BUREAU OF RECLAMATION

Stanislaus Watershed Team

10 a.m.–12 p.m., Stanislaus Watershed Team Notes
https://www.usbr.gov/mp/bdo/stanislaus-watershed-team.html

Wednesday, October 20, 2021

1. Actions

    a. Gretchen Murphey - share timing needs with regard to pulse flow minimums to accommodate carcass surveys in Goodwin Canyon with Barb for incorporation into "pulse flow considerations document."

    b. USBR - include Gretchen Murphey when requesting feedback on the change order for pulse flow scheduling.

    c. Erin Foresman - follow-up with Oscar at the Army Corps regarding a contact for feedback on ramping rates.

    d. Sarah Perrin - follow up with Elissa on updated Proposed Action Elements table for inclusion in notes/agenda going forward.

    e. K&W - add Review of Proposed Action Elements table to agenda once finalized.

    f. J.D. Wikert - collaborate with Elissa regarding future "Fish Group" meeting.

    g. J.D. Wikert - follow up on potential steelhead lifecycle monitoring presentation for winter.

    h. Erin Foresman – coordinate with Rafi on Functional Flow presentation for November 17 SWT meeting

    i. K&W - add the issue of suspension of curtailments to the November SWT agenda.

2. Introductions:

    a. USBR: Peggy Manza, Liz Kiteck, Sarah Perrin, Elissa Buttermore, Zarela Guerrero, Suzanne Manugian, Bradley Hubbard

    b. NMFS: Barb Byrne

    c. USFWS: J.D. Wikert

d. CDFW: Crystal Rigby, Gretchen Murphey, Steve Tsao, Ryan Kok

e. SWRCB: Chris Carr, Yongxuan Gao, Erin Foresman

f. OID: Steve Knell

g. DWR: Vinh Giang, Bryant Giorgi

h. PSMFC: Cory Starr, Logan Day

i. Kearns & West: Morgan Lommele, Susan Ellsworth

3. Announcements

    a. No announcements

4. Operations Update and Forecasts/Hydrology

    a. USBR provided an update on the pulse flow, which began on Saturday, 10/16/21. Sunday, 10/17/21, saw an initial peak flow of 1,000 cfs, in accordance with the proposal provided by the SWT. This coming weekend will see a peak flow of 1,300 cfs. Contact Peggy Manza for a copy of the release schedule.

    b. New Melones:

        i. Storage is currently 829 TAF and on track to be near 800 TAF at the end of the month. Drawdown decreased somewhat over the last several months and is now at 500 AF/day.

        ii. Accumulated inflow to-date for WY 2022 of 7 TAF is very low but will pick up. Accumulated precipitation to-date for WY 2022 is .08".

    c. Goodwin:

        i. Releases were at 200 cfs until Saturday, 10/16/21, when the pulse flow began.

    d. The State Water Resources Control Board (SWRCB) approved, in part, Reclamation's petition to transfer water from New Melones, including the transfer to Westlands Water District (WWD), in exchange for the PCWA transfer water currently in Folsom Reservoir. It did not approve additional releases for M&I uses. Approval was received too late to maintain appropriate fish conditions on the Stanislaus River and would have required reinitiating ESA consultation with NMFS. The PCWA water will be released from Folsom Reservoir while maintaining the ~550 cfs release.

    e. See the meeting handout for additional details.

<u>Questions/Comments:</u>

- USFWS noted that it has received calls regarding the water transfer and the uncertainty surrounding the transfer has made in-river field work challenging. USFWS suggested that the SWT work together to coordinate the timing of future water transfers.

- USBR noted that the process was impacted by a new public comment requirement at the SWRCB and indicated that CVO plans to consider this processing time for future requests. It also noted that this was a last-minute proposal, which CVO attempted to rush, in order to address conditions at Folsom Reservoir.

- The SWRCB noted that in dry years there are many water transfer requests to process and an attempt was made to accelerate the processing. It also noted that the SWRCB received numerous objections to the transfer.

    i. USBR suggested developing a timeline for submitting a transfer request that would include ESA consultation with NMFS (if needed), and that would allow agencies advance planning time.

    ii. SWRCB indicated that developing a framework to facilitate and align water transfer processes is a larger conversation between regulatory agencies. Once a framework is developed, proposals could be brought to the SWT for consideration. USFWS noted that the SWT could provide guidance on a new timeline or framework from a fish and public-use perspective.

    iii. USFWS suggested adding an update on potential water transfers to the SWT agenda as a standing item. The SWT agreed with this proposal.

    iv. **[Action Item]:** K&W to add potential water transfer item to SWT agenda.

- CDFW noted that the timing of minimum flows during the pulse have negatively impacted in-river work and requested that low flows happen in the morning rather than afternoon. A Tuesday through Thursday carcass survey schedule can work with advance warning.

    - USFWS suggested that the subdaily timing needs should be added to the list of constraints as updated by Barb Byrne, NMFS, so they will be included next year when shaping the fall pulse flow.

        i. **[Action Item]**: CDFW to share timing needs with regard to pulse flow minimums with Barb Byrne.

    - NMFS, noted that USBR requested feedback on the hourly schedule but may have omitted CDFW.

        i. **[Action Item]:** USBR to include Gretchen Murphey when requesting feedback on pulse flow scheduling.

5. Flow Planning

    a. Fall Pulse Flow Update – see Agenda Item 4a.

    b. USFWS presented potential modified ramping rates for winter instability flows. See meeting handout for presentation slides.

        ii. Current ramping rates limit optimization for fish benefit when volumes are small. Flows in the vicinity of 1,200 cfs are desired to mimic winter storms, increase habitat inundation and associated terrestrial inputs, and mobilize fry.

iii. Restoration sites are typically designed to minimize stranding, so there is not high concern about stranding, but could be confirmed by doing stranding surveys if faster ramping rates are implemented.

iv. Next steps include developing alternate rates for low volumes which will be vetted with USBR operators and Tri-Dam for feasibility, and USACE staff for safety. Proposed rates would then be shared with the SWT for feedback then formalized and presented to LTO. The goal would be to complete the process by the end of December 2021 and implement it in January 2022.

Questions/Comments

- NMFS asked if USBR has initial concerns about doubled ramping rates.
  - USBR indicated that it doesn't anticipate problems.
- USBR asked if there are considerations regarding dams that need to be accounted for.
  - **[Action Item]**: SWRCB to follow-up with Oscar at the Army Corps regarding a contact.

6. Fish Monitoring and Studies

   a. Temperatures

      i. Water temperatures have cooled considerably due to cooler than average air temperatures. Water temperatures increased when the fall pulse flow started. The increase is less pronounced in the Canyon and more pronounced downriver at Ripon.

   b. Fish Monitoring

      i. CDFW started carcass surveys at the beginning of October and saw Chinook and some redds. CWTs were collected from carcasses and two of the CWTs indicated the fish were spring-run Chinook salmon from a San Joaquin River Restoration Program (SJRRP) release. SJRRP releases are 100% marked.

      ii. FISHBIO began weir sampling in early September and saw just under 500 Chinook passing as well as one *O. mykiss* over 16".

      iii. See handout for details.

Questions/Comments:

- USFWS noted that as part of its steelhead lifecycle monitoring, USBR received funding for a weir to make sure the full run of *O. mykiss* is captured. CVPIA put out a NOFA for operation of the Caswell RST for the next five years.
  - PSMFC noted that it hopes to install the rotary screw traps at Caswell by December 30, 2021 so they are operational the first week of January.

7. Stanislaus River Forum (SRF) Call Review

a. The Stanislaus River Forum was held via Teams on October 19, 2021. Barbara Byrne (NMFS), Denise Barnard (EBMUD), Logan Day (PSMFC) Zarela Guerrero (USBR), Peggy Manza (USBR), Gretchen Murphy (CDFW), Cory Starr (PSMFC), Chrissy Sonke (FISHBIO), Steve Tsao (CDFW), J.D. Wikert (USFWS) and Jeanne Zolezzi (OID) were in attendance. Updates on operations, temperature and fish monitoring were provided and discussed.

8. Restoration Project Updates

    a. USBR provided a presentation to the LTO on implementation of the Habitat Restoration Charter since the 2020 Record of Decision. It received positive feedback and the LTO would like to see a process and criteria for approving and crediting habitat restoration.

    b. USFWS noted that a new park manager at Stanislaus Parks is interested in restoration, which may enable some projects to be re-initiated.

    c. USFWS continues to collaboratively develop proposals for restoration sites on the Stanislaus, including a project on the Mohler property to create higher functioning fish habitat. Contact J.D. if interested in other projects or in collaborating.

    d. USFWS noted that the Buffington Project is moving forward and has proposed several studies to look at what constitutes predator habitat vs. juvenile salmon habitat.

9. Progress Update on Proposed Action Elements

    a. USBR indicated that its spreadsheet for tracking restoration projects can be included in future SWT meeting handouts. Some revisions have been made and the document requires review for 508 compliance before being circulated.

        - **[Action Item]:** Elissa to share the latest version of the spreadsheet with Sarah for inclusion in SWT agenda and meeting packet.

        - **[Action Item]**: K&W to add to agenda once spreadsheet is finalized.

10. Other Discussion Items

    a. Annual Reporting: USBR indicated that it is currently on-schedule regarding annual reporting.

    b. Review/revise Ops Outlook table section: USBR noted that it wants to start having watershed teams review the first table within the weekly Fish and Monitoring Operations Outlook.

        ii. The group reviewed the table and agreed to add a bullet: "some Chinook spawning observed."

    c. USBR noted that it may be interested in setting up a meeting to discuss fish monitoring on the Stanislaus to help measure performance of operations.

iii. **[Action Item]:** J.D. will collaborate with Elissa to fold this discussion into a future "Fish Group" meeting.

d. USFWS proposed a future presentation on steelhead lifecycle monitoring possibly for the January or February SWT meeting.

iv. **[Action Item]:** J.D. to follow up on potential steelhead lifecycle monitoring presentation for winter.

e. SWRCB noted that it has a tentative commitment for a November SWT presentation on Functional Flows.

v. **[Action Item]:** Erin to follow up with Rafi on finalizing a functional flows presentation.

f. SWRCB noted that it has issued a temporary suspension of curtailments for two groups. See SWRCB for more information: www.waterboards.ca.gov/drought/delta

vi. **[Action Item**]: K&W to add suspension of curtailments to the November SWT agenda.

f. Items to elevate to WOMT

i. No items to elevate to WOMT

11. Next Meeting

a. Wednesday, November 17, 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#
Webinar: Join Microsoft Teams Meeting
Stanislaus Watershed Team Notes: https://www.usbr.gov/mp/bdo/stanislaus-watershed-team.html

Wednesday, October 20, 2021

1. Introductions
2. Ground Rules[1]
3. Announcements
4. Operations Update and Forecasts/Hydrology
5. Temperature Updates
6. Flow Planning
    a. Fall Pulse Flow update
    b. Modified ramping rate proposal for winter instability flows
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

11. Other Discussion Items
    a. Annual reporting check-in
    b. Review/revise Ops Outlook table section
    c. Items to elevate to WOMT
12. Review Action Items
13. Next Meeting: Wednesday, November 17, 2021 (10am-12pm)

Daily CVP Water Supply Report

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

OCTOBER 17, 2021; RUN DATE: October 18, 2021

Table 1. RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2020	WY 2021	15 YR MEDIAN
TRINITY	LEWISTON	294	308	308
SACRAMENTO	KESWICK	5,611	6,795	6,135
FEATHER	OROVILLE (SWP)	2,450	1,250	2,400
AMERICAN	NIMBUS	1,506	550	1,506
STANISLAUS	GOODWIN	1,253	931	920
SAN JOAQUIN	FRIANT	410	230	353

Table 2. STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2020	WY 2021	% O 15 YR AVG
TRINITY	2,448	1,286	1,320	648	50
SHASTA	4,552	2,205	2,125	988	45
FOLSOM	977	401	389	218	54
NEW MELONES	2,420	1,263	1,515	829	66
FED. SAN LUIS	966	302	387	22	7
TOTAL NORTH CVP	11,363	5,458	5,736	2,705	50
MILLERTON	520	257	164	305	119
OROVILLE (SWP)	3,538	1,506	1,568	790	52

Table 3. ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2021	WY 1977	WY 1983	15 YR AVG	% O 15 YR AVG
TRINITY	1	4	5	5	11
SHASTA	80	124	132	106	75
FOLSOM	11	37	59	33	32
NEW MELONES	7	----	28	23	30
MILLERTON	22	19	94	32	70

Table 4. ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2021	WY 1977	WY1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	0.00	0.13	0.39	0.66 (59)	0	0.00
SACRAMENTO AT SHASTA DAM	0.00	0.07	0.24	1.08 (64)	0	0.00
AMERICAN AT BLUE CANYON	0.94	0.87	0.73	1.29 (46)	73	0.52
STANISLAUS AT NEW MELONES	0.08	----	0.30	0.51 (43)	16	0.00
SAN JOAQUIN AT HUNTINGTON LK	0.63	1.20	0.00	0.88 (46)	72	0.00

Current Releases

Goodwin Reservoir's Daily Operations for the month of October can be found at this website:
https://www.usbr.gov/mp/cvo/vungvari/gdwdop.pdf

New Melones' Daily Operations for the month of October can be found at this website:
https://www.usbr.gov/mp/cvo/vungvari/nmldop.pdf

Tulloch Reservoir's Daily Operations for the month of October can be found at this website:
https://www.usbr.gov/mp/cvo/vungvari/tuldop.pdf

Last Month's Releases

Goodwin Reservoir's Daily Operations for the month of September can be found at this website:
https://www.usbr.gov/mp/cvo/vungvari/gdwdop0921.pdf

New Melones' Daily Operations for the month of September can be found at this website:
https://www.usbr.gov/mp/cvo/vungvari/nmldop0921.pdf

Tulloch Reservoir's Daily Operations for the month of September can be found at this website:
https://www.usbr.gov/mp/cvo/vungvari/tuldop0921.pdf

October 2021 Water Temperature and Fish Monitoring Update

Year-to-Date Flows

The SRP flow schedule for Critical years requires 150 cfs through the summer until the fall pulse flow begins. Recent releases have been higher than the SRP minimum flow for various reasons, including Delta needs (through August 15, 2021), the dissolved oxygen standard at Ripon, and releases to implement the Stockton East Water District transfer. Goodwin releases since October 1, 2021 are shown in Figure 1.

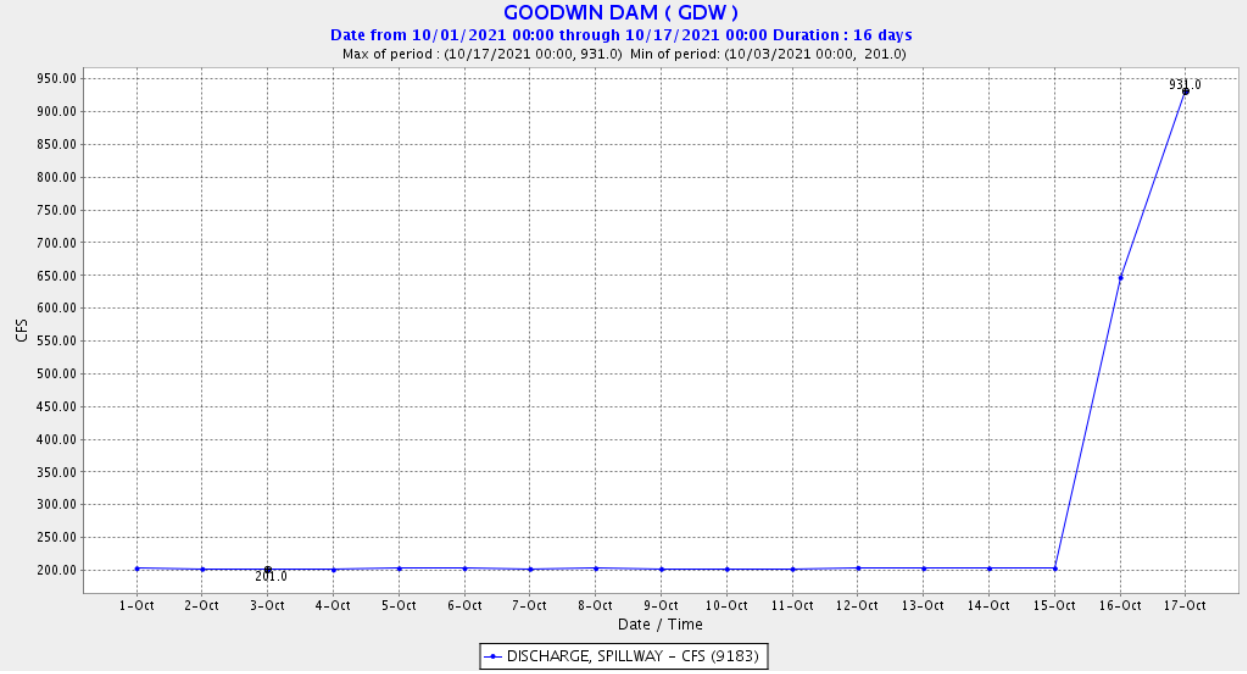

Figure 1. Goodwin (daily) releases to the Stanislaus River since October 1, 2020. Data from GDW station on CDEC.

Water Temperature

The temperature thresholds included in Figures 2-9, below, are the thresholds used in the 2019 NMFS LTO BiOp[1] (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.

[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

Water temperatures in the Stanislaus River since June 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 June 1, 2021 are shown below at Vernalis (Figure5). 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.

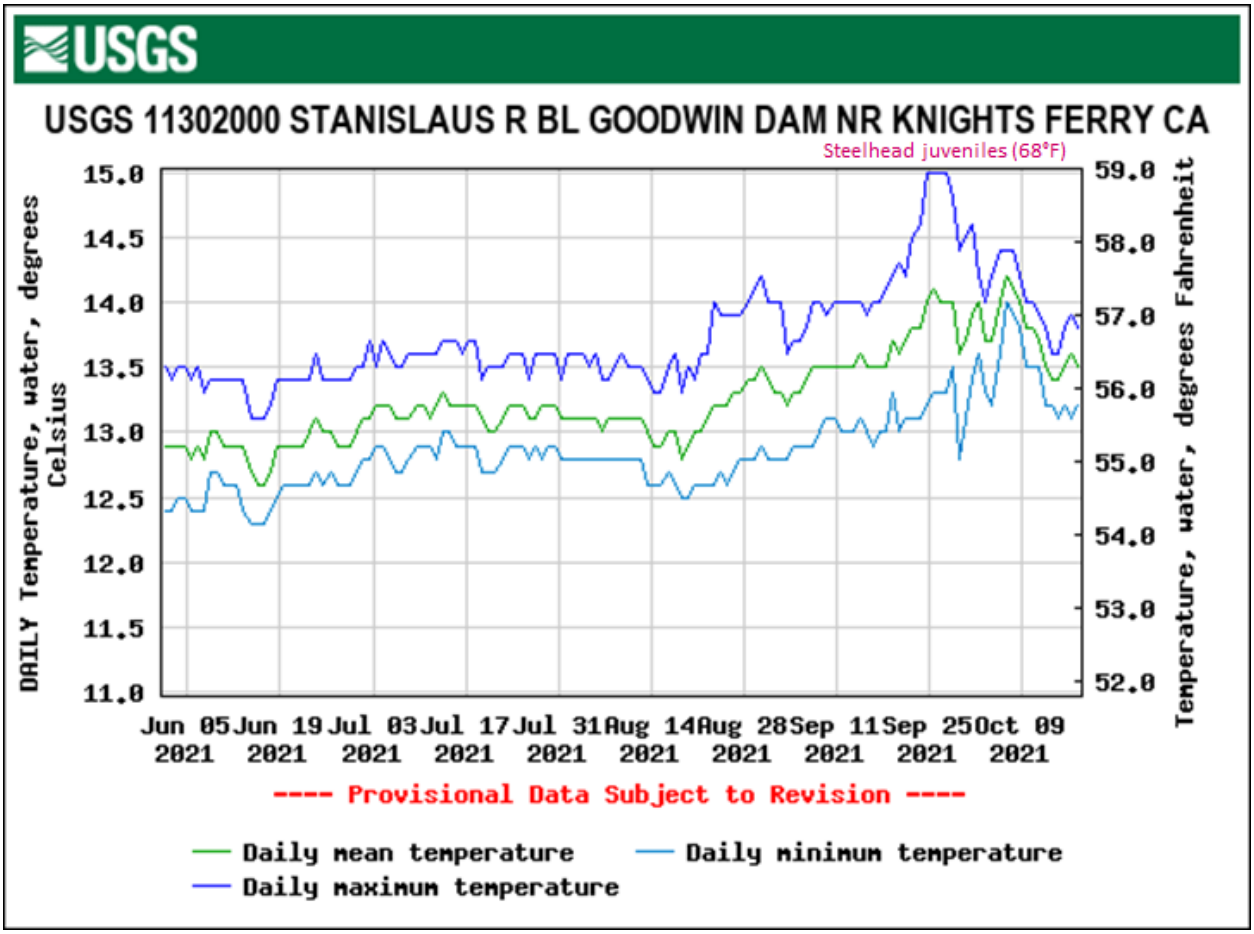

Figure 2. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since June 1, 2021. Data from USGS gage 11302000 on NWIS; temperature threshold reference added by SWT.

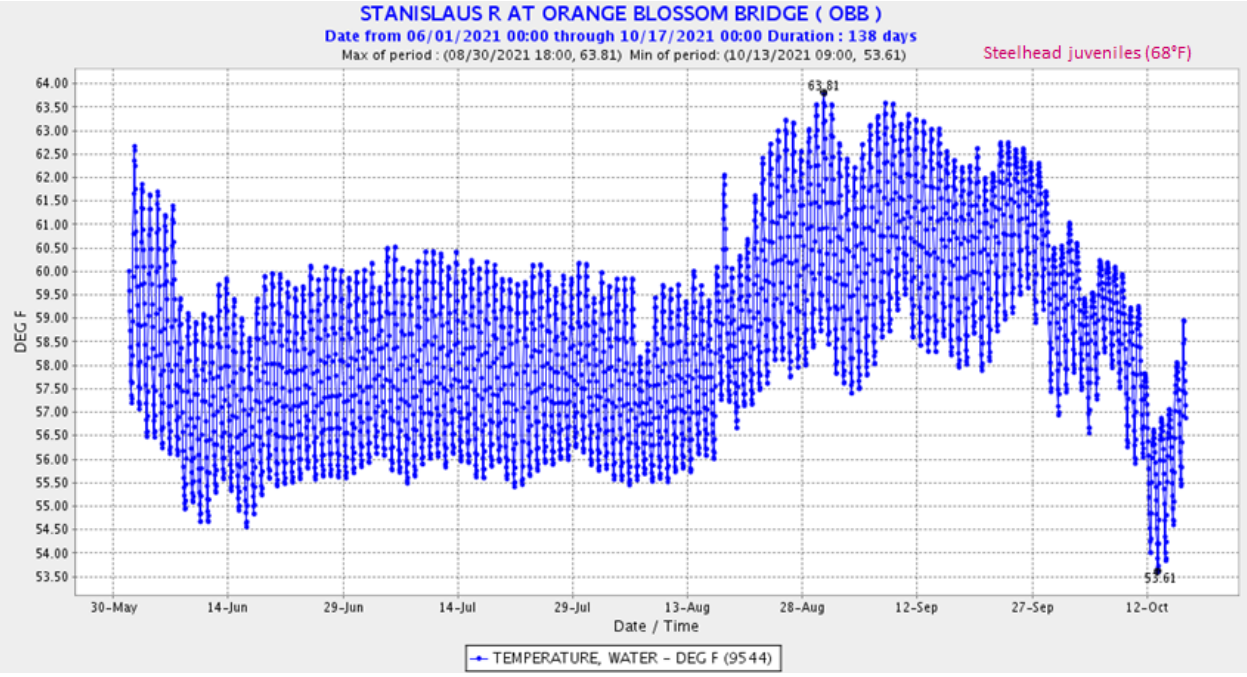

Figure 3. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since June 1, 2021. Data from OBB station on CDEC; temperature threshold reference added by SWT.

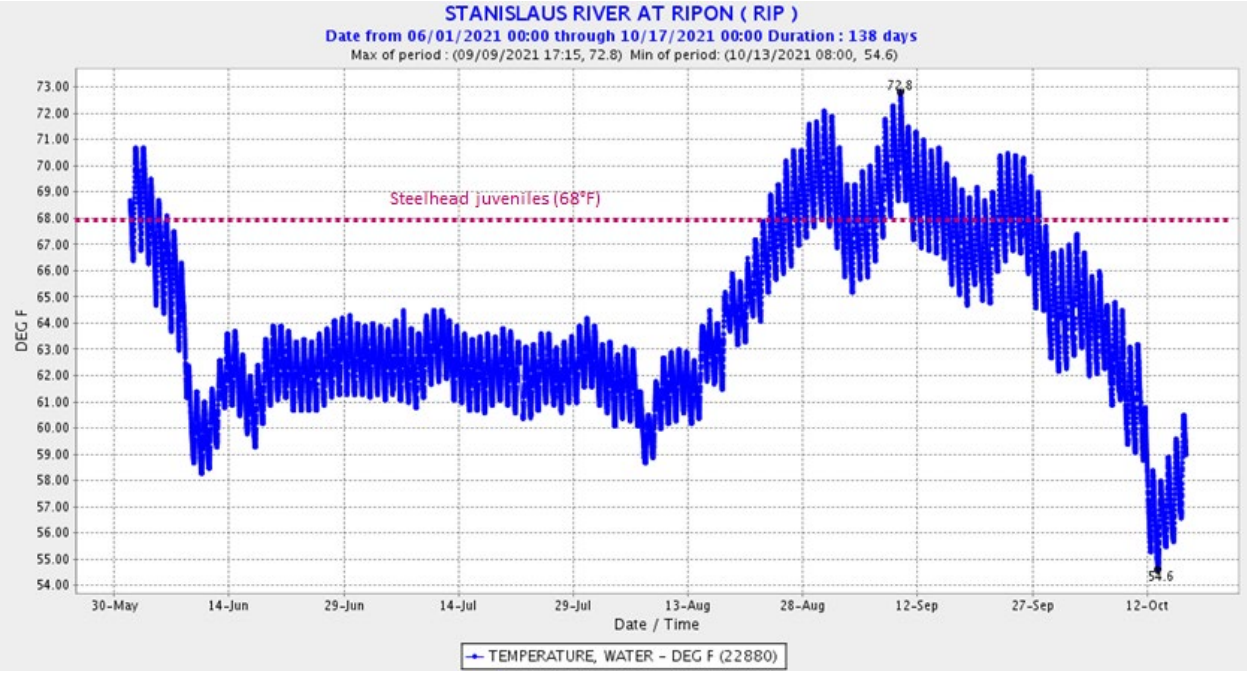

Figure 4. Stanislaus (15-minute) water temperatures at Ripon since June 1, 2021. Data from RIP station on CDEC; temperature threshold reference line added by SWT.

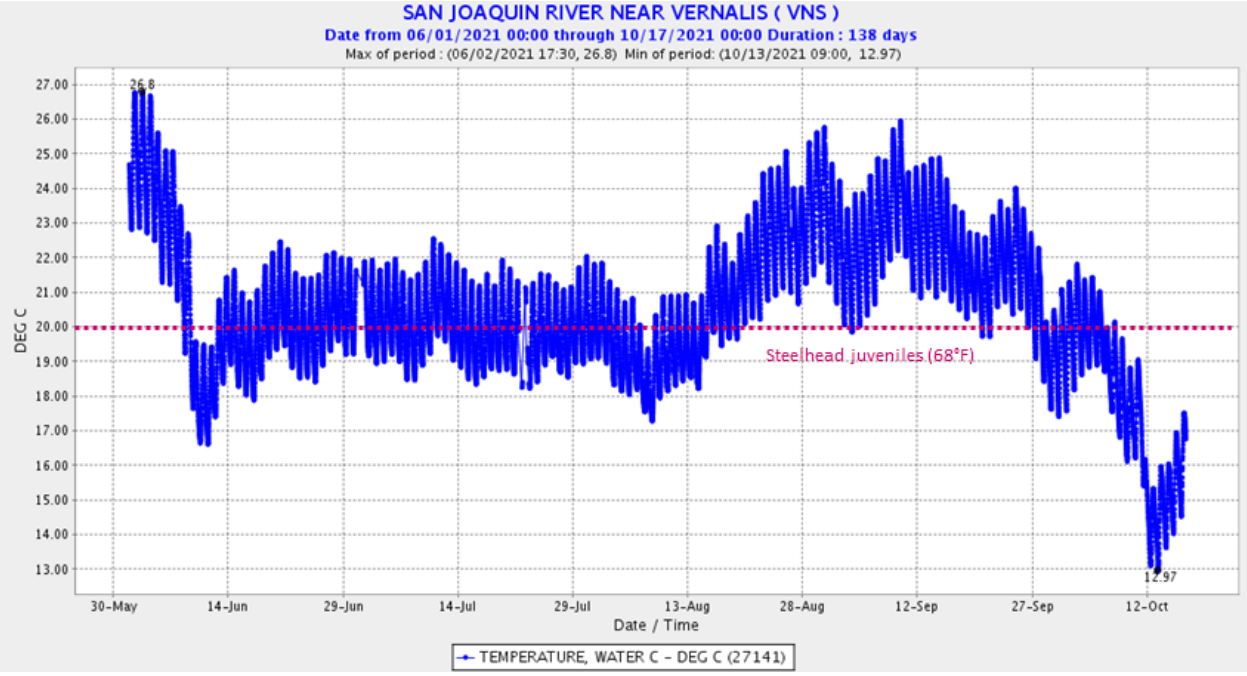

Figure 5. San Joaquin River (15-minute) water temperatures at Vernalis since June 1, 2021.Data from VNS station on CDEC; temperature threshold reference line added by SWT. Note that, unlike in the previous figures, temperature is reported in degrees Celsius. 10°C=50°F; 12°C=53.6°F; 14°C=57.2°F; 16°C=60.8°F; 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.

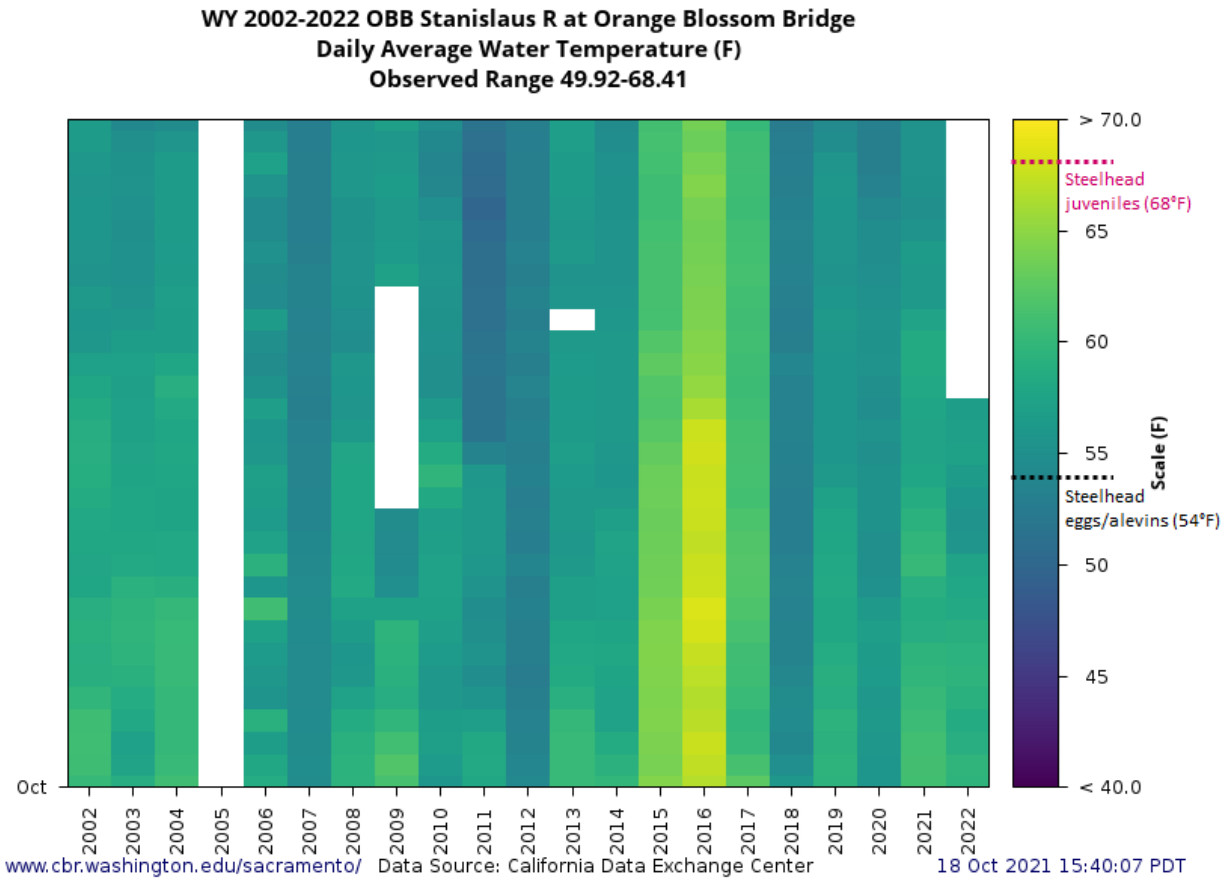

Figure 6. Stanislaus River water temperatures at Orange Blossom Bridge for October from WY 2002 to present. Data from SacPAS; temperature threshold reference lines added by SWT. http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

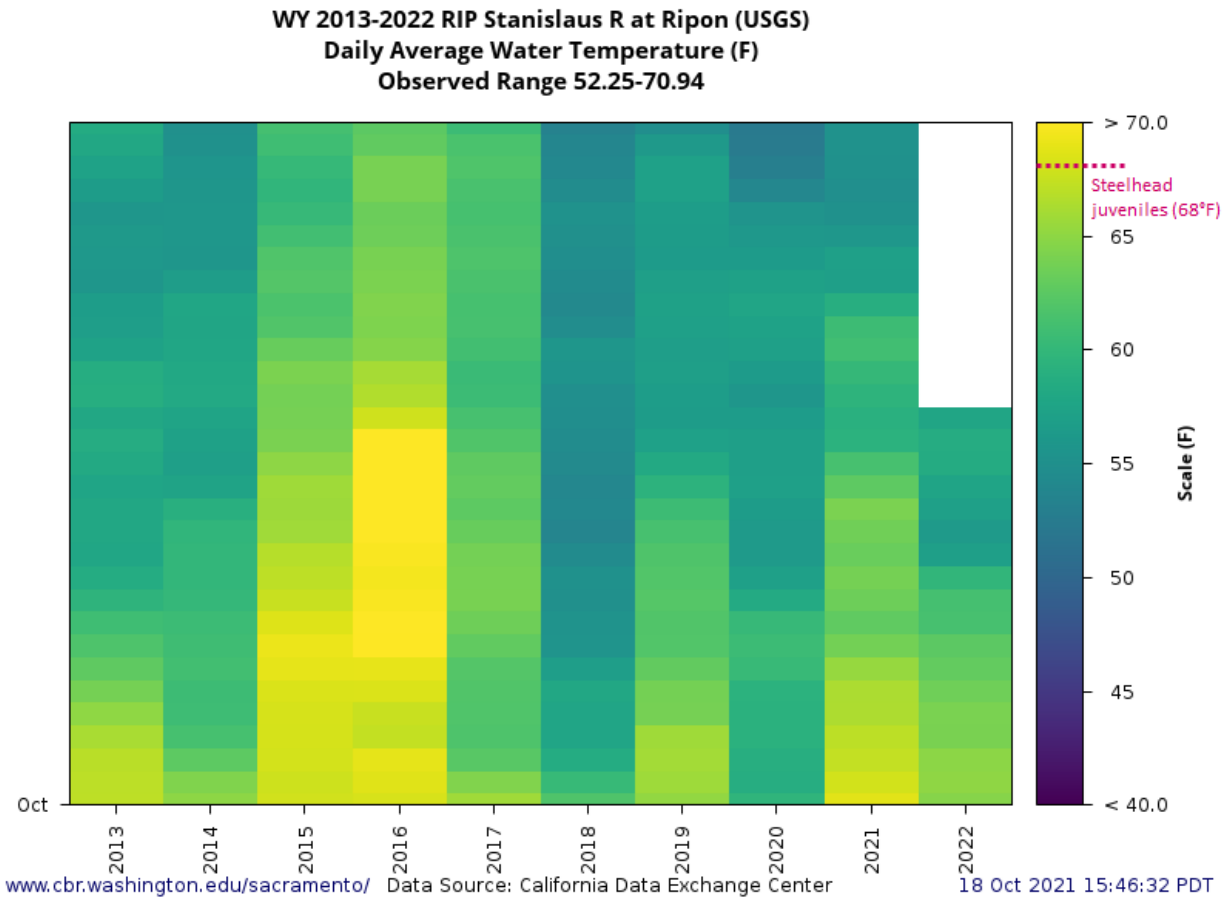

Figure 7. Stanislaus River water temperatures at Ripon for October from Water Year 2013 to present. Figure from SacPAS using RIP station data from CDEC; temperature threshold reference line added by SWT. http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

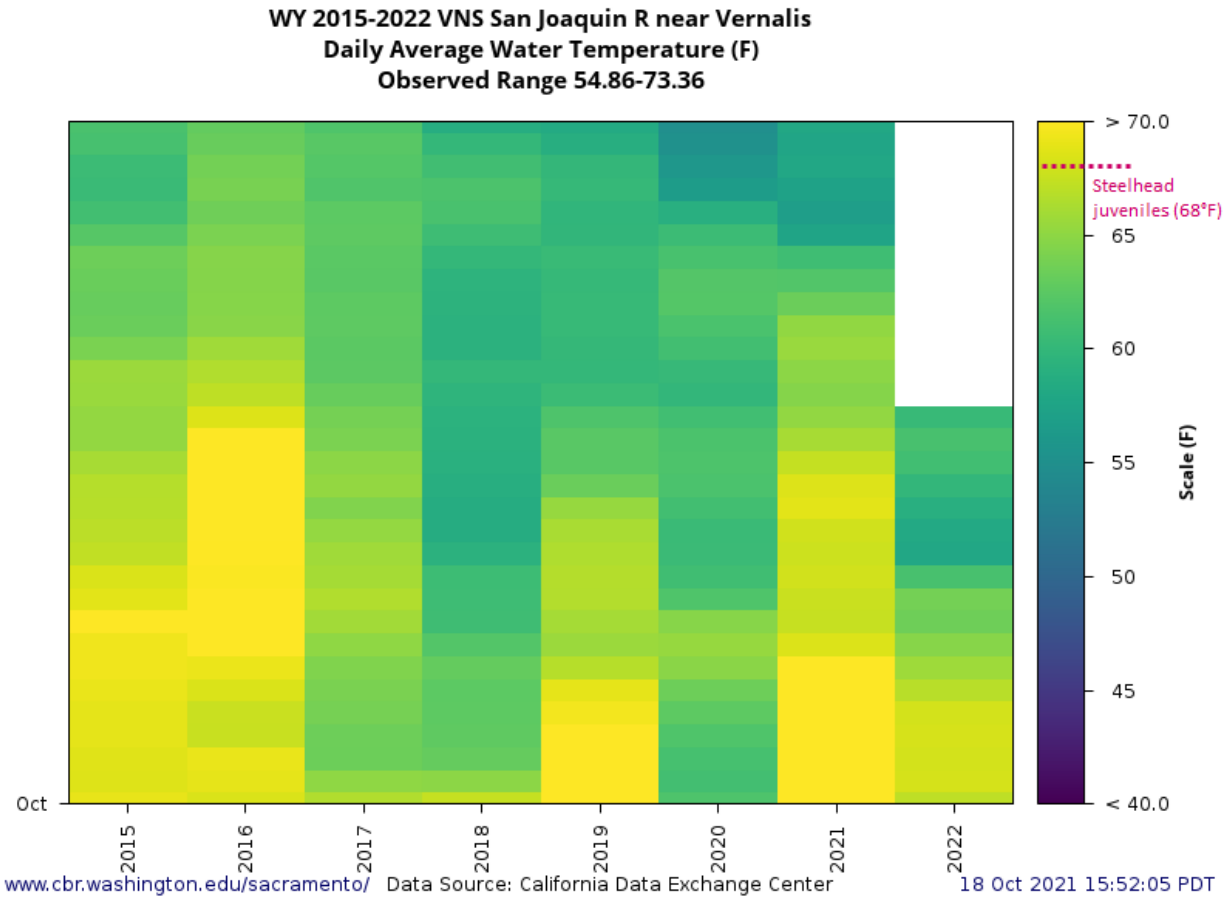

Figure 8. San Joaquin River water temperatures at Vernalis for October from Water Year 2015 to present. Figure from SacPAS using VNS station data from CDEC; temperature threshold reference line added by SWT.
http://www.cbr.washington.edu/sacramento/data/query_river_allyears.html

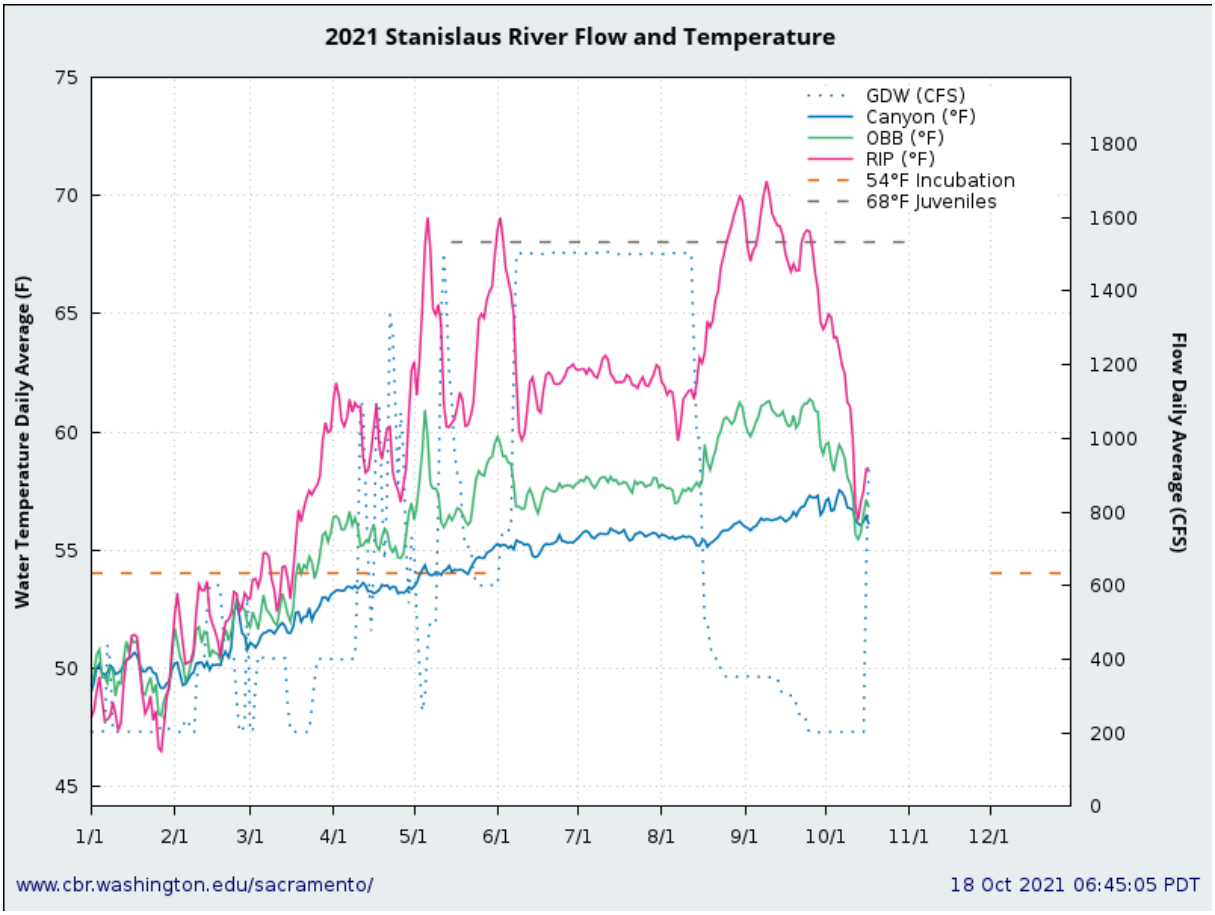

Figure 9. Stanislaus River flow and water temperatures from January 1, 2021 to present. Data (including temperature threshold reference lines) from SacPAS: http://www.cbr.washington.edu/sacramento/data/tc_stanislaus.html

Update on Fish Monitoring (Adults)

Carcass and redd surveys

The California Department of Fish & Wildlife (CDFW) began conducting fall-run Chinook salmon carcass and redd surveys the week of October 4, 2021 for the Stanislaus River and Merced River, and the week of September 27, 2021 for the Tuolumne River. Carcass survey data for all three San Joaquin River tributaries through the week of October 11, 2021, are reported in Table 1.

Table 5. Data from the fall 2021 CDFW carcass survey for the San Joaquin tributaries.

River	Week	Date	# Live	# Redds	# Skeletons	# Tagged	# Ad-Clipped	# Scale Samples	# Recovered	Avg Flow (cfs)
Stanislaus	**1**	10/4/2021	18	4	1	2	2	2	0	200
Stanislaus	**2**	10/11/2021	2	1	0	0	0	0	0	200
Tuolumne	**1**	9/27/2021	42	12	3	1	1	1	0	97.5
Tuolumne	**2**	10/4/2021	35	14	4	7	6	6	0	129
Tuolumne	**3**	10/11/2021	22	12	5	2	1	1	1	126
Merced	**1**	10/4/2021	3	1	0	0	0	0	0	213
Merced	**2**	10/11/2021	6	1	0	0	0	0	0	190

Weir

Fishbio installed the weir near Riverbank and began monitoring for upstream passage of adult salmonids on September 8, 2021. The cumulative net upstream passage through October 17, 2021 is 483 Chinook (24% were ad-clipped, indicating a hatchery origin) and one *Oncorhynchus mykiss*. The *O. mykiss* observed was greater than 16" (indicating possible anadromy) and ad-clipped (indicating a hatchery origin). Data highlights provided by Fishbio on October 18, 2021 in their "Stanislaus River Weir Update through 10/17/21" are provided below in Figure 10 and Figure 11.

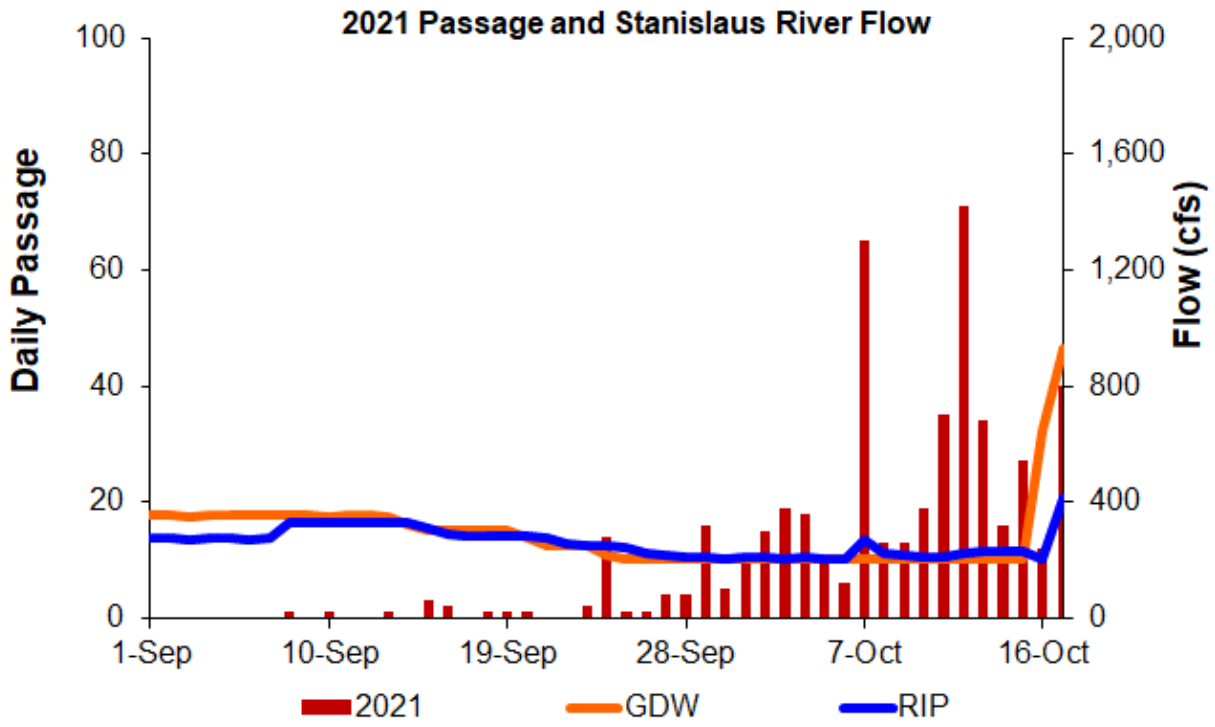

Figure 10. Daily Chinook salmon passage through October 17, 2021, at the Stanislaus River weir near Riverbank. Data courtesy of Fishbio.

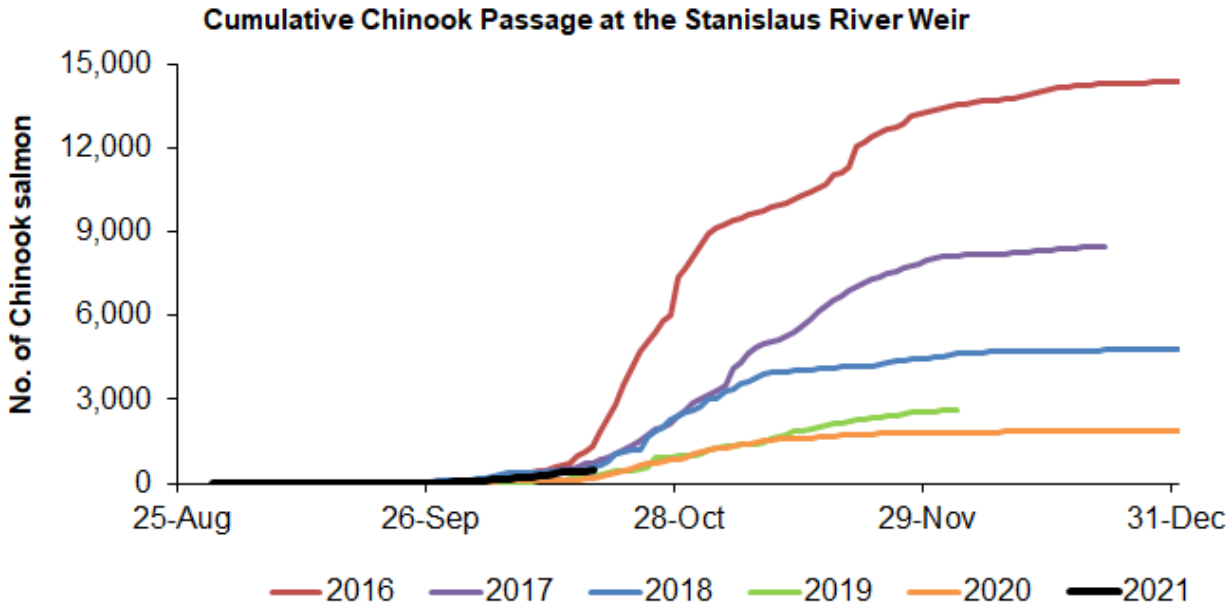

Figure 11. Cumulative Chinook salmon passage in the current year through October 17, 2021, at the Stanislaus River weir near Riverbank, along with cumulative passage for the previous five years. *Data courtesy of Fishbio.*

Update on Fish Monitoring (Juveniles)

Mossdale Trawl

No salmonids have been caught in the Mossdale trawl sampling since June 14, 2021. While Mossdale trawl sampling is ongoing, catch is rare outside of the spring months so reporting on the Mossdale Trawl will not resume until March 2022.

Rotary Screw Traps

Rotary screw trapping at Oakdale and Caswell for the 2020/2021 outmigration season (for monitoring of outmigrating juvenile salmonids) is expected to begin in December 2020 or January 2021.

Weekly Fish and Water Operations Outlook 10/19/2021 – 10/25/2021

Decreasing chances of showers on Monday, turning to dry and cool on Tuesday. Chances of precipitation return Tuesday night and continue into the weekend.

Tributary/ Division	Anticipated Weekly Ranges	Related Environmental and Fish Conditions
Stanislaus River	• New Melones Storage: 829 TAF • Current Release to Stanislaus: Changing rapidly – Fall Pulse Flow • Anticipated Range of Weekly Releases to Stanislaus: 400 to 1,300 cfs	• Juvenile and adult steelhead expected to be present • Adult fall-run Chinook Salmon present