



— 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, May 18, 2022

### Agenda

1. Introductions
2. Ground Rules<sup>1</sup>
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
  - a. Spawning and rearing habitat restoration

<sup>1</sup> 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

- b. Temperature management study
- c. Yellow-bellied cuckoo survey

11. Other Discussion Items

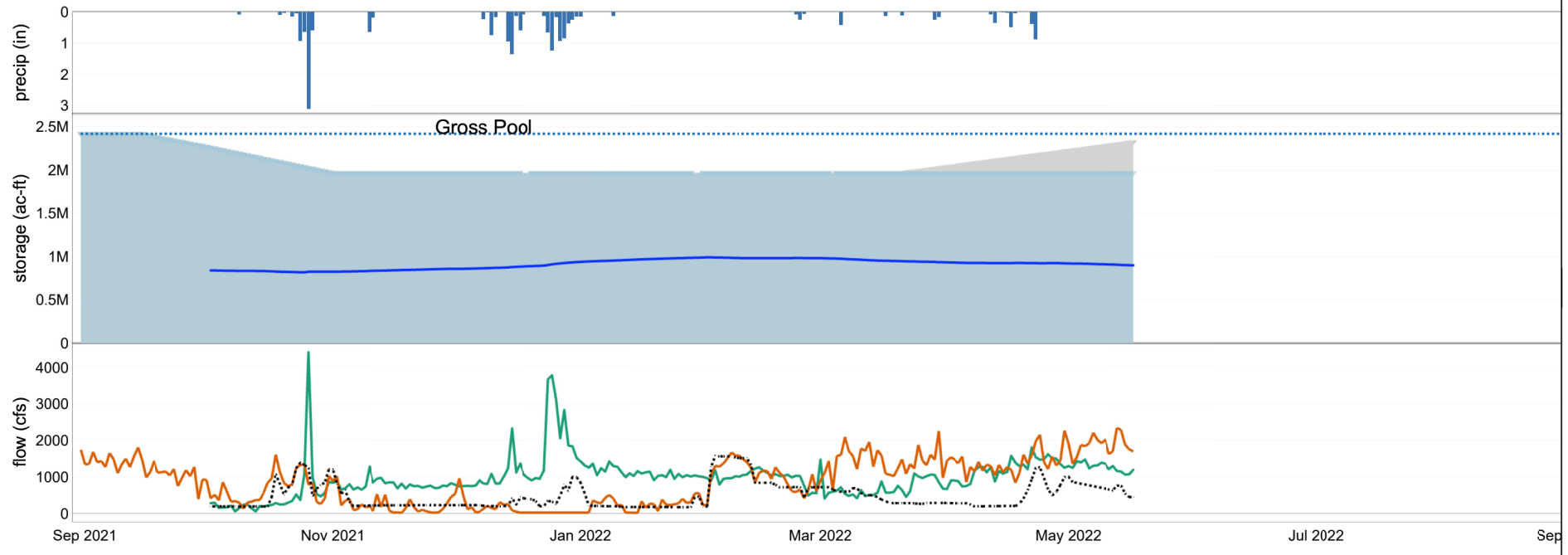
- a. Curtailments
- b. Annual reporting check-in
- c. Items to elevate to WOMT

12. Review Action Items

13. Next Meeting: Wednesday, June 15, 2022 (10am-12pm)

### New Melones Dam & Lake - Stanislaus River Basin

2022-05-17T10:16:47-0700



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

**UNITED STATES DEPARTMENT OF THE INTERIOR  
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA  
DAILY CVP WATER SUPPLY REPORT**

May 15, 2022  
RUN DATE: May 16, 2022

Table 4. Reservoir Releases in Cubic Feet/Second

<b>RESERVOIR</b>	<b>DAM</b>	<b>WY 2021</b>	<b>WY 2022</b>	<b>15 YR MEDIAN</b>
TRINITY	LEWISTON	1,500	858	2,622
SACRAMENTO	KESWICK	8,827	3,517	8,634
FEATHER	OROVILLE (SWP)	2,300	2,200	2,050
AMERICAN	NIMBUS	926	1,508	1,729
STANISLAUS	GOODWIN	1,106	501	1,202
SAN JOAQUIN	FRIANT	365	1,500	400

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

<b>RESERVOIR</b>	<b>CAPACITY</b>	<b>15 YR AVG</b>	<b>WY 2021</b>	<b>WY 2022</b>	<b>% O 15 YR AVG</b>
TRINITY	2,448	1,691	1,298	749	44
SHASTA	4,552	3,497	2,144	1,824	52
FOLSOM	977	760	370	834	110
NEW MELONES	2,420	1,431	1,415	903	63
FED. SAN LUIS	966	590	352	353	60
TOTAL NORTH CVP	11,363	7,968	5,579	4,663	59
MILLERTON	520	343	247	373	109
OROVILLE (SWP)	3,538	2,486	1,428	1,941	78

Table 5. Accumulated Inflow for Water Year to Date in Thousands of Acre-Feet

<b>RESERVOIR</b>	<b>CURRENT WY 2021</b>	<b>WY 1977</b>	<b>WY 1983</b>	<b>15 YRAVG</b>	<b>% O 15 YR AVG</b>
TRINITY	405	140	1,625	788	51
SHASTA	2,201	1,701	8,692	3,652	60
FOLSOM	1,312	248	4,554	1,789	73
NEW MELONES	443	NA	1,433	618	72
MILLERTON	583	123	2,112	739	79

Table 6. Accumulated Precipitation for Water Year to Date in Inches

RESERVOIR	CURRENT WY 2022	WY 1977	WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	17.83	12.06	54.59	29.28 (60)	61	0.0
SACRAMENTO AT SHASTA DAM	40.11	15.37	112.07	57.45 (65)	70	0.0
AMERICAN AT BLUE CANYON	61.73	15.64	103.28	62.36 (47)	99	0.0
STANISLAUS AT NEW MELONES	19.31	NA	45.33	(44)	74	0.0
SAN JOAQUIN AT HUNTINGTON LK	24.22	14.90	80.80	(47)	63	0.0

## Melones Operations Outlook Summary – May 2022

Draft – SUBJECT TO REVISION

Table 7. 90% Exceedance

NA	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
NEW MELONES TAF	863	785	724	672	647	606	608	610	616	614	610	596
NEW MELONES ELEV.	922	910	900	891	887	879	879	880	881	880	880	877
STANISLAUS TAF	25	17	9	9	9	35	12	12	13	12	12	27
STANISLAUS CFS	406	290	150	150	150	577	200	200	213	214	200	461

Table 8. 50% Exceedance

NA	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
NEW MELONES TAF	845	775	709	654	622	600	623	650	686	743	808	864
NEW MELONES ELEV.	920	909	898	888	882	878	882	887	894	903	914	923
STANISLAUS TAF	25	11	9	9	9	35	12	12	13	12	12	27
STANISLAUS CFS	401	190	150	150	150	577	200	200	213	214	200	461

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

**MAY 2022**

**NEW MELONES LAKE DAILY OPERATIONS**

RUN DATE: May 16, 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	922.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	931.33	922	-0.3	1,256	1,366	0	0	62	0.28	.00
2	931.28	921.7	-0.3	1,442	1,551	0	0	64	0.29	.00
3	931.13	920.7	-1.0	1,406	1,884	0	0	40	0.18	.00
4	931.01	919.8	-0.8	1,487	1,850	0	0	51	0.23	.00
5	930.79	918.3	-1.5	1,241	1,930	0	0	68	0.31	.00
6	930.51	916.4	-1.9	1,314	2,221	0	0	55	0.25	.00
7	930.29	914.9	-1.5	1,324	2,020	0	0	60	0.27	.00
8	930.12	913.8	-1.2	1,400	1,932	0	0	53	0.24	.00
9	929.91	912.3	-1.4	1,367	2,036	0	0	51	0.23	.00
10	929.78	911.5	-0.9	1,221	1,633	0	0	33	0.15	.00
11	929.65	910.6	-0.9	1,309	1,708	0	0	46	0.21	.00
12	929.29	908.1	-2.4	1,171	2,350	0	0	53	0.24	.00
13	928.94	905.8	-2.4	1,156	2,297	0	0	55	0.25	.00
14	928.68	904	-1.8	1,073	1,891	0	0	68	0.31	.00
15	928.46	902.5	-1.5	1,080	1,766	0	0	63	0.29	.00
<b>TOTALS</b>	N/A	N/A	<b>-19.8</b>	<b>19,247</b>	<b>28,435</b>	<b>0</b>	<b>0</b>	<b>822</b>	<b>3.73</b>	<b>.00</b>
<b>ACRE-FEET</b>	N/A	N/A	<b>-19,800</b>	<b>38,176</b>	<b>56,401</b>	<b>0</b>	<b>0</b>	<b>1,630</b>	N/A	N/A

COMMENTS:

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

**SUMMARY PRECIPITATION**

TIME	PRECIPITATION
THIS MONTH	.00
JULY 1, 2021 TO DATE	19.35
OCT 1, 2021 TO DATE	19.31

**SUMMARY: RELEASE (ACRE FEET)**

RELEASE (ACRE-FEET)	N/A
POWER	56,401
SPILL	0
OUTLET	0
TOTAL	56,401

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

**APRIL 2022**

**NEW MELONES LAKE DAILY OPERATIONS**

RUN DATE: May 03, 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	935.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	933.04	933.8	-1.3	915	1,546	0	0	31	0.14	0
2	932.87	932.6	-1.2	909	1,478	0	0	22	0.1	0
3	932.7	931.4	-1.2	893	1,383	0	0	100	0.45	0
4	932.45	929.7	-1.7	751	1,568	0	0	51	0.23	0
5	932.41	929.5	-0.3	756	866	0	0	29	0.13	0
6	932.26	928.4	-1.0	817	1,284	0	0	53	0.24	0
7	932.25	928.4	-0.1	1,174	1,158	0	0	51	0.23	0
8	932.19	927.9	-0.4	1,276	1,422	0	0	62	0.28	0
9	932.2	928	+0.1	1,282	1,176	0	0	71	0.32	0
10	932.12	927.5	-0.6	1,134	1,345	0	0	67	0.3	0
11	932.11	927.4	-0.1	1,279	1,303	0	0	11	0.05	0.08
12	932.06	927	-0.3	883	1,049	0	0	7	0.03	0.35
13	932	926.6	-0.4	1,170	1,340	0	0	38	0.17	0
14	931.98	926.5	-0.1	1,098	1,136	0	0	31	0.14	0.01
15	931.94	926.2	-0.3	1,147	1,283	0	0	2	0.01	0.02
16	932.04	926.9	+0.7	1,586	1,196	0	0	44	0.2	0.48
17	932.19	927.9	+1.0	1,400	848	0	0	31	0.14	0.04
18	932.23	928.2	+0.3	1,305	1,119	0	0	47	0.21	0
19	932.14	927.6	-0.6	1,346	1,622	0	0	36	0.16	0
20	932.09	927.3	-0.3	1,218	1,371	0	0	20	0.09	0
21	932.14	927.6	+0.3	1,816	1,601	0	0	42	0.19	0.38
22	932.01	926.7	-0.9	1,545	1,985	0	0	11	0.05	0.88
23	931.8	925.3	-1.4	1,478	2,165	0	0	38	0.17	0
24	931.81	925.3	+0.1	1,492	1,416	0	0	42	0.19	0
25	931.91	926	+0.7	1,632	1,225	0	0	62	0.28	0
26	931.88	925.8	-0.2	1,514	1,566	0	0	51	0.23	0
27	931.92	926.1	+0.3	1,510	1,321	0	0	51	0.23	0
28	931.88	925.8	-0.3	1,360	1,449	0	0	49	0.22	0
29	931.57	923.7	-2.1	1,259	2,279	0	0	51	0.23	0
30	931.38	922.4	-1.3	1,307	1,916	0	0	47	0.21	0
<b>TOTALS</b>	<b>N/A</b>	<b>N/A</b>	<b>-12.6</b>	<b>37,252</b>	<b>42,416</b>	<b>0</b>	<b>0</b>	<b>1,248</b>	<b>5.62</b>	<b>2.24</b>
<b>ACRE-FEET</b>	<b>N/A</b>	<b>N/A</b>	<b>-12,600</b>	<b>73,889</b>	<b>84,132</b>	<b>0</b>	<b>0</b>	<b>2,475</b>	<b>N/A</b>	<b>N/A</b>

**COMMENTS:**

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

**SUMMARY PRECIPITATION**

TIME	PRECIPITATION
THIS MONTH	2.24
JULY 1, 2021 TO DATE	19.35
OCT 1, 2021 TO DATE	19.31

**SUMMARY: RELEASE (ACRE-FEET)**

RELEASE (ACRE-FEET)	N/A
POWER	84,132
SPILL	0
OUTLET	0
TOTAL	84,132

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

**MAY 2022**

**GOODWIN RESERVOIR DAILY OPERATIONS**

RUN DATE: May 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	547	N/A	N/A	N/A	N/A	N/A	N/A
1	360.05	541	-6	1,492	0	691	518	212
2	359.95	534	-7	1,422	0	542	519	286
3	359.95	534	+0	1,515	0	506	616	311
4	360.1	544	+10	1,587	0	665	570	274
5	360.24	554	+10	1,959	0	926	657	289
6	360.38	564	+10	2,208	0	1,192	687	255
7	360.23	553	-11	2,129	0	1,078	683	299
8	360.11	545	-8	1,807	0	812	633	277
9	359.95	534	-11	1,576	0	576	678	248
10	359.95	534	+0	1,675	0	501	703	391
11	360.05	541	+7	1,754	0	611	715	342
12	360.17	549	+8	2,068	0	804	778	407
13	360.05	541	-8	1,941	0	707	811	362
14	359.95	534	-7	1,791	0	540	810	302
15	359.95	534	+0	1,665	0	501	793	302
<b>TOTALS</b>	N/A	N/A	<b>-13</b>	<b>26,589</b>	<b>0</b>	<b>10,171</b>	<b>10,171</b>	<b>4,557</b>
<b>ACRE-FEET</b>	N/A	N/A	<b>-13</b>	<b>52,739</b>	<b>0</b>	<b>21,174</b>	<b>20,174</b>	<b>9,039</b>

JOINT MAIN OPERATED BY SSJID AND OID.

**SUMMARY: RELEASE (ACRE FEET)**

RELEASE (ACRE- FEET)	N/A
JOINT MAIN CANAL	20,174
SOUTH MAIN CANAL	9,039
OUTLET	0
SPILL	21,128
TOTAL	50,341



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

APRIL 2022

**GOODWIN RESERVOIR DAILY OPERATIONS**

RUN DATE: May 01, 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	525	N/A	N/A	N/A	N/A	N/A	N/A
1	359.83	525	+0	1,324	0	302	816	153
2	359.83	525	+0	1,249	0	302	699	185
3	359.85	527	+2	1,271	0	302	676	217
4	359.85	527	+0	1,289	0	305	678	232
5	359.83	525	-2	1,260	0	304	696	188
6	359.76	520	-5	1,272	0	231	646	314
7	359.77	521	+1	1,231	0	203	649	287
8	359.74	519	-2	1,267	0	203	689	291
9	359.76	520	+1	1,172	0	202	661	225
10	359.77	521	+1	1,199	0	203	666	245
11	359.76	520	-1	1,178	0	204	647	243
12	359.74	519	-1	1,095	0	202	594	216
13	359.76	520	+1	1,236	0	202	635	319
14	359.74	519	-1	1,227	0	202	576	362
15	359.74	519	+0	1,139	0	203	560	288
16	359.74	519	+0	1,058	0	203	536	230
17	359.74	519	+0	967	0	205	512	172
18	359.86	527	+8	1,028	0	307	498	153
19	359.98	536	+9	1,232	0	455	479	232
20	360.11	545	+9	1,403	0	668	457	228
21	360.26	555	+10	1,641	0	923	449	226
22	360.38	564	+9	1,846	0	1,185	425	205
23	360.26	555	-9	1,651	0	1,077	427	123
24	360.08	543	-12	1,458	0	814	468	147
25	359.95	534	-9	1,421	0	572	510	305
26	359.95	534	+0	1,479	0	500	536	383
27	360.05	541	+7	1,635	0	610	585	364
28	360.14	547	+6	1,798	0	766	622	339
29	360.24	554	+7	1,941	0	947	626	296
30	360.14	547	-7	1,718	0	858	557	232
<b>TOTALS</b>	N/A	N/A	<b>+22</b>	<b>40,685</b>	<b>0</b>	<b>13,660</b>	17,575	<b>7,400</b>
<b>ACRE-FEET</b>	N/A	N/A	<b>+22</b>	<b>80,699</b>	<b>0</b>	<b>27,095</b>	34,860	<b>14,678</b>

JOINT MAIN OPERATED BY SSSJID AND OID.

**SUMMARY: RELEASE (ACRE FEET)**

RELEASE (ACRE- FEET)	N/A
JOINT MAIN CANAL	34,860
SOUTH MAIN CANAL	14,678
OUTLET	0
SPILL	27,095
TOTAL	76,633

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

**MAY 2022**

**TULLOCH RESERVOIR DAILY OPERATIONS**

RUN DATE: May 16, 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	60,386	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	504.33	60,132	-254	1,374	1,366	1,492	0	0	10
2	504.58	60,421	+289	1,579	1,551	1,422	0	0	11
3	505.26	61,213	+792	1,921	1,884	1,515	0	0	7
4	505.64	61,660	+447	1,821	1,850	1,587	0	0	9
5	505.61	61,624	-36	1,953	1,930	1,959	0	0	12
6	505.64	61,660	+36	2,236	2,221	2,208	0	0	10
7	505.43	61,413	-247	2,014	2,020	2,129	0	0	10
8	505.64	61,660	+247	1,941	1,932	1,807	0	0	9
9	506.38	62,537	+877	2,027	2,036	1,576	0	0	9
10	506.3	62,441	-96	1,633	1,633	1,675	0	0	6
11	506.21	62,334	-107	1,708	1,708	1,754	0	0	8
12	506.67	62,883	+549	2,354	2,350	2,068	0	0	9
13	507.26	63,592	+709	2,308	2,297	1,941	0	0	10
14	507.53	63,919	+327	1,968	1,891	1,791	0	0	12
<b>TOTALS</b>	507.74	64,174	<b>+255</b>	<b>28,642</b>	<b>28,589</b>	<b>26,589</b>	<b>0</b>	<b>0</b>	<b>143</b>
<b>ACRE-FEET</b>	N/A	N/A	<b>+3,788</b>	<b>56,811</b>	<b>56,401</b>	<b>52,739</b>	<b>0</b>	<b>0</b>	<b>284</b>

\*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	52,739
SPILL	0
OUTLET	0
TOTAL	52,739

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

**APRIL 2022**

**TULLOCH RESERVOIR DAILY OPERATIONS**

RUN DATE: May 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	56,972	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	501.98	57,468	+496	1,579	1,546	1,324	0	0	5
2	502.39	57,927	+459	1,484	1,478	1,249	0	0	4
3	502.55	58,106	+179	1,377	1,383	1,271	0	0	16
4	503.04	58,656	+550	1,574	1,568	1,289	0	0	8
5	502.32	57,848	-808	858	866	1,260	0	0	5
6	502.34	57,871	+23	1,293	1,284	1,272	0	0	9
7	502.24	57,759	-112	1,184	1,158	1,231	0	0	9
8	502.47	58,016	+257	1,407	1,422	1,267	0	0	10
9	502.47	58,016	+0	1,184	1,176	1,172	0	0	12
10	502.73	58,308	+292	1,357	1,345	1,199	0	0	11
11	502.96	58,565	+257	1,313	1,303	1,126	0	52	5
12	502.85	58,442	-123	1,034	1,049	1,095	0	0	1
13	503.02	58,633	+191	1,338	1,340	1,236	0	0	6
14	502.88	58,476	-157	1,153	1,136	1,227	0	0	5
15	503.11	58,735	+259	1,275	1,283	1,139	0	0	5
16	503.42	59,089	+354	1,243	1,196	1,058	0	0	7
17	503.21	58,849	-240	851	848	967	0	0	5
18	503.36	59,020	+171	1,122	1,119	1,028	0	0	8
19	504.05	59,808	+788	1,635	1,622	1,232	0	0	6
20	504	59,750	-58	1,377	1,371	1,403	0	0	3
21	503.99	59,739	-11	1,642	1,601	1,641	0	0	7
22	504.24	60,028	+289	1,994	1,985	1,846	0	0	2
23	505.07	60,989	+961	2,141	2,165	1,651	0	0	6
24	505.04	60,954	-35	1,447	1,416	1,458	0	0	7
25	504.71	60,571	-383	1,239	1,225	1,421	0	0	11
26	504.89	60,780	+209	1,593	1,566	1,479	0	0	9
27	504.29	60,086	-694	1,294	1,321	1,635	0	0	9
28	503.66	59,362	-724	1,441	1,449	1,798	0	0	8
29	504.25	60,039	+677	2,291	2,279	1,941	0	0	9
30	504.55	60,386	+347	1,901	1,916	1,602	0	116	8
<b>TOTALS</b>	N/A	N/A	<b>+3,414</b>	<b>42,621</b>	<b>42,416</b>	<b>40,517</b>	<b>0</b>	<b>168</b>	<b>216</b>
<b>ACRE-FEET</b>	N/A	N/A	<b>+3,414</b>	<b>84,539</b>	<b>84,132</b>	<b>80,365</b>	<b>0</b>	<b>333</b>	<b>428</b>

COMMENTS:

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

**SUMMARY: RELEASE (ACRE FEET)**

RELEASE (ACRE- FEET)	N/A
POWER	80,365
SPILL	0
OUTLET	333
TOTAL	80,698

# May 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 through early April. After the spring pulse flow, Goodwin releases are expected to hold at 500 cfs (rather than the Critical SRP minimum of 150 cfs) for the Vernalis flow requirement.

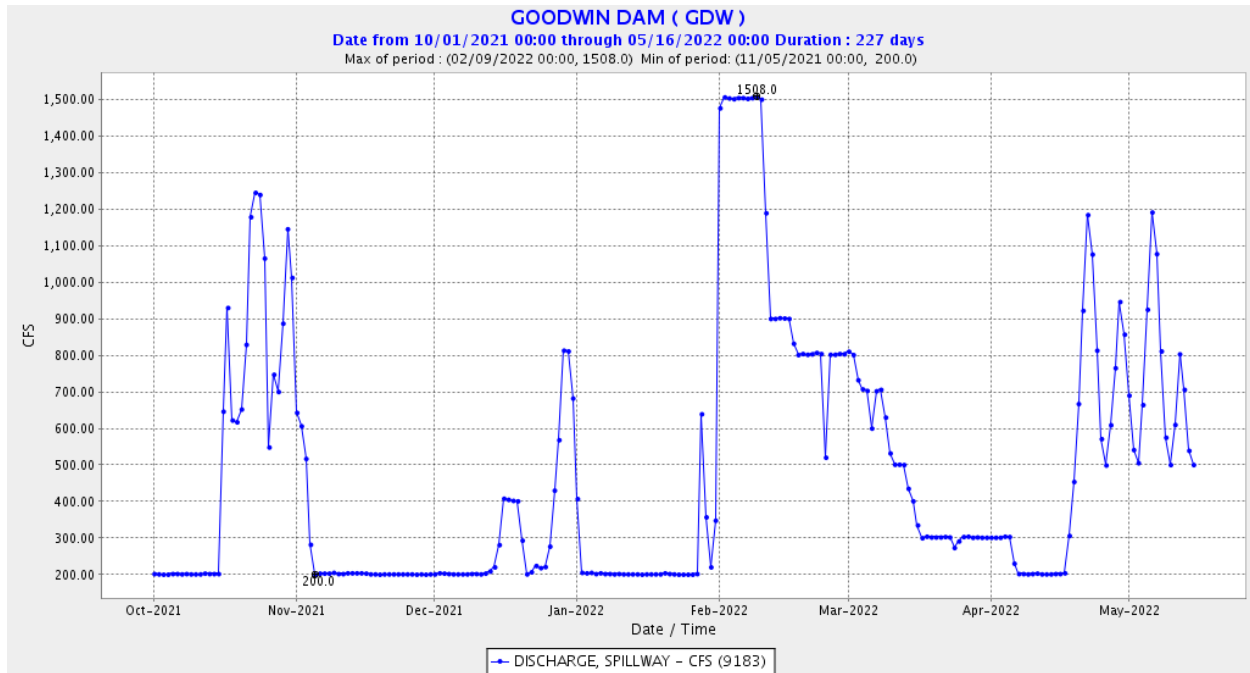


Figure 1. Goodwin (daily) releases to the Stanislaus River since October 1, 2021. Data from GDW station on CDEC.

## Water Temperature

The temperature thresholds included in Figures 2-9, below, are the thresholds used in the 2019 NMFS LTO BiOp<sup>1</sup> (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, 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 March 1, 2022 are shown below at Vernalis (Figure 5). Current-year

<sup>1</sup> 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>

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 calendar year 2022 is provided in Figure 9.

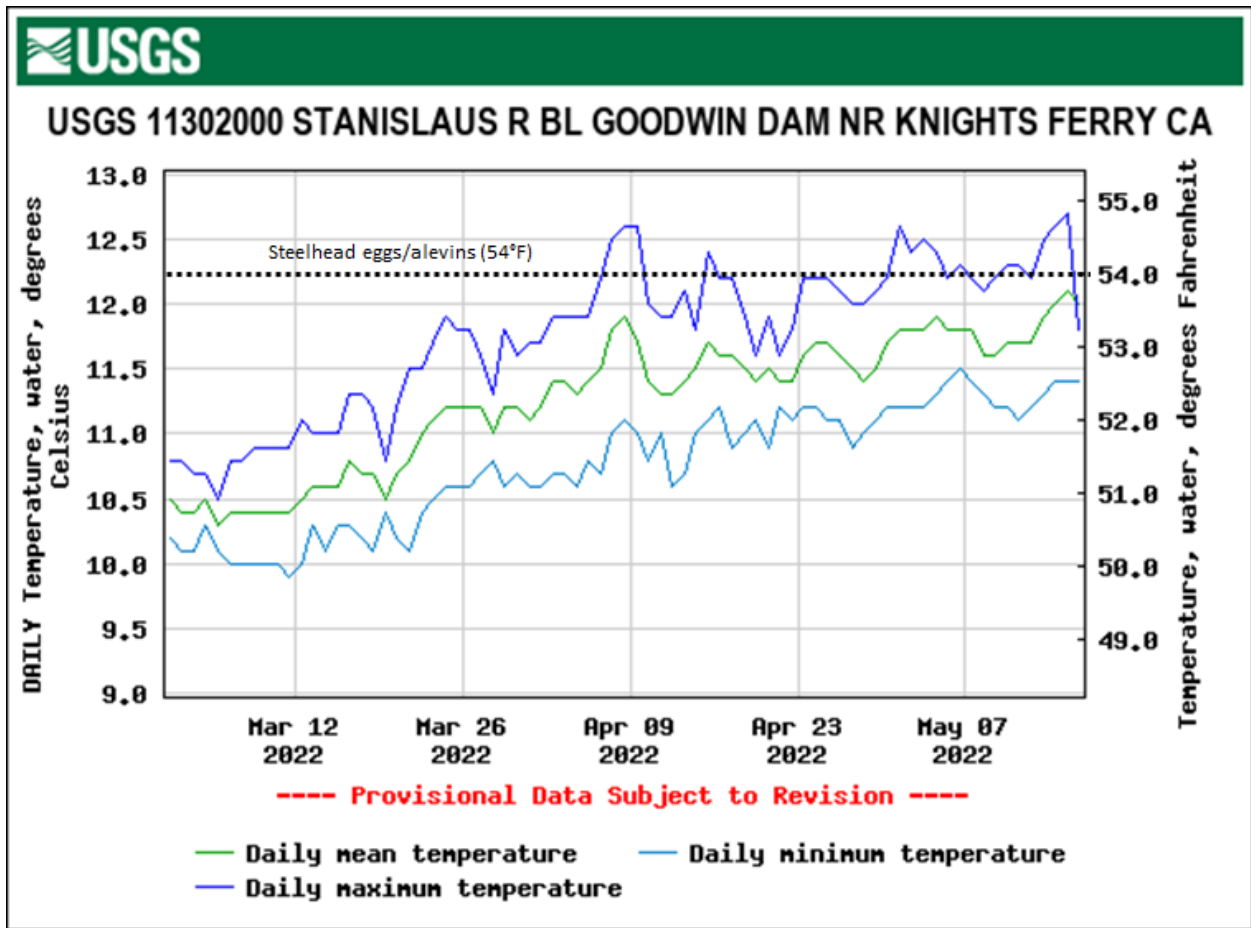


Figure 2. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since March 1, 2022. Data from USGS gage 11302000 on NWIS; temperature threshold reference line added by SWT.

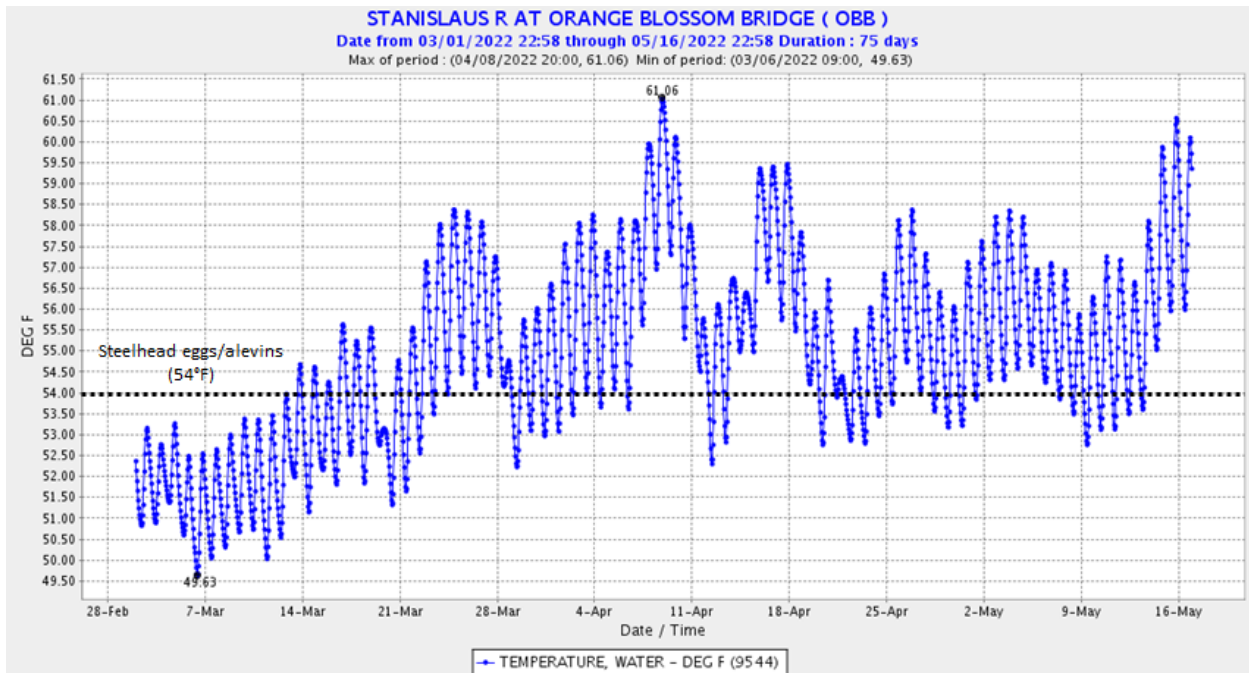


Figure 3. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since March 1, 2022. Data from OBB station on CDEC; temperature threshold reference line added by SWT.

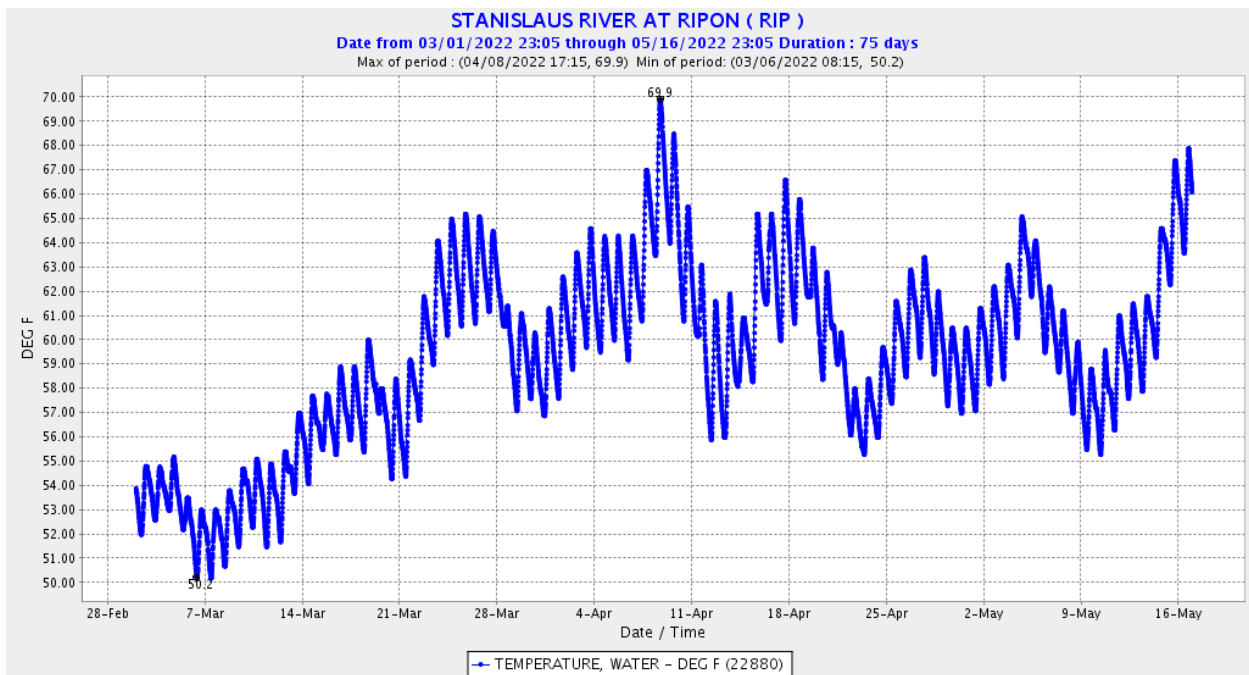


Figure 4. Stanislaus (15-minute) water temperatures at Ripon since March 1, 2022. Data from RIP station on CDEC.

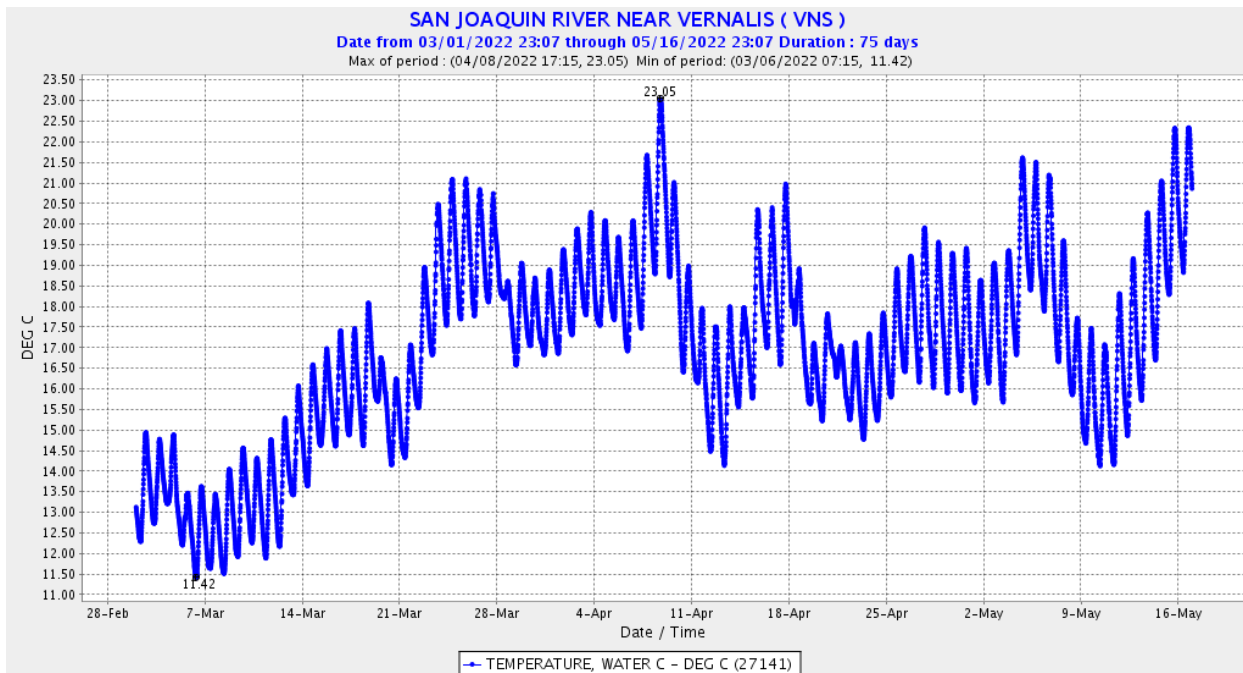


Figure 5. San Joaquin River (15-minute) water temperatures at Vernalis since March 1, 2022. Data from VNS station on CDEC. Note that, unlike in the previous figures, temperature is reported in degrees Celsius. 8°C=46.4°F; 10°C=50°F; 12°C=53.6°F; 14°C=57.2°F; 16°C=60.8°F; 18°C=64.4°F; 20°C=68.0°F; 22°C=71.6°F; 24°C=75.2°F; 26°C=78.8°F; 28°C=82.4°F.

**WY 2001-2022 OBB Stanislaus R at Orange Blossom Bridge  
Daily Average Water Temperature (F)  
Observed Range 36.30-73.10**

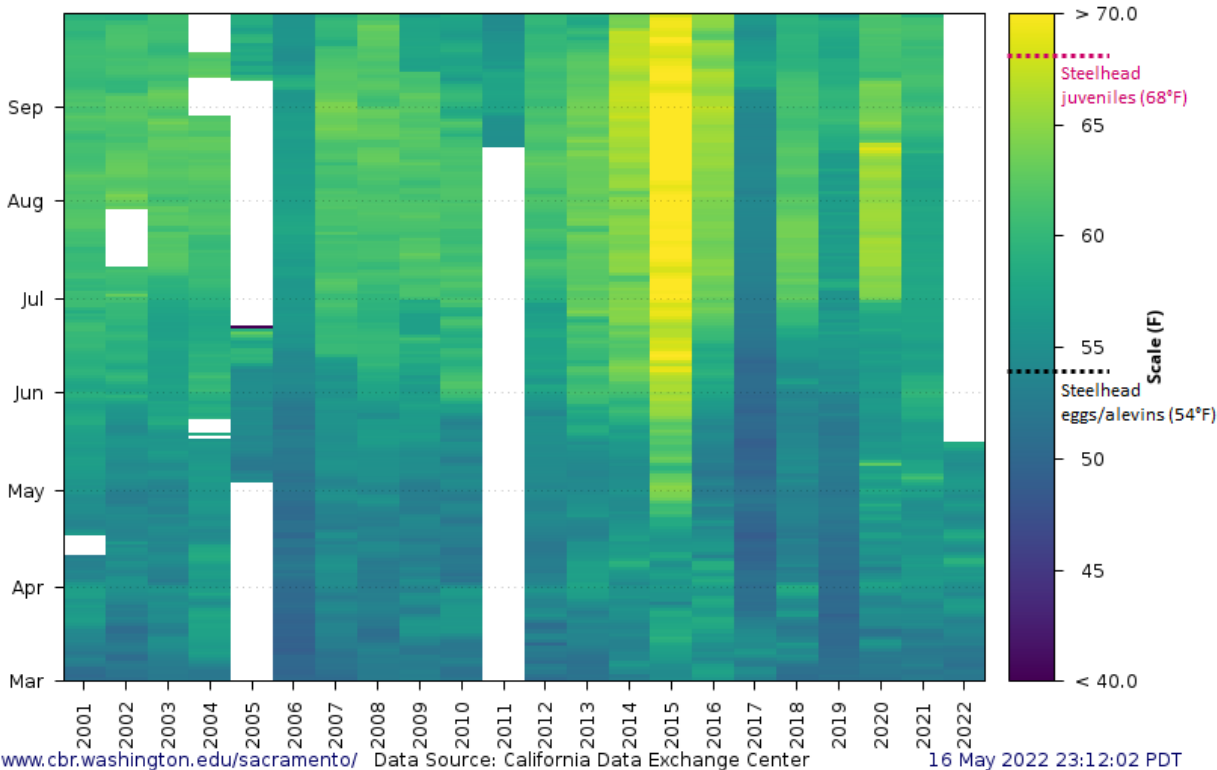


Figure 6. Stanislaus River water temperatures at Orange Blossom Bridge for March through



September 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](http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html)

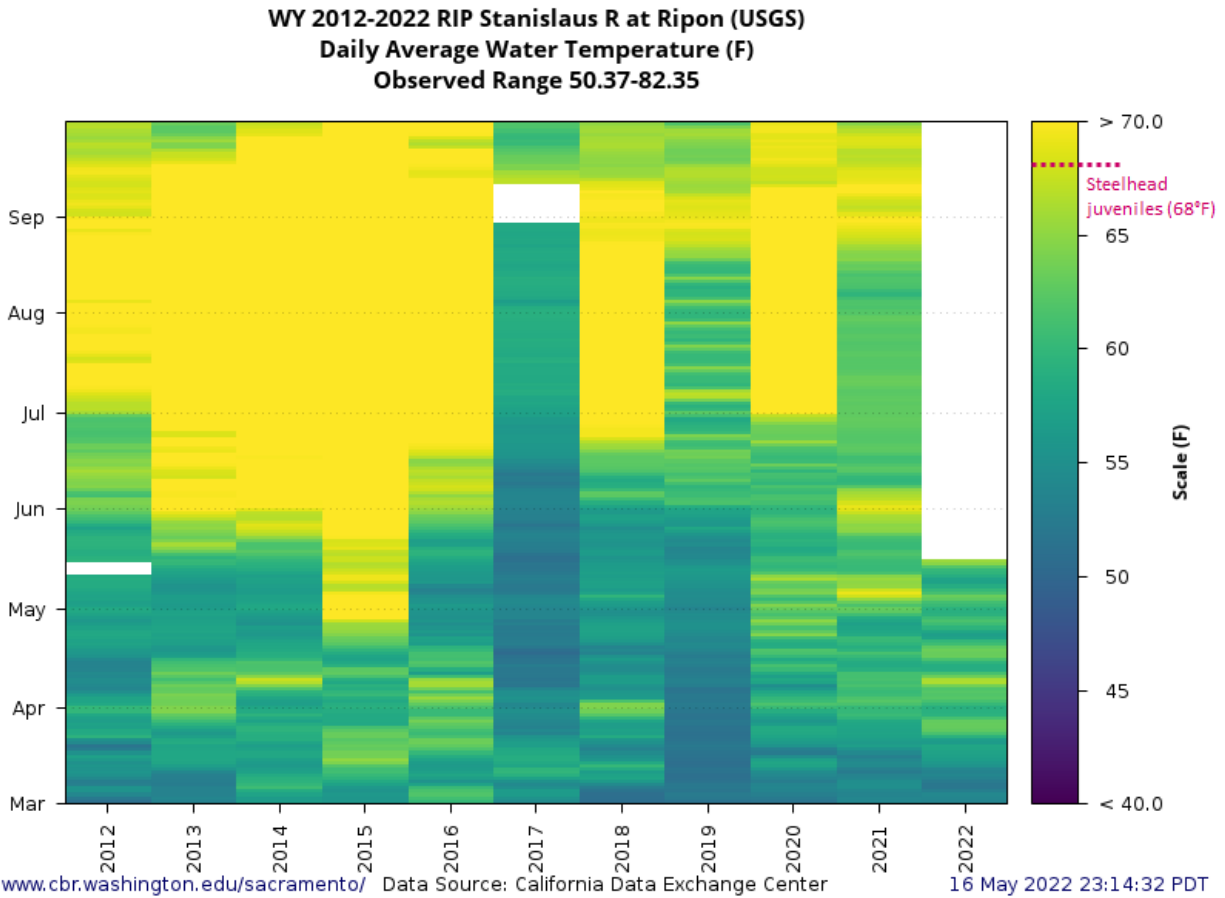


Figure 7. Stanislaus River water temperatures at Ripon for March through August from Water Year 2012 to present. Figure from SacPAS using RIP station data from CDEC; temperature threshold reference line added by SWT.

[http://www.cbr.washington.edu/sacramento/data/query\\_river\\_allyears.html](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 51.42-84.80

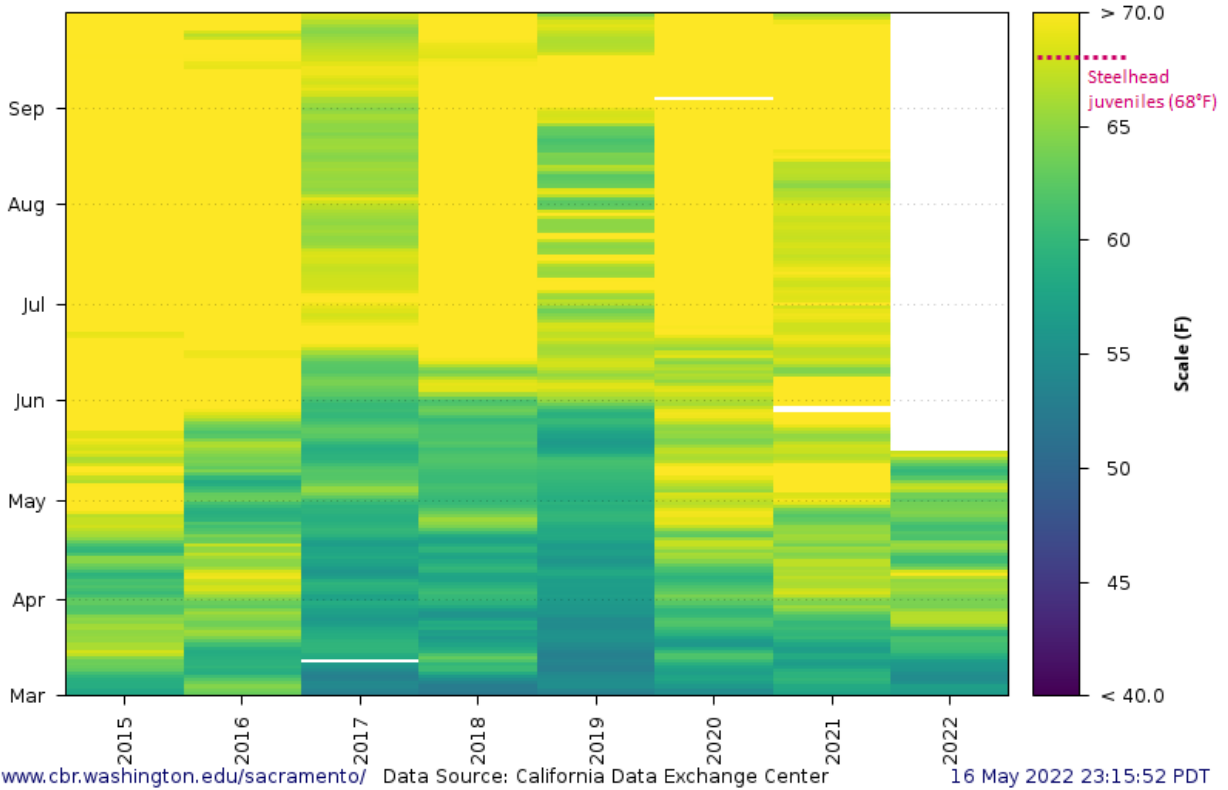
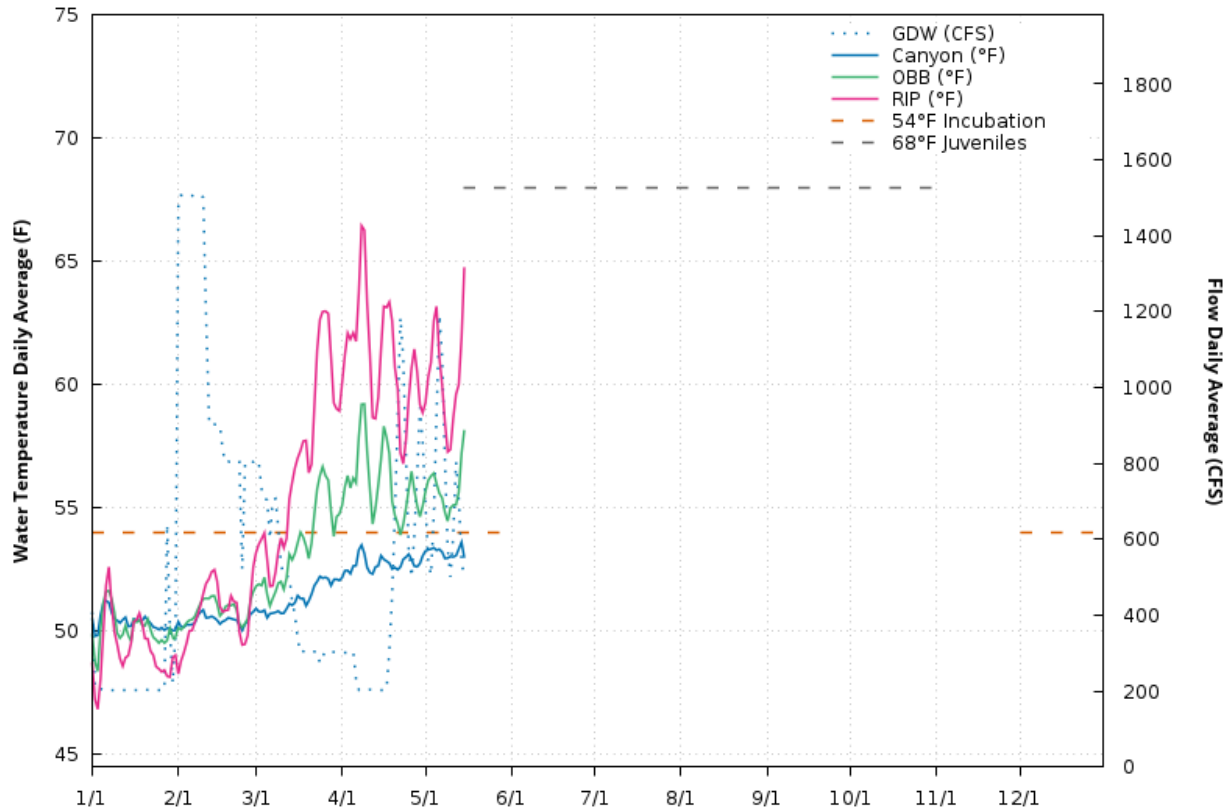


Figure 8. San Joaquin River water temperatures at Vernalis for March through August from Water Year 2015 to present. Figure from SacPAS using VNS station data from CDEC; temperature threshold reference line added by SWT.  
[http://www.cbr.washington.edu/sacramento/data/query\\_river\\_allyears.html](http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html)

## 2022 Stanislaus River Flow and Temperature



[www.cbr.washington.edu/sacramento/](http://www.cbr.washington.edu/sacramento/)

16 May 2022 06:45:14 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](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 May 5, 2022 is 43 *O. mykiss* (compared to 42 reported at the April SWT meeting; the additional fish was <16” and not ad-clipped). Of the 43 *O. mykiss* observed, 25 were greater than 16” (indicating possible anadromy) and 19 of the 42 were ad-clipped (indicating a hatchery origin). Of the 14 *O. mykiss* passing upstream since March 1, 2022, just one was greater than 16” and four were ad-clipped. Passage timing of the 25 *O. mykiss* greater than 16” is shown in Figure 10, based on data provided by Fishbio on May 6, 2022 in their “Stanislaus River Weir Update through 5/5/22”.

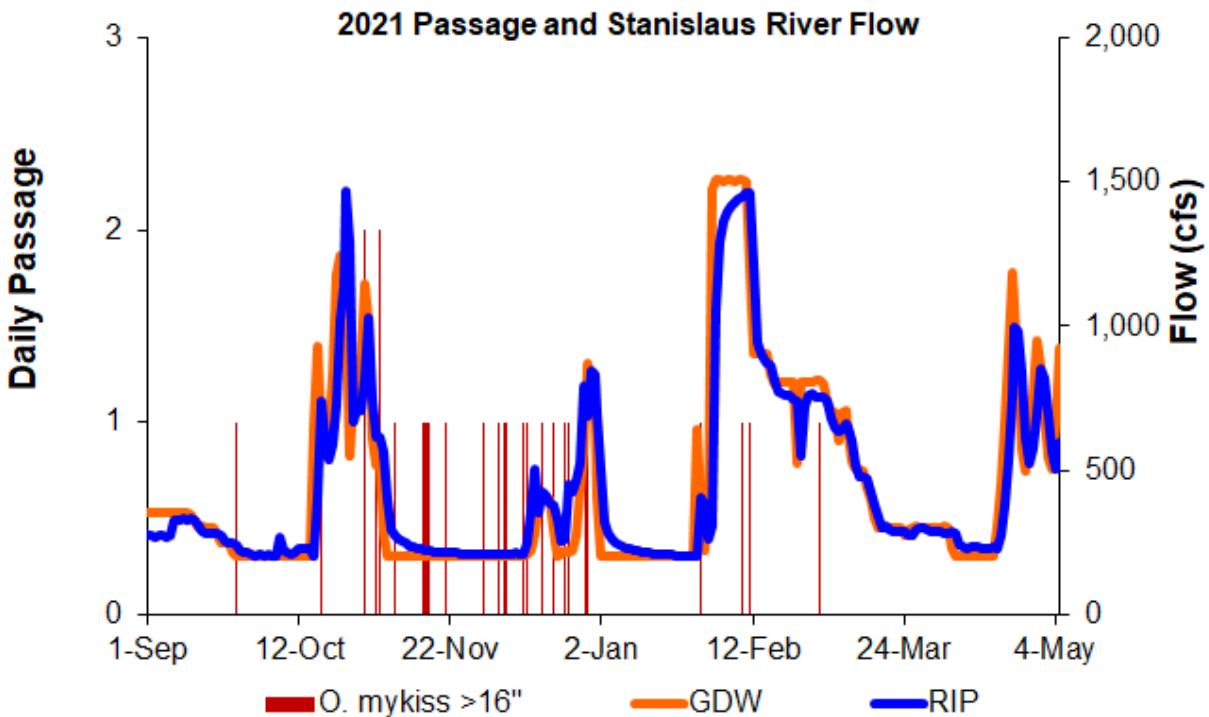


Figure 10. Daily passage of *O. mykiss* greater than 16" through May 5, 2022, at the Stanislaus River weir near Riverbank. Data courtesy of Fishbio.

### Steelhead Redd Survey

The final steelhead redd survey for the season occurred the last week of April.

### Update on Fish Monitoring (Juveniles)

#### Mossdale Trawl

Regular sampling at the Mossdale trawl resumed in January 2022. From January 1, 2022 through April 2, 2022, based on data reported at <https://www.baydeltalive.com/fish/djfmh-highlights>, salmonids caught in the trawl include:

- One ad-clipped *O. mykiss* smolt in mid-January.
- 68 Chinook salmon
  - 5 of the 68 were ad-clipped; all ad-clipped Chinook were caught between late February and mid-March and were likely spring-run Chinook salmon released in association with the San Joaquin River Restoration Program.
  - 62 were caught 4/1/22 and onward

#### 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

May 10, 2022, the trap at Caswell has captured a total of 923 unmarked Chinook salmon, zero *O. mykiss*, and 233 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>

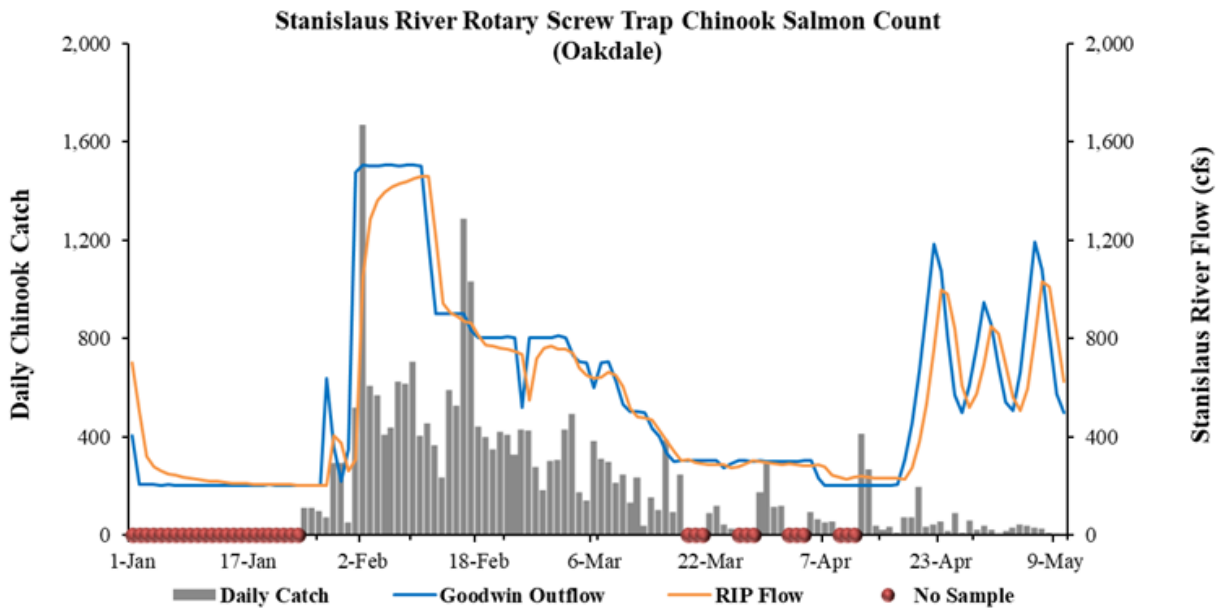


Figure 11. Daily juvenile Chinook catch through May 10, 2022, at the rotary screw trap near Oakdale. Figure courtesy of Fishbio.

**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.

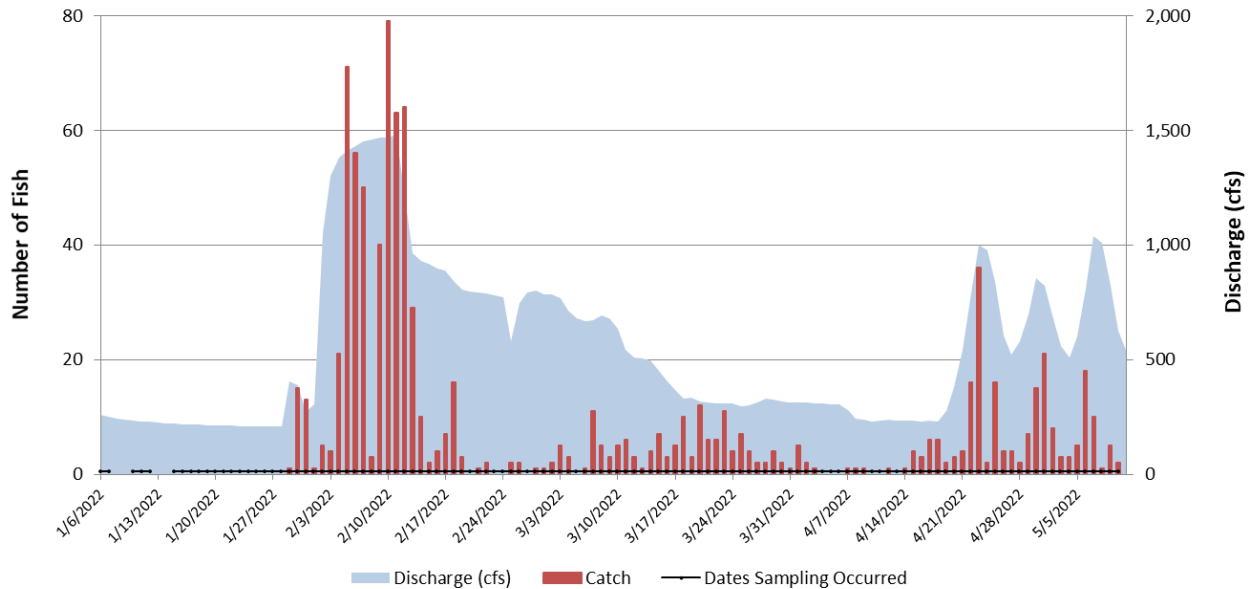


Figure 12. Daily juvenile Chinook catch through May 10, 2022, at the rotary screw trap near Caswell State Park. Discharge data is at Ripon. Figure courtesy of Pacific States Marine Fisheries Commission.

**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.

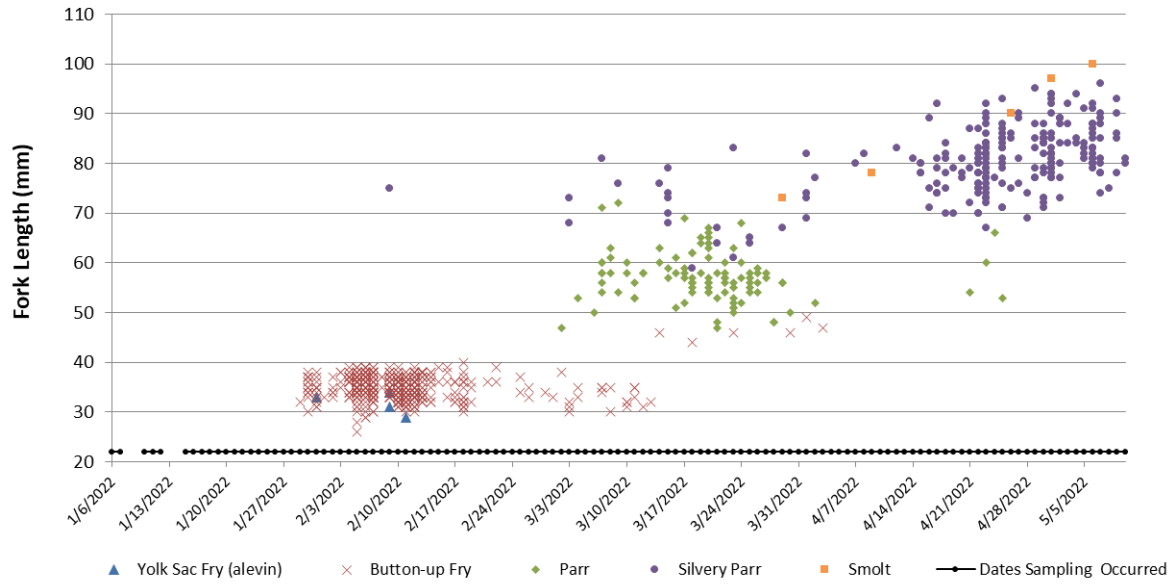


Figure 13. Daily juvenile Chinook catch (plotted by fork length and life stage) through May 10, 2022, at the rotary screw trap near Caswell State Park. Figure courtesy of Pacific States Marine Fisheries Commission.