,130	3,111	2,484	197	339	17
18	508.52	65,129	+86	3,129	3,116	2,460	270	338	18
19	508.40	64,981	-148	3,002	2,935	2,477	299	281	20
20	507.93	64,404	-577	2,742	2,740	2,487	296	231	19
21	507.92	64,392	-12	3,018	3,033	2,485	296	223	20
22	508.46	65,055	+663	3,359	3,305	2,488	297	219	21
23	508.93	65,634	+579	3,367	3,374	2,490	402	159	24
24	509.06	65,795	+161	3,162	3,128	2,492	457	117	15
25	508.92	65,622	-173	2,929	2,898	1,453	349	1,200	14
26	508.90	65,597	-25	2,919	2,907	1,570	303	1,043	16
27	508.66	65,301	-296	2,767	2,748	2,483	301	115	17
28	508.60	65,228	-73	2,877	2,860	2,484	301	111	18
29	508.87	65,560	+332	3,085	3,049	2,477	301	123	17
30	509.44	66,269	+709	3,442	3,413	2,477	359	231	18

Day	Elev	Storage Acre-Feet Res.	Storage Acre-Feet Change	Computed* Inflow cfs	New Melones Release-cfs	Release-cfs Power	Release-cfs Spill	Release cfs Outlet	Evap cfs (1)
TOTALS	n/a	n/a	-63	82,441	82,015	69,302	5,958	6,732	483
ACRE-FEET	n/a	n/a	-63	163,522	162,677	137,461	11,818	13,353	958

*COMPUTED INFLOW IS SUM OF CHANGE IN STORAGE, RELEASES, AND EVAPORATION.

(1) EVAPORATION RECORDS TAKEN FROM NEW MELONES PAN.

SUMMARY

RELEASE (ACRE-FEET)

Power 137,461

Spill 11,818

Outlet 13,353

Total 162,632

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

Goodwin Reservoir Daily Operations, June 2021, Run Date: July 08, 2021

Day	Elev	Storage Acre-Feet Res	Storage Acre-feet Change	Tulloch Release	Release-cfs River Outlet	Release-cfs River Spill	Release-cfs Canals Joint Main	Release-cfs Canals South Main
n/a	538	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1	360.02	538	+0	1,887	0	600	651	432
2	360.11	545	+7	2,043	0	711	704	432
3	360.11	545	+0	2,113	0	752	735	431
4	360.11	545	+0	2,156	0	751	758	432
5	360.11	545	+0	2,147	0	750	771	413
6	360.11	545	+0	2,128	0	751	772	397
7	360.49	571	+26	2,521	0	1,194	782	383
8	360.52	573	+2	2,825	0	1,503	794	421
9	360.52	573	+0	2,795	0	1,504	766	421
10	360.51	573	+0	2,805	0	1,501	759	423
11	360.51	573	+0	2,808	0	1,504	736	437
12	360.52	573	+0	2,782	0	1,504	783	367
13	360.51	573	+0	2,676	0	1,504	700	321
14	360.52	573	+0	2,698	0	1,502	629	378
15	360.49	571	-2	2,724	0	1,502	687	351
16	360.52	573	+2	2,919	0	1,501	802	422
17	360.52	573	+0	3,020	0	1,502	867	449
18	360.52	573	+0	3,068	0	1,500	875	475
19	360.52	573	+0	3,057	0	1,501	876	461
20	360.52	573	+0	3,014	0	1,501	877	422
21	360.52	573	+0	3,004	0	1,502	867	422
22	360.52	573	+0	3,004	0	1,504	813	461
23	360.52	573	+0	3,051	0	1,504	815	481
24	360.52	573	+0	3,066	0	1,501	863	439
25	360.52	573	+0	3,002	0	1,506	860	370
26	360.52	573	+0	2,916	0	1,502	814	371
27	360.52	573	+0	2,899	0	1,505	835	332
28	360.52	573	+0	2,896	0	1,503	886	292
29	360.52	573	+0	2,901	0	1,503	850	338

Day	Elev	Storage Acre-Feet Res	Storage Acre-feet Change	Tulloch Release	Release-cfs River Outlet	Release-cfs River Spill	Release-cfs Canals Joint Main	Release-cfs Canals South Main
30	360.54	575	+2	3,067	0	1,503	918	428
TOTALS	n/a	n/a	+37	81,992	0	40,071	23,845	12,202
ACRE- FEET	n/a	n/a	+37	162,631	0	79,481	47,297	24,203

Join Main Operated by SSJID and OID.

Summary – Release (acre-feet)

Joint Main Canal 47,297

South Main Canal 24,203

Outlet 0

Spill 79,481

Total 150,981

July 2021 Water Temperature and Fish Monitoring Update

Year-to-Date Flows

After the spring pulse flow, the SRP flow schedule for Critical years requires 150 cfs through the summer; recent releases have been higher than the SRP minimum flow for Delta needs. Goodwin releases since October 1, 2020 are shown in Figure 1.

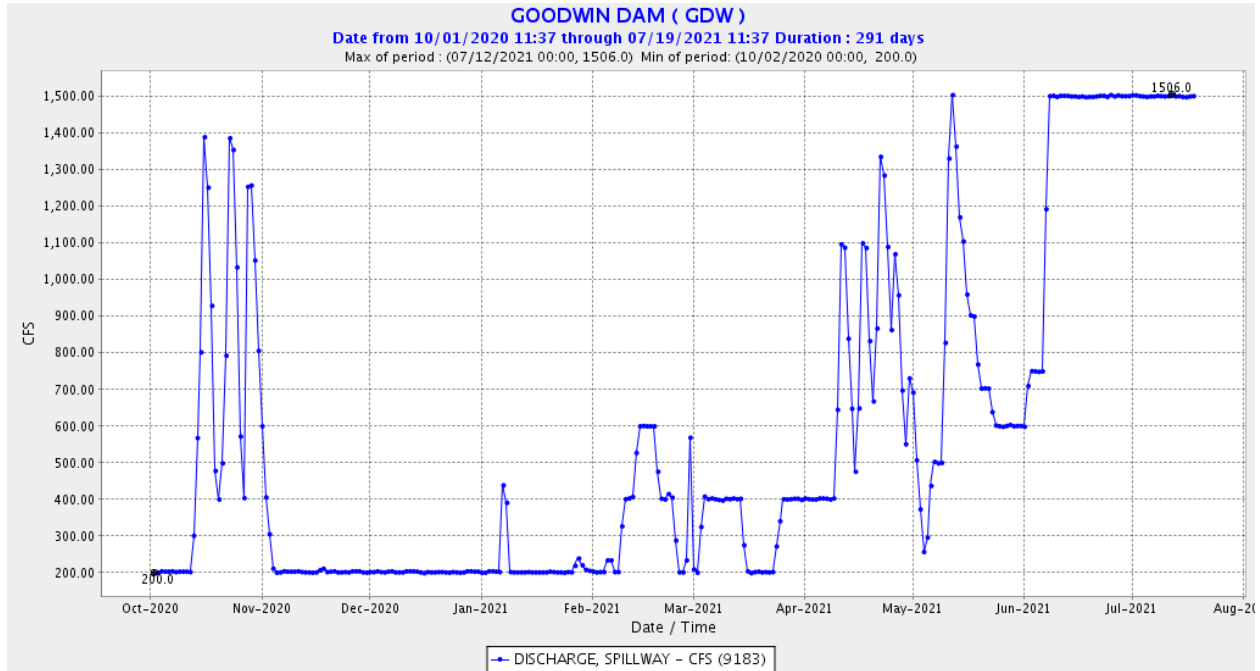


Figure 1. Goodwin (daily) releases to the Stanislaus River since October 1, 2020. Data from GDW station on CDEC.

Water Temperature

The temperature thresholds included in Figures 2-9, 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 March 1, 2021 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 March 1, 2021 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 is provided in Figure 9. (Figure 6), Ripon (Figure 7), and

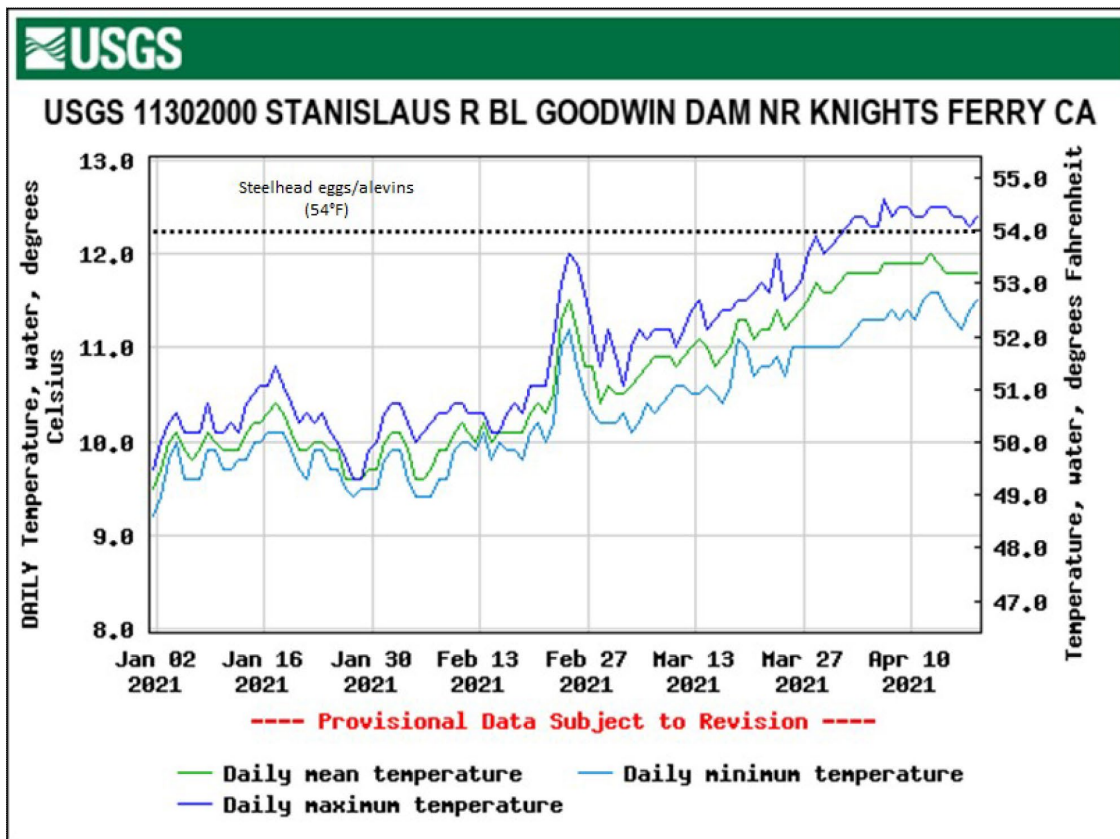


Figure 2. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since March 1, 2021. Data from USGS gage 11302000 on NWIS; temperature threshold reference line added by SWT.

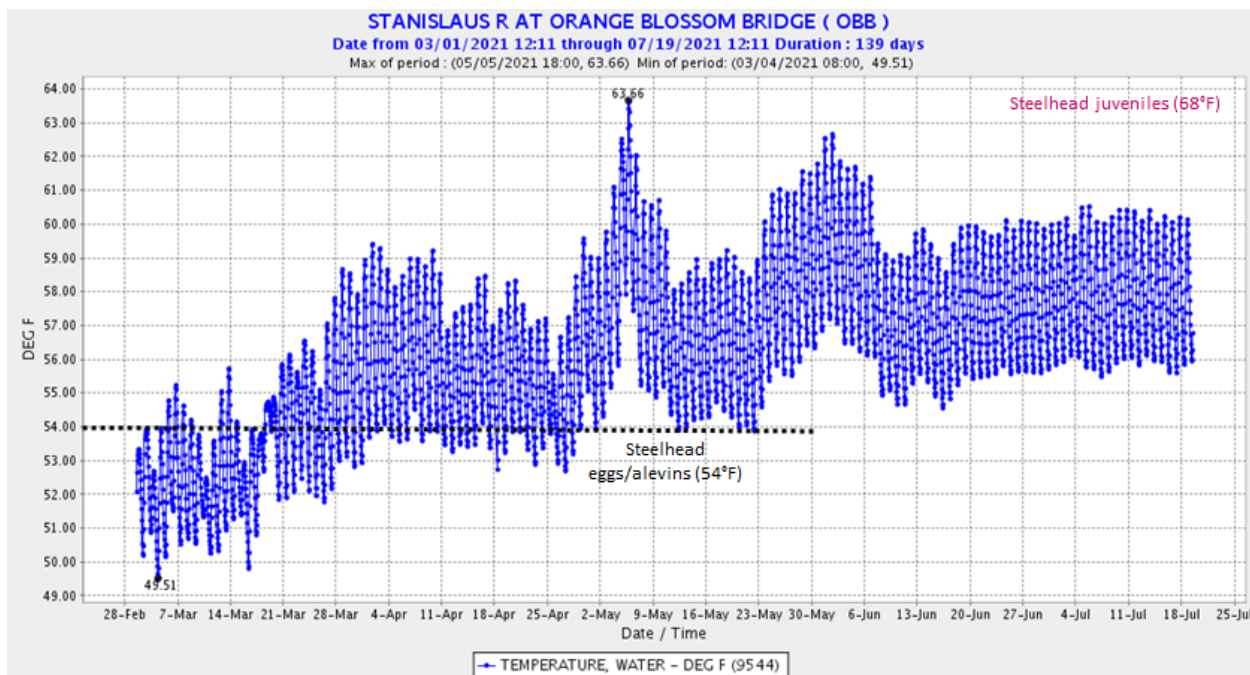


Figure 3. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since March 1, 2021. Data from OBB station on CDEC; temperature threshold reference line added by SWT..

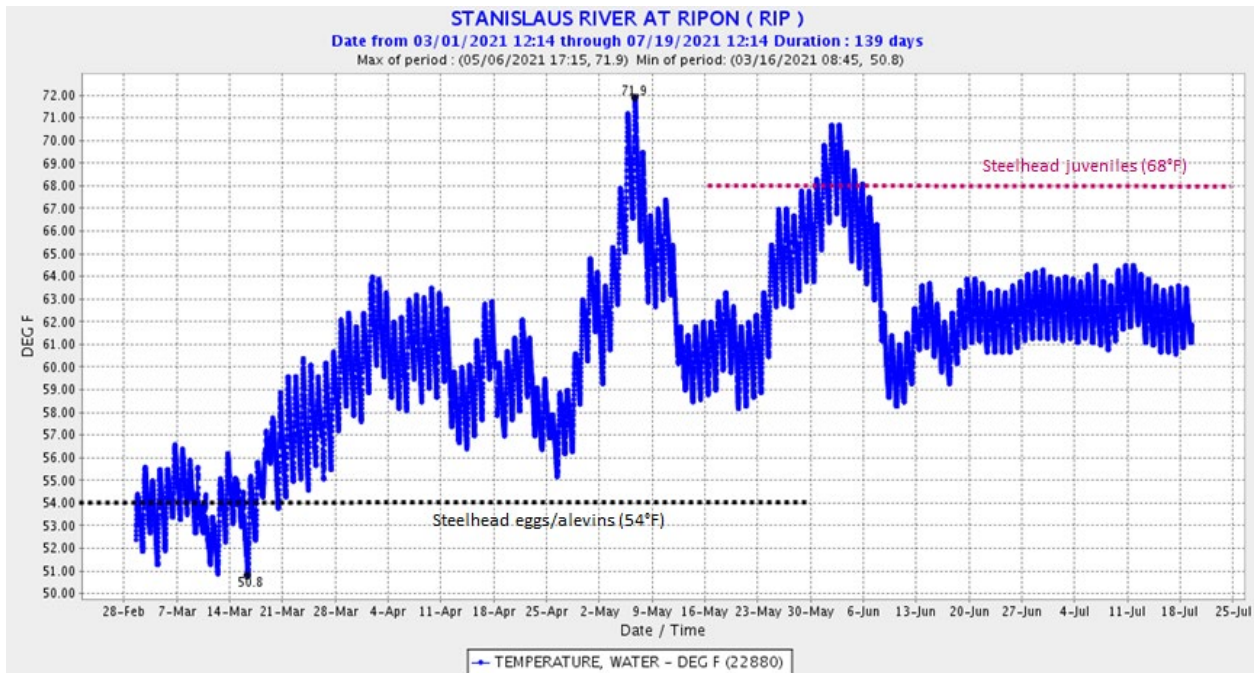


Figure 4. Stanislaus (15-minute) water temperatures at Ripon since March 1, 2021. Data from RIP station on CDEC; temperature threshold reference lines added by SWT. .

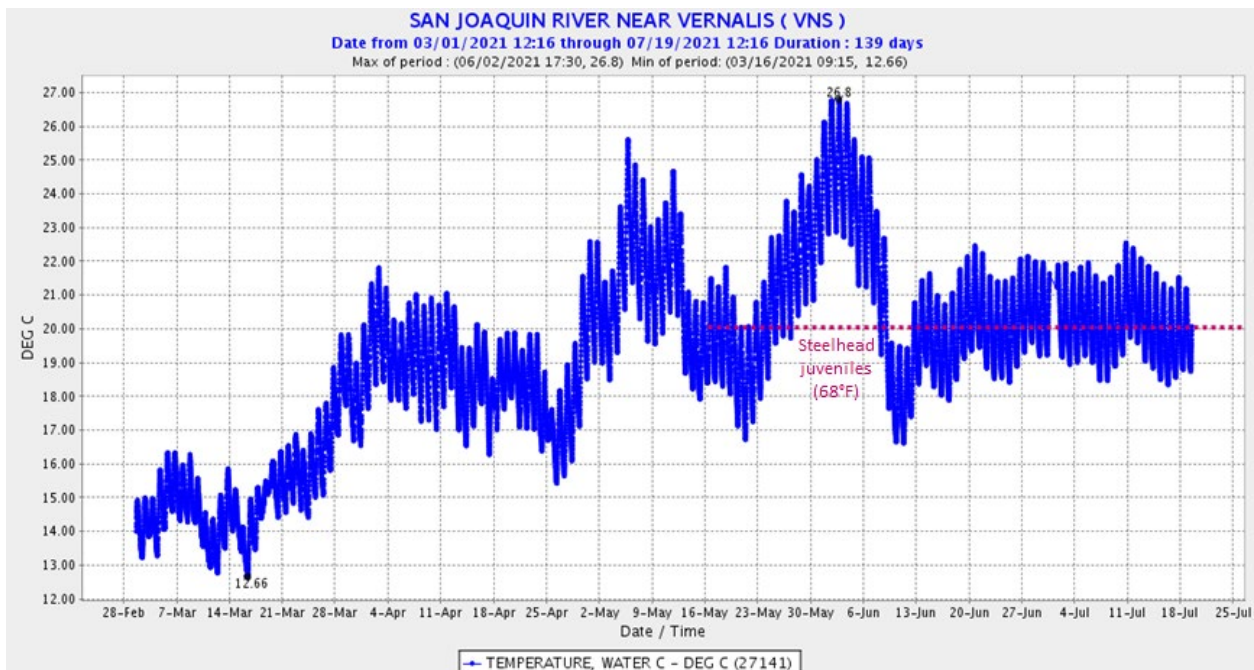


Figure 5. San Joaquin River (15-minute) water temperatures at Vernalis since March 1, 2021. Data from VNS station on CDEC; temperature threshold reference line added by SWT. Note that, unlike in the previous figures, temperature is reported in degrees Celsius. 10°C=50°F;

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; 30°C=86.0°F.

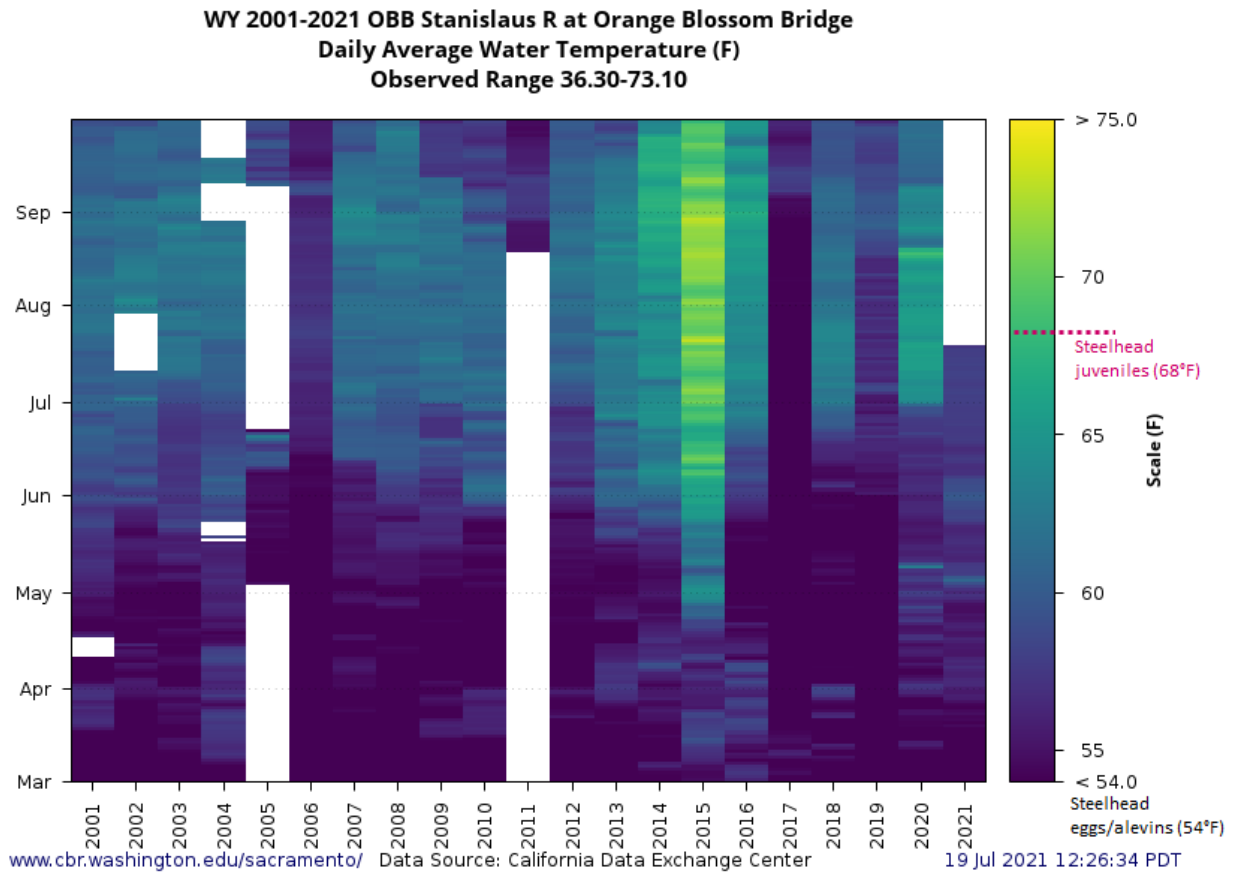


Figure 6. Stanislaus River water temperatures at Orange Blossom Bridge for March through September from 2001 to present. Data from SacPAS; temperature threshold reference lines added by SWT. http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

WY 2012-2021 RIP Stanislaus R at Ripon (USGS)
Daily Average Water Temperature (F)
Observed Range 50.37-82.35

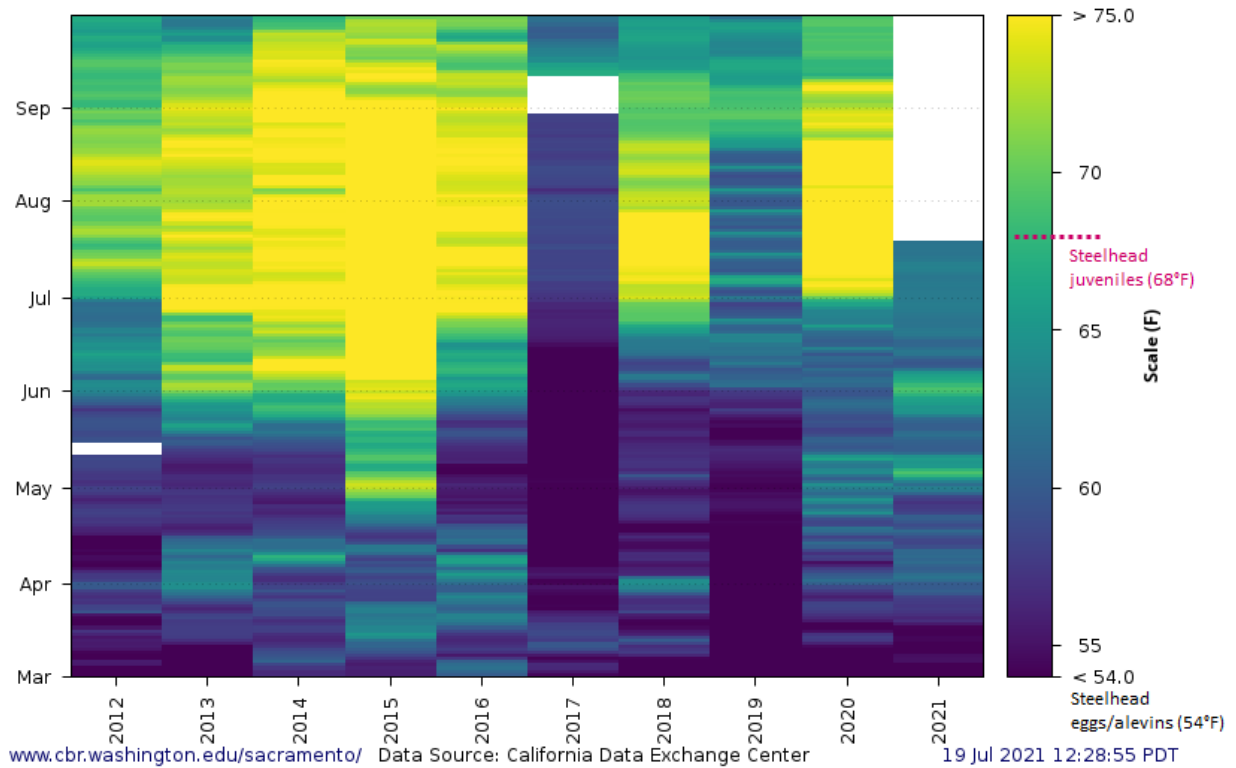


Figure 7. Stanislaus River water temperatures at Ripon for March through September from 2012 to present. Figure from SacPAS using RIP station data from CDEC; temperature threshold reference lines added by SWT.

http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

WY 2015-2021 VNS San Joaquin R near Vernalis
Daily Average Water Temperature (F)
Observed Range 51.42-84.80

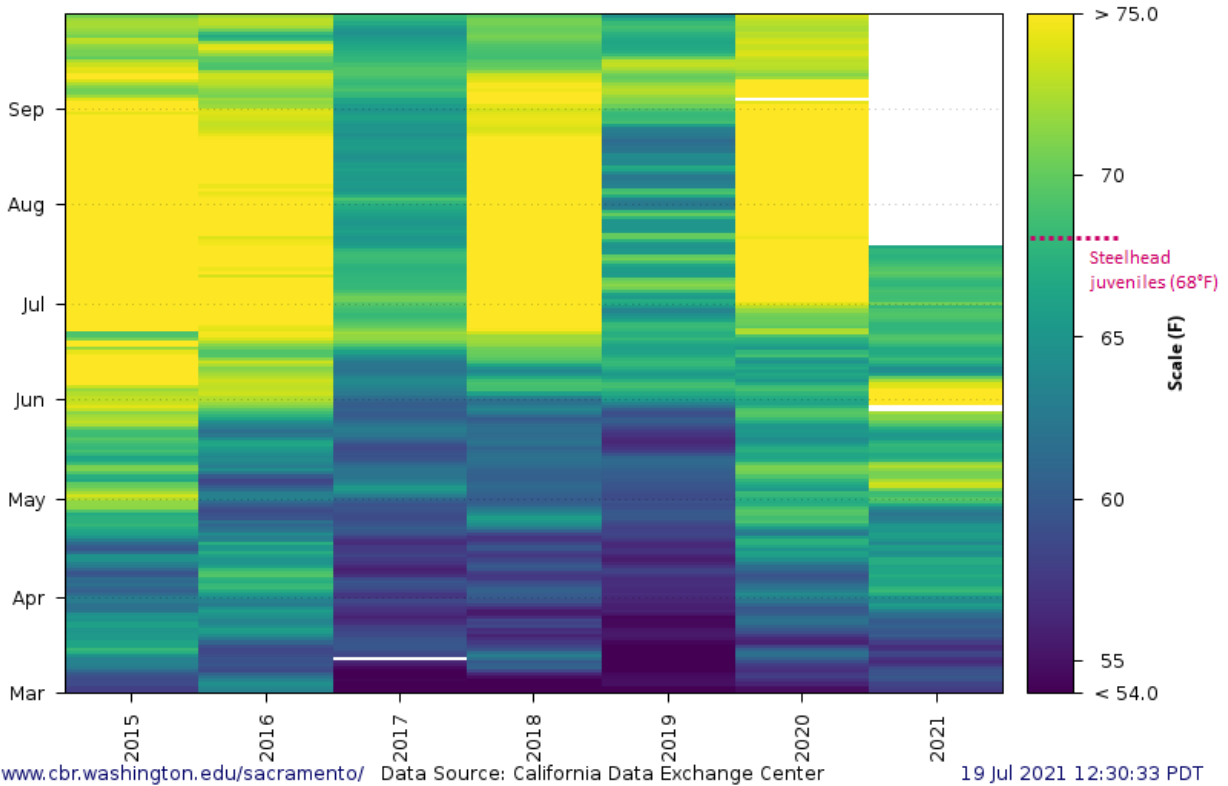


Figure 8. San Joaquin River water temperatures at Vernalis for March through September from 2015 to present. Figure from SacPAS using VNS station data from CDEC; temperature threshold reference line added by SWT.

http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

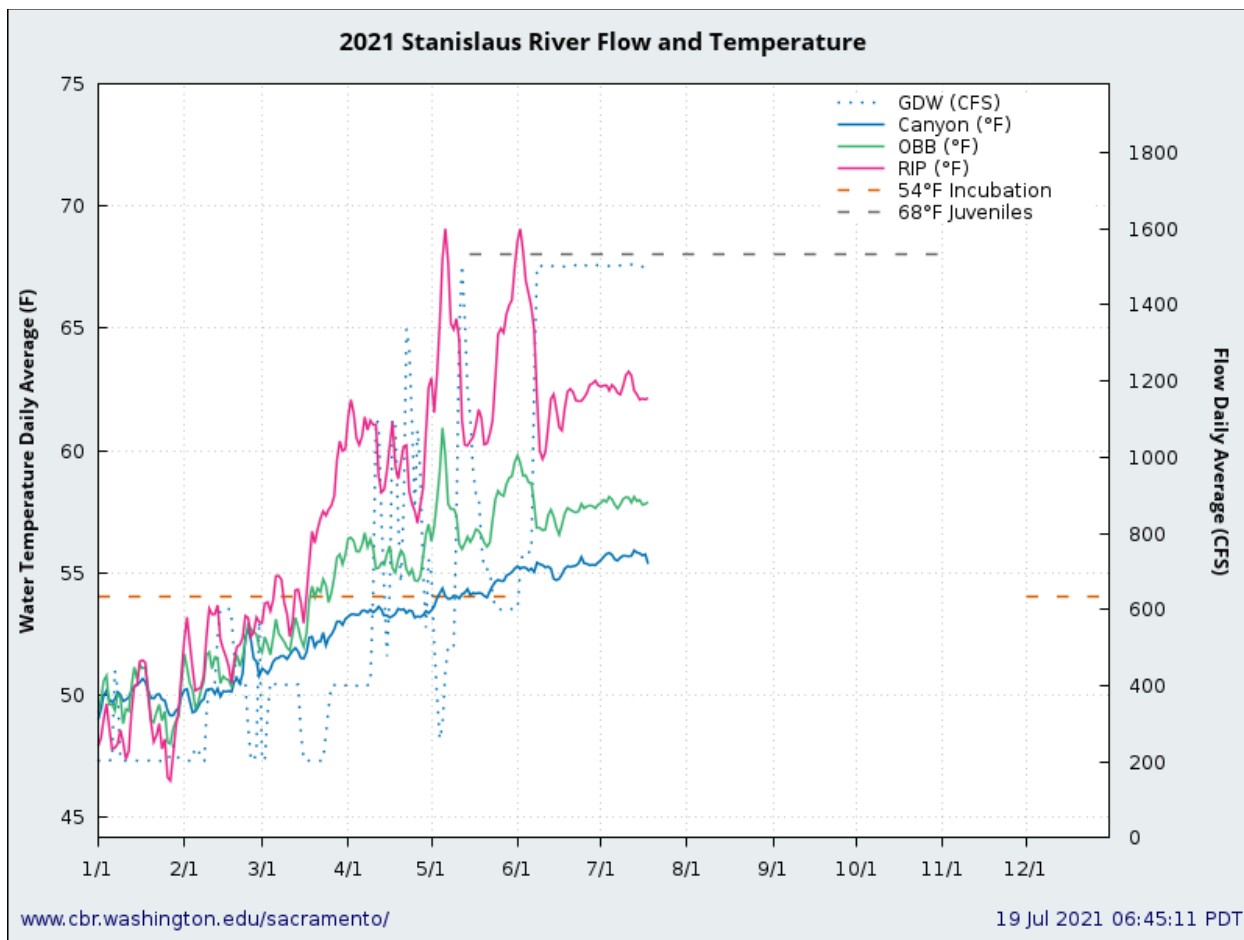


Figure 9. Stanislaus River flow and water temperatures from January 1, 2021 to present. Data (including temperature threshold reference lines) from SacPAS: http://www.cbr.washington.edu/sacramento/data/tc_stanislaus.html

Update on Fish Monitoring

Rotary screw trapping at Oakdale (conducted by FISHBIO) and Caswell [conducted by the Pacific States Marine Fisheries Commission (PSMFC)] for the 2020/2021 outmigration season (for monitoring of outmigrating juvenile salmonids) began in early January. Sampling at Caswell concluded for the season on June 3, 2021. Sampling at Oakdale concluded for the season on June 25, 2021. The final seasonal update of Chinook catch at Oakdale is summarized in Figure 10.

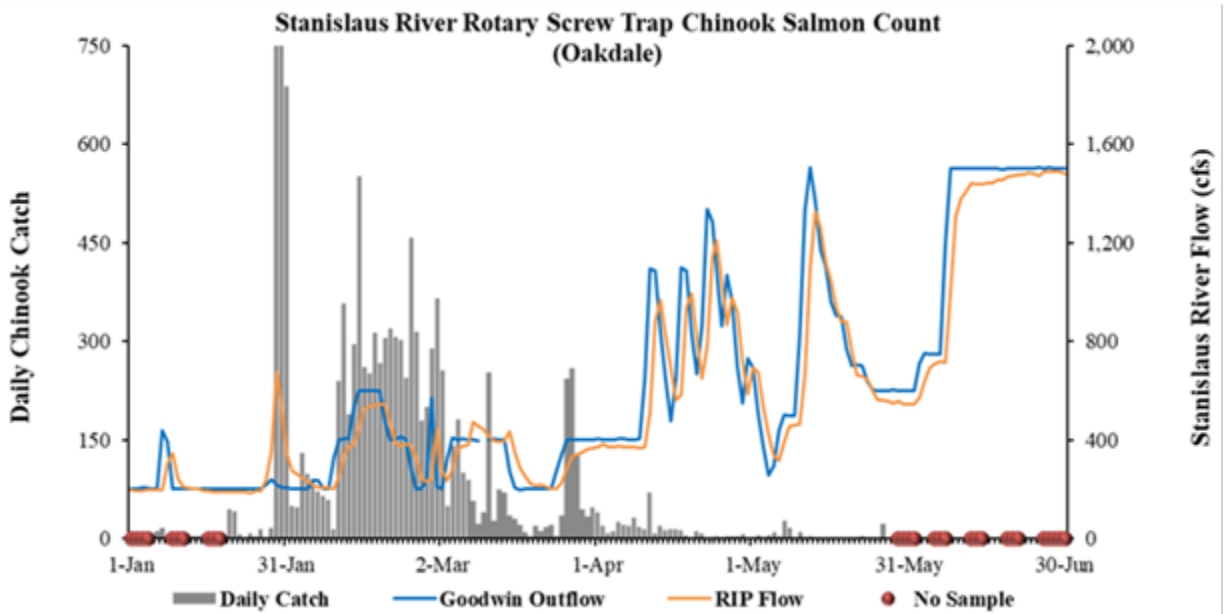


Figure 10. Daily juvenile Chinook catch through June 25, 2021, at the rotary screw trap near Oakdale. Figure courtesy of Fishbio from their San Joaquin Basin update.

Mossdale Trawl

Because of COVID19 concerns, there was no Mossdale trawl sampling for much of the year, including from mid-March through early May. USFWS began sampling using the Mossdale trawl on May 4, 2021, and sampling shifted to CDFW on May 10, 2021. CDFW sampling concluded on July 2, 2021, and USFWS resumed sampling on July 6, 2021. For the period May 4, 2021 through July 16, 2021, 95 unclipped Chinook salmon, zero clipped Chinook salmon and zero *O. mykiss* have been caught in the trawl. The most recent salmonid catch of the season was on June 14, 2021.