



— BUREAU OF —
RECLAMATION

Stanislaus Watershed Team

10:00 AM – 12:00 PM

Conference Line: 1 (773) 231-9226; Meeting ID: 148 869 4090

WebEx: <https://meetings.ringcentral.com/j/1488694090>

Wednesday, May 20, 2020

1. Action Items

- K&W
 - Follow up with Barbara Byrne and Levi Johnson regarding issues accessing webinar via the meeting's calendar invitation
 - Send Barbara Byrne the 508 alternative text spreadsheet template **(DONE)**
 - Coordinate with USBR to organize the SRF integration planning workshop in June
- Barbara Byrne
 - Reconvene temperature subgroup and address next steps
 - Provide alternative text for tables and graphs in meeting handouts
- Thuy Washburn
 - Arrange for a guest speaker from Tri-Dam for a future SWT meeting
- Elissa Buttermore
 - Circulate a copy of the report, *Geomorphic Response to Gravel Augmentation in the Stanislaus River Downstream of Goodwin Dam* **(DONE)**
 - Send K&W the link to the [SWT section of USBR's website](#) **(DONE)**
- USBR
 - Provide an update on the timeline and content of the Annual Report in June's meeting
 - Provide a high-level schedule for annual SWT activities

2. Introductions

- USBR: Elissa Buttermore, Luke Davis, Zarela Guerrero, Levi Johnson, Liz Kiteck, Suzanne Manugian, Sarah Perrin & Thuy Washburn
- NMFS: Barbara Byrne & Monica Gutierrez
- USFWS: J.D. Wikert

- CDFW: Duane Linander, Gretchen Murphey & Ryan Kok
- SWRCB: Erin Foresman & Michael George
- DWR: Matthew Meyers
- WAPA: Mike Prowatzke
- Kearns & West: Rafael Silberblatt & Kai Walcott

3. Announcements

- Temperature Suitability Subgroup Update
 - Following April's action item, the SWT Temperature Suitability Subgroup met to discuss the addition of temperature suitability criteria for Chinook and steelhead to the SWT meeting handouts.
 - Barbara Byrne will reconvene the temperature subgroup and address next steps before June's SWT meeting.

4. Operations Update and Forecasts/ Hydrology

- Recent and Upcoming Operations
 - Reservoir Conditions: New Melones is at 1.875 MAF storage.
- Flow:
 - New Melones:
 - Inflows have increased due to recent storms. As of May 19, releases increased to 1500 cfs to meet the Vernalis objective (average of 1725 cfs/month) which is expected to be achieved.
 - It is anticipated that releases may be reduced in the last 5 days of May.
 - San Joaquin '60-20-20' Index for May changed the water year type from Critical to Dry.
 - It is expected that June releases will be increased to 400 cfs or higher to meet Vernalis flows.
 - Vernalis Requirements under D-1641
 - Discussion was had about projecting D-1641 base-flow targets at Vernalis months in advance. USBR reported that it is difficult to make long-term projections because releases are influenced by several factors including the water year type, flow and salinity, but that it would be good to have some idea of regulatory target ranges for planning purposes.
- No more rain events are anticipated for the rest of the year.

5. Temperature Updates

- Water temperatures by location
 - Goodwin Canyon: Daily maximum water temperatures spiked around May 8. This temperature increase was also reflected throughout the river.
 - Orange Blossom Bridge: Daily maximum water temperatures spiked to ~65 °F. Water temperatures above 65 °F are less suitable for salmonids. The SacPAS

heat map data show that, based on mid-April to mid-May water temperatures, this is the second warmest year since 2001 thus far at Orange Blossom, behind 2015.

- Ripon: Daily maximum water temperatures also spiked at Ripon on the weekend of May 8th to ~68 °F. Here, water temperatures are warmer overall, and the historical record reflected in the SacPAS data show that water temperatures above 65 °F are not uncommon as early as April and May.
- Vernalis: Daily maximum water temperature at Vernalis was ~71.6°F. SacPAS data show that, since late March, water temperatures at Vernalis have been warmer than in the previous three years, and more comparable to water temperatures observed in 2015 and 2016. Since mid-April, water temperatures have ranged from mid-60 to 70s °F during warmer weekends.

6. Flow Planning

- Ramping rates have resulted in an effective spring pulse volume slightly less than (<1 TAF) the reshaped spring pulse flow, which didn't include the hourly schedule including ramping rates. The higher-than-SRP releases after the spring pulse flow for Vernalis flow needs have more than satisfied the full spring pulse flow volume in the SRP schedule.
- It was noted that the ramping rates affect the duration and magnitude of daily inundation in the floodplain habitat of the Stanislaus River, especially in more downstream locations after flows attenuate.
- A discussion was had around the use of hourly versus daily flow shaping to reduce the effects of ramping rates. It was concluded that daily flow shaping is more suitable because it is flexible and the SWT should just be sure to track final flows against the SRP schedule and true up any volume differences if needed.
- Further discussion was had around reducing the effects of ramping by adjusting start times to allow for a full 24 hours at target flow. It was mentioned that this would need to be coordinated with Tri-Dam and could be influenced by other factors, e.g. outages.
 - Thuy Washburn will arrange for a guest speaker from Tri-Dam to discuss operations logistics at a future SWT meeting.

7. Stanislaus River Forum (SRF) Call Review

- Stanislaus River Forum: was held via conference call on May 19, 2020. Barbara Byrne (NMFS), Zarela Guerrero (USBR), Levi Johnson (USBR), Ryan Kok (CDFW), Sarah Perrin (USBR), Cory Starr (PSMFC), Thuy Washburn (USBR), Tim Wasiewski (OID), J.D. Wikert (USFWS) and Michelle Workman (East Bay MUD) were in attendance. Operations, handouts and fish data were reviewed. A question was posed about whether the recent preliminary injunction from the federal district court was affecting New Melones operations. Operations responded that because of releases needed for the Vernalis flow, Stanislaus flows are currently above both SRP and 2E requirements and will likely remain there through June regardless of any court ruling. Pacific States stated that their fish monitoring season will be ending sometime within the next two weeks.

8. Fish Monitoring and Studies

- Oakdale Rotary Screw Trap (RST) reported a relatively low catch of juvenile Chinook. Low catch can be influenced by factors such as low trap efficiency, and (at this time of the year) the end of migration and fish size (averaging 80 mm in fork length, which means that fish are relatively strong swimmers and may be able to avoid the RST).
- Caswell RST reported lower catch numbers as well. Here, juvenile Chinook are also averaging 80 mm in fork length, and Pacific States Marine Fisheries Commission (who operates the trap) reported that most of the fish caught are at the silvery parr or smolt life stage.
- At Mossdale Trawl, sampling is still suspended due to COVID-19 concerns.

9. Restoration Project Updates

- The gravel program continues at Goodwin, with plans to place 15,000 tons of gravel from August to mid-September at the existing site near river mile 58. Sorting of the gravel should begin in June.
- USBR has continued coordinating with U.S. Army Corps of Engineers (Army Corps) to meet conditions of the realty license and has submitted the draft report, *Geomorphic Response to Gravel Augmentation in the Stanislaus River Downstream of Goodwin Dam*, on sediment and hydro modeling.
 - Elissa Buttermore will circulate copies of report to the group.
- USBR has received a temporary land access permit from the Irrigation District and is in the process of obtaining the 404 and 401-permits from the Army Corps and SWRCB, respectively. USBR intends to have all permits by early June.

10. Progress Toward BiOp Requirements (Proposed Action Elements)

- No updates available.
- SWT meeting notes can be found on [SWT section of USBR website](#).
 - USBR will outline the content and timeline of the Annual Report and create a high-level schedule of SWT's annual activities for June's SWT meeting.

11. Other Discussion Items

- Stanislaus River Forum Integration
 - A workshop will be held to plan future stakeholder integration, in accordance with the BiOp requirement for local stakeholder participation. This workshop is tentatively scheduled for mid-to late-June and will be coordinated with the assistance of Kearns & West.
 - A discussion was had as to which stakeholders would be invited to participate, aside from local water districts, but further discussion is needed on this topic.
- Facilitation housekeeping

- Kearns & West provided recommendations to improve 508 remediation of meeting handouts, including:
 - Leaving all table cells visible and unmerged.
 - Creating a template for alternative text based on standard descriptions for tables and graphs. Dates and data may be updated monthly where necessary.
 - Barbara Byrne will create the alternative text template for temperature and operations diagrams.



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Wednesday, May 20, 2020

Agenda

1. Introductions
2. Announcements
 - a. Temperature Suitability Subgroup Update
3. Operations Update and Forecasts/ Hydrology
4. Temperature Updates
5. Flow Planning
6. Stanislaus River Forum (SRF) Call Review
7. Fish Monitoring and Studies
8. Restoration Project Updates
9. Progress Toward BiOp Requirements (Proposed Action Elements)
10. Other Discussion Items
 - a. SRF Integration
 - b. COVID-19 discussion
 - c. Facilitation housekeeping
11. Review Action Items
12. Next Meeting
 - a. Wednesday, June 17, 2020 (10am-12pm)

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

MAY 2020

NEW MELONES LAKE DAILY OPERATIONS

RUN DATE: May 18, 2020

DAY	ELEV	STORAGE 1000		COMPUTED INFLOW C.F.S.	POWER	RELEASE - C.F.S.			EVAPORATION		PRECIP INCHES
		ACRE-FEET IN LAKE	CHANGE			SPILL	OUTLET	C.F.S.	INCHES		
		1,904.6									
1	1,043.44	1,903.7	-0.9	1,640	1,937	0	0	136	.39	.00	
2	1,043.32	1,902.5	-1.3	1,661	2,214	0	0	97	.28	.00	
3	1,043.18	1,901.0	-1.5	1,432	2,096	0	0	94	.27	.00	
4	1,043.11	1,900.2	-0.8	1,421	1,689	0	0	111	.32	.00	
5	1,043.08	1,899.9	-0.3	1,293	1,345	0	0	111	.32	.00	
6	1,042.99	1,898.9	-1.0	1,351	1,730	0	0	108	.31	.00	
7	1,042.83	1,897.2	-1.7	1,346	2,089	0	0	121	.35	.00	
8	1,042.72	1,896.0	-1.2	1,444	1,920	0	0	118	.34	.00	
9	1,042.63	1,895.1	-1.0	1,419	1,777	0	0	128	.37	.00	
10	1,042.46	1,893.2	-1.8	1,216	2,030	0	0	104	.30	.00	
11	1,042.32	1,891.7	-1.5	1,348	2,021	0	0	83	.24	.00	
12	1,042.16	1,890.0	-1.7	1,488	2,255	0	0	97	.28	.01	
13	1,041.74	1,885.5	-4.5	1,144	3,351	0	0	55	.16	.00	
14	1,041.56	1,883.6	-1.9	1,173	2,048	0	0	93	.27	.00	
15	1,041.30	1,880.8	-2.8	1,123	2,432	0	0	90	.26	.00	
16	1,041.06	1,878.3	-2.6	1,172	2,363	0	0	100	.29	.00	
17	1,040.86	1,876.2	-2.1	1,346	2,312	0	0	107	.31	.00	
TOTALS			-28.6	23,017	35,609	0	0	1,753	5.06	.01	
ACRE-FEET			-28,600	45,654	70,630	0	0	3,477			

COMMENTS:

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

SUMMARY

POWER	RELEASE ACRE-FEET	OUTLET	PRECIPITATION
SPILL	70,630	0	THIS MONTH .01
	0	TOTAL 70,630	JULY 1, 2019 TO DATE 21.45
			OCT 1, 2019 TO DATE 21.21

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

MAY 2020

GOODWIN RESERVOIR DAILY OPERATIONS

RUN DATE: May 18, 2020

DAY	ELEV	STORAGE		TULLOCH	RIVER		RELEASE - C.F.S.		SOUTH
		ACRE-FEET	CHANGE		RELEASE	OUTLET	SPILL	JOINT	
		RES.					MAIN	MAIN	
		529							
1	359.90	530	+1	1,581	0	400	731	294	
2	360.42	566	+36	2,360	0	1,151	757	317	
3	360.17	549	-17	2,028	0	912	738	273	
4	359.92	531	-18	1,541	0	494	682	225	
5	359.89	529	-2	1,558	0	404	659	332	
6	360.15	548	+19	1,913	0	762	651	330	
7	360.15	548	+0	1,853	0	805	587	322	
8	360.14	547	-1	1,922	0	807	641	322	
9	360.15	548	+1	1,965	0	807	684	321	
10	360.14	547	-1	1,936	0	804	679	310	
11	360.15	548	+1	1,926	0	805	679	291	
12	360.26	555	+7	2,201	0	999	724	301	
13	360.26	555	+0	2,181	0	1,002	743	285	
14	360.26	555	+0	2,169	0	1,002	767	265	
15	360.36	562	+7	2,393	0	1,202	789	270	
16	360.36	562	+0	2,497	0	1,205	856	319	
17	360.36	562	+0	2,527	0	1,206	872	344	
TOTALS			+33	34,551	0	14,767	12,239	5,121	
ACRE-FEET			+33	68,532	0	29,290	24,276	10,158	

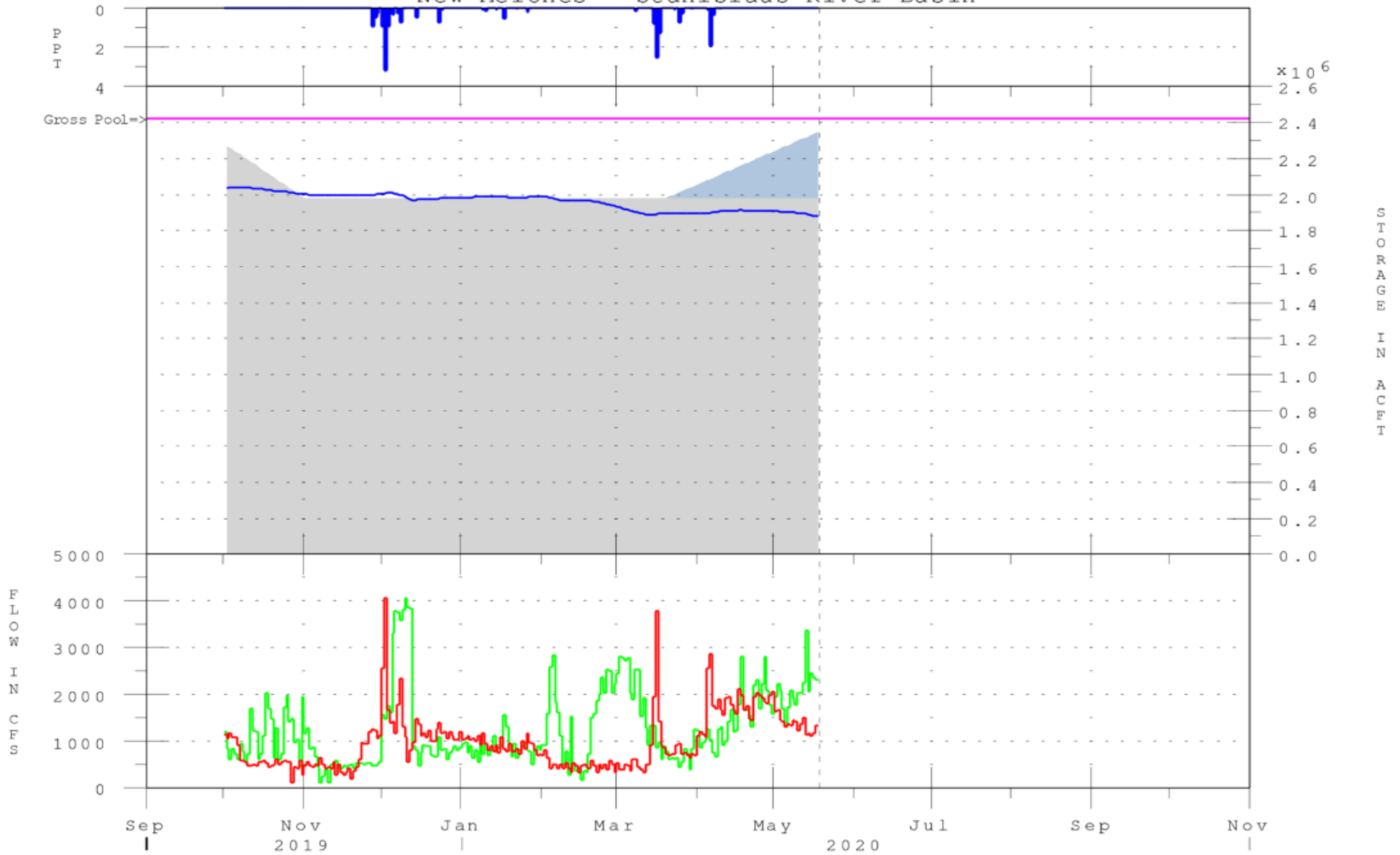
JOINT MAIN OPERATED BY SSJID AND OID.

SUMMARY
 RELEASE ACRE-FEET

JOINT MAIN CANAL	24,276	OUTLET	0
SOUTH MAIN CANAL	10,158	SPILL	29,290
		TOTAL	63,724

18MAY20 11:03:47

New Melones - Stanislaus River Basin



- Outflow
- Inflow
- Top of Con (Early Refill Diagram)
- Top of Con (Late Refill Diagram)
- Reservoir Storage
- Precipitation

May 2020 Stanislaus River Update

Water Year Type

San Joaquin Basin “60-20-20” water year type (based on the May 75% exceedance forecast):

Dry

Water year type changed from “Critical” based on the March forecast.

Flows

The New Melones Stepped Release Plan minimum flow schedule for the Dry year type requires some minor additional spring pulse flow volume from 5/16/20 onward compared to the Critical year type but that volume was more than satisfied by the higher-than-SRP flow releases to contribute to the Vernalis flow requirements in D-1641. After the spring pulse flow, through the summer until the fall pulse flow begins, the Dry year type SRP flow schedule requires minimum instream base flows of 200 cfs. Goodwin releases since mid-April are shown in Figure 1.

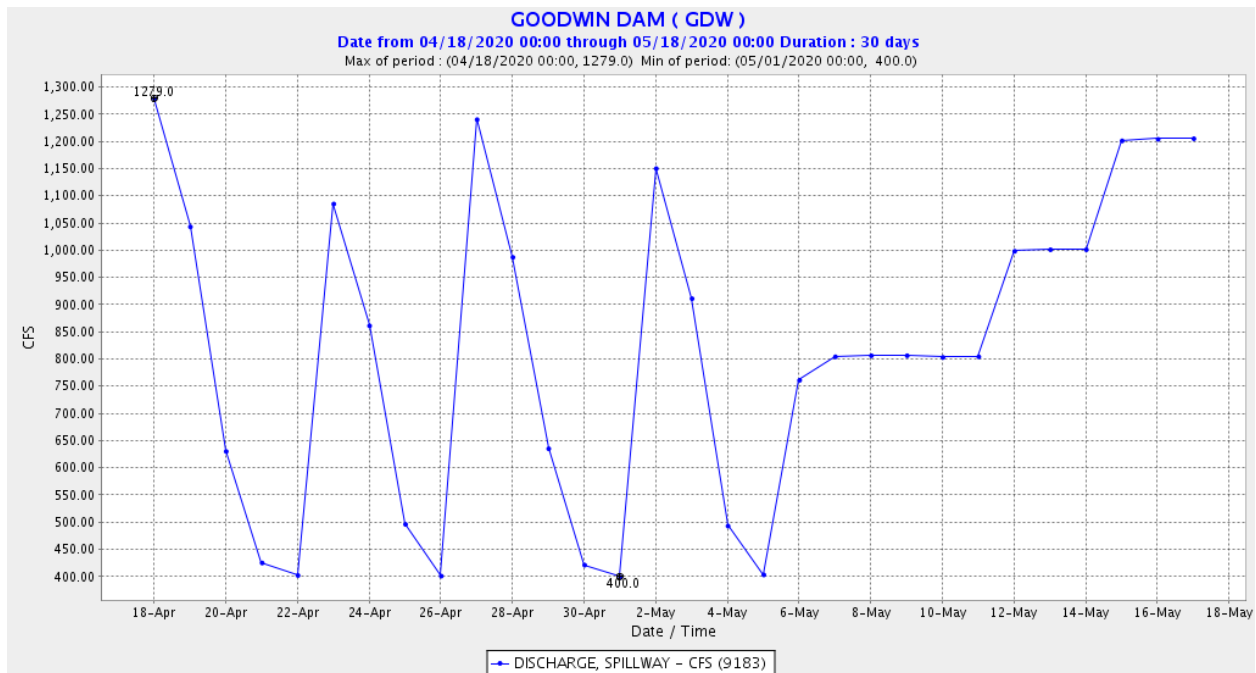


Figure 1. Goodwin (daily) releases to the Stanislaus River since April 18, 2020. Data from GDW station on CDEC.

Water Temperature

Water temperatures in the Stanislaus River since January 2020 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 2020 are shown below at Vernalis (Figure 5). Current-year water temperatures are put in historical context for Orange Blossom Bridge (Figure 6), Ripon (Figure 7), and Vernalis (Figure 8).

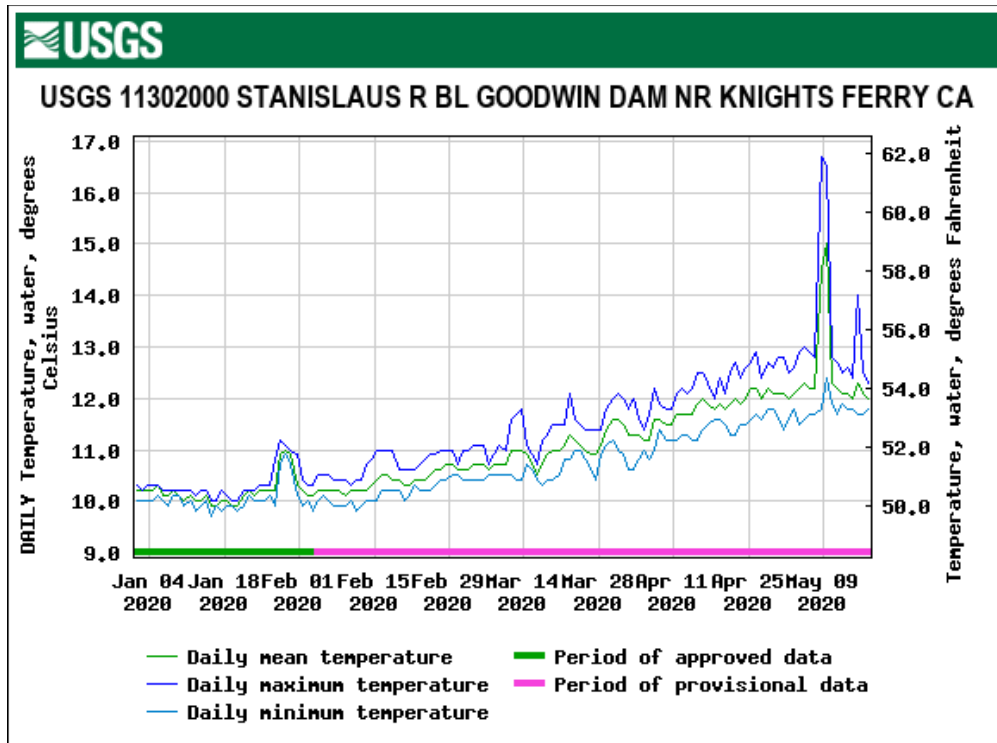


Figure 2. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since January 1, 2020. Data from USGS gage 11302000 on NWIS.

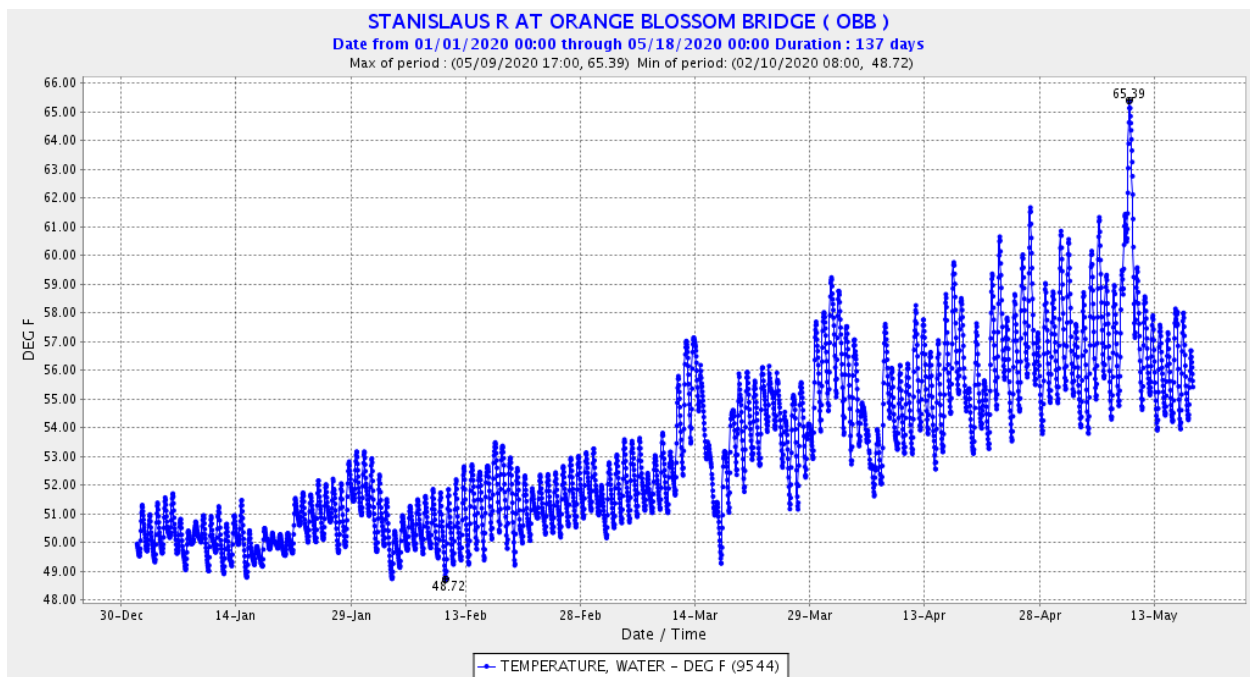


Figure 3. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since January 1, 2020. Data from OBB station on CDEC.

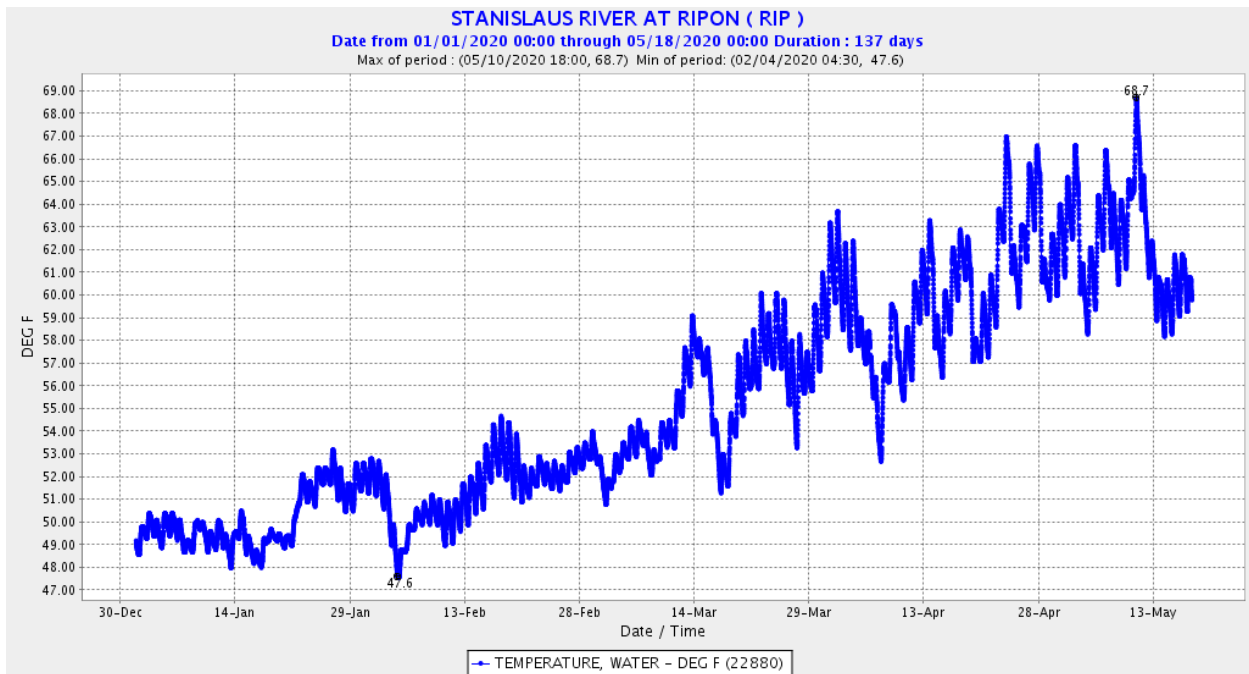


Figure 4. Stanislaus (15-minute) water temperatures at Ripon since January 1, 2020. Data from RIP station on CDEC.

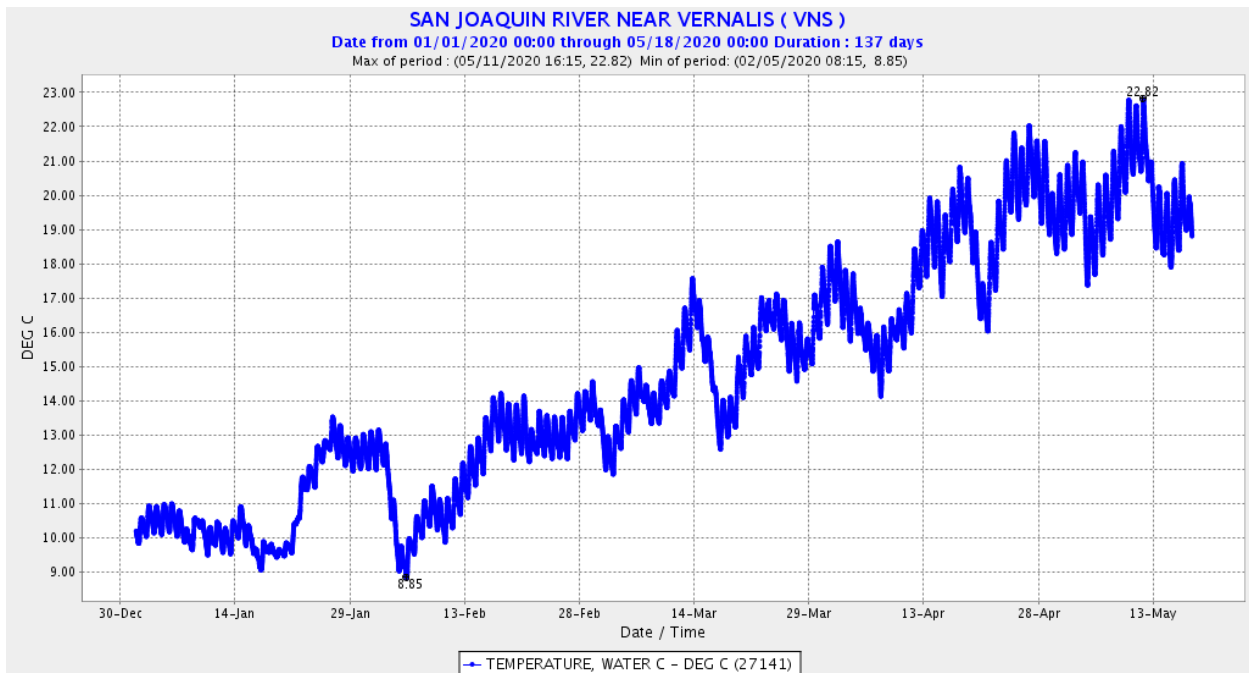


Figure 5. San Joaquin River (15-minute) water temperatures at Vernalis since January 1, 2020. Data from VNS station on CDEC. Note that, unlike in the previous figures, temperature is reported in degrees Celsius. 10°C=50°F; 12°C=53.6°F; 14°C=57.2°F; 16°C=60.8°F; 18°C=64.4°F; 20°C=68.0°F; 22°C=71.6°F.

WY 2001-2020 OBB Stanislaus R at Orange Blossom Bridge
Daily Average Water Temperature (F)
Observed Range 36.30-70.35

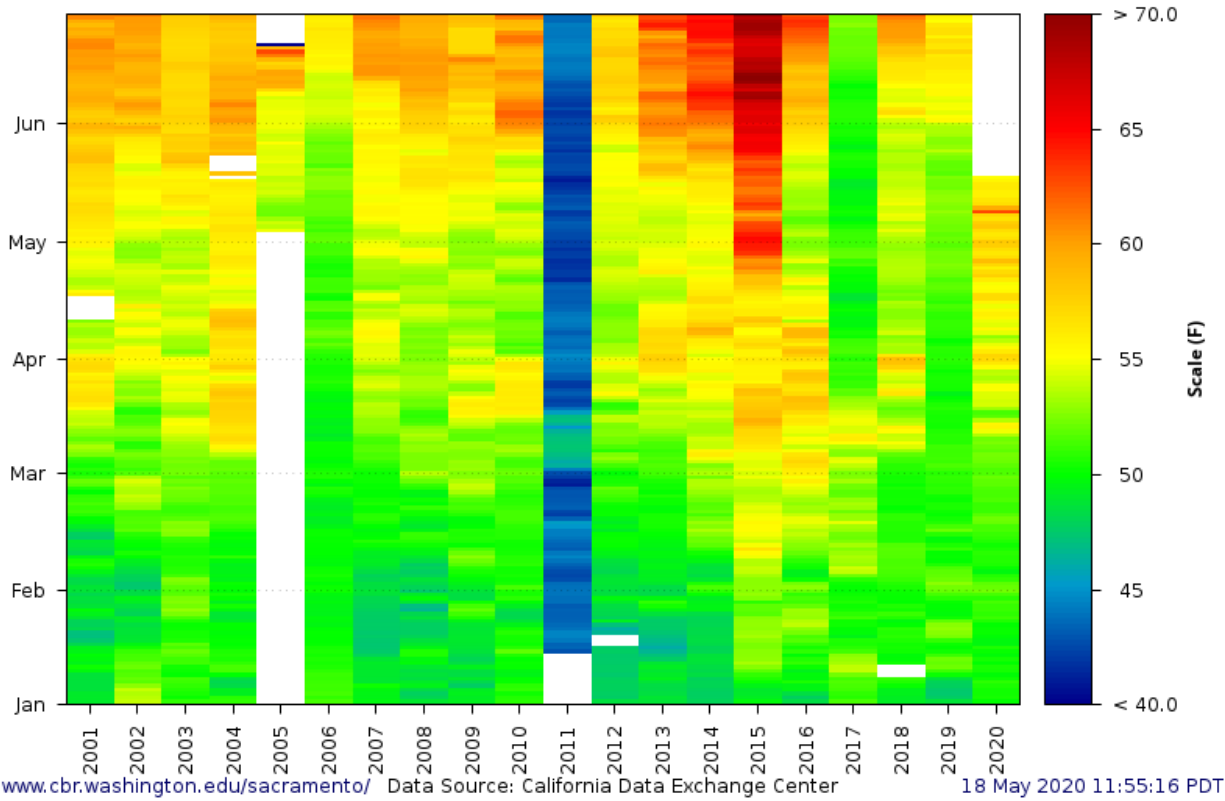


Figure 6. Stanislaus River water temperatures at Orange Blossom Bridge for January through June from 2001 to present. Data from SacPAS.

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

WY 2012-2020 RIP Stanislaus R at Ripon (USGS)
Daily Average Water Temperature (F)
Observed Range 43.04-81.63

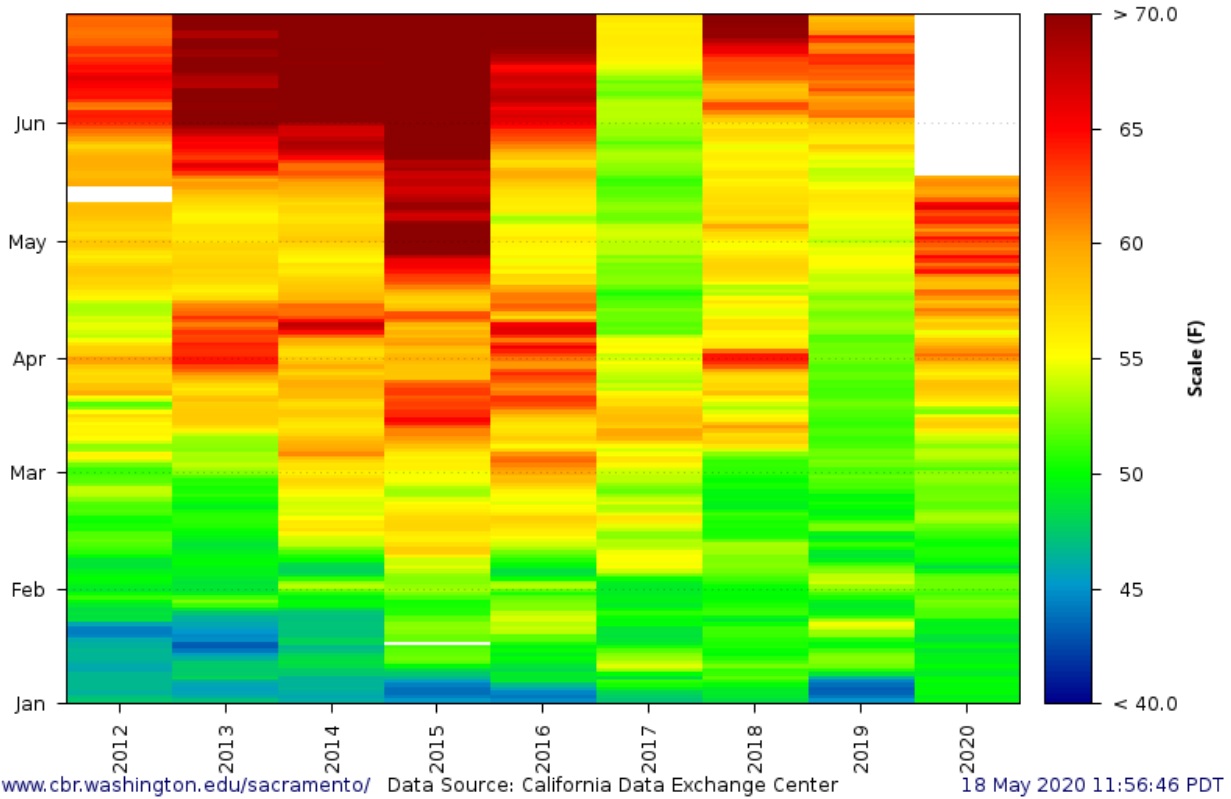


Figure 7. Stanislaus River water temperatures at Ripon for January through June from 2012 to present. Data from SacPAS.

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

WY 2015-2020 VNS San Joaquin R near Vernalis
Daily Average Water Temperature (F)
Observed Range 44.20-82.18

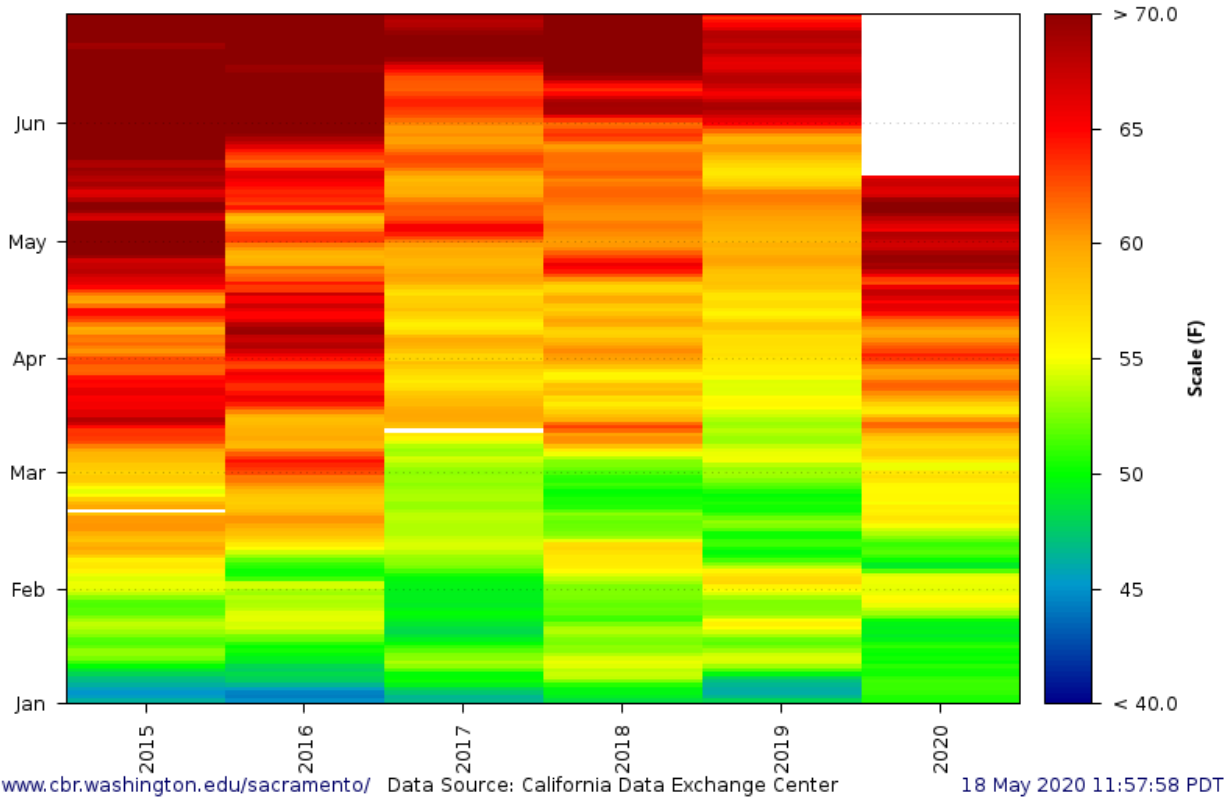


Figure 8. San Joaquin River water temperatures at Vernalis for January through June from 2015 to present. Data from SacPAS.

http://www.cbr.washington.edu/sacramento/data/query_river_allyears.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 2019/2020 outmigration season (for monitoring of outmigrating juvenile salmonids) began in late December (at Oakdale) and early January (at Caswell). Both FISHBIO and PSMFC suspended sampling in mid-March due to COVID-19 concerns. PSMFC resumed sampling in late March and FISHBIO resumed sampling in early April. Chinook catch and fork lengths from each location are summarized in Figures 9 and 10 (Oakdale) and Figures 11 and 12 (Caswell).

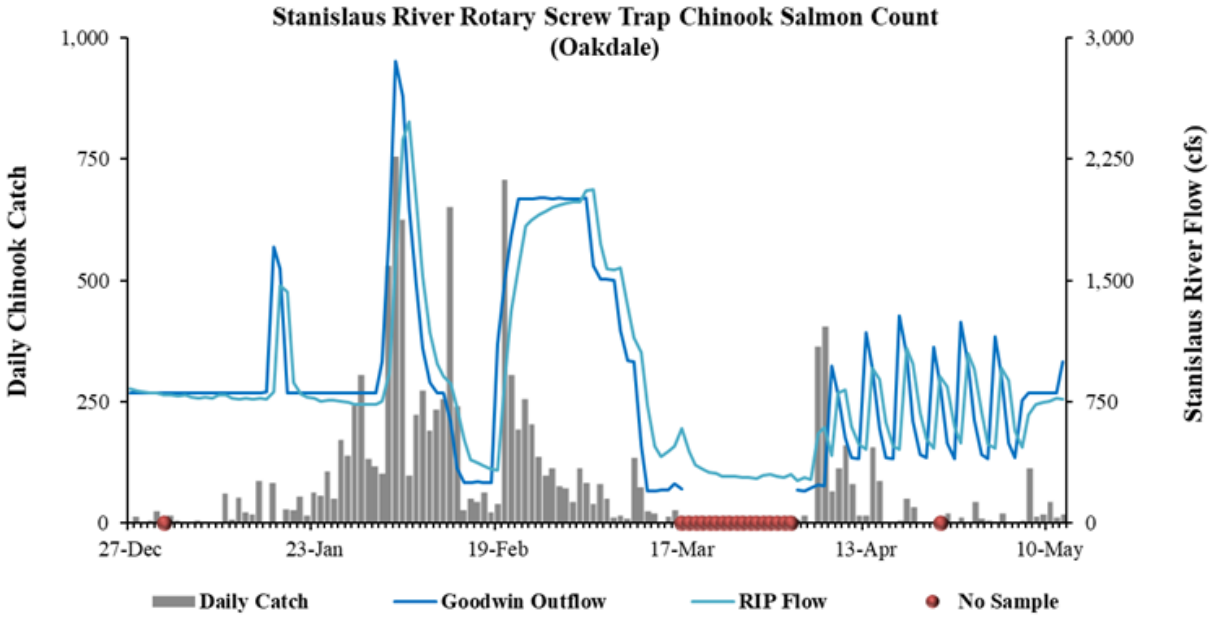


Figure 9. Juvenile Chinook catch through May 12, 2020, at the rotary crew trap near Oakdale. Figure provided by FISHBIO in their 5/13/20 San Joaquin Basin Update.

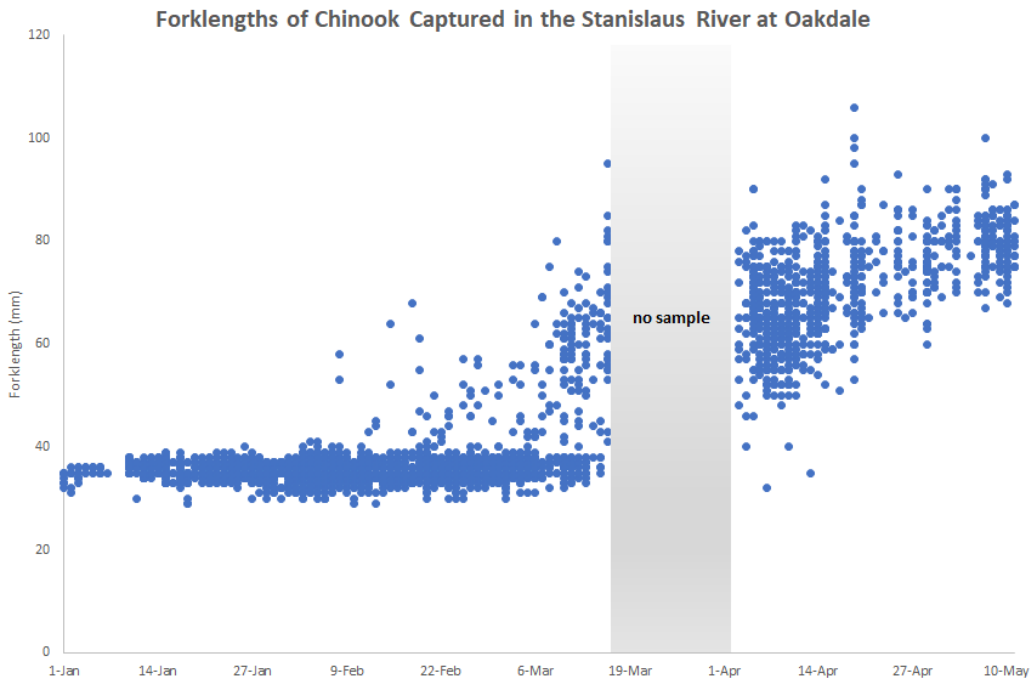


Figure 10. Fork lengths of juvenile Chinook catch through May 11, 2020, at the rotary crew trap near Oakdale. Data provided by FISHBIO.

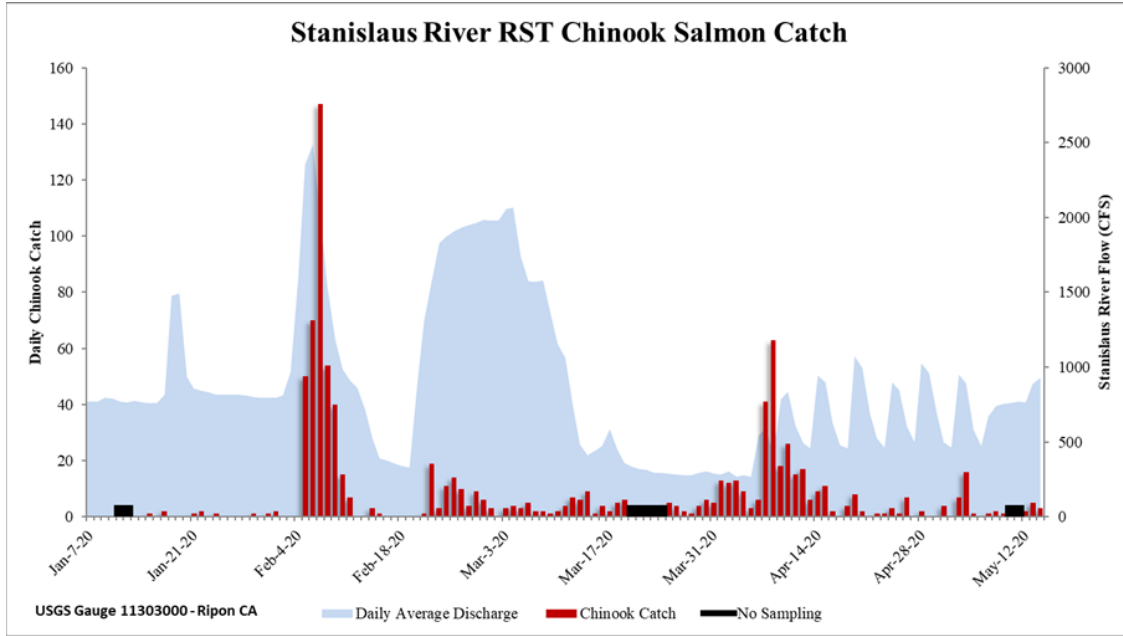


Figure 11. Juvenile Chinook catch through April 10, 2020, at the rotary crew trap near Caswell State Park. Data provided by PSMFC.

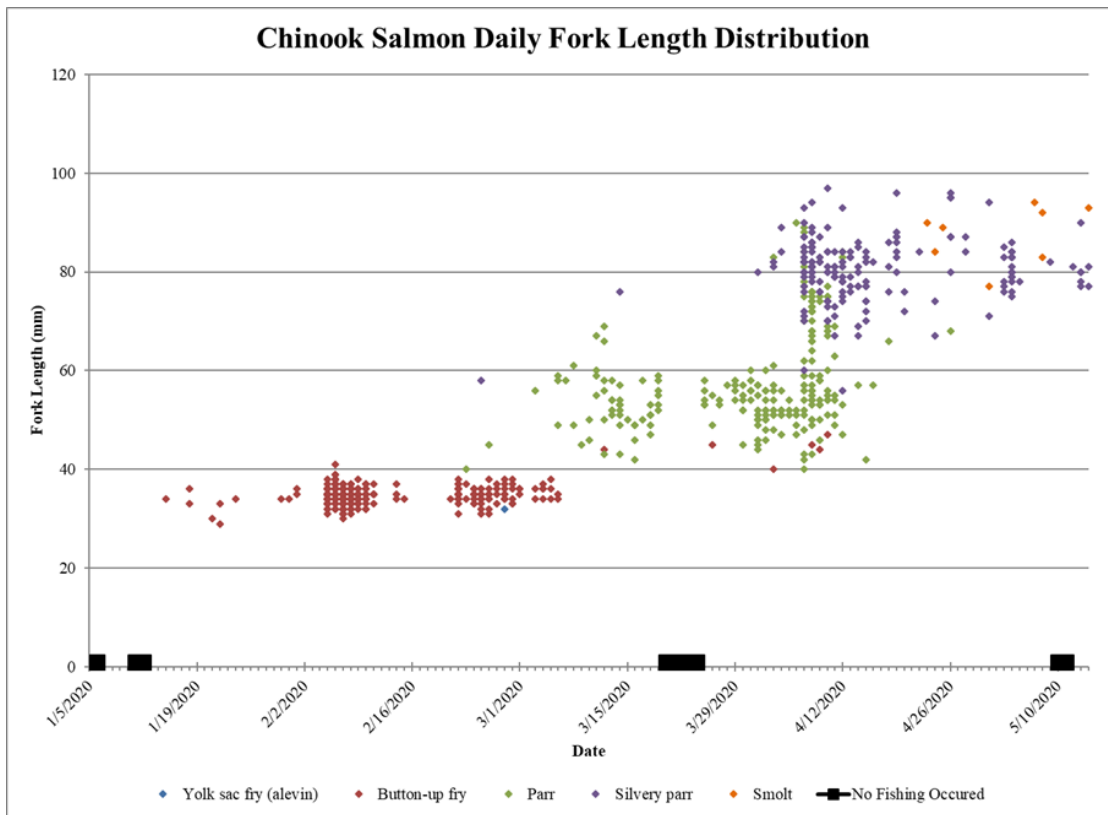


Figure 12. Fork lengths of juvenile Chinook catch through April 10, 2020, at the rotary crew trap near Caswell State Park. Data provided by PSMFC.

USFWS conducts the Mossdale Trawl on the mainstem San Joaquin River for much of the year. Since the start of the water year (October 1, 2019) through March 20, 2020, four Chinook salmon (one ad-clipped) and no *O. mykiss* have been reported at that monitoring location (based on data from Bay Delta Live: <https://www.baydeltalive.com/fish/djfm-highlights>). USFWS suspended sampling at Mossdale in late March due to COVID-19 concerns. CDFW, which normally takes over the Mossdale Trawl in April, is not sampling due to COVID-19 concerns.