



## Stanislaus Watershed Team

April 16, 2025

### Members Attending

- USBR: Brian Willard, Cat Pien, Chase Ehlo, Joel Fenolio, Kevin Thielen, Mechele Pecheco, Myrna Giraldo Perez, Peggy Manza, Randi Field, Spencer Marshall
- USFWS: Erika Holcombe
- CDFW: Gretchen Murphey, Crystal Rigby, Travis Apgar
- NMFS: Barb Byrne, Paula Higginson, Rachael Alcala
- DWR: Mike Ford
- SWRCB: Yongxuan Gao
- PSMFC: Logan Day
- SSJID: N/A
- FISHBIO: N/A
- Stockton East Water District (SEWD): N/A
- WAPA: N/A
- Attorney Offices: N/A
- Kearns & West: Mia Schiappi, Tom Fischer, Bethany Taylor

### Action Items

- Kevin Thielen, Reclamation, and Gretchen Murphey, CDFW, to coordinate on flow planning if any changes occur with water year type.
- Myrna Giraldo Perez, Reclamation, to schedule Kirsten Sellheim Cramer Fish Sciences, for an upcoming presentation to the SWT.
- Reclamation to internally discuss preferred logistics for SRF call handout preparation and timing and share decision with Kearns & West.

- All to alert their WOMT representatives, if desired, regarding the change in SRF meeting frequency.

## Announcements

- NMFS shared that Sam Pyros will be transitioning out of NMFS on 4/18/2025. She should be removed from the distribution list.
- NMFS has staff opting in for the early voluntary retirement and have a few planned departures. They would like to know for awareness purposes, which other agencies are losing staff.
  - Reclamation has a few people leaving, but it is not expected to impact the SWT.
  - USFWS is losing a few restoration employees. Erika Holcombe will be the only Habitat Restoration Coordinator remaining in the Lodi office.
- Kearns & West will no longer be recording meetings due to state and federal policy.
- At the suggestion of SWT members, the meeting notes will not include information already stated in the meeting handout. Notes will primarily focus on discussion details and other shared highlights.
- If interested in the Stanislaus Restoration tour on 4/29/2025, please contact Erika Holcombe, USFWS.
- CDFW has a paper out on green sturgeon presence in the Stan.

## Operations Update and Forecasts/Hydrology

### New Melones Reservoir Update

- The current status for the Stanislaus River is as follows:
  - Water year type:
    - Dry on the 90% exceedance, chance to increase next B120 but will monitor.
    - Below Normal on the 75% exceedance.
- New Melones has released less water than in WY 2024 and the 15-year average for water year to date accumulated releases (10/01 – 04/13).
- A change in water year type from Dry to Below Normal in the April B120 (75% exceedance) did not result in a change of Vernalis requirements.

- From 4/1 – 4/14/2025, releases from Goodwin were adjusted, resulting in a 2,300 cfs average flow at Vernalis, meeting the 2,280 cfs requirement.
- Since 4/15/2025, releases were maintained at 850 cfs going into the pulse flow, which was coordinated with the fisheries agencies.
- On 4/17/2025 when the 850cfs crossed over the SRP, the SRP schedule as written was implemented.
- Storage remains at good levels.

### Daily CVP Water Supply

- Snowpack level for the entire Central Sierra Nevada range remains below average. The peak for snowpack was hit in early April.
- The updated B-120 became available on 4/10/2025. It took the 75% exceedance from a dry to below normal, which resulted in no change to Vernalis requirements.

### Forecast

- Reclamation shared that there is still some uncertainty about the final water year type. Additionally, there is a potential for the 90% exceedance to be reclassified as “Below Normal” which would result in a change to the SRP implementation. Reclamation will continue to monitor using the CNRFC projections ahead of the May B120.

### Tulloch Dam

- The spring fill for Tulloch Dam began on 3/17/2025.
- Fluctuations and elevated “side flows” occurred during March at Tulloch Dam.
  - Side flows are flows into Tulloch from undammed creeks/rivers, so inflows to Tulloch not attributable to New Melones releases.
- TriDams may have conducted maintenance or testing due to the fluctuations in the releases column in the Tulloch Dam report.
  - This is shown by releases moving from the power releases.
- Diversions for agriculture increased during late March/early April.

### Goodwin Dam

- Goodwin Dam saw increases in releases on 3/13/2025 and then decreased around 3/20/2025.

- Goodwin Dam saw several release increases in April up to 850 cfs to meet contributions for D-1641 requirements.
- Diversions for agriculture from Goodwin Dam increased during April.

### Other Questions/Comments

- CDFW has not prepared any Below Normal flow schedules if the water year type does change when the updated B-120 is released.
  - Reclamation responded that they will monitor updates and alert the SWT to any significant rain events since the release of the B-120.
- NMFS noted that operations are entering the period between mid-April to mid-May D-1641 pulse period.
- NMFS asked if Reclamation's intention is to implement the spring Stepped Release Plan (SRP) pulse flow and have that be the contribution to the Vernalis requirement, or will there be anything additional?
  - Reclamation responded that their stance is the SRP Spring Pulse Flow is the primary contribution. They do adjust operations in the Delta for a minimum 3-day average. Reclamation is not committed to meet the D-1641 objectives during the pulse period; however, Reclamation does meet the objective on either side of the pulse flow period.
- CDFW asked if it is reasonable to expect the Stanislaus River not to return to base flow in June when taking into account the D-1641 requirements.
  - Reclamation responded that the releases assumed within the forecast for the shoulder periods are to meet the requirements as projected. If the Tuolumne and Merced rivers were at base flow and no significant flow was coming from rain events, Reclamation would adjust Goodwin flows to meet the D-1641 requirements after the pulse flow period.
  - CDFW added that it's odd/unnatural that the Stanislaus River flows result in a higher flow before and after a pulse because they have to increase releases to meet the Vernalis requirements outside of the pulse flow period.
    - Reclamation agrees with this observation.

### Water Temperature Updates

- Temperatures down to Ripon are in the low-to-high 50s and sometimes creeping over 60°F. Water temperatures are still suitable for outmigration conditions.
- Water temperatures at Orange Blossom Bridge are currently in the mid-50s °F.

- NMFS does not expect many fall-run Chinook salmon to still be in redds but incubation conditions are still suitable.
- NMFS expects steelhead to spawn earlier and resident steelhead to spawn later.
- Goodwin Canyon temperatures are in the low-to-mid 50s F.
- Overall, there are no concerns about water temperatures at this time.

## Spring Pulse Flow Planning

- CDFW and Reclamation finished pulse flow planning. Reclamation put out a change order. The only potential complication is if the area receives a large amount of precipitation in the coming weeks, this could cause the water year type to increase and need a new SRP schedule.
- Flows on the Tuolumne River will increase on 4/19/2025.
- There is no pulse flow for the Merced River.
- The Tuolumne River will have a requirement of 75 cfs in June. The Merced River requirement is likely 15-25 cfs.
- Questions and Comments
  - NMFS commented that under the new Record of Decision (ROD), there are various spring outflow requirements, and for the state ITP, there is an outflow requirement where the SWP exports are implemented as a fraction of the Vernalis flow. Under the Federal Proposed Action (PA), there is a related but separate commitment to do early implementation of the conditions of Healthy Rivers and Landscapes. To the extent that there's CVP and SWP foregone exports committed to the spring period under these conditions, Reclamation volunteered to do those export adoptions but only during certain year types. Currently, those exports are off-ramped. There are no foregone exports in Critical water years. Based on the Sacramento River 50% forecast in April, it is a Wet water year. Early implementation of foregone exports based on the April forecast isn't required.
  - CDFW asked if in a situation where the Sacramento River is in a water year type that has export reductions, would there be notification or tracking?
    - NMFS responded that if the Sacramento River is in a year where reductions were triggered, there would have been conversations about it at the Directors' level. If we fall out of a Wet water year, that question becomes more relevant.

- Reclamation will know by the next SWT meeting if there is any change in water year type. The State is doing 3:1 as part of their Vernalis requirements right now. If there's a change to the Sacramento Valley Index, they can alert the SWT.
- Reclamation shared that the Operations Plan will be posted on the website once the 508-compliant version is completed by Kearns & West.

## Stanislaus River Forum (SRF) Call Review

- Reclamation reported that the meeting primarily consisted of updates on operations, temperature, fisheries, and restoration.
- One new member of the public attended – Kirsten Sellheim (Sellheim) from Cramer Fish Sciences (Cramer). She shared a paper and offered to provide a presentation to SWT on the study if that is of interest to the group.
  - Staff from CDFW, NMFS, and Reclamation expressed interest.
  - CDFW added that there was criticism from Cramer about the fluctuations in the pulse flow due to stranding surveys being done at Kerr Park.
  - Reclamation will coordinate for Sellheim to present at either the May meeting or during one of the summer months.
- Reclamation announced a proposal to change the SRF meeting to an as-needed basis. The proposal was instead of holding meetings monthly, an email would be sent ahead of the SRF meeting to inquire about the need for a meeting. In lieu of regular meetings, questions, comments, and feedback could be handled via email. The proposal does not totally eliminate the meeting but instead attempts to be sensitive to staff limitations and constraints by shifting to an as-needed basis. The proposed language is:
  - We announced a proposal at the SRF meeting to shift the SRF to an e-mail information dissemination/request option for a virtual meeting rather than a set monthly virtual meeting to increase efficiency (eliminate duplicative meetings).
  - CDFW asked about SRF handouts and the distribution timing. Typically, they are shared the morning of the meeting in order to provide the most updated information. Reclamation is open to suggestions on how to manage that timeline.
    - Reclamation suggested keeping the same handouts and shifting the SRF date. This suggestion wasn't supported because any issues

brought up are intended for discussion at the SWT meeting on the following day.

- Reclamation agreed to continue discussing their preferred timeline solution and keep Kearns & West in the loop for meeting packet assembly instructions.
- Reclamation will have a regularly scheduled May SRF meeting to allow for a chance to notify everyone about the new process.
- NMFS mentioned that there are a few people that call her directly with questions and concerns and do not attend the meetings. NMFS shared support for switching the meeting frequency and suggested to recommend members of the public call into the meeting and if they miss the meeting, call Randi Field, Reclamation, or Barb Byrne, NMFS.
  - Reclamation is familiar with those more active members of the public and have talked to them many times. Reclamation agrees that it is probably more effective to chat with them on an individual basis.
- NMFS requested a formal briefing from Reclamation about the meeting change to share with their agency leadership, if one is available.
  - Reclamation referred NMFS to the proposed language above (item a).

## Fish Monitoring

### CDFW Fish Monitoring

- O. mykiss/steelhead redd surveys began the week of 1/6/2025 and are expected to last through April.
  - Large numbers of Sacramento Sucker redds have been observed since the week of 2/24/2025.
- Large numbers of ad-clipped fish have been observed at the Mossdale trawl. CDFW thinks these may be from the San Joaquin Restoration Program as they are the only hatchery who has released fish upstream.
- Please refer to the meeting handout for specific figures and information.

### FISHBIO Monitoring

*No one from FISHBIO provided updates at the SWT meeting; please see the meeting handout materials for specific figures and information.*

## PSMFC Monitoring

- Since 3/19/2025, PSMFC has observed 7 Chinook salmon showing some signs of Ceratonova shasta (C. shasta) infection, representing 10% of the total number of Chinook salmon observed. There have been 8 mortalities (11%).
- Please refer to the meeting handout for specific figures and information.

## Restoration Project Updates

- Reclamation provided the following updates for April:
  - Mohler and Tortuga projects are still ongoing. The 65% design for Tortuga is complete; the Mohler 65% design is close to being completed. Contractors are working next on permits for the two projects and hoping to start construction in 2026.
  - The Goodwin Gravel project is postponed as funding is still pending.
- USFWS is still awaiting funding decisions for their projects.
  - Caswell State Park Project is working on baseline studies at the park as well as at Buffington on predation studies with Cramer. USFWS will put together some pre-project data.

## Other Discussion Items

### Water Transfers

- NMFS inquired if there are any water transfers on the Stanislaus River planned for this spring. Reclamation shared that there will be no water transfer this year.

### SWRCB Updates

- N/A

### Annual Reporting

- Reclamation shared that the request to post the report on website has been submitted. Reclamation expects it to be posted the week of 4/14/2025.
- The link to the posted report will be shared with SWT upon availability.

### Items to elevate to WOMT

- N/A



## **Next Meeting**

Wednesday, May 21, 10:00 am –12:00 pm. The meeting will be hybrid.



## Stanislaus Watershed Team

10:00 a.m. – 12:00 p.m.

Conference Line: 1 (321) 209-6143; Meeting ID: 247 545 110 667#

Webinar: [Join Microsoft Teams Meeting](#)

Wednesday, April 16, 2025

### Agenda

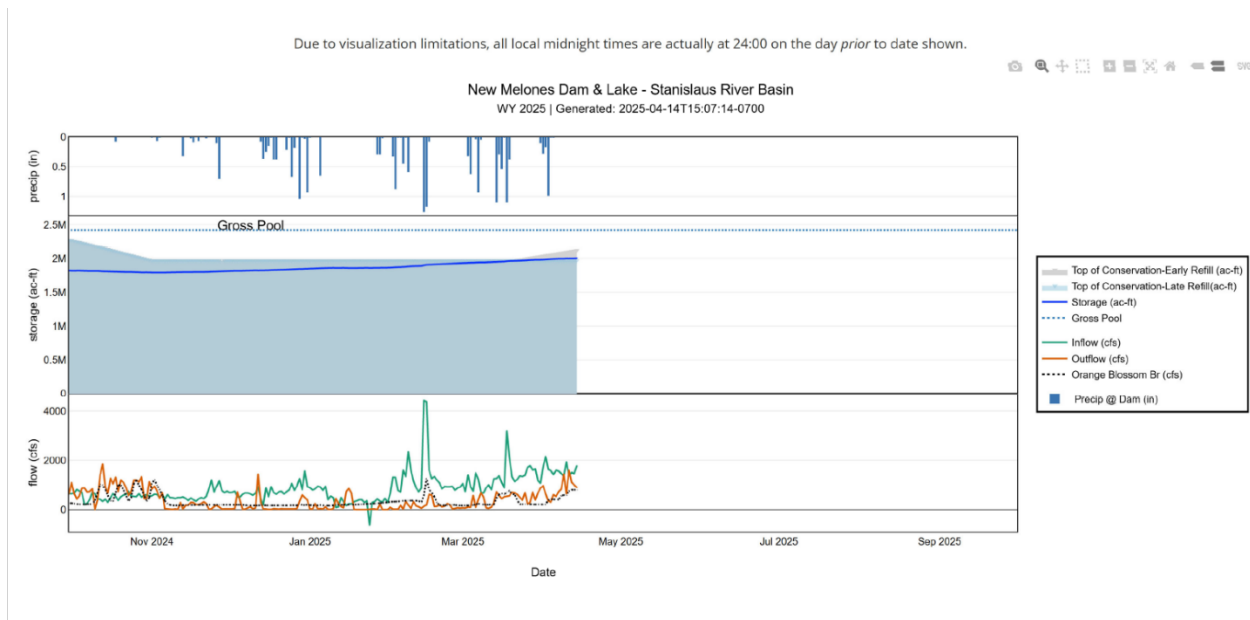
1. Introductions
2. Ground Rules<sup>1</sup>
3. Announcements
  - a. Meeting will no longer be recorded – Mia Schiappi, Kearns & West
4. Operations Update and Forecasts/Hydrology – Kevin Thielen, USBR
5. Temperature Updates – Barbara Byrne, NMFS
6. Spring Pulse Flow – Gretchen Murphey, CDFW and Myrna Giraldo Pérez, USBR
7. Stanislaus River Forum (SRF) Call Review – Myrna Giraldo Pérez, USBR
8. Fish Monitoring and Studies - CDFW, FISHBIO, NMFS, PSMFC
9. Restoration Project Updates

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<sup>1</sup> The Stanislaus Watershed Team's Ground Rules are as follows:

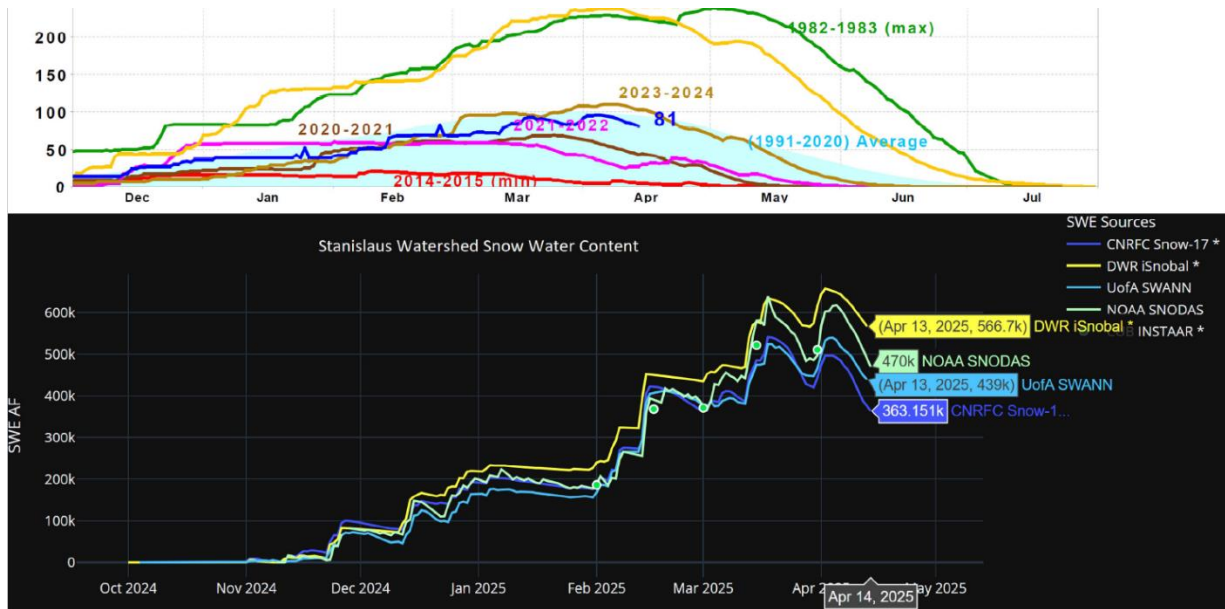
- Seek to understand and respect opposing views and suggestions for change (w/in the parameters of the Guidance Document).
- Seek to leverage collective expertise (including from agencies' & stakeholders' consultants).
- Hold questions/discussion at the discretion of the presenter.
- Honor time limits - keep comments and discussion succinct and focused on meeting objectives as needed.
- Make constructive proposals and suggestions to seek mutually agreeable solutions for all parties.
- Keep a record of discussion and dialogue.
- One speaker at a time
- Take space/make space

- a. Restoration Tracker – Erika Holcombe, USFWS
  - b. Cat Pien, USBR
- 10. Other Discussion Items
  - a. Water Diversions
  - b. SWRCB Updates
  - c. Annual Reporting Updates – Myrna Giraldo Pérez, USBR
  - d. Items to elevate to WOMT
- 11. Review Action Items – Mia Schiappi, Kearns & West
- 12. Next Meeting: Wednesday, May 12, 2025



### New Melones Dam & Lake – Stanislaus River Basin, 2025-04-14T15:07:14-0700

Graph shows the flow, storage, and precipitation for New Melones Dam and Lake from November 2024 to September 2025. The graph shows storage approximately 1.8M ac-ft in November 2024, with an inflow peak over 4000 cfs in late February 2025.



## Stanislaus Watershed Snow Water Content

Graph shows the Stanislaus Watershed Snow Water Content from October 2024 through May 2025. There was an increase starting in November 2024 through April 2025.

# Tables for BDO

United States Department of the Interior  
Bureau of Reclamation  
Central Valley Project – California Daily CVP Water Supply Report

April 13, 2025  
Run Date: April 14, 2025

Table 1. Reservoir Releases in Cubic Feet Per Second

| Reservoir   | Dam            | WY 2024 | WY 2025 | 15-Year Median |
|-------------|----------------|---------|---------|----------------|
| Trinity     | Lewiston       | 303     | 1,998   | 307            |
| Sacramento  | Keswick        | 8,086   | 4,570   | 4,570          |
| Feather     | Oroville (SWP) | 7,000   | 11,650  | 1,900          |
| American    | Nimbus         | 4,098   | 6,088   | 3,269          |
| Stanislaus  | Goodwin        | 1,491   | 852     | 1,402          |
| San Joaquin | Friant         | 547     | 928     | 460            |

Table 2. Storage in Major Reservoirs in Thousands of Acre-Feet

| Reservoir       | Capacity | 15-Yr Avg | WY 2024 | WY 2025 | % of 15 Yr Avg |
|-----------------|----------|-----------|---------|---------|----------------|
| Trinity         | 2,448    | 1,735     | 2,046   | 2,187   | 126            |
| Shasta          | 4,552    | 3,630     | 4,339   | 4,335   | 119            |
| Folsom          | 977      | 680       | 772     | 906     | 133            |
| New Melones     | 2,420    | 1,560     | 2,029   | 2,003   | 128            |
| Fed. San Luis   | 966      | 719       | 952     | 851     | 118            |
| Total North CVP | 11,363   | 8,324     | 10,138  | 10,282  | 124            |
| Millerton       | 521      | 299       | 452     | 377     | 126            |
| Oroville (SWP)  | 3,425    | 2,617     | 3,188   | 3,110   | 119            |

Table 3. Accumulated Inflow for water Year to Date in Thousands of Acre-Feet

| Reservoir   | Current WY 2025 | WY 1977 | WY 1983 | 15-Yr Avg | % O 15 Yr Avg |
|-------------|-----------------|---------|---------|-----------|---------------|
| Trinity     | 1,098           | 93      | 1,331   | 675       | 163           |
| Shasta      | 5,074           | 1,482   | 7,562   | 3,395     | 149           |
| Folsom      | 1,527           | 208     | 3,811   | 1,623     | 94            |
| New Melones | 340             | N/A     | 1,209   | 532       | 64            |

| <b>Reservoir</b> | <b>Current WY 2025</b> | <b>WY 1977</b> | <b>WY 1983</b> | <b>15-Yr Avg</b> | <b>% O 15 Yr Avg</b> |
|------------------|------------------------|----------------|----------------|------------------|----------------------|
| Millerton        | 468                    | 114            | 1,752          | 595              | 79                   |

Table 4. Accumulated Precipitation for Water Year to Date in Inches

| <b>Reservoir</b>             | <b>Current WY 2025</b> | <b>WY 1977</b> | <b>WY 1983</b> | <b>Avg (N Yrs)</b> | <b>% of Avg</b> | <b>Last 24 Hours</b> |
|------------------------------|------------------------|----------------|----------------|--------------------|-----------------|----------------------|
| Trinity at Fish Hatchery     | 34.61                  | 9.27           | 50.70          | 27.07 (65)         | 128             | 0.00                 |
| Sacramento at Shasta Dam     | 64.54                  | 11.04          | 103.04         | 53.16 (70)         | 121             | 0.00                 |
| American at Blue Canyon      | 57.97                  | 15.64          | 94.93          | 57.24 (51)         | 101             | 0.00                 |
| Stanislaus at New Melones    | 19.21                  | ---            | 41.62          | 24.25 (48)         | 79              | 0.00                 |
| San Joaquin at Huntington LK | 28.75                  | 11.50          | 74.10          | 35.48 (52)         | 81              | 0.00                 |

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

New Melones Lake Daily Operations, March 2025, Run Date: 4/11/2025

| Day | Elev     | Storage<br>1000-<br>Acre-<br>Feet in<br>Lake | Storage<br>1000-<br>Acre-<br>Feet<br>Change | Com-<br>puted<br>Inflow<br>C.F.S. | Release<br>C.F.S.<br>Power | Release<br>C.F.S.<br>Spill | Release<br>C.F.S.<br>Outlet | Evap.<br>C.F.S. | Evap.<br>Inches | Precip<br>Inches |
|-----|----------|--|---|-----------------------------------|----------------------------|----------------------------|-----------------------------|-----------------|-----------------|------------------|
| N/A | N/A      | 1,933.7                                      | N/A   | N/A                               | N/A                        | N/A                        | N/A                         | N/A             | N/A             | N/A              |
| 1   | 1,046.33 | 1,934.9                                      | 1.2   | 744                               | 80                         | 0                          | 0                           | 63              | 0.18            | 0.00             |
| 2   | 1,046.56 | 1,937.4                                      | 2.5   | 1,412                             | 118                        | 0                          | 0                           | 35              | 0.10            | 0.33             |
| 3   | 1,046.71 | 1,939.1                                      | 1.6   | 936                               | 111                        | 0                          | 0                           | 4               | 0.01            | 0.62             |
| 4   | 1,046.74 | 1,939.4                                      | 0.3   | 755                               | 573                        | 0                          | 0                           | 18              | 0.05            | 0.00             |
| 5   | 1,046.99 | 1,942.1                                      | 2.7   | 1,495                             | 106                        | 0                          | 0                           | 21              | 0.06            | 0.04             |
| 6   | 1,047.14 | 1,943.7                                      | 1.6   | 1,241                             | 411                        | 0                          | 0                           | 7               | 0.02            | 0.93             |
| 7   | 1,047.14 | 1,943.7                                      | 0.0   | 703                               | 696                        | 0                          | 0                           | 7               | 0.02            | 0.05             |
| 8   | 1,047.16 | 1,944.0                                      | 0.2   | 677                               | 518                        | 0                          | 0                           | 49              | 0.14            | 0.00             |
| 9   | 1,047.30 | 1,945.5                                      | 1.5   | 894                               | 83                         | 0                          | 0                           | 42              | 0.12            | 0.00             |
| 10  | 1,047.46 | 1,947.2                                      | 1.7   | 1,011                             | 66                         | 0                          | 0                           | 67              | 0.19            | 0.00             |
| 11  | 1,047.58 | 1,948.5                                      | 1.3   | 821                               | 116                        | 0                          | 0                           | 46              | 0.13            | 0.00             |
| 12  | 1,047.75 | 1,950.4                                      | 1.9   | 1,255                             | 287                        | 0                          | 0                           | 35              | 0.10            | 0.00             |
| 13  | 1,047.84 | 1,951.4                                      | 1.0   | 1,271                             | 724                        | 0                          | 0                           | 53              | 0.15            | 1.10             |
| 14  | 1,048.02 | 1,953.3                                      | 2.0   | 1,386                             | 393                        | 0                          | 0                           | 4               | 0.01            | 0.29             |
| 15  | 1,048.14 | 1,954.6                                      | 1.3   | 1,114                             | 449                        | 0                          | 0                           | 4               | 0.01            | 0.54             |
| 16  | 1,048.20 | 1,955.3                                      | 0.7   | 894                               | 525                        | 0                          | 0                           | 39              | 0.11            | 0.01             |
| 17  | 1,048.68 | 1,960.5                                      | 5.2   | 3,194                             | 546                        | 0                          | 0                           | 4               | 0.01            | 1.10             |
| 18  | 1,048.96 | 1,963.6                                      | 3.1   | 2,110                             | 564                        | 0                          | 0                           | 4               | 0.01            | 0.38             |
| 19  | 1,049.07 | 1,964.8                                      | 1.2   | 1,347                             | 705                        | 0                          | 0                           | 35              | 0.10            | 0.00             |
| 20  | 1,049.15 | 1,965.7                                      | 0.9   | 1,155                             | 685                        | 0                          | 0                           | 28              | 0.08            | 0.00             |
| 21  | 1,049.25 | 1,966.8                                      | 1.1   | 1,227                             | 624                        | 0                          | 0                           | 50              | 0.14            | 0.00             |
| 22  | 1,049.40 | 1,968.4                                      | 1.6   | 1,381                             | 506                        | 0                          | 0                           | 46              | 0.13            | 0.00             |



| Day           | Elev     | Storage<br>1000-<br>Acre-<br>Feet in<br>Lake | Storage<br>1000-<br>Acre-<br>Feet<br>Change | Com-<br>puted<br>Inflow<br>C.F.S. | Release<br>C.F.S.<br>Power | Release<br>C.F.S.<br>Spill | Release<br>C.F.S.<br>Outlet | Evap.<br>C.F.S. | Evap.<br>Inches | Precip<br>Inches |
|---------------|----------|--|---|-----------------------------------|----------------------------|----------------------------|-----------------------------|-----------------|-----------------|------------------|
| 23            | 1,049.57 | 1,970.3                                      | 1.9   | 1,355                             | 388                        | 0                          | 0                           | 28              | 0.08            | 0.00             |
| 24            | 1,049.69 | 1,971.6                                      | 1.3   | 1,404                             | 688                        | 0                          | 0                           | 53              | 0.15            | 0.00             |
| 25            | 1,049.95 | 1,974.4                                      | 2.8   | 1,721                             | 231                        | 0                          | 0                           | 53              | 0.15            | 0.00             |
| 26            | 1,050.20 | 1,977.2                                      | 2.7   | 1,784                             | 310                        | 0                          | 0                           | 89              | 0.25            | 0.00             |
| 27            | 1,050.35 | 1,978.8                                      | 1.6   | 1,609                             | 713                        | 0                          | 0                           | 64              | 0.18            | 0.00             |
| 28            | 1,050.57 | 1,981.3                                      | 2.4   | 1,659                             | 403                        | 0                          | 0                           | 36              | 0.10            | 0.00             |
| 29            | 1,050.65 | 1,982.1                                      | 0.9   | 1,182                             | 685                        | 0                          | 0                           | 53              | 0.15            | 0.00             |
| 30            | 1,050.68 | 1,982.5                                      | 0.3   | 1,083                             | 881                        | 0                          | 0                           | 36              | 0.10            | 0.10             |
| 31            | 1,050.81 | 1,983.9                                      | 1.4   | 1,728                             | 979                        | 0                          | 0                           | 28              | 0.08            | 0.28             |
| Totals        | N/A      | N/A  | 49.9  | 40,548                            | 14,164                     | 0                          | 0                           | 1,101           | 3.11            | 5.77             |
| Acre-<br>Feet | N/A      | N/A  | 49,900                                      | 80,427                            | 28,094                     | 0                          | 0                           | 2,184           | N/A             | N/A              |

Comments:

\* Computed inflow is the sum of change in storage, releases, and evaporation.

### Summary Precipitation

This Month 5.77  
October 1, 2024 to Date 18.03

### Summary: Release (acre- feet)

Release (acre-feet) N/A  
Power 28,094  
Spill 0  
Outlet 0  
**Total 28,094**

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

New Melones Lake Daily Operations, April 2025, Run Date: 4/14/2025

| Day           | Elev     | Storage<br>1000-<br>Acre-Feet in<br>Lake | Storage<br>1000-<br>Acre-<br>Feet<br>Change | Compu-<br>ted<br>Inflow<br>C.F.S. | Release<br>C.F.S.<br>Power | Re-<br>lease<br>C.F.S.<br>Spill | Re-<br>lease<br>C.F.S.<br>Outlet | Evap.<br>C.F.S. | Evap.<br>Inches | Precip.<br>Inches |
|---------------|----------|--|---|-----------------------------------|----------------------------|---------------------------------|----------------------------------|-----------------|-----------------|-------------------|
| N/A           | N/A      | 1,983.9                                  | N/A   | N/A                               | N/A                        | N/A                             | N/A                              | N/A             | N/A             | N/A               |
| 1             | 1,051.08 | 1,986.9                                  | 3.0   | 2,159                             | 649                        | 0                               | 0                                | 11              | 0.03            | 0.17              |
| 2             | 1,051.31 | 1,989.4                                  | 2.5   | 1,639                             | 355                        | 0                               | 0                                | 4               | 0.01            | 0.99              |
| 3             | 1,051.53 | 1,991.8                                  | 2.4   | 1,585                             | 315                        | 0                               | 0                                | 46              | 0.13            | 0.01              |
| 4             | 1,051.67 | 1,993.4                                  | 1.5   | 1,435                             | 610                        | 0                               | 0                                | 46              | 0.13            | 0.01              |
| 5             | 1,051.85 | 1,995.4                                  | 2.0   | 1,600                             | 537                        | 0                               | 0                                | 61              | 0.17            | 0.00              |
| 6             | 1,051.99 | 1,996.9                                  | 1.5   | 1,570                             | 730                        | 0                               | 0                                | 61              | 0.17            | 0.00              |
| 7             | 1,052.09 | 1,998.0                                  | 1.1   | 1,473                             | 843                        | 0                               | 0                                | 72              | 0.20            | 0.00              |
| 8             | 1,052.07 | 1,997.8                                  | -0.2  | 1,364                             | 1,451                      | 0                               | 0                                | 25              | 0.07            | 0.00              |
| 9             | 1,052.29 | 2,000.2                                  | 2.4   | 1,936                             | 647                        | 0                               | 0                                | 61              | 0.17            | 0.00              |
| 10            | 1,052.24 | 1,999.7                                  | -0.6  | 1,387                             | 1,594                      | 0                               | 0                                | 72              | 0.20            | 0.00              |
| 11            | 1,052.30 | 2,000.3                                  | 0.7   | 1,514                             | 1,118                      | 0                               | 0                                | 61              | 0.17            | 0.00              |
| 12            | 1,052.37 | 2,001.1                                  | 0.8   | 1,466                             | 1,014                      | 0                               | 0                                | 61              | 0.17            | 0.00              |
| 13            | 1,052.51 | 2,002.7                                  | 1.6   | 1,774                             | 914                        | 0                               | 0                                | 79              | 0.22            | 0.00              |
| Totals        | N/A      | N/A                                      | 18.7  | 20,902                            | 10,777                     | 0                               | 0                                | 660             | 1.84            | 1.18              |
| Acre-<br>Feet | N/A      | N/A                                      | 18,700                                      | 41,459                            | 21,376                     | 0                               | 0                                | 1,309           | N/A             | N/A               |

Comments:

\* Computed inflow is the sum of change in storage, releases, and evaporation.

### Summary Precipitation

|                         |       |
|-------------------------|-------|
| This Month              | 1.18  |
| October 1, 2021 to Date | 19.21 |

### Summary: Release (acre-feet)

|                     |               |
|---------------------|---------------|
| Release (acre-feet) | N/A           |
| Power               | 21,376        |
| Spill               | 0             |
| Outlet              | 0             |
| <b>Total</b>        | <b>21,376</b> |

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

Tulloch Reservoir Daily Operations, March 2025, Run Date: 4/10/2025

| Day | Elev   | Storage<br>(Acre<br>Feet) Res. | Storage<br>(Acre-<br>Feet)<br>Change | Computed<br>Inflow<br>C.F.S. | New<br>Melones<br>Release | Release<br>C.F.S.<br>Power | Release<br>C.F.S.<br>Spill | Release<br>C.F.S.<br>Outlet | Evap.<br>C.F.S.<br>(1) |
|-----|--------|--------------------------------|--------------------------------------|------------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|------------------------|
| N/A | N/A    | 57,291                         | N/A                                  | N/A                          | N/A                       | N/A                        | N/A                        | N/A                         | N/A                    |
| 1   | 501.15 | 56,552                         | -739                                 | 97                           | 80                        | 464                        | 0                          | 0                           | 6                      |
| 2   | 500.46 | 55,802                         | -750                                 | 242                          | 118                       | 616                        | 0                          | 0                           | 4                      |
| 3   | 499.74 | 55,026                         | -776                                 | 162                          | 111                       | 553                        | 0                          | 0                           | 0                      |
| 4   | 500.11 | 55,422                         | 396                                  | 693                          | 573                       | 354                        | 0                          | 137                         | 2                      |
| 5   | 499.25 | 54,503                         | -919                                 | 239                          | 106                       | 700                        | 0                          | 0                           | 2                      |
| 6   | 499.41 | 54,673                         | 170                                  | 639                          | 411                       | 552                        | 0                          | 0                           | 1                      |
| 7   | 500.75 | 56,116                         | 1,443                                | 1,139                        | 696                       | 410                        | 0                          | 0                           | 1                      |
| 8   | 501.47 | 56,905                         | 789                                  | 786                          | 518                       | 383                        | 0                          | 0                           | 5                      |
| 9   | 500.94 | 56,322                         | -583                                 | 92                           | 83                        | 382                        | 0                          | 0                           | 4                      |
| 10  | 500.32 | 55,650                         | -672                                 | 54                           | 66                        | 386                        | 0                          | 0                           | 7                      |
| 11  | 499.88 | 55,175                         | -475                                 | 151                          | 116                       | 385                        | 0                          | 0                           | 5                      |
| 12  | 499.98 | 55,282                         | 107                                  | 442                          | 287                       | 353                        | 0                          | 32                          | 3                      |
| 13  | 500.82 | 56,192                         | 910                                  | 1,211                        | 724                       | 747                        | 0                          | 0                           | 5                      |
| 14  | 500.87 | 56,246                         | 54                                   | 782                          | 393                       | 755                        | 0                          | 0                           | 0                      |
| 15  | 500.63 | 55,986                         | -260                                 | 780                          | 449                       | 911                        | 0                          | 0                           | 0                      |
| 16  | 500.44 | 55,780                         | -206                                 | 847                          | 525                       | 947                        | 0                          | 0                           | 4                      |
| 17  | 501.23 | 56,641                         | 861                                  | 1,381                        | 546                       | 947                        | 0                          | 0                           | 0                      |
| 18  | 501.54 | 56,983                         | 342                                  | 1,165                        | 564                       | 993                        | 0                          | 0                           | 0                      |
| 19  | 501.83 | 57,302                         | 319                                  | 1,174                        | 705                       | 1,009                      | 0                          | 0                           | 4                      |
| 20  | 502.06 | 57,557                         | 255                                  | 1,136                        | 685                       | 1,004                      | 0                          | 0                           | 3                      |
| 21  | 502.54 | 58,095                         | 538                                  | 950                          | 624                       | 674                        | 0                          | 0                           | 5                      |
| 22  | 502.63 | 58,196                         | 101                                  | 703                          | 506                       | 647                        | 0                          | 0                           | 5                      |
| 23  | 502.41 | 57,949                         | -247                                 | 536                          | 388                       | 658                        | 0                          | 0                           | 3                      |

| Day           | Elev   | Storage<br>(Acre<br>Feet) Res. | Storage<br>(Acre-<br>Feet)<br>Change | Computed<br>Inflow<br>C.F.S. | New<br>Melones<br>Release | Release<br>C.F.S.<br>Power | Release<br>C.F.S.<br>Spill | Release<br>C.F.S.<br>Outlet | Evap.<br>C.F.S.<br>(1) |
|---------------|--------|--------------------------------|--------------------------------------|------------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|------------------------|
| 24            | 502.67 | 58,240                         | 291                                  | 962                          | 688                       | 810                        | 0                          | 0                           | 5                      |
| 25            | 501.64 | 57,093                         | -1,147                               | 292                          | 231                       | 865                        | 0                          | 0                           | 5                      |
| 26            | 500.71 | 56,073                         | -1,020                               | 384                          | 310                       | 889                        | 0                          | 0                           | 9                      |
| 27            | 500.81 | 56,181                         | 108                                  | 976                          | 713                       | 916                        | 0                          | 0                           | 6                      |
| 28            | 500.21 | 55,531                         | -650                                 | 524                          | 403                       | 849                        | 0                          | 0                           | 3                      |
| 29            | 500.54 | 55,888                         | 357                                  | 994                          | 685                       | 809                        | 0                          | 0                           | 5                      |
| 30            | 501.48 | 56,916                         | 1,028                                | 1,301                        | 881                       | 779                        | 0                          | 0                           | 4                      |
| 31            | 502.60 | 58,162                         | 1,246                                | 1,399                        | 979                       | 768                        | 0                          | 0                           | 3                      |
| Totals        | NA     | NA                             | 871                                  | 22,233                       | 14,164                    | 21,515                     | 0                          | 169                         | 109                    |
| Acre-<br>Feet | NA     | NA                             | 871                                  | 44,099                       | 28,094                    | 42,675                     | 0                          | 335                         | 216                    |

Comments:

\* Computed inflow is the 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               | 42,675        |
| Spill               | 0             |
| Outlet              | 335           |
| <b>Total</b>        | <b>43,010</b> |

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

Tulloch Reservoir Daily Operations, April 2025, Run Date: 4/14/2025

| Day           | Elev   | Storage<br>(Acre Feet)<br>Reservoir | Storage<br>(Acre-<br>Feet)<br>Change | Computed<br>Inflow<br>C.F.S. | New<br>Melones<br>Release | Release<br>C.F.S.<br>Power | Release<br>C.F.S.<br>Spill | Release<br>C.F.S.<br>Outlet | Evap.<br>C.F.S.<br>(1) |
|---------------|--------|-------------------------------------|--------------------------------------|------------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|------------------------|
| N/A           | N/A    | 58,162                              | N/A                                  | N/A                          | N/A                       | N/A                        | N/A                        | N/A                         | N/A                    |
| 1             | 503.14 | 58,770                              | 608                                  | 1,022                        | 649                       | 652                        | 0                          | 62                          | 1                      |
| 2             | 502.61 | 58,173                              | -597                                 | 656                          | 355                       | 773                        | 0                          | 184                         | 0                      |
| 3             | 501.82 | 57,291                              | -882                                 | 502                          | 315                       | 942                        | 0                          | 0                           | 5                      |
| 4             | 501.69 | 57,148                              | -143                                 | 927                          | 610                       | 953                        | 0                          | 41                          | 5                      |
| 5             | 501.32 | 56,740                              | -408                                 | 788                          | 537                       | 988                        | 0                          | 0                           | 6                      |
| 6             | 501.43 | 56,861                              | 121                                  | 1,055                        | 730                       | 988                        | 0                          | 0                           | 6                      |
| 7             | 501.23 | 56,641                              | -220                                 | 1,160                        | 843                       | 1,264                      | 0                          | 0                           | 7                      |
| 8             | 502.55 | 58,106                              | 1,465                                | 2,153                        | 1,451                     | 1,411                      | 0                          | 0                           | 3                      |
| 9             | 501.81 | 57,280                              | -826                                 | 991                          | 647                       | 1,401                      | 0                          | 0                           | 6                      |
| 10            | 502.90 | 58,498                              | 1,218                                | 2,387                        | 1,594                     | 1,766                      | 0                          | 0                           | 7                      |
| 11            | 502.70 | 58,274                              | -224                                 | 1,659                        | 1,118                     | 1,766                      | 0                          | 0                           | 6                      |
| 12            | 502.24 | 57,759                              | -515                                 | 1,511                        | 1,014                     | 1,765                      | 0                          | 0                           | 6                      |
| 13            | 501.48 | 56,916                              | -843                                 | 1,357                        | 914                       | 1,774                      | 0                          | 0                           | 8                      |
| Totals        | N/A    | N/A                                 | -1,246                               | 16,168                       | 10,777                    | 16,443                     | 0                          | 287                         | 66                     |
| Acre-<br>Feet | N/A    | N/A                                 | -1,246                               | 32,069                       | 21,376                    | 32,615                     | 0                          | 569                         | 131                    |

Comments:

\* Computed inflow is the 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               | 32,615        |
| Spill               | 0             |
| Outlet              | 569           |
| <b>Total</b>        | <b>33,184</b> |

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

Goodwin Reservoir Daily Operations, March 2025, Run Date: 4/10/2025

| Day | Elev   | Storage<br>(1000<br>Acre-<br>Feet) in<br>Reservoir | Storage<br>(1000<br>Acre-Feet)<br>Change | Tulloch<br>Release | Release<br>C.F.S. –<br>River<br>Outlet | Release<br>C.F.S. –<br>Spill | Canals-<br>Joint<br>Main | Canals –<br>South<br>Main |
|-----|--------|--|--|--------------------|--|------------------------------|--------------------------|---------------------------|
| N/A | N/A    | 518  | N/A                                      | N/A                | N/A                                    | N/A                          | N/A                      | N/A                       |
| 1   | 359.74 | 519  | 1  | 464                | 0                                      | 206                          | 233                      | 72                        |
| 2   | 359.75 | 520  | 1  | 616                | 0                                      | 207                          | 366                      | 61                        |
| 3   | 359.75 | 520  | 0  | 553                | 0                                      | 206                          | 328                      | 36                        |
| 4   | 359.75 | 520  | 0  | 491                | 0                                      | 205                          | 297                      | 0                         |
| 5   | 359.76 | 520  | 0  | 700                | 0                                      | 223                          | 465                      | 0                         |
| 6   | 359.75 | 520  | 0  | 552                | 0                                      | 204                          | 351                      | 0                         |
| 7   | 359.75 | 520  | 0  | 410                | 0                                      | 203                          | 223                      | 0                         |
| 8   | 359.75 | 520  | 0  | 383                | 0                                      | 202                          | 201                      | 0                         |
| 9   | 359.75 | 520  | 0  | 382                | 0                                      | 202                          | 201                      | 0                         |
| 10  | 359.76 | 520  | 0  | 386                | 0                                      | 202                          | 205                      | 0                         |
| 11  | 359.75 | 520  | 0  | 385                | 0                                      | 203                          | 208                      | 0                         |
| 12  | 359.76 | 520  | 0  | 385                | 0                                      | 205                          | 209                      | 0                         |
| 13  | 360.03 | 539  | 19                                       | 747                | 0                                      | 583                          | 211                      | 0                         |
| 14  | 360.03 | 539  | 0  | 755                | 0                                      | 604                          | 211                      | 0                         |
| 15  | 360.03 | 539  | 0  | 911                | 0                                      | 606                          | 356                      | 0                         |
| 16  | 360.03 | 539  | 0  | 947                | 0                                      | 602                          | 393                      | 0                         |
| 17  | 360.03 | 539  | 0  | 947                | 0                                      | 614                          | 393                      | 0                         |
| 18  | 360.03 | 539  | 0  | 993                | 0                                      | 605                          | 409                      | 35                        |
| 19  | 360.03 | 539  | 0  | 1,009              | 0                                      | 600                          | 417                      | 50                        |
| 20  | 360.02 | 538  | -1                                       | 1,004              | 0                                      | 602                          | 418                      | 40                        |
| 21  | 359.75 | 520  | -18                                      | 674                | 0                                      | 258                          | 418                      | 40                        |
| 22  | 359.75 | 520  | 0  | 647                | 0                                      | 203                          | 419                      | 51                        |

| Day       | Elev   | Storage<br>(1000<br>Acre-<br>Feet) in<br>Reservoir | Storage<br>(1000<br>Acre-Feet)<br>Change | Tulloch<br>Release | Release<br>C.F.S. –<br>River<br>Outlet | Release<br>C.F.S. –<br>Spill | Canals-<br>Joint<br>Main | Canals –<br>South<br>Main |
|-----------|--------|--|--|--------------------|--|------------------------------|--------------------------|---------------------------|
| 23        | 359.75 | 520  | 0  | 658                | 0                                      | 203                          | 419                      | 65                        |
| 24        | 359.76 | 520  | 0  | 810                | 0                                      | 205                          | 533                      | 95                        |
| 25        | 359.75 | 520  | 0  | 865                | 0                                      | 203                          | 576                      | 105                       |
| 26        | 359.75 | 520  | 0  | 889                | 0                                      | 202                          | 600                      | 105                       |
| 27        | 359.75 | 520  | 0  | 916                | 0                                      | 203                          | 603                      | 135                       |
| 28        | 359.75 | 520  | 0  | 849                | 0                                      | 202                          | 552                      | 121                       |
| 29        | 359.75 | 520  | 0  | 809                | 0                                      | 202                          | 536                      | 95                        |
| 30        | 359.75 | 520  | 0  | 779                | 0                                      | 203                          | 520                      | 82                        |
| 31        | 359.76 | 520  | 0  | 768                | 0                                      | 205                          | 510                      | 82                        |
| Totals    | N/A    | N/A  | 2  | 21,684             | 0                                      | 9,573                        | 11,781                   | 1,270                     |
| Acre-Feet | N/A    | N/A  | 2  | 43,010             | 0                                      | 18,988                       | 23,368                   | 2,519                     |

Joint Main Operated by SSJID and OID.

Summary: Release (acre-feet)

|                  |               |
|------------------|---------------|
| Joint Main Canal | 23,368        |
| South Main Canal | 2,519         |
| Outlet           | 0             |
| Spill            | 18,988        |
| <b>Total</b>     | <b>44,875</b> |



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

Goodwin Reservoir Daily Operations, April 2025, Run Date: 4/14/2025

| Day          | Elev   | Storage (1000<br>Acre- Feet) in<br>Lake | Storage<br>(1000<br>Acre-Feet)<br>Change | Tulloch<br>Release | Release<br>C.F.S. –<br>River<br>Outlet | Release<br>C.F.S. –<br>Spill | Canals–<br>Joint<br>Main | Canals–<br>South<br>Main |
|--------------|--------|---|--|--------------------|--|------------------------------|--------------------------|--------------------------|
| N/A          | N/A    | 520                                     | N/A                                      | N/A                | N/A                                    | N/A                          | N/A                      | N/A                      |
| 1            | 359.76 | 520                                     | 0  | 714                | 0                                      | 207                          | 490                      | 42                       |
| 2            | 359.89 | 529                                     | 9  | 957                | 0                                      | 401                          | 543                      | 43                       |
| 3            | 359.90 | 530                                     | 1  | 942                | 0                                      | 401                          | 554                      | 20                       |
| 4            | 359.90 | 530                                     | 0  | 994                | 0                                      | 402                          | 561                      | 73                       |
| 5            | 359.89 | 529                                     | -1                                       | 988                | 0                                      | 401                          | 568                      | 60                       |
| 6            | 359.90 | 530                                     | 1  | 988                | 0                                      | 401                          | 569                      | 60                       |
| 7            | 360.04 | 540                                     | 10                                       | 1,264              | 0                                      | 593                          | 582                      | 144                      |
| 8            | 360.04 | 540                                     | 0  | 1,411              | 0                                      | 603                          | 677                      | 191                      |
| 9            | 360.03 | 539                                     | -1                                       | 1,401              | 0                                      | 603                          | 690                      | 173                      |
| 10           | 360.18 | 550                                     | 11                                       | 1,766              | 0                                      | 850                          | 691                      | 247                      |
| 11           | 360.18 | 550                                     | 0  | 1,766              | 0                                      | 855                          | 710                      | 228                      |
| 12           | 360.17 | 549                                     | -1                                       | 1,765              | 0                                      | 853                          | 712                      | 240                      |
| 13           | 360.17 | 549                                     | 0  | 1,774              | 0                                      | 852                          | 730                      | 232                      |
| Totals       | N/A    | N/A                                     | 29                                       | 16,730             | 0                                      | 7,422                        | 8,077                    | 1,753                    |
| Acre<br>Feet | N/A    | N/A                                     | 29                                       | 33,184             | 0                                      | 14,722                       | 16,021                   | 3,477                    |

Joint Main Operated by SSJID and OID.

Summary: Release (acre-feet)

|                  |               |
|------------------|---------------|
| Joint Main Canal | 16,021        |
| South Main Canal | 3,477         |
| Outlet           | 0             |
| Spill            | 14,722        |
| <b>Total</b>     | <b>34,219</b> |

Table 5. New Melones 50% Exceedance

| Month             | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Storage (TAF)     | 1966 | 1972 | 1906 | 1843 | 1787 | 1743 | 1690 | 1703 | 1721 | 1757 | 1799 | 1858 |
| Releases (TAF)    | 142  | 158  | 192  | 110  | 90   | 77   | 82   | 22   | 21   | 12   | 37   | 43   |
| Inflow (TAF)      | 128  | 170  | 132  | 56   | 42   | 38   | 33   | 36   | 40   | 50   | 80   | 105  |
| GW Releases (CFS) | 751  | 953  | 1500 | 200  | 200  | 200  | 635  | 200  | 200  | 200  | 500  | 530  |

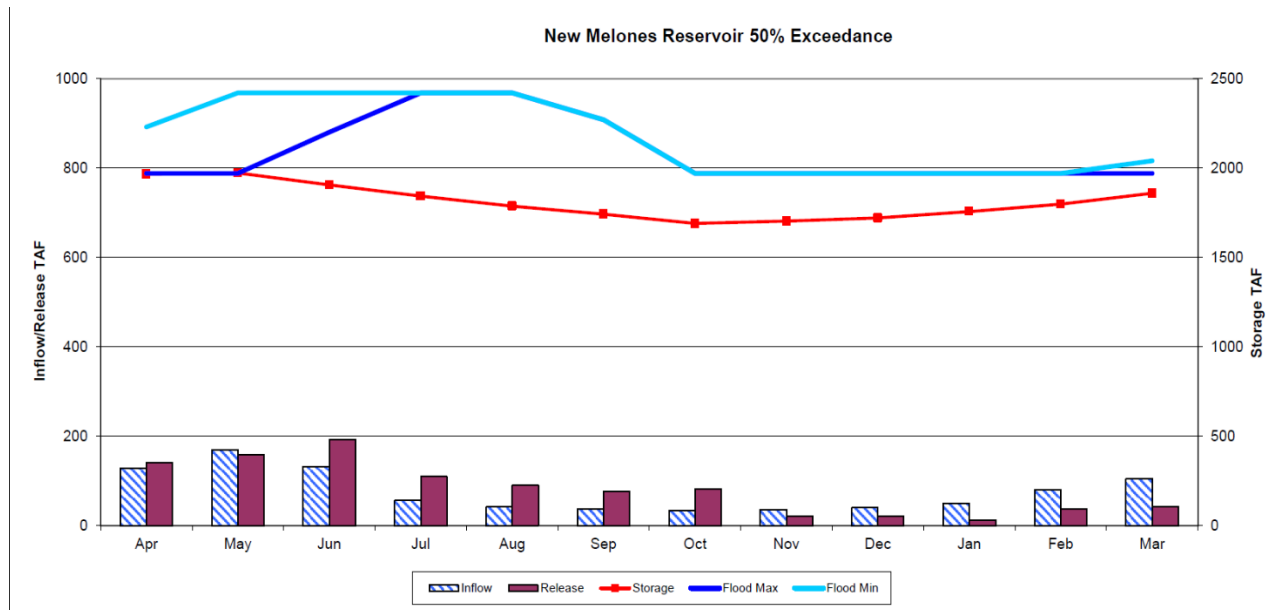


Figure 1. New Melones Reservoir 50% Exceedance

Figure 1 is a graphs that show the New Melones Reservoir Exceedance. The graph shows the New Melones Reservoir 50% exceedance with inflow and release being the highest from April to March.

Table 6. New Melones 90% Exceedance

| Month             | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Storage (TAF)     | 1948 | 1891 | 1756 | 1685 | 1627 | 1580 | 1525 | 1531 | 1539 | 1545 | 1503 | 1481 |
| Releases (TAF)    | 138  | 178  | 210  | 110  | 90   | 77   | 82   | 22   | 21   | 12   | 66   | 66   |
| Inflow (TAF)      | 107  | 126  | 81   | 47   | 40   | 35   | 30   | 30   | 30   | 20   | 25   | 45   |
| GW Releases (CFS) | 751  | 953  | 1800 | 200  | 200  | 200  | 635  | 200  | 200  | 200  | 1020 | 900  |

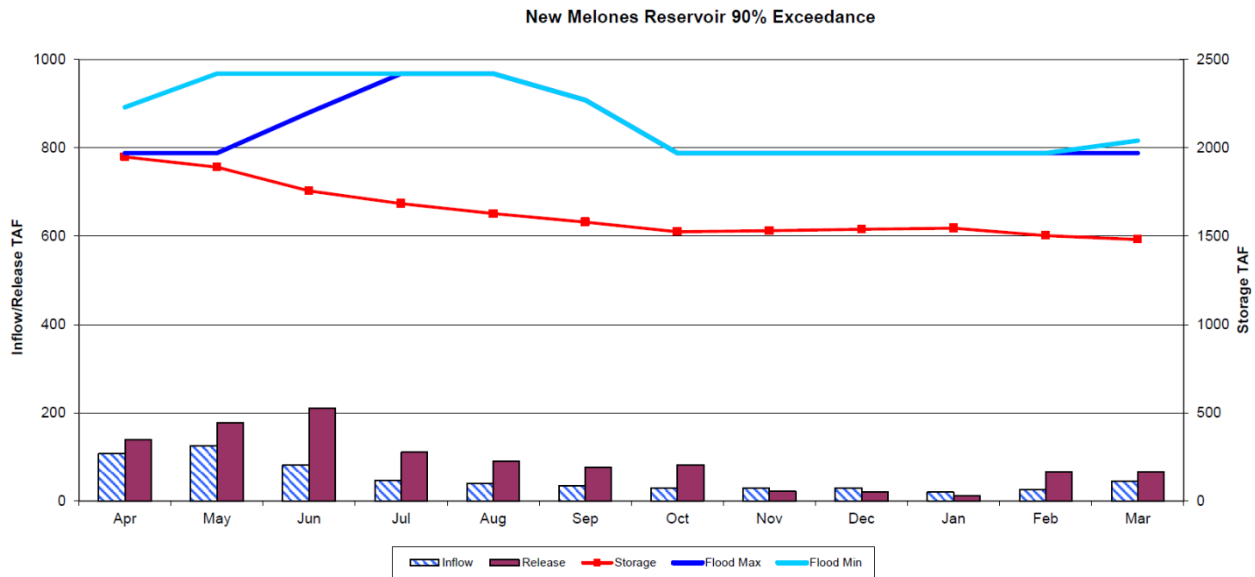


Figure 2. New Melones Reservoir 90% Exceedance

Figure 2 is a graph that shows the New Melones Reservoir Exceedance. The graph shows the New Melones Reservoir 90% exceedance with the highest release being from April to March.

# March 2025 Water Temperature and Fish Monitoring Update

## Year-to-Date Flows

Goodwin releases since October 1, 2024, are shown in Figure 1.

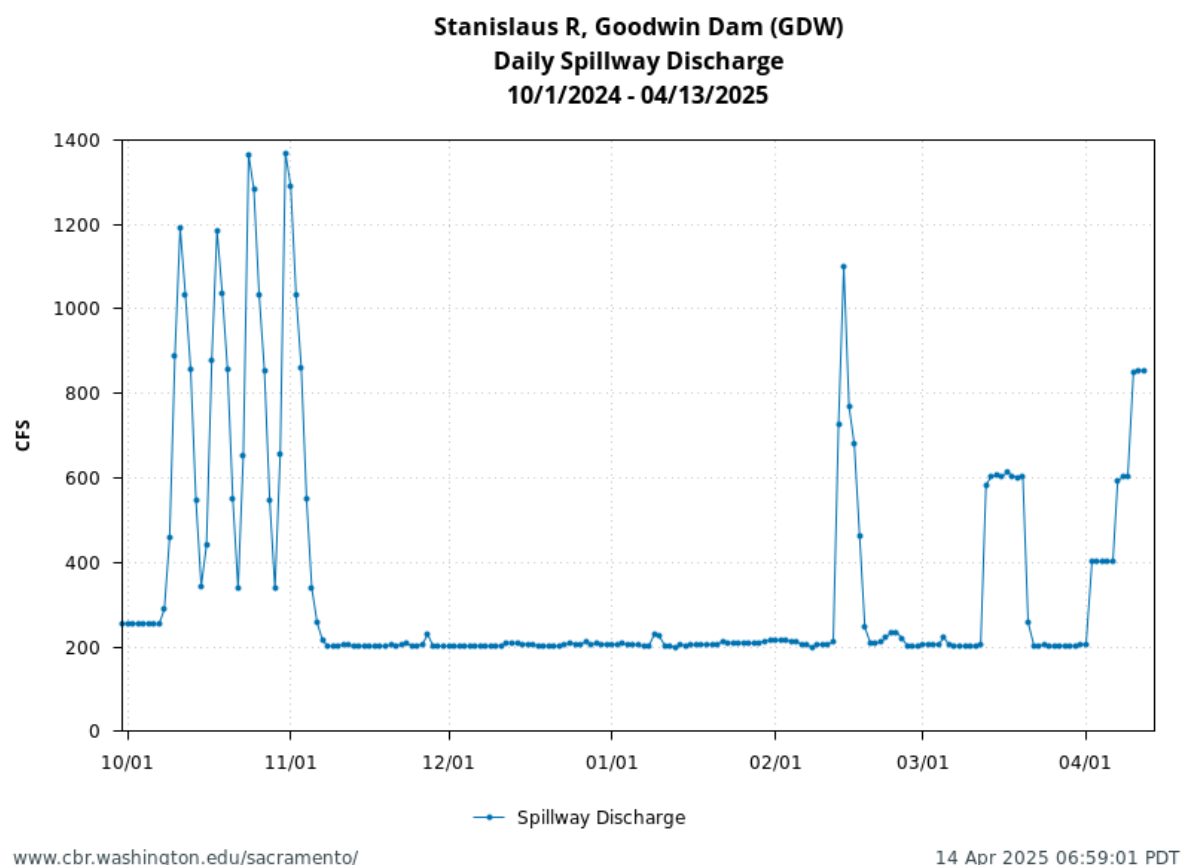


Figure 3. Goodwin (daily) releases to the Stanislaus River since October 1, 2024. Data from GDW station on CDEC.

Figure 3 is a line graph showing Goodwin Dam daily spillway discharge. The graph shows two periods of 1,350 cfs on October 24 and October 31, 2024 and two periods of 1,200 cfs discharge on October 11 and October 18, 2024. The spillway discharge remains around 250 cfs from November 7, 2024 to February 15, 2025, with a minor increase in late November 2024 and early January 2025. The spillway discharge peaks to about 1,500 cfs on February 15 2025 and to about 600 cfs on March 16, 2025. There is a continuous increase in beginning in April 2025 starting at 400 cfs to 600 cfs and then above 800 cfs.

## Water Temperature

The temperature thresholds included in Figures 2-10, below, are the thresholds used in the 2024 NMFS LTO BiOp1 (see Incidental Take Statement on p. 896-897) 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 2024 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 February 2025 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 February 2025 are shown below at Vernalis (Figure 5). Current-year water temperatures are plotted along with historical temperatures for upstream of Orange Blossom Bridge (Figure 6), Ripon (Figure 7), and Vernalis (Figure 8). A compilation of Stanislaus River water temperatures and Goodwin releases Water Year 2025 is provided in Figure 9.

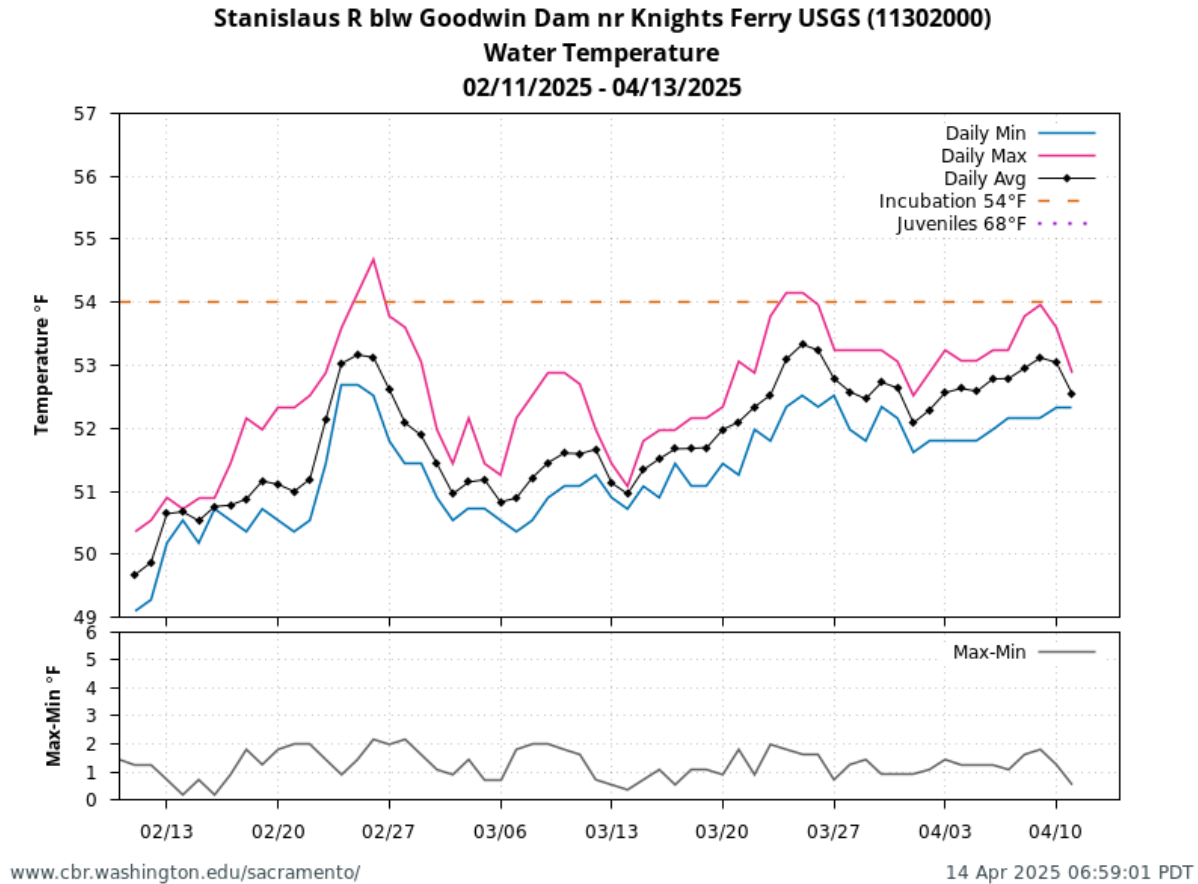


Figure 4. Daily water temperatures on the Stanislaus River upstream of Knights Ferry since February 11, 2025. Data from USGS gage 11302000 on NWIS; temperature threshold reference line added by SWT.

Chart: Stacked chart for daily water temperatures Stanislaus River upstream of Knights Ferry for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines).

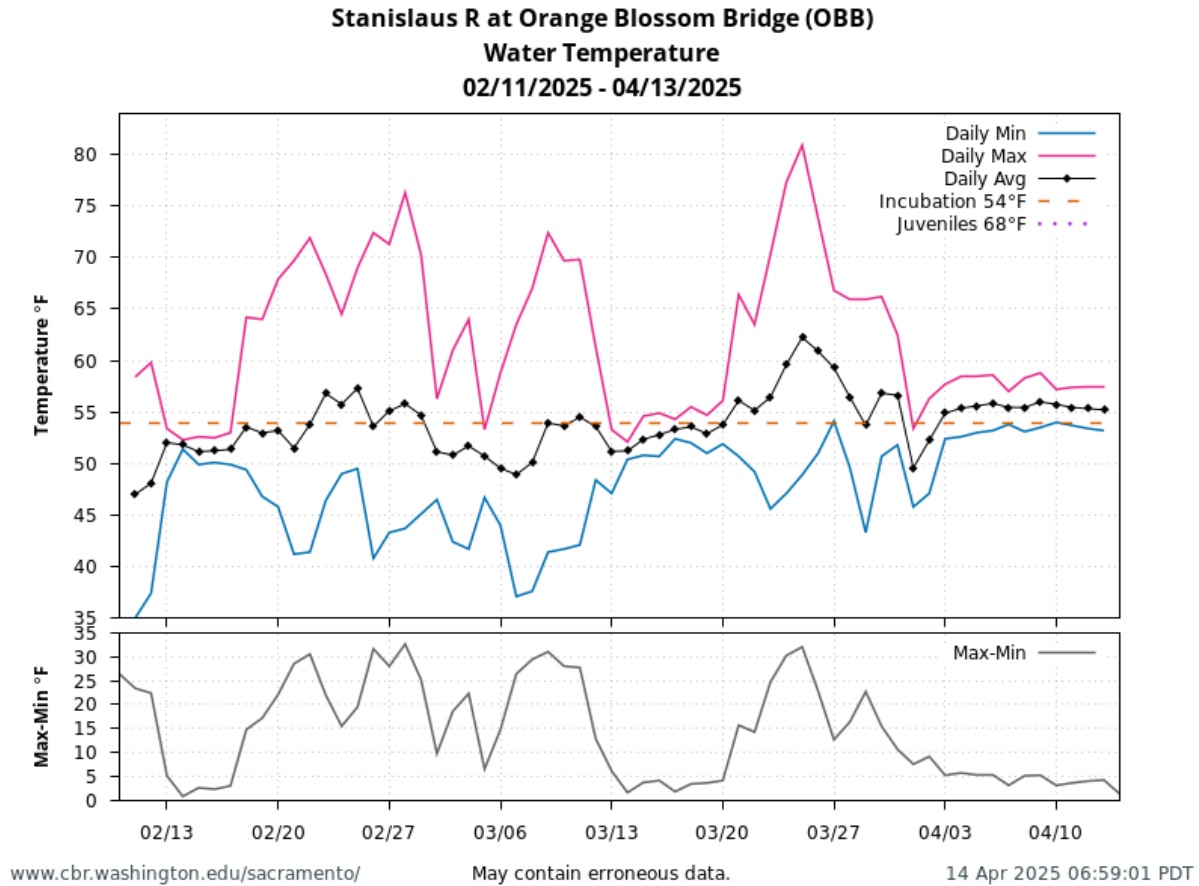


Figure 5. Stanislaus (hourly) water temperatures at Orange Blossom Bridge since February 11, 2024. Data from OBB station on CDEC. Please be aware that due to malfunctions with the temperature gauge at Orange Blossom Bridge, the data should be noted as unreliable.

Chart: Stacked chart for daily water temperatures Stanislaus River at Orange Blossom Bridge for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines). For more information, please call (916) 414-2400.



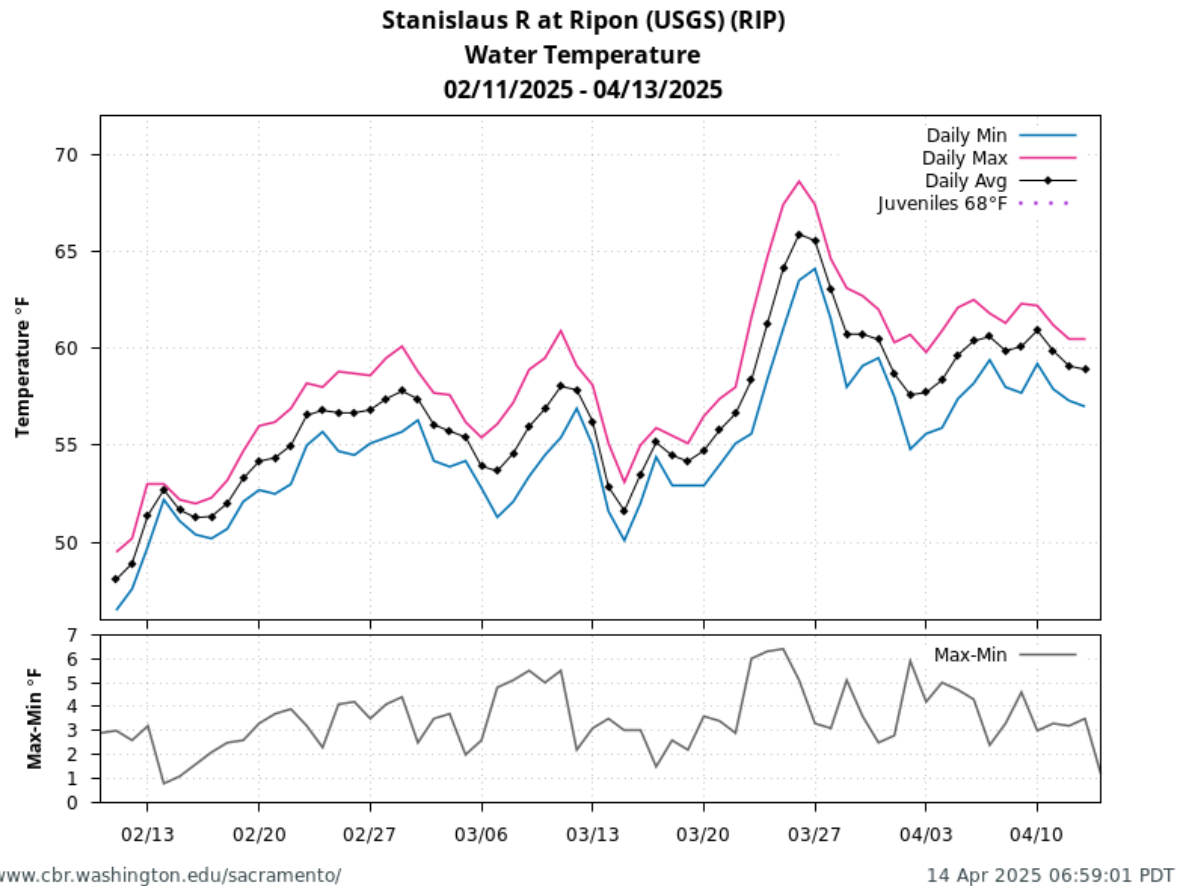


Figure 6. Stanislaus water temperatures at Ripon since February 11, 2025. Data from RIP station on CDEC.

Chart: Stacked chart for daily water temperatures Stanislaus River at Ripon for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines).

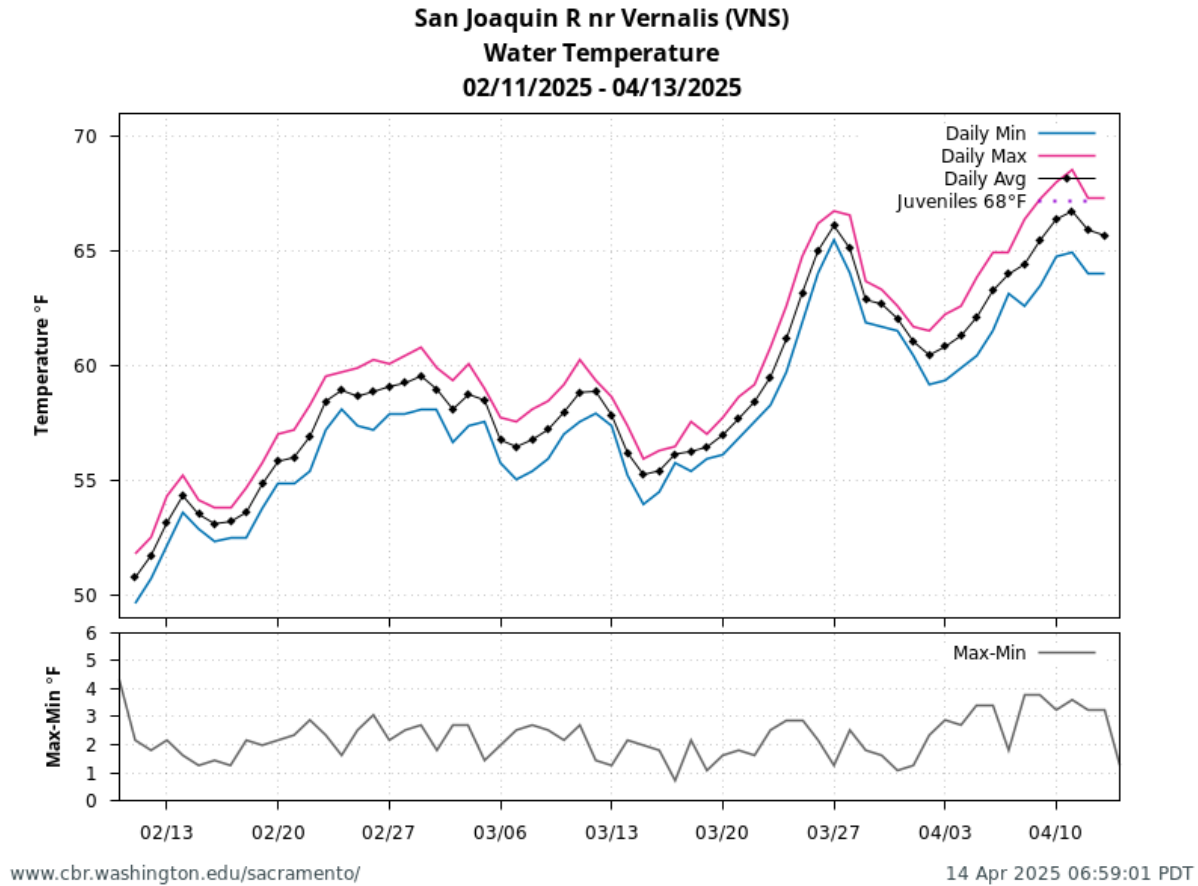


Figure 7. San Joaquin River (15-minute) water temperatures at Vernalis since February 11, 2025. Data from VNS station on CDEC. Note that, unlike in the previous figures, temperature is reported in degrees Celsius. 8°C=46.4°F; 10°C=50°F; 12°C=53.6°F; 14°C=57.2°F; 16°C=60.8°F; 18°C=64.4°F; 20°C=68.0°F; 22°C=71.6°F; 24°C=75.2°F; 26°C=78.8°F; 28°C=82.4°F.

Chart: Stacked chart for daily water temperatures Stanislaus River at Vernalis for current 60 days period. Top chart: Daily Min, Max and average water temperatures (in degrees Fahrenheit). Bottom chart: Daily difference between Max and Min measured water temperature in degrees Fahrenheit. Data from OBB station retrieved from CDEC; figure generated by SacPAS (including date-based water temperature threshold reference lines).

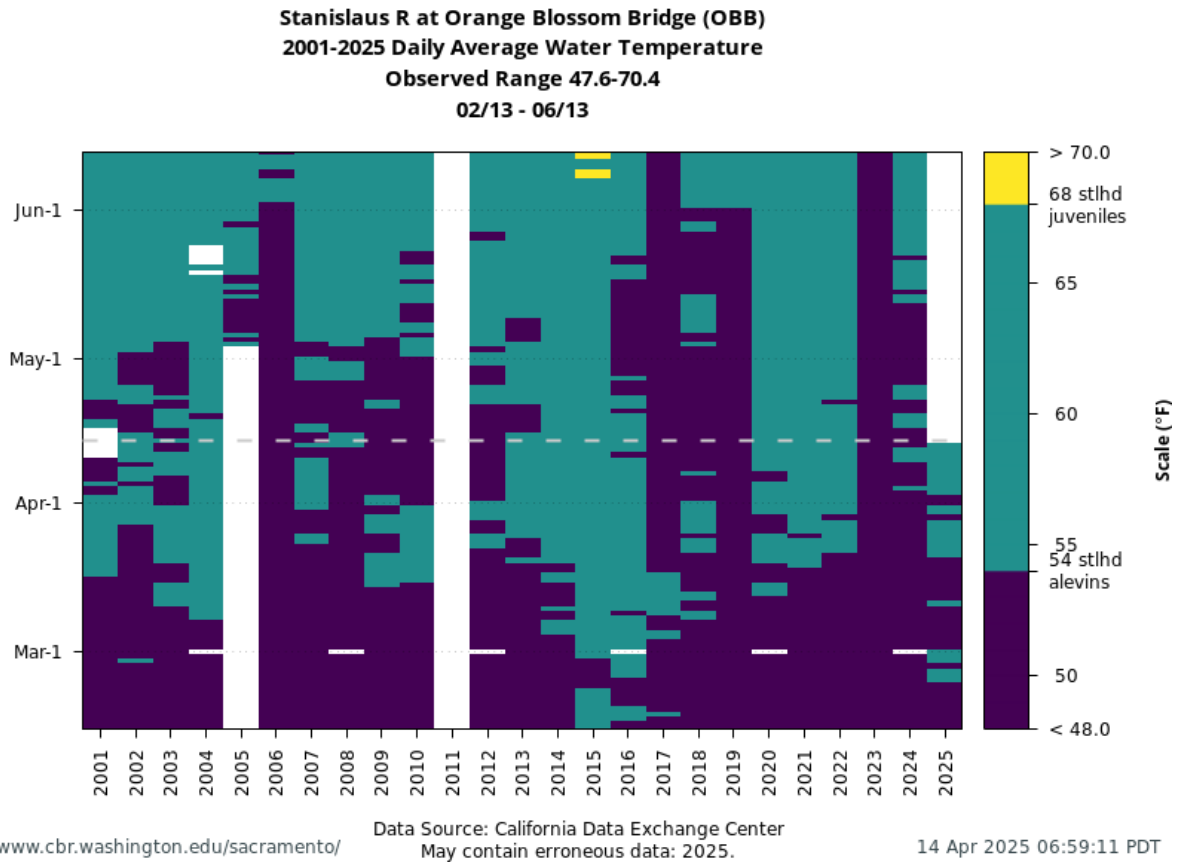


Figure 8. Stanislaus River water temperatures at Orange Blossom Bridge for WY 2001 to present. [Data from SacPAS website](#); temperature threshold reference lines added by SWT. Please be aware that due to malfunctions with the temperature gauge at Orange Blossom Bridge, the data should be noted as unreliable.

Figure 8 is a bar chart showing water temperatures at Orange Blossom Bridge for WY 2001 to present for February to June. Blossom readings were flagged due to incomplete or potentially inaccurate data due to unidentified equipment issues.

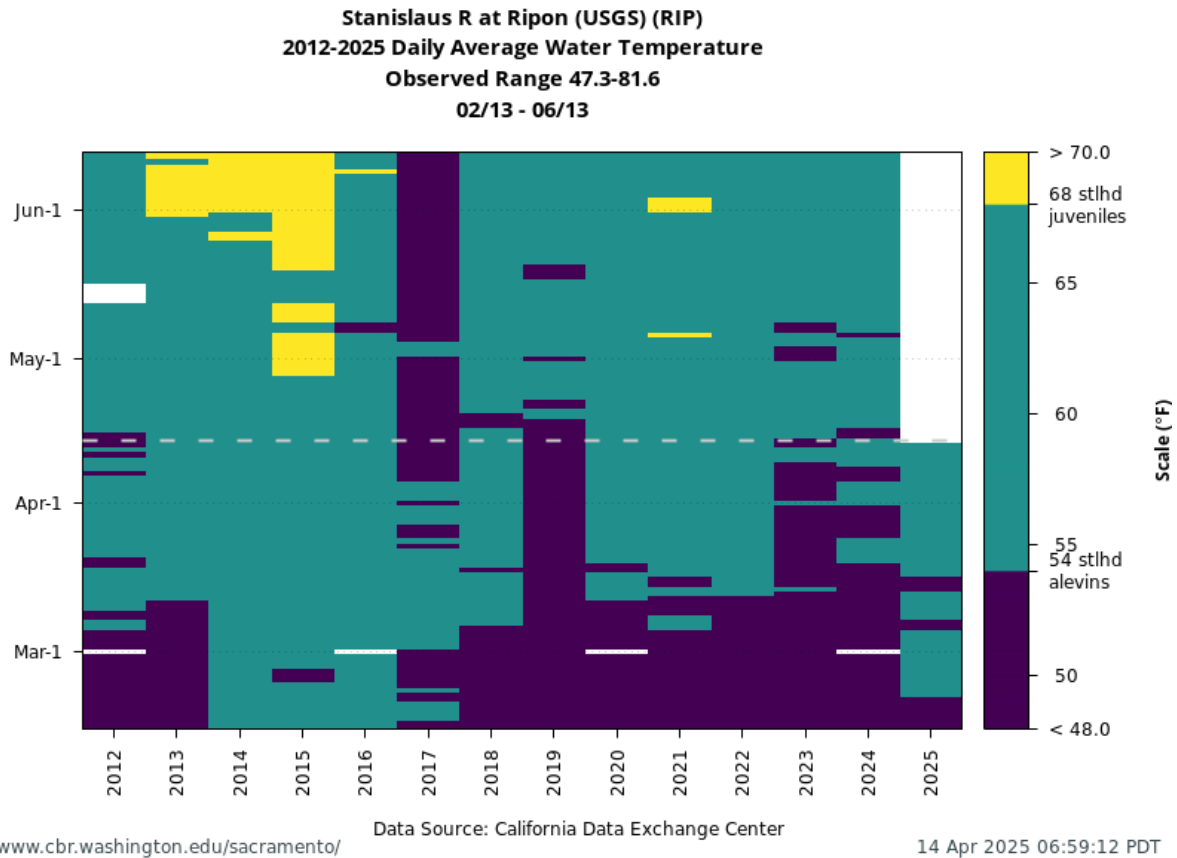


Figure 9. Stanislaus River water temperatures at Ripon for WY 2011 to present. Figure from [SacPAS website](https://www.sacpas.org/) using RIP station data from CDEC; temperature threshold reference line added by SWT.

Figure 9 is a bar chart showing water temperatures at Ripon for WY 2011 to present for February to June. The chart shows that during this time, the daily average water temperature was mostly above 54 degrees Fahrenheit.

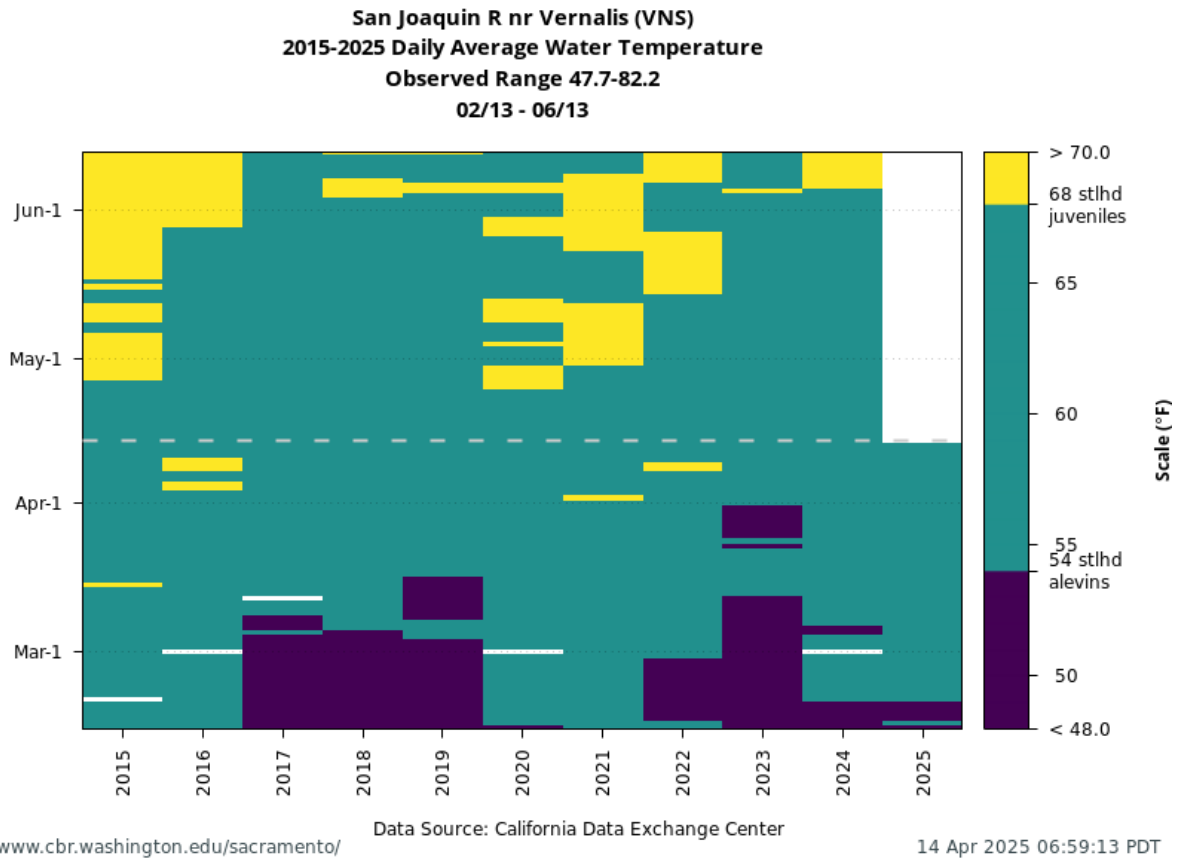


Figure 10. San Joaquin River water temperatures at Vernalis for WY 2014 to present. Figure from [SacPAS website](https://www.sacpas.org/) using VNS station data from CDEC; temperature threshold reference line added by SWT.

Figure 10 is a bar chart showing water temperatures at Vernalis for WY 2014 to present for February to June. The chart shows that during this time, the daily average water temperature was mostly above 54 degrees Fahrenheit, with periods of temperatures above 68 degrees Fahrenheit in May and June 2015, 2020 through 2022.

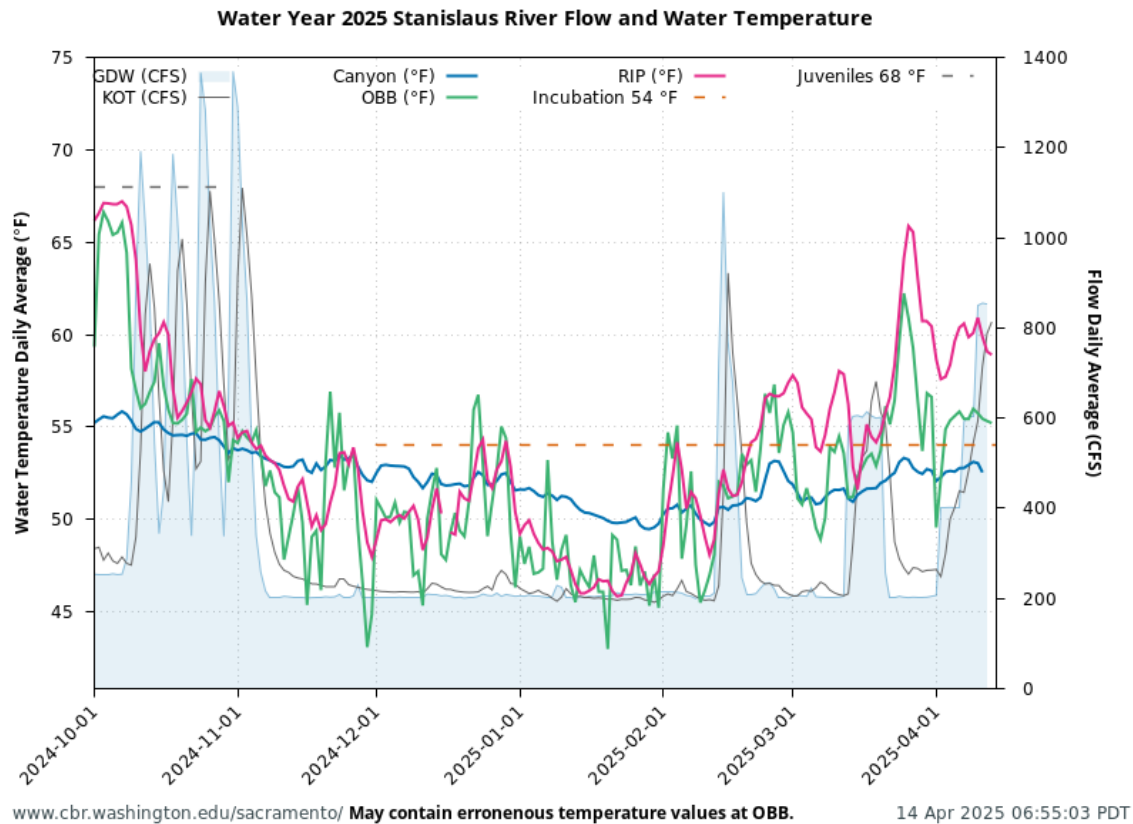


Figure 11. Stanislaus River flow and water temperatures from October 1, 2024 to April 1, 2025. [Data \(including temperature threshold reference lines\) from SacPAS website](https://www.cbr.washington.edu/sacramento/). Please be aware that due to malfunctions with the temperature gauge at Orange Blossom Bridge, the data should be noted as unreliable.

Figure 11 is a line chart showing river flow and water temperatures on the Stanislaus River. The graph shows decreasing temperatures and flow October 2024 – February 2025, with increasing temperatures after March 2025.

## Item 6. Flow Planning

### CDFW & USBR Updates

Updates to be shared/discussed at April meeting.

## Item 7. Stanislaus River Forum (SRF) Call Review

### USBR Updates

Receive live update from USBR staff on the 4/15 call.

## Item 8. Fish Monitoring and Studies

### CDFW Update on Fish Monitoring (Adults)

Chinook carcass and redd surveys: The California Department of Fish & Wildlife (CDFW) completed Chinook salmon carcass and redd surveys the week of 1/6/2025. Preliminary estimate: 2,546

Steelhead redd surveys: Began 1/6/2025.

### Steelhead Redd Survey

Table 7. Data on steelhead redd survey through the week of 4/8/2025.

| Week | Date      | # RBT Live <40 | # RBT Live <40 | # RBT Redds | # RBT Car-cass | # CHN Live | # CHN Redds | # CHN Car-cass | # PL Live | # PL Redds | # PL Car-cass | # SASU Redds | Average Flow (cfs) |
|------|-----------|----------------|----------------|-------------|----------------|------------|-------------|----------------|-----------|------------|---------------|--------------|--------------------|
| 1    | 1/6/2025  | 13             | 0              | 1           | 1              | 21         | 31          | 4              | 0         | 0          | 0             | 0            | 200                |
| 2    | 1/13/2025 | 0              | 14             | 0           | 0              | 6          | 104         | 2              | 0         | 0          | 0             | 0            | 200                |
| 3    | 1/20/2025 | 0              | 4              | 0           | 2              | 1          | 2           | 2              | 0         | 0          | 0             | 0            | 200                |
| 4    | 1/27/2025 | 3              | 17             | 0           | 0              | 0          | 0           | 0              | 0         | 0          | 0             | 0            | 200                |
| 5    | 2/3/2025  | 4              | 37             | 7           | 0              | 0          | 0           | 0              | 0         | 0          | 0             | 5            | 200                |
| 6    | 2/10/2025 | 2              | 24             | 2           | 3              | 0          | 0           | 0              | 0         | 0          | 0             | 42           | 200                |
| 7    | 2/17/2025 | 9              | 42             | 5           | 1              | 0          | 0           | 0              | 0         | 0          | 0             | 77           | 216                |
| 8    | 2/24/2025 | 1              | 34             | 8           | 0              | 0          | 0           | 0              | 0         | 0          | 0             | 847          | 200                |
| 9    | 3/3/2025  | 3              | 15             | 6           | 1              | 0          | 0           | 0              | 3         | 3          | 0             | 785          | 223                |
| 10   | 3/10/2025 | 0              | 21             | 6           | 3              | 0          | 0           | 0              | 2         | 5          | 0             | 764          | 282                |
| 11   | 3/18/2025 | 1              | 0              | 0           | 0              | 0          | 0           | 0              | 0         | 0          | 0             | 82           | 720                |
| 12   | 3/25/2025 | 11             | 1              | 1           | 0              | 0          | 0           | 0              | 0         | 0          | 0             | 2045         | 200                |
| 13   | 4/1/2025  | 2              | 0              | 0           | 0              | 0          | 0           | 0              | 0         | 0          | 0             | 591          | 333                |
| 14   | 4/8/2025  | 18             | 2              | 1           | 0              | 0          | 0           | 0              | 0         | 0          | 0             | 626          | 683                |

\*- Data revised from previous handout.

RBT- O. mykiss

CHN- Chinook salmon

PL- Pacific Lamprey

SASU- Sacramento Sucker

## Update on Fish Monitoring (Juveniles)

### ***Mossdale Trawl***

- Operations shifted from joint operations (USFWS and CDFW) to CDFW-only on 2/18/2025.

Table 8. Data on Mossdale Trawl catch through 4/12/2025

| Date      | Catch             | Comments                   |
|-----------|-------------------|----------------------------|
| 2/18/2025 | 2 CHN             | FL 36,36                   |
| 2/21/2025 | 1 CHN             | FL 39                      |
| 3/10/2025 | 2 ad-clip         | Retained for CWT           |
| 3/12/2025 | 2 ad-clip         | Retained for CWT           |
| 3/17/2025 | 2 ad-clip         | N/A                        |
| 3/19/2025 | 3 ad-clip         | N/A                        |
| 3/21/2025 | 2 CHN, 3 ad-clip  | FL 48,78                   |
| 3/24/2025 | 1 CHN, 9 ad-clip  | FL 90                      |
| 3/26/2025 | 14 ad-clip        | N/A                        |
| 3/28/2025 | 140 ad-clip       | N/A                        |
| 4/1/2025  | 3 ad-clip         | N/A                        |
| 4/3/2025  | 13 ad-clip        | N/A                        |
| 4/4/2025  | 5 CHN, 29 ad-clip | FL 77,79,64,79, 104        |
| 4/5/2025  | 2 CHN, 9 ad-clip  | FL 88,75                   |
| 4/7/2025  | 1 RBT             | FL 236                     |
| N/A       | 2 CHN, 8 ad-clip  | FL 79,87                   |
| 4/8/2025  | 10 ad-clip        | N/A                        |
| 4/10/2025 | 8 CHN, 18 ad-clip | FL 74,75,77,81,81,79,76,82 |
| 4/11/2025 | 8 CHN, 13 ad-clip | FL 73,74,80,76,75,77,77,92 |
| 4/12/2025 | 5 CHN, 5 ad-clip  | FL 87,80,83,75,71          |

Adipose clips retained for CWT extraction

### ***Note from FISHBIO***

- The trap was opened on 4/9/2025 as flows were increased and no longer conducive to trapping.
- The backup video has not yet been reviewed, hence the update only through 4/8/2025.



- There has been no salmonid passage since February.

### ***Stanislaus Weir***

As of 4/8/2025, a total of 3,640 adult Chinook salmon have passed upstream of the Stanislaus River weir (Table 3). 738 (20%) of the adults were adipose fin clipped (indicating hatchery origin). A total of 20 *O. mykiss* (Table 4) have been observed passing the Stanislaus River weir as of 4/8/2025, with 7 being over 16 inches. Six out of 20 (30%) of the *O. mykiss* were adipose fin clipped.

Table 9. Chinook passage at the Stanislaus River Weir - Updated through: 4/8/2025

| <b>Year</b> | <b>Monitoring Start date</b> | <b>Net Passage To Date</b> | <b>Season Total</b> |
|-------------|------------------------------|----------------------------|---------------------|
| 2024        | 9/5/24                       | 3,640                      | 3,640               |
| 2023        | 9/6/23                       | 2,337                      | 2,443               |
| 2022        | 9/15/22                      | 3,692                      | 3,798               |
| 2021        | 9/8/21                       | 5,937                      | 6,032               |
| 2020        | 9/10/20                      | 1,873                      | 1,906               |
| 2019        | 8/29/19                      | 2,594                      | 2,594               |
| 2018        | 9/5/18                       | 4,729                      | 4,777               |
| 2017        | 9/15/17                      | 8,333                      | 8,500               |
| 2016        | 9/8/16                       | 14,045                     | 14,399              |
| 2015        | 9/15/15                      | 11,764                     | 12,707              |
| 2014        | 9/5/14                       | 5,427                      | 5,527               |
| 2013        | 9/3/13                       | 5,389                      | 5,452               |
| 2012        | 9/11/12                      | 7,109                      | 7,248               |
| 2011        | 11/8/11                      | 714                        | 776                 |
| 2010        | 9/7/10                       | 1,334                      | 1,364               |
| 2009        | 9/9/09                       | 1,243                      | 1,303               |
| 2008        | 9/9/08                       | 880                        | 928                 |
| 2007        | 9/22/07                      | 429                        | 439                 |

| Year | Monitoring Start date | Net Passage To Date | Season Total |
|------|-----------------------|---------------------|--------------|
| 2006 | 9/8/06                | 2,902               | 3,074        |
| 2005 | 9/8/05                | 4,066               | 4,124        |
| 2004 | 9/10/04               | 4,424               | 4,448        |
| 2003 | 9/5/03                | 4,720               | 4,848        |

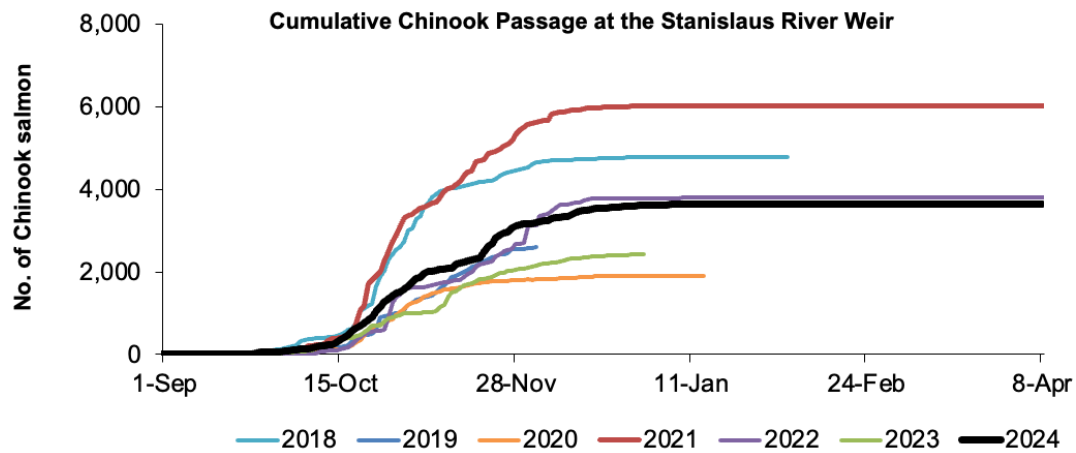


Figure 12. Cumulative Chinook passage at the Stanislaus River weir.

Figure 12 is a line chart showing the cumulative Chinook passage. The majority of Chinook passage occurred October – April 2021.

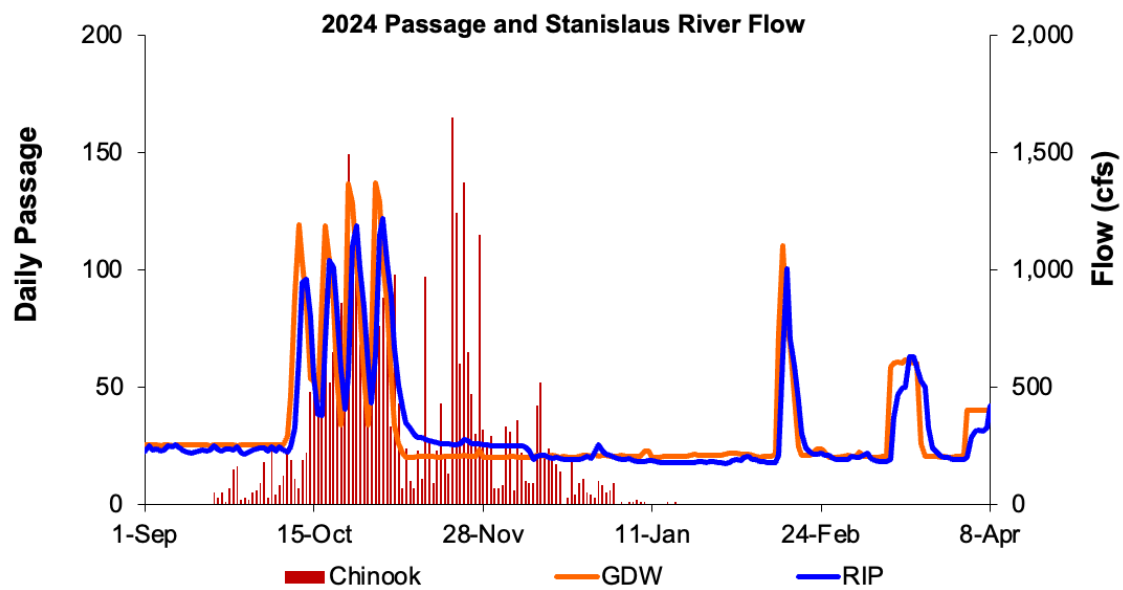


Figure 13. 2024-2025 passage and Stanislaus River flow

Figure 13 is a bar chart showing the 2024 passage and Stanislaus River flow, with the highest peaks occurring throughout October 2024 and April 2025.

Table 10. O. mykiss passage at the Stanislaus River Weir as of 4/8/2025 of each year and the season totals.

| Year | Monitoring Start date | Net Passage To Date | Season Total |
|------|-----------------------|---------------------|--------------|
| 2024 | 9/5/24                | 20                  | 20           |
| 2023 | 9/6/23                | 29                  | 55           |
| 2022 | 9/15/22               | 2                   | 6            |
| 2021 | 9/8/21                | 18                  | 35           |
| 2020 | 9/10/20               | 4                   | 8            |
| 2019 | 8/29/19               | 31                  | 31           |
| 2018 | 9/5/18                | 21                  | 25           |
| 2017 | 9/15/17               | 11                  | 11           |
| 2016 | 9/8/16                | 21                  | 26           |
| 2015 | 9/15/15               | 1                   | 5            |
| 2014 | 9/5/14                | 3                   | 8            |
| 2013 | 9/3/13                | 20                  | 39           |
| 2012 | 9/11/12               | 26                  | 101          |
| 2011 | 11/8/11               | 11                  | 86           |
| 2010 | 9/7/10                | 1                   | 6            |
| 2009 | 9/9/09                | 6                   | 9            |
| 2008 | 9/9/08                | 12                  | 15           |
| 2007 | 9/22/07               | 2                   | 2            |
| 2006 | 9/8/06                | 6                   | 12           |
| 2005 | 9/8/05                | 0                   | 0            |
| 2004 | 9/10/04               | 0                   | 1            |
| 2003 | 9/5/03                | 0                   | 0            |

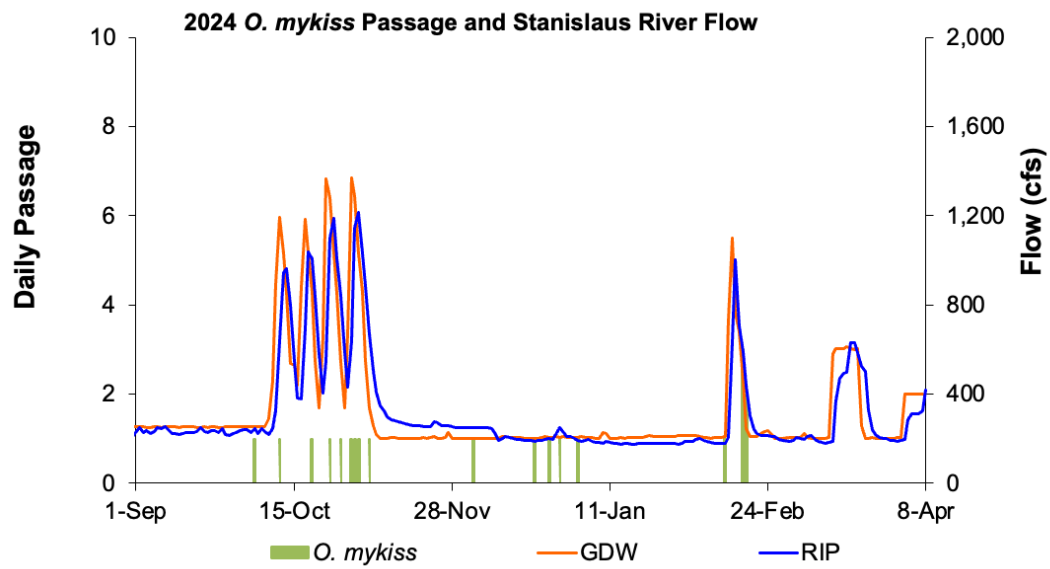


Figure 14. Graph of 2024-2025 *O. mykiss* passage and Stanislaus River flow.

Figure 14. Graph is a bar chart and line graph showing daily *O. mykiss* passage at the Stanislaus River weir and river flow at Goodwin (GDW) and Ripon (RIP), 2024. The highest peaks occur throughout October 2024 and again in February 2025.

## PSMFC

Rotary Screw Traps (RSTs): Rotary screw trapping at Caswell Memorial State Park by PSMFC for the 2025 outmigration season began on 1/5/2025.

As of 4/13/2025, PSMFC has captured a total of 2,725 unmarked Chinook salmon. The current peak in daily unmarked Chinook salmon catch occurred on 2/16/2025 with a total of 1,423 captured. Unmarked Chinook salmon are of the parr and silvery parr life stages and fork lengths have averaged approximately 70 mm over the past 7 days.

Two RST efficiency trials have been conducted at the Caswell RST site. Two trials/releases occurred on 2/13 and 3/5/2025 using hatchery-origin Chinook salmon provided by the Merced River Hatchery at approximately 40-50 mm, resulting in trap efficiencies of approximately 6% at flows of approximately 200 cfs.

### C. Shasta

Since 3/19/2025, we have observed 71 Chinook salmon. Of the 71 fish, 56 were observed to be healthy, 7 showed some sign(s) of sickness, and 8 were mortalities.

Archived information can be found at the Caswell RST CalFish webpage, which includes catch spreadsheets, annual reports, and other project information: [CalFish Stanislaus River \(Caswell\) – RST Monitoring](#)

**Stanislaus River RSTs at Caswell Memorial State Park:**  
Daily catch of unmarked Chinook Salmon and daily average discharge at  
Ripon during the 2025 Stanislaus River rotary screw trap sampling season.

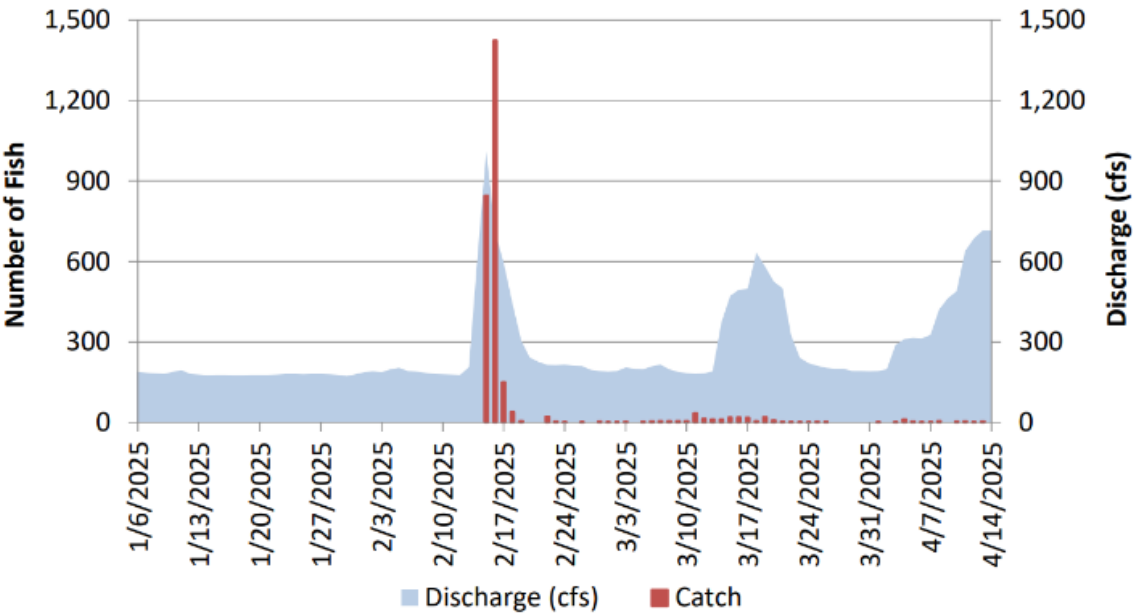


Figure 15. Stanislaus River RSTs at Caswell Memorial State Park

Figure 15. Graph is a bar chart of daily catch of unmarked Chinook Salmon and daily average discharge at Ripon during the 2025 Stanislaus River rotary screw trap sampling season. The highest peaks occur throughout February 2025.

**Stanislaus River RSTs at Caswell Memorial State Park:**

Daily catch of unmarked Chinook Salmon and daily average discharge at Ripon from February 18th to April 13th during the 2025 Stanislaus River rotary screw trap sampling season.

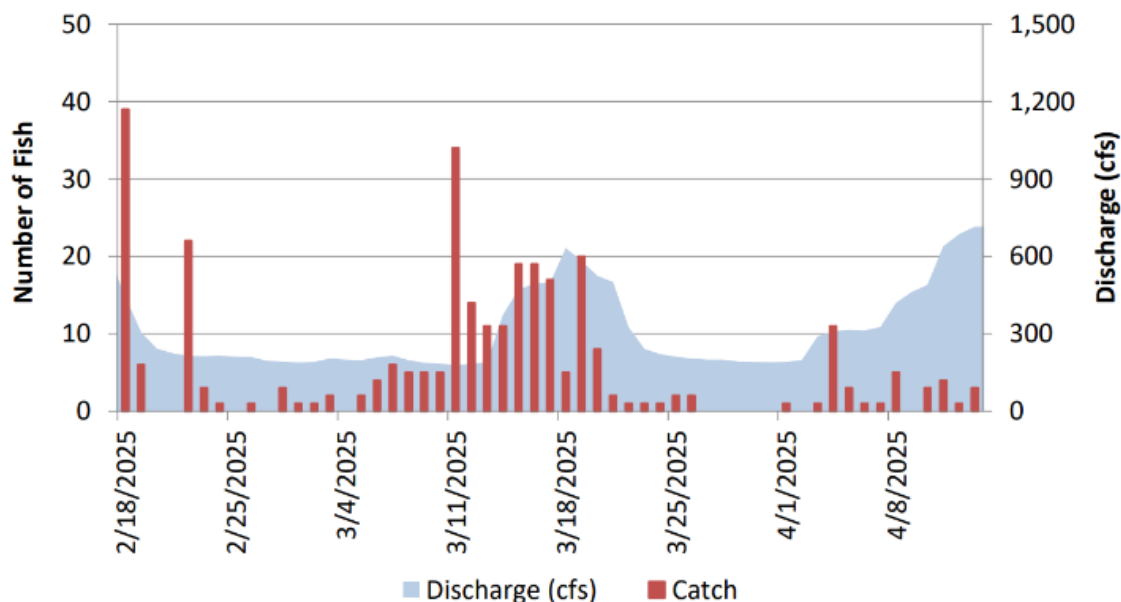


Figure 16. Stanislaus River RSTs at Caswell Memorial State Park

Figure 16. Graph is a bar chart of daily catch of unmarked Chinook Salmon and daily average discharge at Ripon from February 18<sup>th</sup> to April 8<sup>th</sup> during the 2025 Stanislaus River rotary screw trap sampling season. The highest peaks occur throughout mid February 2025 and early March 2025.



**Stanislaus River RSTs at Caswell Memorial State Park:**

Daily fork length distribution by life stage of unmarked Chinook Salmon measured during the 2025 Stanislaus River rotary screw trap sampling season.

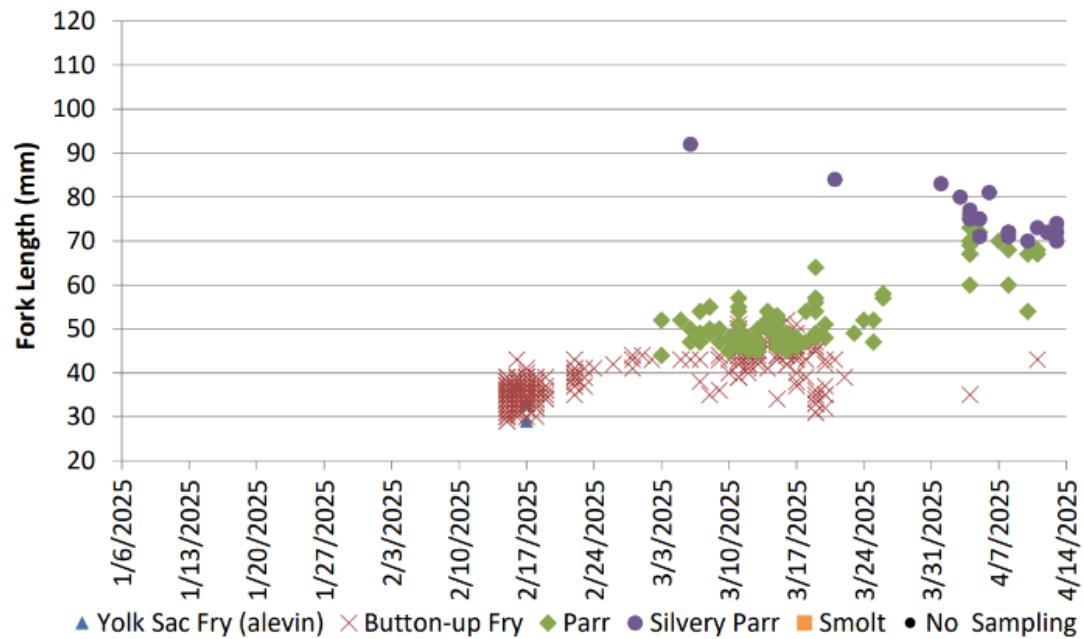


Figure 17. Stanislaus River RSTs at Caswell Memorial State Park

Figure 17. Graph is a point chart of daily fork length distribution by life stage of unmarked Chinook Salmon measured during the 2025 Stanislaus River rotary screw trap sampling season.. The highest peaks occur throughout March 2025 and April 2025.

## PATHOLOGY REPORT

US Fish & Wildlife Service  
CA-NV Fish Health Center  
24411 Coleman Hatchery Rd  
Anderson, CA 96007

phone 530-365-4271  
fax 530-365-7150

FHC Case No. : 25-037  
Sample Collector: JSFoott  
Histological specimen examiner: JS Foott  
Species: Fall-run Chinook  
Tissues: sagittal – gill, kidney, intestine, liver  
Fixative: Davidson (xx), PREFER-ETOH ( ), 10%BF ( ), ZFIX ( ), Bouins ( )  
Stains: Hematoxylin & eosin (xx), PAS ( ), Iron ( ) ACID FAST ( ) Gram ( )  
Block No. 14677 - 14680  
Block / slide deposition: FHC  
Blood Smear (Number): ND  
Blood smear Stain: Leishman-Giemsa ( ), DiffQuick ( )  
Clinical chemistry: ND

Submittal date: 3/21/2025  
Sample Site(s): Caswell RST – lower Stanislaus River

Age: Juvenile 39 – 47 mm FL

**Summary:** Mortality associated with severe *Ceratonova.shasta* infection.

Note: Both *Parvicapsula minibicornis* and *Ceratonova.shasta* share the same annelid alternative host and commonly co-infect salmon.

Four moribund fry sampled from trap. - Intestinal tracts with hemorrhage / catarrhal exudate  
Bacterial culture = 2 of 3 fish with single colonies (Staphylococcus, Bacillus) – no significant for diagnosis

Kidney (archived) and intestine subsample for QPCR Positive for *Ceratonova.shasta*

Two mortalities from trap (3/21) - intestinal tracts with hemorrhagic/ catarrhal exudate  
Kidney (archived) and intestine sample for QPCR Positive for *Ceratonova.shasta*

Three frozen mortalities (3/12, 3/15, 3/17):  
Intestine sample for QPCR Positive for *Ceratonova.shasta*



### Histology:

Gill – no significant abnormality (4 fish). Liver- no significant abnormality (2 fish)  
Kidney - 2 of 4 fish with suspect *Parvicapsula minibicornis* infection (Fig 1), minor inflammation  
Intestine – 4 of 4 *Ceratonova.shasta*, extensive necrosis and inflammation (Fig. 2).

Figure1. Kidney- presumptive *Parvicapsula minibicornis* (arrows, 1000x mag.)



Figure 2. *Ceratonova shasta* trophozoites within intestine (arrows, 1000x mag.).

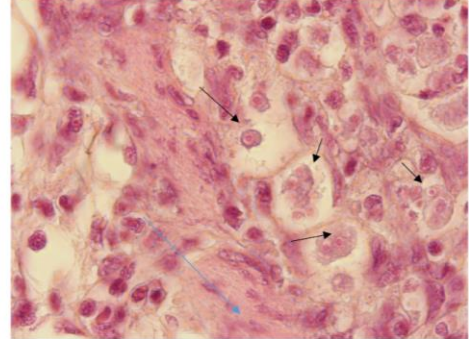


Figure 18. Pathology Report.

Figure 18. Image showing a pathology report from the Caswell RSTs.

## **Item 9. Restoration Project Updates**

Applicable updates to be shared at the April meeting.