



— 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, March 16, 2022

Agenda

1. Introductions
 - a. Welcome Melissa Vignau (USBR)
2. Ground Rules¹
3. Announcements
4. Operations Update and Forecasts/Hydrology
5. Temperature Updates
6. Flow Planning
7. Stanislaus River Forum (SRF) Call Review
8. Fish Monitoring and Studies
9. Restoration Project Updates
10. Progress Update on Proposed Action Elements

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

- a. Spawning and rearing habitat restoration
- b. Temperature management study
- c. Yellow-bellied cuckoo survey

11. Other Discussion Items

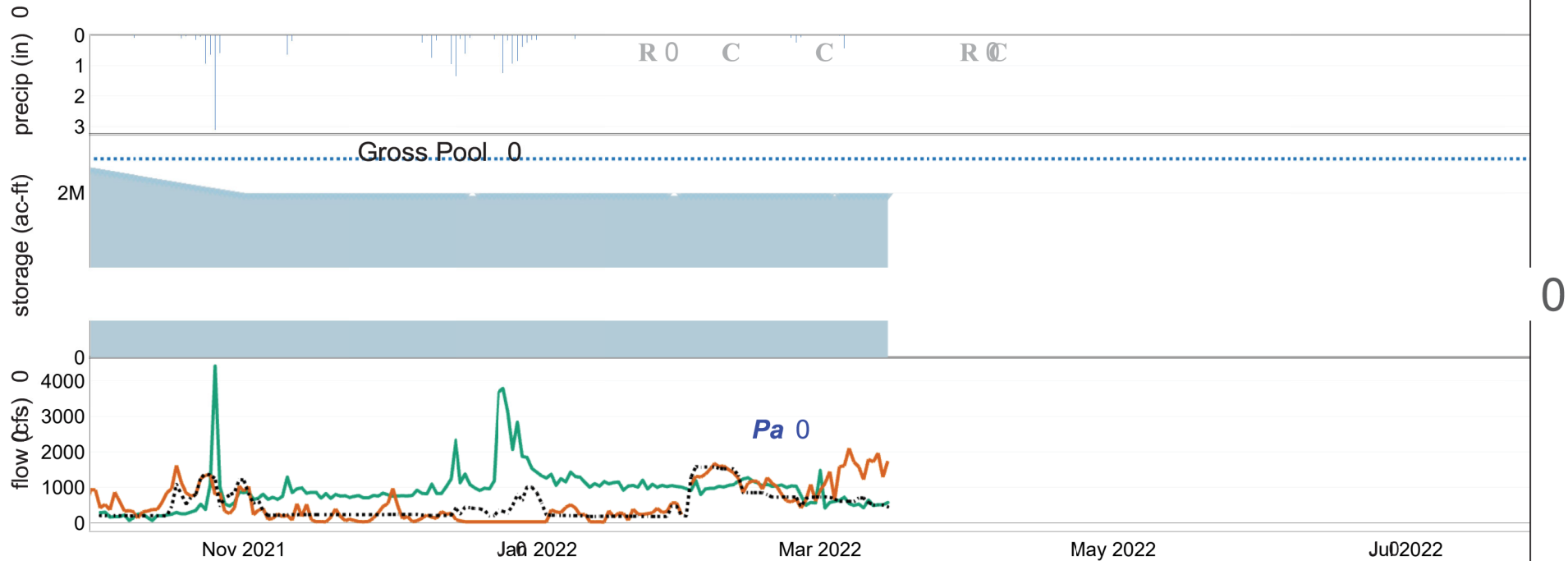
- a. Curtailments
- b. Annual reporting check-in
- c. Items to elevate to WOMT

12. Review Action Items

13. Next Meeting: Wednesday, April 20, 2022 (10am-12pm)

New Melones Dam & Lake - Stanislaus River Basin

2022-3-15T08:17:15-0700



Top of Conservation-Early Refill (ac-ft)	Inflow (cfs)	Precip @ Date
Top of Conservation-Late Refill (ac-ft)	Outflow (cfs)	
Storage (ac-ft)	Orange Blossom Br (cfs)	
Gross Pool		

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

DAILY CVP WATER SUPPLY REPORT

MARCH 14, 2022

March 15, 2022

RUN DATE:

TABLE 1: RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2021	WY 2022	15 YR MEDIAN
TRINITY	LEWISTON	310	293	303
SACRAMENTO	KESWICK	3,479	3,233	3,479
FEATHER	OROVILLE (SWP)	1,050	2,500	1,550
AMERICAN	NIMBUS	3,088	1,928	1.7566
STANISLAUS	GOODWIN	403	436	317
SAN JOAQUIN	FRIANT	252	632	253

TABLE 2: STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2021	WY 2022	% O 15 YR AVG
TRINITY	2,448	1,538	1,280	795	52
SHASTA	4,552	3,124	2,312	1,708	55
FOLSOM	977	516	337	521	101
NEW MELONES	2,420	1,442	1,542	956	66
FED. SAN LUIS	966	646	453	309	48
TOTAL NORTH CVP	11,363	7,267	5,924	4,289	59
MILLERTON	520	302	170	287	95
OROVILLE (SWP)	3,538	2,102	1,376	1,611	77

TABLE 3: ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY2022	WY 1977	WY 1983	15 YR AVG	% O 15 YR AVG
TRINITY	272	64	1,064	420	65
SHASTA	1,711	1,260	5,860	2,438	70
FOLSOM	835	179	2,986	1,056	79
NEW MELONES	304	N/A	976	360	84
MILLERTON	344	103	1,368	376	92

TABLE 4: ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2022	WY 1977	WY1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	13.63	7.15	44.80	24.53 (60)	56	0.00
SACRAMENTO AT SHASTA DAM	34.46	8.18	89.31	47.34 (65)	73	0.00
AMERICAN AT BLUE CANYON	49.39	13.73	84.48	50.63 (47)	98	0.00
STANISLAUS AT NEW MELONES	16.44	N/A	36.67	20.87 (44)	79	0.00
SAN JOAQUIN AT HUNTINGTON LK	20.66	9.10	66.00	30.75 (47)	67	0.04

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

MARCH 2022

NEW MELONES LAKE DAILY OPERATIONS

RUN DATE: March 15, 2022

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	984.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	940.05	983	-1.4	417	1,109	0	0	28	0.12	0
2	939.8	981.2	-1.8	576	1,445	0	0	28	0.12	0
3	939.78	981	-0.1	603	650	0	0	25	0.11	0
4	939.51	979.1	-1.9	635	1,587	0	0	16	0.07	0.01
5	939.26	977.3	-1.8	725	1,605	0	0	16	0.07	0.42
6	938.82	974.2	-3.1	542	2,105	0	0	11	0.05	0
7	938.47	971.7	-2.5	491	1,717	0	0	23	0.1	0
8	938.17	969.6	-2.1	530	1,580	0	0	21	0.09	0
9	937.94	968	-1.6	424	1,219	0	0	25	0.11	0
10	937.61	965.7	-2.3	642	1,789	0	0	25	0.11	0
11	937.25	963.1	-2.5	485	1,718	0	0	46	0.2	0
12	936.83	960.2	-3.0	512	1,967	0	0	34	0.15	0
13	936.6	958.6	-1.6	512	1,289	0	0	36	0.16	0
14	936.26	956.2	-2.4	573	1,743	0	0	32	0.14	0
TOTALS	N/A	N/A	-28.1	7,667	21,523	0	0	366	1.6	0.43
ACRE-FEET	N/A	N/A	-28,100	15,207	42,691	0	0	726	N/A	N/A

COMMENTS:

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

SUMMARY PRECIPITATION

TIME	PRECIPITATION
THIS MONTH	0.43
JULY 1, 2021 TO DATE	16.48
OCT 1, 2021 TO DATE	16.44

SUMMARY: RELEASE (ACRE FEET)

RELEASE (ACRE-FEET)	N/A
POWER	42,691
SPILL	0
OUTLET	0
TOTAL	42,691

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

MARCH 2022

NEW MELONES LAKE DAILY OPERATIONS

RUN DATE: March 15, 2022

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	992.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	941.36	992.3	-0.4	915	1,082	0	0	14	0.06	0
2	941.32	992	-0.3	1,187	1,313	0	0	19	0.08	0
3	941.18	991	-1.0	798	1,289	0	0	16	0.07	0
4	941.06	990.2	-0.9	955	1,377	0	0	12	0.05	0
5	940.9	989	-1.1	972	1,521	0	0	28	0.12	0
6	940.7	987.6	-1.4	974	1,678	0	0	16	0.07	0
7	940.54	986.5	-1.1	1,029	1,587	0	0	18	0.08	0
8	940.37	985.3	-1.2	1,010	1,602	0	0	21	0.09	0
9	940.24	984.3	-0.9	1,057	1,500	0	0	25	0.11	0
10	940.14	983.6	-0.7	1,074	1,413	0	0	21	0.09	0
11	940.11	983.4	-0.2	1,174	1,266	0	0	16	0.07	0
12	940.21	984.1	+0.7	1,236	853	0	0	23	0.1	0
13	940.24	984.3	+0.2	1,273	1,121	0	0	44	0.19	0
14	940.23	984.3	-0.1	1,180	1,181	0	0	35	0.15	0
15	940.21	984.1	-0.1	1,123	1,170	0	0	25	0.11	0
16	940.23	984.3	+0.1	1,048	951	0	0	25	0.11	0
17	940.17	983.8	-0.4	1,085	1,276	0	0	25	0.11	0
18	940.14	983.6	-0.2	1,031	1,116	0	0	23	0.1	0
19	940.14	983.6	+0.0	1,039	1,018	0	0	21	0.09	0
20	940.2	984	+0.4	1,069	798	0	0	55	0.24	0
21	940.3	984.8	+0.7	995	617	0	0	18	0.08	0
22	940.42	985.6	+0.9	1,042	592	0	0	18	0.08	0.07
23	940.52	986.3	+0.7	1,033	666	0	0	7	0.03	0.24
24	940.31	984.8	-1.5	-336	420	0	0	0	0	0.06
25	940.27	984.5	-0.3	499	643	0	0	0	0	0
26	940.12	983.5	-1.1	574	1,084	0	0	30	0.13	0
27	940.1	983.3	-0.1	561	612	0	0	21	0.09	0
28	940.25	984.4	+1.1	1,482	914	0	0	28	0.12	0
TOTALS	N/A	N/A	-8.2	27, 079	30,660	0	0	604	2.62	0.37
ACRE-FEET	N/A	N/A	-8,200	53,711	60,814	0	0	1,198	N/A	N/A

COMMENTS:

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

SUMMARY PRECIPITATION

TIME	PRECIPITATION
THIS MONTH	0.37
JULY 1, 2021 TO DATE	16.05
OCT 1, 2021 TO DATE	16.01

SUMMARY: RELEASE (ACRE-FEET)

RELEASE (ACRE- FEET)	N/A
POWER	60,814
SPILL	0
OUTLET	0
TOTAL	60,814

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION- CENTRAL VALLEY PROJECT- CALIFORNIA

MARCH 2022

TULLOCH RESERVOIR DAILY OPERATIONS

RUN DATE: March 15, 2022

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. CFS (1)
N/A	N/A	55,834	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	500.52	55,867	+33	1,125	1,109	1,104	0	0	4
2	500.84	56,214	+347	1,456	1,445	1,277	0	0	4
3	499.64	54,919	-1,295	649	650	1,298	0	0	4
4	499.94	55,239	+320	1,588	1,587	1,425	0	0	2
5	500.12	55,433	+194	1,651	1,605	1,551	0	0	2
6	501.02	56,409	+976	2,101	2,105	1,607	0	0	2
7	501.16	56,563	+154	1,733	1,717	1,651	0	0	4
8	500.84	56,214	-349	1,594	1,580	1,767	0	0	3
9	499.77	55,058	-1,156	1,213	1,219	1,792	0	0	4
10	500	55,303	+245	1,802	1,789	1,674	0	0	4
11	500.09	55,401	+98	1,723	1,718	1,667	0	0	7
12	500.79	56,159	+758	1,991	1,967	1,604	0	0	5
13	500.47	55,812	-347	1,313	1,289	1,482	0	0	6
14	501.04	56,431	+619	1,747	1,743	1,430	0	0	5
TOTALS	N/A	N/A	+597	21,686	21,523	21,329	0	0	56
ACRE-FEET	N/A	N/A	+597	43,014	42,691	42,306	0	0	111

*COMPUTED INFLOW IS 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	42,306
SPILL	0
OUTLET	0
TOTAL	42,306

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

MARCH 2022

TULLOCH RESERVOIR DAILY OPERATIONS

RUN DATE: March 01, 2022

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. CFS (1)
N/A	N/A	55,986	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	499.92	55,218	-768	1,077	1,082	1,462	0	0	2
2	499.6	54,876	-342	1,315	1,313	1,484	0	0	3
3	499.22	54,471	-405	1,278	1,289	1,480	0	0	2
4	498.97	54,204	-267	1,350	1,377	1,483	0	0	2
5	499.05	54,289	+85	1,530	1,521	1,483	0	0	4
6	499.45	54,716	+427	1,701	1,678	1,484	0	0	2
7	499.62	54,898	+182	1,565	1,587	433	537	500	3
8	499.91	55,207	+309	1,693	1,602	0	150	1,384	3
9	499.93	55,228	+21	1,553	1,500	0	1,384	154	4
10	499.76	55,047	-181	1,423	1,413	532	884	95	3
11	499.73	55,015	-32	1,265	1,266	1,279	0	0	2
12	499.29	54,545	-470	861	853	1,095	0	0	3
13	499.34	54,599	+54	1,131	1,121	1,097	0	0	7
14	499.51	54,780	+181	1,194	1,181	1,098	0	0	5
15	499.83	55,122	+342	1,201	1,170	1,025	0	0	4
16	499.73	55,015	-107	925	951	975	0	0	4
17	500.45	55,791	+776	1,276	1,276	881	0	0	4
18	501	56,387	+596	1,120	1,116	816	0	0	4
19	501.43	56,861	+474	1,042	1,018	800	0	0	3
20	501.44	56,872	+11	814	798	799	0	0	9
21	501.09	56,486	-386	607	617	799	0	0	3
22	500.72	56,083	-403	596	592	763	0	33	3
23	500.48	55,823	-260	666	666	796	0	0	1
24	500.36	55,693	-130	455	420	521	0	0	0
25	500.08	55,390	-303	650	643	803	0	0	0
26	500.6	55,953	+563	1,091	1,084	802	0	0	5
27	500.26	55,585	-368	616	612	802	0	0	0
28	500.49	55,834	+249	931	914	801	0	0	4
TOTALS	N/A	N/A	-152	30,926	30,926	25,793	2,955	2,166	89
ACRE-FEET	N/A	N/A	-152	61,342	61,342	51,160	5,861	4,296	177

COMMENTS:

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

SUMMARY: RELEASE (ACRE FEET)

RELEASE (ACRE- FEET)	N/A
POWER	51,160
SPILL	5,861
OUTLET	4,296
TOTAL	61,317

OAKDALE IRRIGATION DISTRICT
SOUTH SAN JOAQUIN IRRIGATION DISTRICT
TRI DAMS PROJECT-CALIFORNIA

MARCH 2022

GOODWIN RESERVOIR DAILY OPERATIONS

RUN DATE: March 16, 2022

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	549	N/A	N/A	N/A	N/A	N/A	N/A
1	360.17	549	+0	1,104	0	811	772	72
2	360.17	549	+0	1,277	0	802	392	73
3	360.13	546	-3	1,298	0	733	459	105
4	360.11	545	-1	1,425	0	708	570	153
5	360.11	545	+0	1,551	0	704	672	176
6	360.11	545	+0	1,607	0	601	753	153
7	360.11	545	+0	1,651	0	703	775	176
8	360.13	546	+1	1,767	0	707	835	225
9	360.05	541	-5	1,792	0	631	871	280
10	359.98	536	-5	1,674	0	533	854	241
11	360.01	538	2	1,667	0	502	849	249
12	359.98	536	-2	1,604	0	502	821	218
13	359.99	536	+0	1,482	0	501	772	145
14	359.92	531	-5	1,430	0	436	763	175
15	359.32	489	-42	1,432	0	402	755	209
TOTALS	N/A	N/A	-60	22,761	0	9,276	10,369	2,650
ACRE-FEET	N/A	N/A	-60	45,146	0	18,399	20,567	5,256

JOINT MAIN OPERATED BY SSJID AND OID.

SUMMARY: RELEASE (ACRE FEET)

RELEASE (ACRE- FEET)	N/A
JOINT MAIN CANAL	20,567
SOUTH MAIN CANAL	5,256
OUTLET	0
SPILL	18,399
TOTAL	44,222

OAKDALE IRRIGATION DISTRICT
SOUTH SAN JOAQUIN IRRIGATION DISTRICT
TRI-DAMS PROJECT-CALIFORNIA

MARCH 2022

GOODWIN RESERVOIR DAILY OPERATIONS

RUN DATE: March 16, 2022

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	556	N/A	N/A	N/A	N/A	N/A	N/A
1	360.52	573	+17	1,462	0	1,477	0	0
2	360.51	573	+0	1,484	0	1,507	0	0
3	360.51	573	+0	1,480	0	1,504	0	0
4	360.51	573	+0	1,483	0	1,502	0	0
5	360.51	573	+0	1,483	0	1,505	0	0
6	360.52	573	+0	1,484	0	1,505	0	0
7	360.49	571	-2	1,470	0	1,503	0	0
8	360.51	573	+2	1,534	0	1,505	0	0
9	360.52	573	+0	1,538	0	1,508	0	0
10	360.51	573	+0	1,511	0	1,501	0	0
11	360.2	551	-22	1,279	0	1,190	115	0
12	360.2	551	+0	1,095	0	901	209	0
13	360.21	552	+1	1,097	0	901	210	0
14	360.23	553	+1	1,098	0	903	210	0
15	360.23	553	+0	1,025	0	902	144	0
16	360.23	553	+0	975	0	901	95	0
17	360.17	549	-4	881	0	833	67	0
18	360.17	549	+0	816	0	802	22	0
19	360.17	549	+0	800	0	805	0	0
20	360.17	549	+0	799	0	803	0	0
21	360.17	549	+0	799	0	804	0	0
22	360.17	549	+0	796	0	808	0	0
23	360.17	549	+0	796	0	805	0	0
24	360.17	549	+0	521	0	521	0	0
25	360.17	549	+0	803	0	803	0	0
26	360.17	549	+0	802	0	803	0	0
27	360.17	549	+0	802	0	805	0	0
28	360.17	549	+0	801	0	804	0	0
TOTALS	N/A	N/A	-7	30,914	0	30,111	1,072	0
ACRE-FEET	N/A	N/A	-7	61,318	0	59,725	2,126	0

JOINT MAIN OPERATED BY SSJID AND OID.

SUMMARY: RELEASE (ACRE FEET)

RELEASE (ACRE- FEET)	N/A
JOINT MAIN CANAL	2,126
SOUTH MAIN CANAL	0
OUTLET	0
SPILL	59,725
TOTAL	61,851

March 2022 Water Temperature and Fish Monitoring Update

Year-to-Date Flows

Goodwin releases since October 1, 2021 are shown in Figure 1. The releases greater than 200 cfs that occurred in December and early January were for storage management at Tulloch Reservoir due to side flows from storm events. After the late January winter instability flow, Goodwin releases increased again for the Vernalis flow requirement.

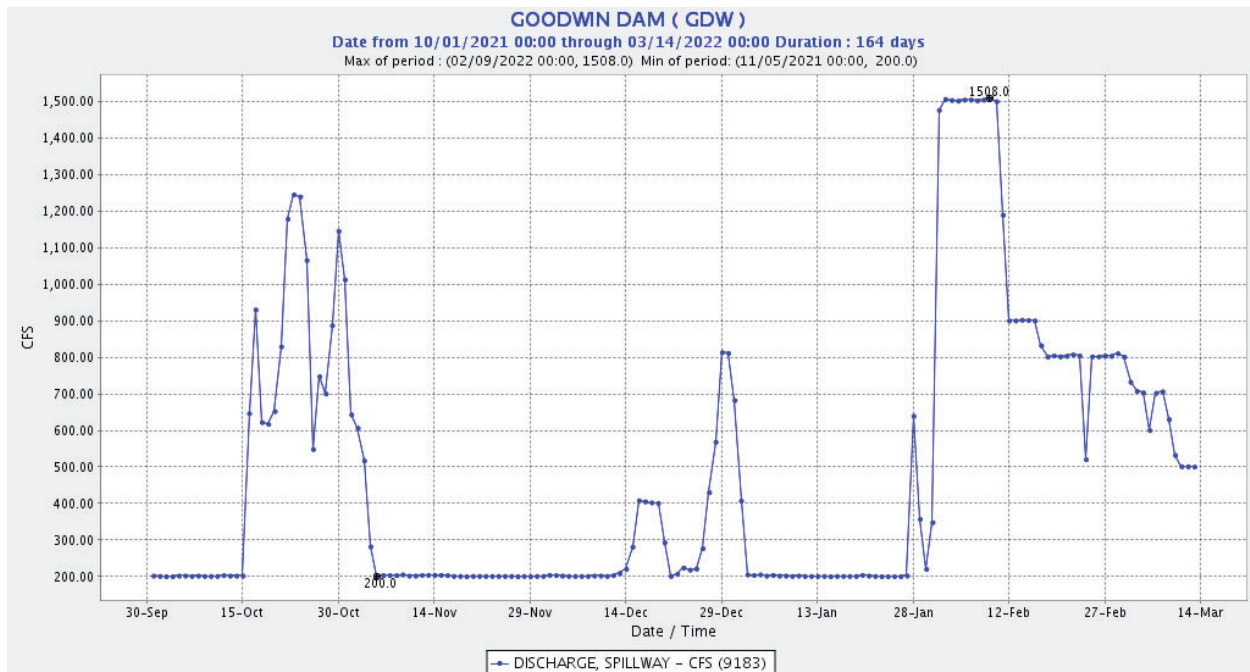


Figure 1. Goodwin (daily) releases to the Stanislaus River since October 1, 2021. Data from GDW station on CDEC.

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 January 1, 2022 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 January 1, 2022 are shown below at Vernalis (Figure 5). Current-year water temperatures are plotted along with historical temperatures for Orange Blossom Bridge

¹ The 2019 NMFS LTO BiOp is available online at: <https://www.fisheries.noaa.gov/resource/document/biological-opinion-reinitiation-consultation-long-term-operation-central-valley>

(Figure 6), Ripon (Figure 7), and Vernalis (Figure 8). A compilation of Stanislaus River water temperatures and Goodwin releases for calendar year 2022 is provided in Figure 9.

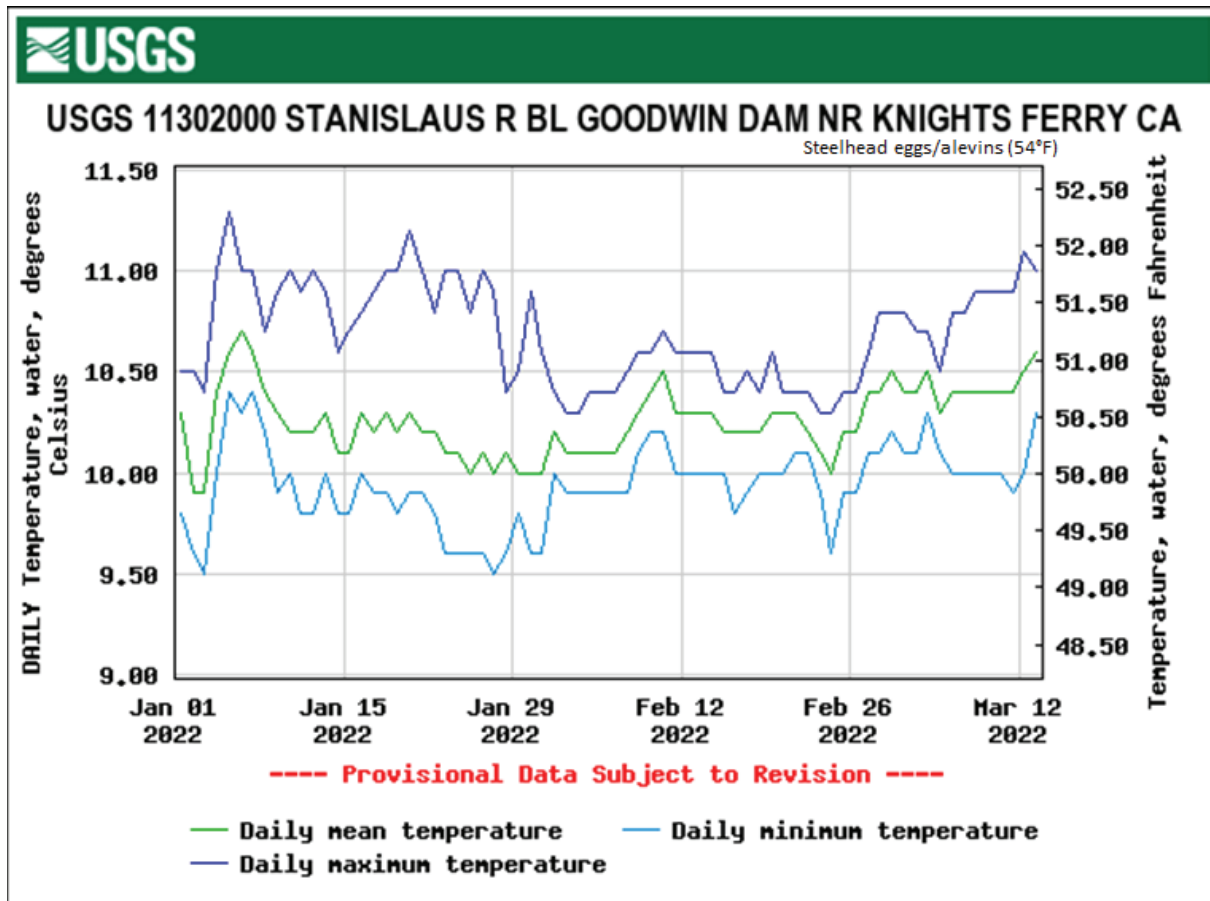


Figure 2. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since January 1, 2022. Data from USGS gage 11302000 on NWIS; temperature threshold reference added by SWT.

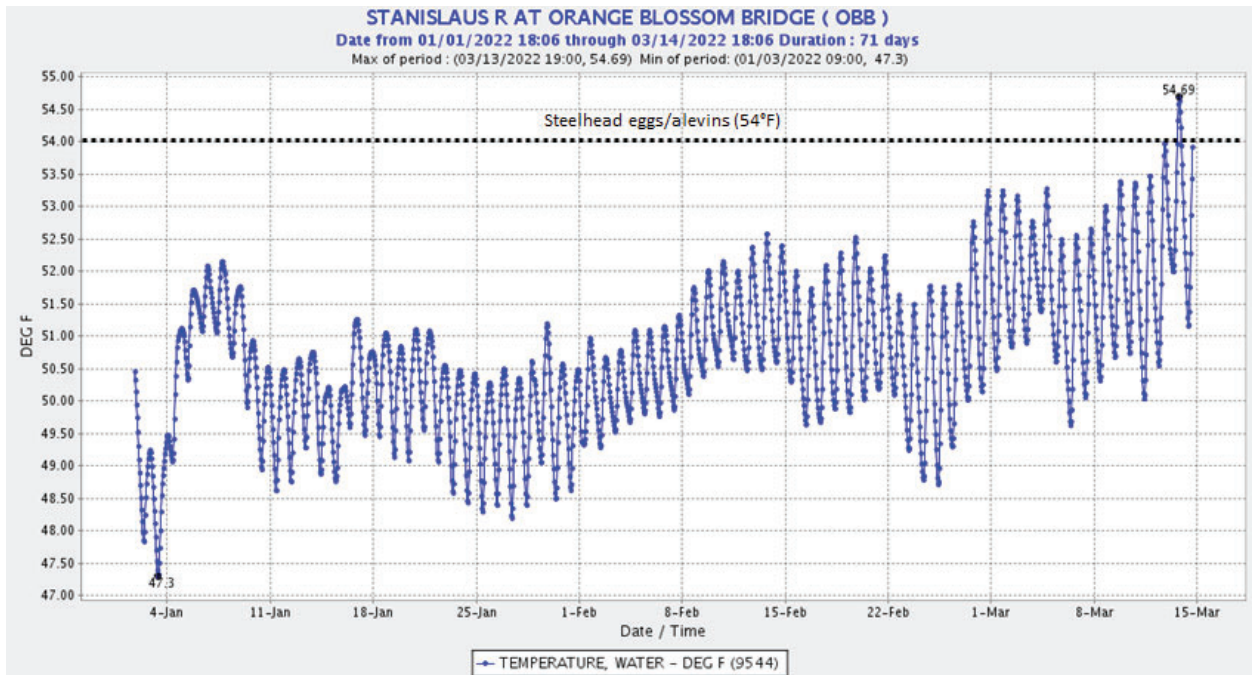


Figure 3. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since January 1, 2022. Data from OBB station on CDEC; temperature threshold reference added by SWT.

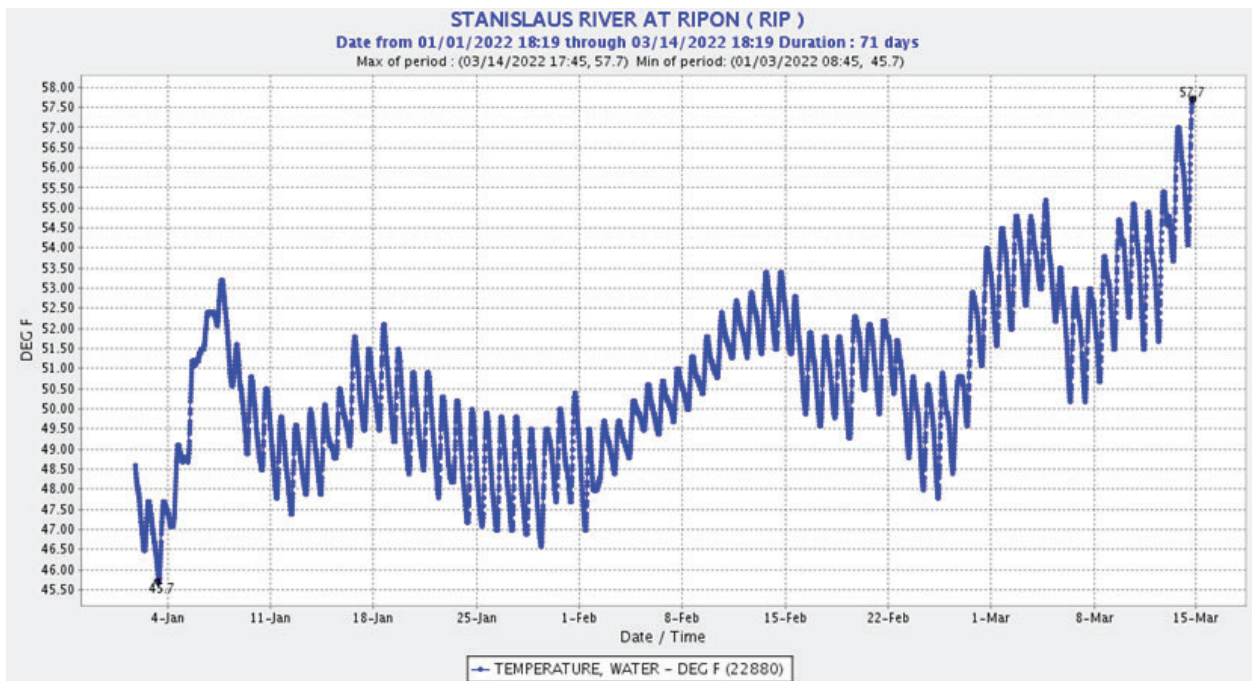


Figure 4. Stanislaus (15-minute) water temperatures at Ripon since January 1, 2021. Data from RIP station on CDEC.

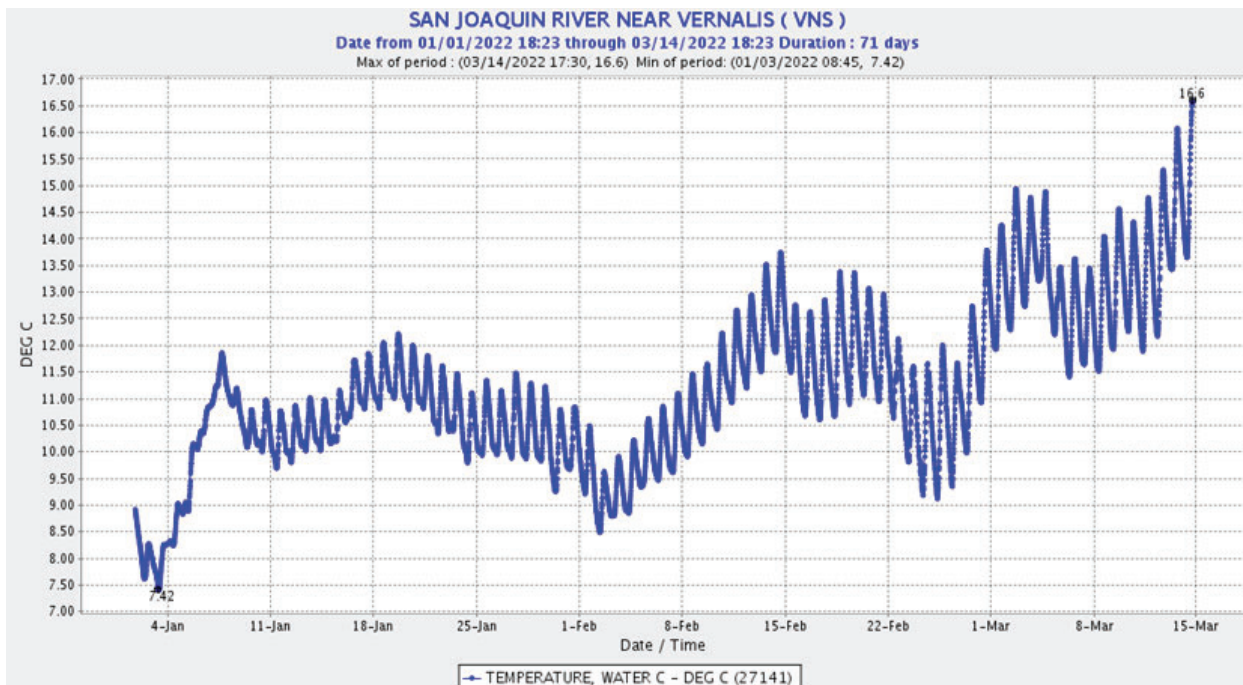


Figure 5. San Joaquin River (15-minute) water temperatures at Vernalis since January 1, 2021. Data from VNS station on CDEC; temperature threshold reference line added by SWT. Note that, unlike in the previous figures, temperature is reported in degrees Celsius. 8°C=46.4°F; 10°C=50°F; 12°C=53.6°F; 14°C=57.2°F; 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.

WY 2001-2022 OBB Stanislaus R at Orange Blossom Bridge
Daily Average Water Temperature (F)
Observed Range 46.00-64.12

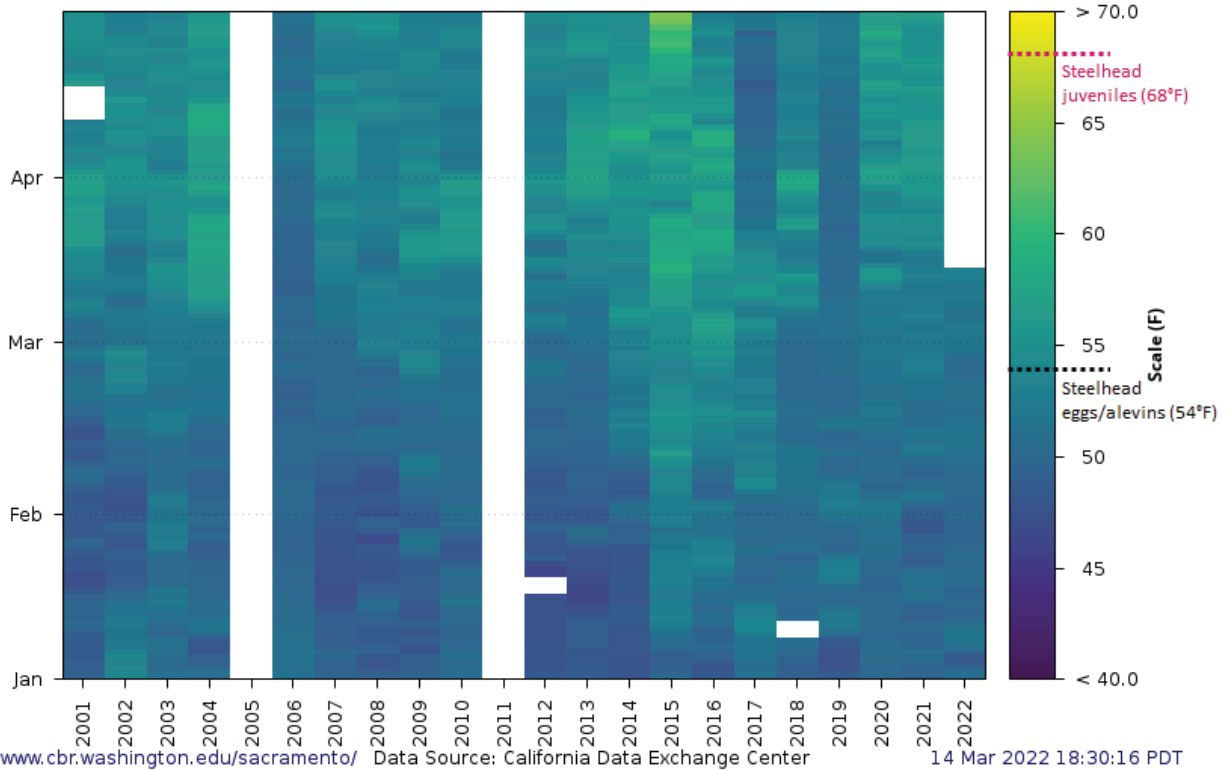


Figure 6. Stanislaus River water temperatures at Orange Blossom Bridge for January through April from WY 2001 to present. Data from SacPAS; temperature threshold reference lines added by SWT. http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

WY 2012-2022 RIP Stanislaus R at Ripon (USGS)
Daily Average Water Temperature (F)
Observed Range 43.04-71.88

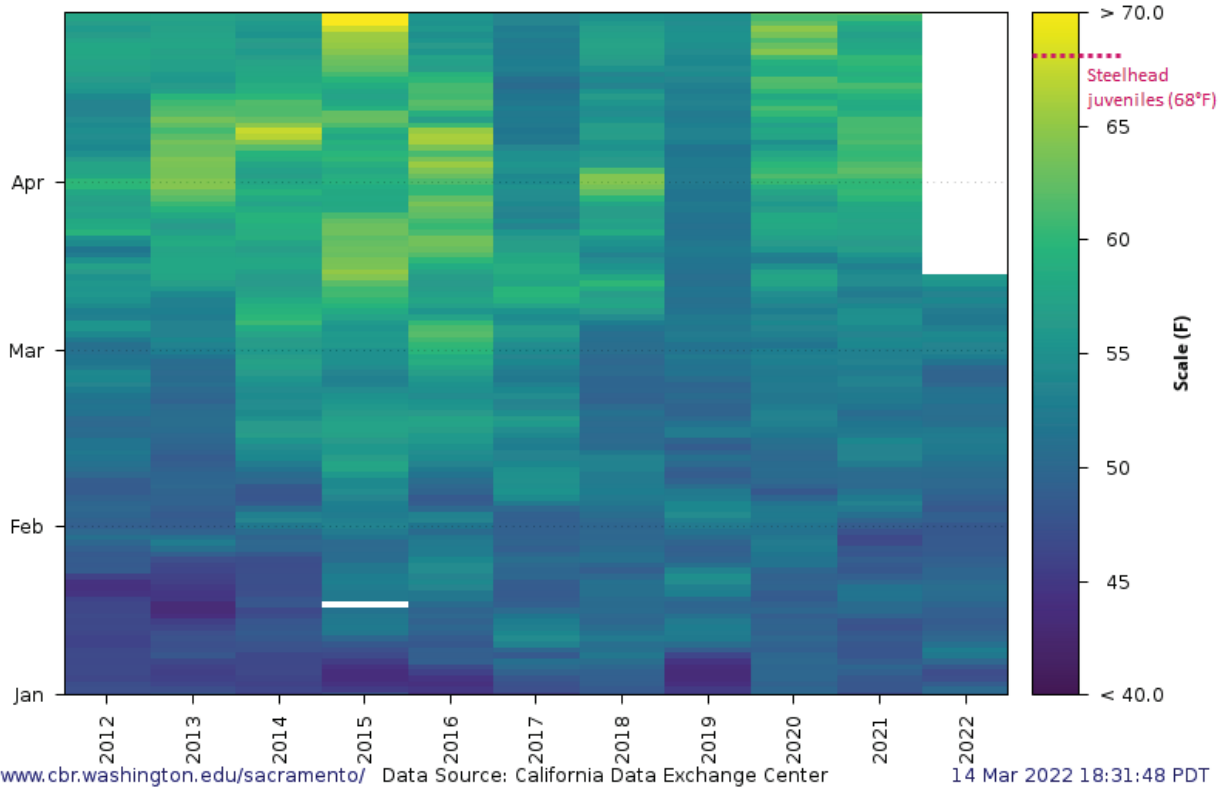


Figure 7. Stanislaus River water temperatures at Ripon for January through April from Water Year 2012 to present. Figure from SacPAS using RIP station data from CDEC; temperature threshold reference line added by SWT.

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

WY 2015-2022 VNS San Joaquin R near Vernalis
Daily Average Water Temperature (F)
Observed Range 44.20-71.51

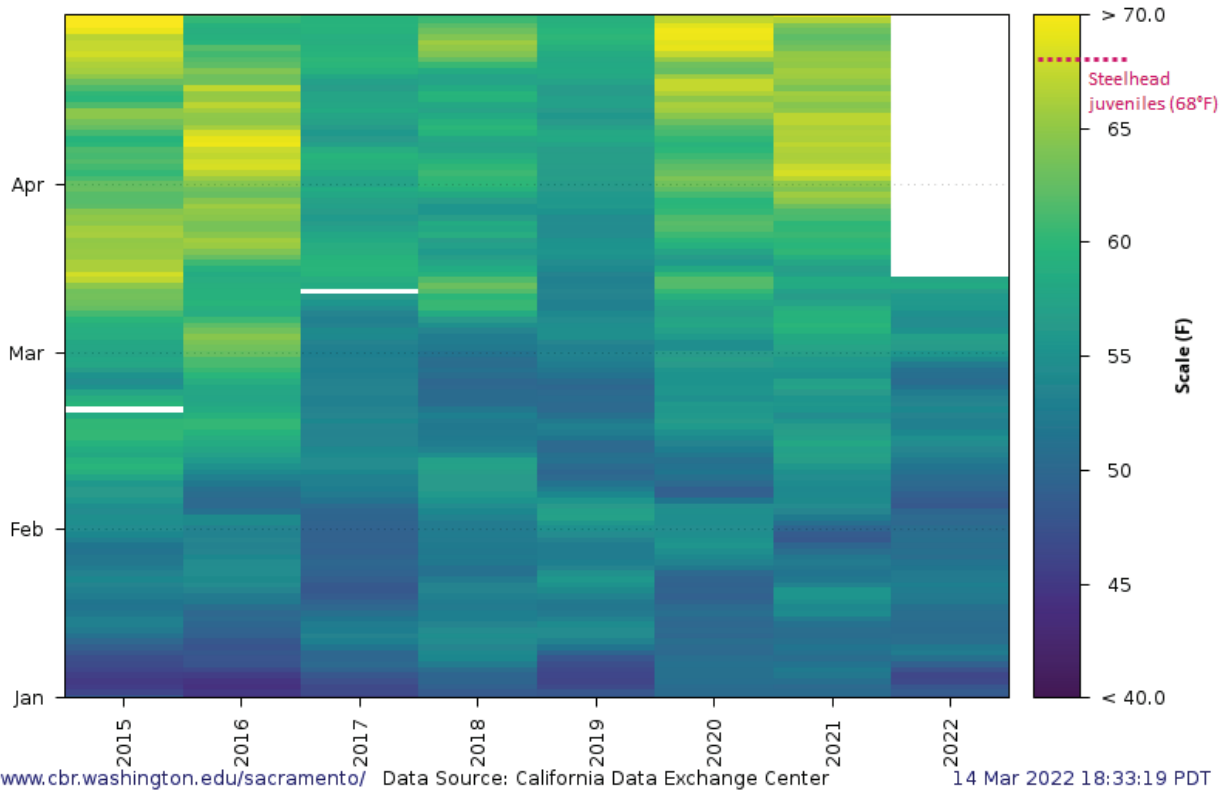
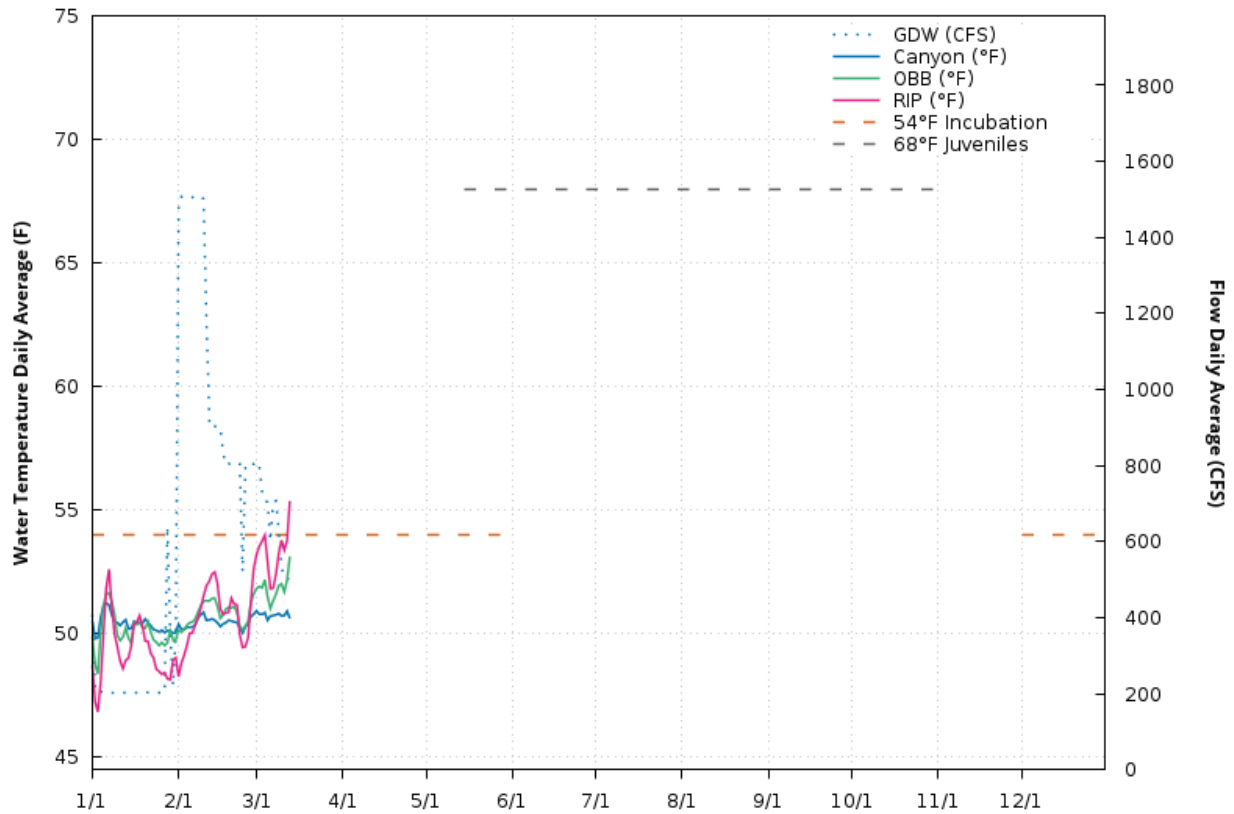


Figure 8. San Joaquin River water temperatures at Vernalis for January through April from Water Year 2015 to present. Figure from SacPAS using VNS station data from CDEC; temperature threshold reference line added by SWT.
http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

2022 Stanislaus River Flow and Temperature



www.cbr.washington.edu/sacramento/

14 Mar 2022 06:45:09 PDT

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

Update on Fish Monitoring (Adults)

Weir

Fishbio installed the weir near Riverbank and began monitoring for upstream passage of adult salmonids on September 8, 2021. The weir monitoring season was extended past December to monitor *Oncorhynchus mykiss* passage. The cumulative net upstream passage of *O. mykiss* through March 9, 2022 is 29 *Oncorhynchus mykiss*. Of the 29 *O. mykiss* observed, 25 were greater than 16” (indicating possible anadromy) and 17 of the 29 were ad-clipped (indicating a hatchery origin). Passage timing of the 25 *O. mykiss* greater than 16” is shown in Figure 10, based on data provided by Fishbio on March 11, 2022 in their “Stanislaus River Weir Update through 3/9/22”.

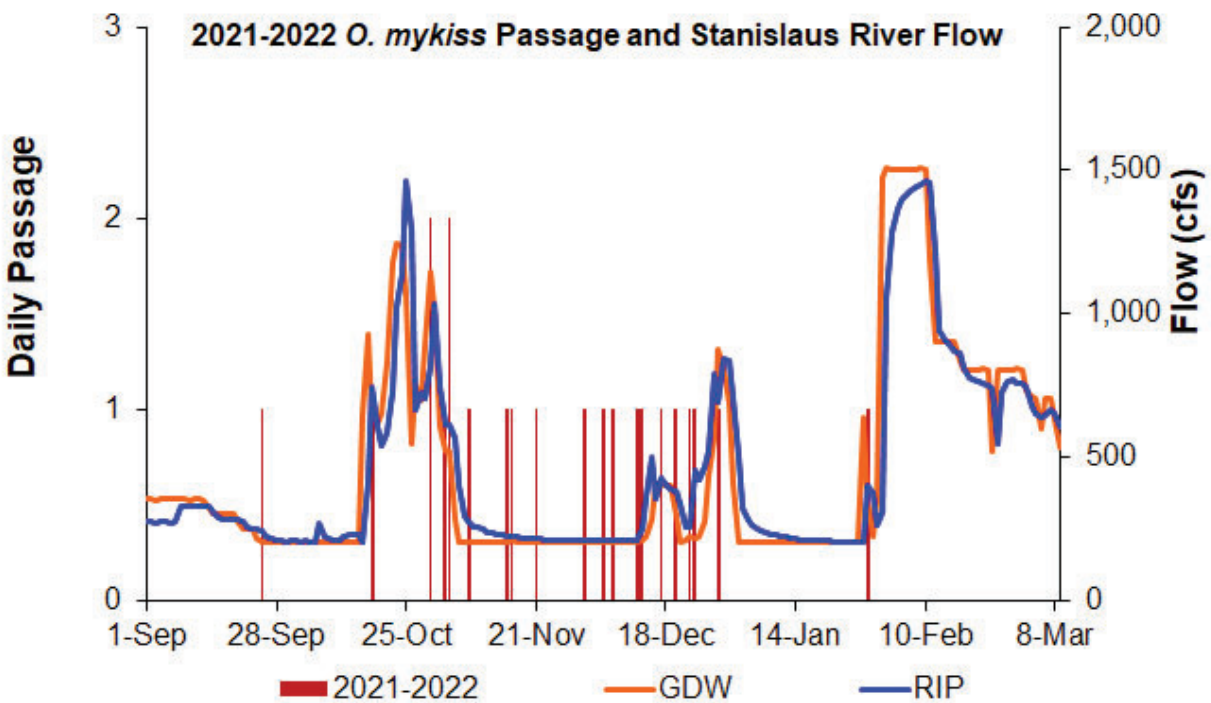


Figure 10. Daily passage of *O. mykiss* greater than 16" through March 9, 2022, at the Stanislaus River weir near Riverbank. Data courtesy of Fishbio.

Steelhead Redd Survey

The CDFW survey crews have observed Chinook salmon and lamprey spawning but have not seen any confirmed steelhead redds. Surveying has resumed in the canyon reach now that flows have dropped to levels safer for surveying.

Update on Fish Monitoring (Juveniles)

Mossdale Trawl

Regular sampling at the Mossdale trawl resumed in January 2022. Since January 1, 2022, based on data reported at <https://www.baydeltalive.com/fish/djfmh-highlights>, salmonids caught in the trawl include:

- Two fall-run-sized Chinook salmon yolk-sac-fry, both in early February.
- One ad-clipped Chinook salmon silvery parr in late February, likely a spring-run Chinook from a mid-February release associated with the San Joaquin River Restoration Program.
- One *O. mykiss* smolt in mid-January.

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). For the 2021/2022 outmigration season, sampling began at Caswell on January 5, 2022 and at Oakdale on January 24, 2022.

Chinook catch at each location is summarized in Figure 11 (Oakdale) and Figure 12 (Caswell); fish lengths and life stages are provided in Figure 13 for the Chinook catch at Caswell. Through

March 8, 2022, the trap at Caswell has captured a total of 593 unmarked Chinook salmon, zero *O. mykiss*, and 102 lamprey. More detailed information can be found at the Caswell RST CalFish webpage, which includes catch spreadsheets, annual reports, and other project information:
<https://www.calfish.org/ProgramsData/ConservationandManagement/CentralValleyMonitoring/SacramentoValleyTributaryMonitoring/StanislausRiver-RSTMonitoring.aspx>

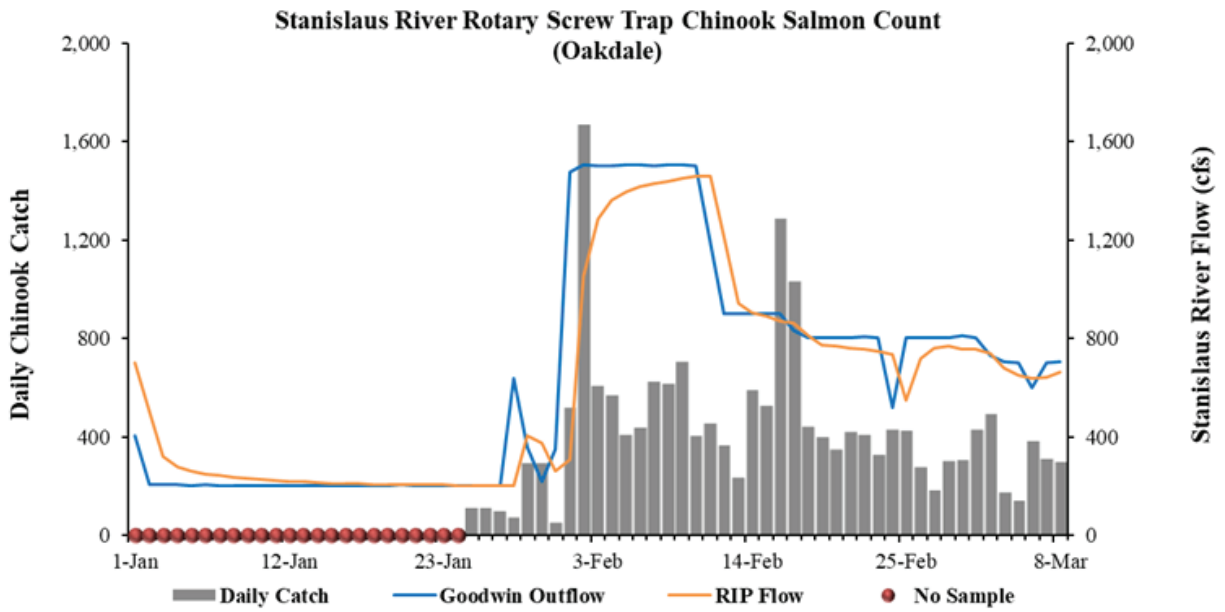


Figure 11. Daily juvenile Chinook catch through March 8, 2022, at the rotary screw trap near Oakdale. Figure courtesy of Fishbio.

Stanislaus River at Caswell Memorial State Park (RSTs):

Daily catch of unmarked Chinook Salmon and daily average discharge at Ripon during the 2022 Stanislaus River rotary screw trap survey season.

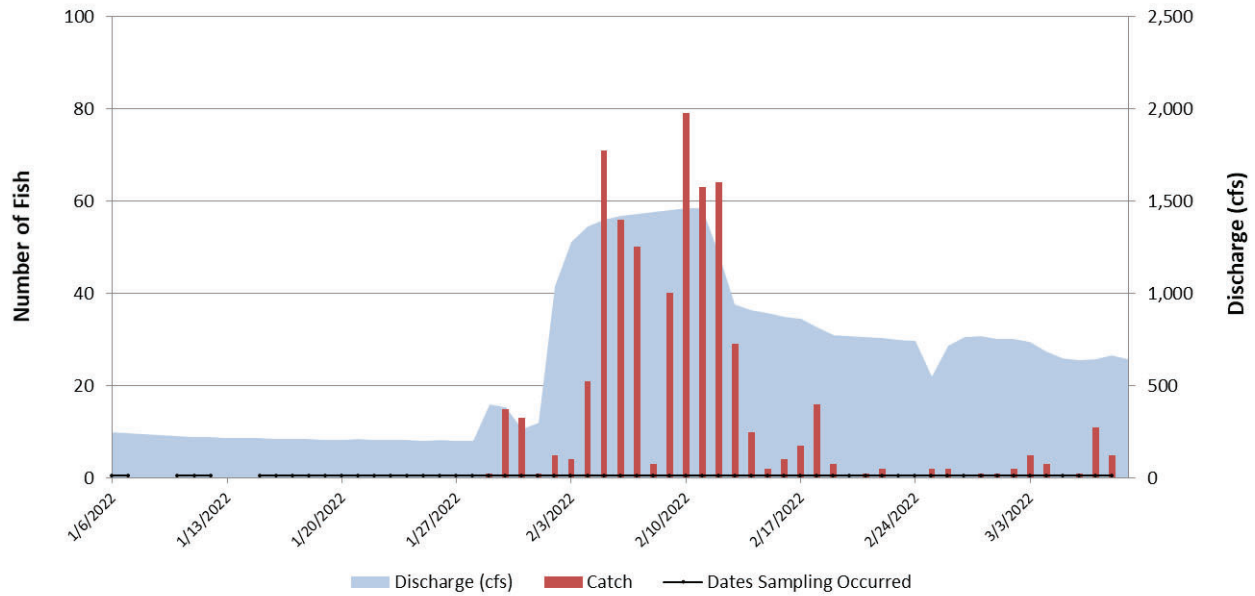


Figure 12. Daily juvenile Chinook catch through March 8, 2022, at the rotary screw trap near Caswell State Park. Discharge data is at Ripon. Figure courtesy of Pacific States Marine Fisheries Commission.

Stanislaus River at Caswell Memorial State Park (RSTs):

Daily fork length distribution by life stage of unmarked Chinook Salmon measured during the 2022 Stanislaus River rotary screw trap survey season.

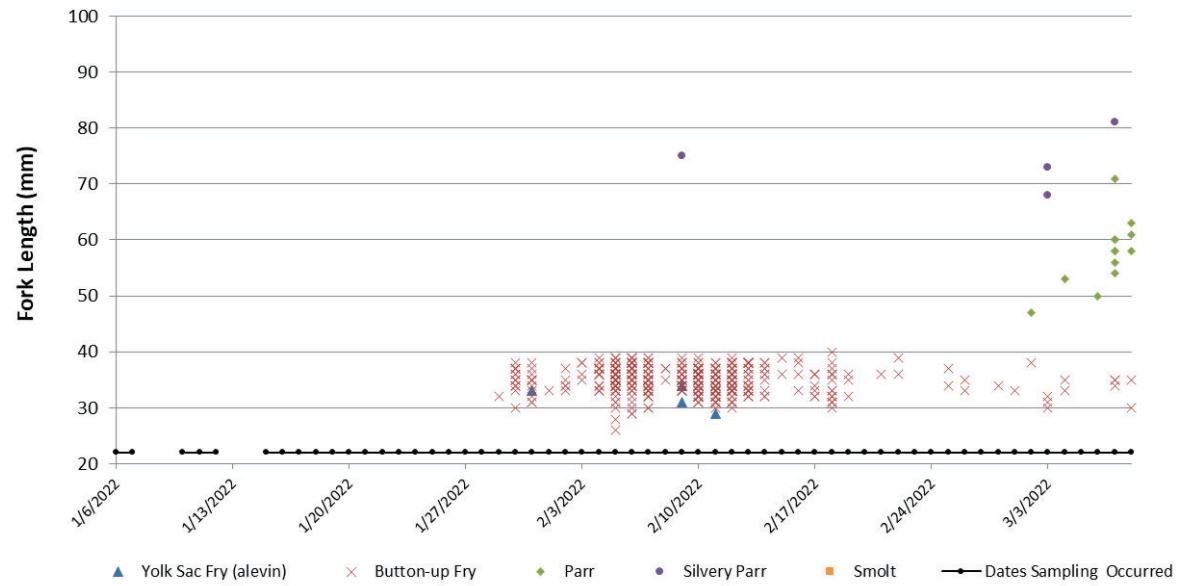


Figure 13. Daily juvenile Chinook catch (plotted by fork length and life stage) through March 8, 2022, at the rotary screw trap near Caswell State Park. Figure courtesy of Pacific States Marine Fisheries Commission.