Summary of 02/17/16 Stanislaus Operation Group Meeting 1:30-3pm

Participants

Reclamation: Liz Kiteck, Amanda Bahls, Carolyn Bragg, Janice Pinero (phone), Kristin White
NMFS: Barb Byrne
FWS: J.D. Wikert, Craig Anderson (phone)
DFW: Tim Heyne, Dom Giudice, Duane Linander (phone), Ken Kundargi (phone), Pat Brantley (phone)
DWR: Mike Ford
SWRCB: Michael George (phone), Larry Lindsay (phone), Chris Carr (phone), Laurel Karren (phone)

Operations

- Reclamation is currently meeting the required critical year minimum flow of 200 cfs from October to mid-April under RPA Action III.1.3. 200 cfs is the required base flow through mid-April, with the exception of two small winter instability flows.
- Current New Melones elevation is 841' (429 TAF). This is 18% of capacity and 30% of the historical average for this time.
- The snow water equivalent for the snow pack above New Melones is close to average.
- Under both the 90%, and 50% indices, New Melones will remain in a Critically Dry year type.
- The procedure for ensuring the continuity of operations was also discussed.
    - Questions were raised about the potential process in the event that Reclamation did not have adequate water to meet requirements and there was no voluntary action from the Districts to release the water. The SWRCB indicated they would first expect the fisheries agencies to determine an emergency minimum flow of water for the protection of the species. Then, there would be an attempt to secure a voluntary agreement amongst water owners to provide the minimum flow, but if that attempt is unsuccessful, the SWRCB may take extraordinary action (under reasonable beneficial use) to secure the needed flows.
    - SOG requested that Reclamation inform the group as interim agreements are made with the Irrigation Districts to provide flows.

Winter Instability Flows

- At a special January SOG meeting on January 13th, SOG recommended maintaining the 2-E base flow of 200 cfs in February until SOG could finalize February advice based on discussion at this meeting. NMFS approved the request and asked that final advice be provided by February 19, 2016.
- At this meeting, SOG discussed three potential options:

    1. Consider the storm peaks in late January as meeting the intent of the February winter instability flow (WIF) and not release additional flows from storage.
    2. Delay SOG advice until after February 24th to see if upcoming storm events may meet the intent and volume requirements of the 2-E February WIF.

3. Decrease flows to 150 cfs for 8 days and provide the WIF in late February out of reservoir storage such that the total volume released is equivalent to maintaining 200 cfs.

- After discussion, SOG recommended to consider the storm peaks in late January as meeting the intent of the February winter instability flow (WIF). This recommendation was based on the following:
    - The extremely low storage conditions associated with the multi-year drought have limited Reclamation's discretion on releases.
    - A small rainfall event was likely to occur after SOG met, but it was not expected to be substantial enough to meet the intent of the WIF.
    - Due to already high water temperatures and high air temperatures in the upcoming forecast, decreasing to 150 cfs may further increase the water temperatures and therefore may not result in an overall benefit.
    - Although Orange Blossom Bridge (OBB) is not the site of compliance in the Bi-Op, SOG agreed that the flows seen there serve to meet the intent of the WIF.

Temperatures

- See attached *RPA Implementation Update* for further information.
- As noted in the *RPA Implementation Update*, temperatures at Knights Ferry have exceeded the 52°F 7DADM as of February 12th. From the 12th to the 16th, the 7DADM remained under 53°F. Given the high air temperatures forecasted for the remainder of the month, it is possible that further exceedances at Knights Ferry will occur.

Fish

- See attached *RPA Implementation Update* for further information.
- In addition to the *RPA Implementation Update*, CDFW provided an update to the group on their work on the Stanislaus. CDFW recently distributed a report on the Caswell rotary screw trap to their distribution list (if you would like to be included on this list please email Tim Heyne). This report identified a large number of lampreys, though not unusual, CDFW is looking into having a specialist identify the species of the lamprey. CDFW will be continuing their Stanislaus snorkel surveys for the third summer of consistent dates and reaches.
- SOG was also made aware of Proposition 1 Funding to make diversions fish friendly.
    - It was suggested that any diversion that is considering applying should monitor for a year to determine the patterns of fish take.
    - A priority list is already out, but others are still invited to apply.
        - Carolyn Bragg will look into if Reclamation already has a list of priorities for fish screens.

Restoration

- The Knights Ferry restoration project is not expected to move forward at this time because of Corps concerns.

- The Button Bush restoration project is still underway and in the permitting phase, but there is a chance to break ground this summer.
- J.D. Wikert (FWS) is working with a private landowner on another potential restoration site. The site is close to Oakdale, 5-8 acres, and very disturbed. The landowner has given permission to start surveying and digging soil test pits to start the design.
- J.D. Wikert (FWS) requested an update on the status of gravel augmentation projects outlined under the RPA. Carolyn Bragg (Reclamation) volunteered to provide an update from John Hannon (Fish Biologist, Reclamation) on gravel restoration projects at Button Bush and Two Mile Bar.

Update on Stanislaus River Forum

- The Stanislaus River Forum (SRF) covered operations and RPA implementation.
    - A SRF member reached out to the group asking about the declining trout population.
        - SOG discussed that this was likely due to higher water temperatures and the trout moving upstream to cooler water.
        - Barb Byrne (NMFS) committed to following up with the SRF member.

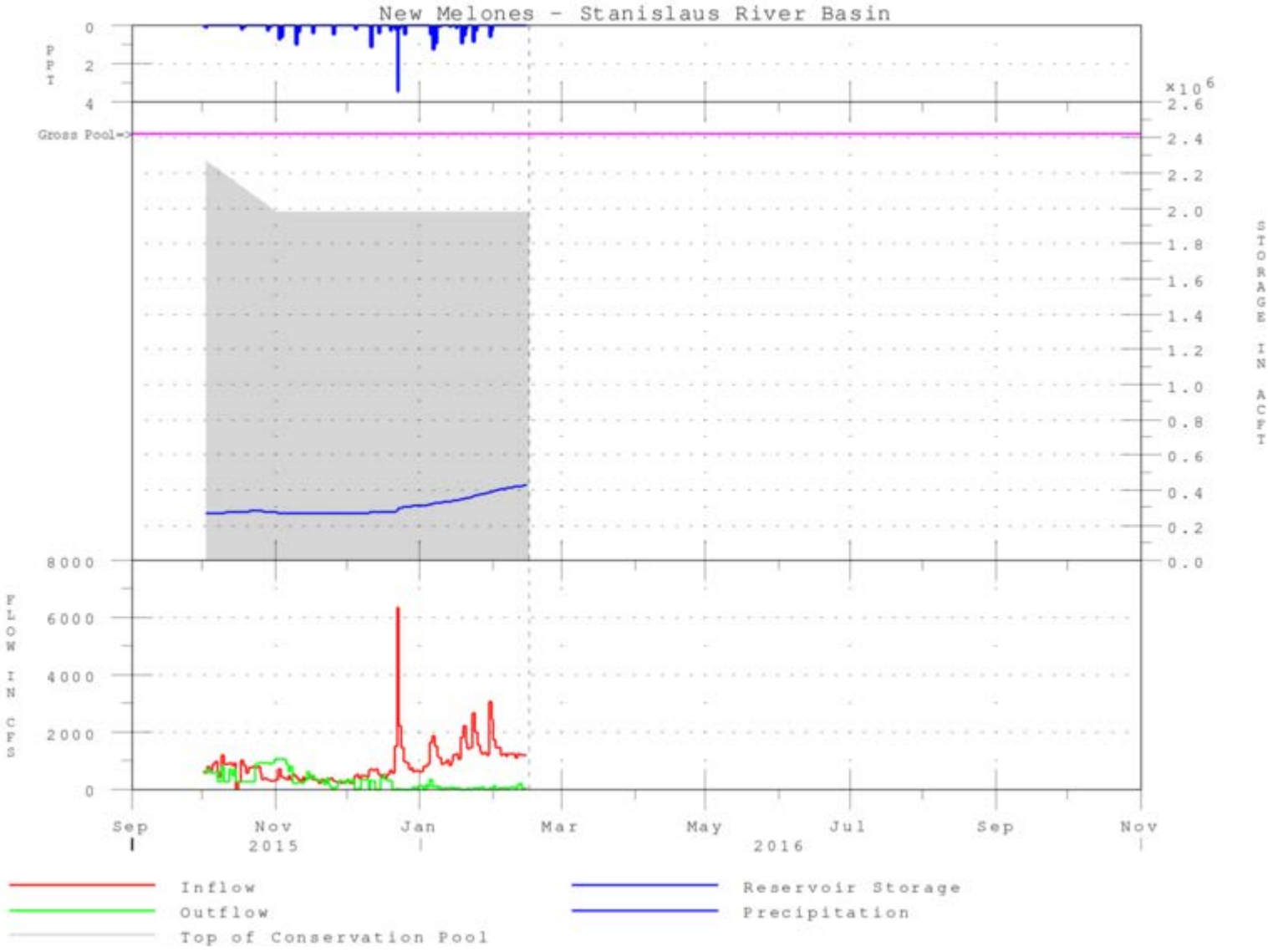
Drought Planning

- CVP and SWP 2016 Drought Contingency Plan. http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp/docs/febnov_2016plan.pdf
- February 5th Update: http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp/docs/20160205_thoward_email.pdf
- Reclamation explained that the drought contingency plan is intended to be updated monthly.

Next Steps

- Next SOG meeting is March 16th at 1:00 pm at the Central Valley Office.

16FEB16 05:42:25



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

FEBRUARY 2016 — TULLOCH RESERVOIR DAILY OPERATIONS

RUN DATE: 02/12/2016

DAY	ELEV	STORAGE ACRE-FEET RES.	STORAGE ACRE-FEET CHANGE	COMPUTED* INFLOW C.F.S.	NEW MELONES RELEASE	RELEASE - C.F.S. POWER	RELEASE - C.F.S. SPILL	RELEASE - C.F.S. OUTLET	EVAP C.F.S. (1)
		56,608							
1	501.23	56,641	+33	227	130	209	0	0	1
2	501.02	56,409	-232	94	13	209	0	0	2
3	500.80	56,170	-239	90	39	210	0	0	0
4	500.62	55,975	-195	115	51	213	0	0	0
5	500.44	55,780	-195	114	57	210	0	0	2
6	500.18	55,498	-282	72	43	212	0	0	2
7	499.93	55,228	-270	79	30	213	0	0	2
8	499.73	55,015	-213	108	74	212	0	0	3
9	499.52	54,791	-224	100	77	211	0	0	2
10	499.27	54,524	-267	83	39	210	0	0	8
11	499.29	54,545	+21	233	189	214	0	0	8
TOTALS			**-2,063**	**1,315**	**742**	**2,323**	**0**	**0**	**30**
ACRE-FEET			**-2,063**	**2,608**	**1,472**	**4,608**	**0**	**0**	**60**

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

SUMMARY
RELEASE (ACRE-FEET)

POWER	4,608	OUTLET	0
SPILL	0	TOTAL	4,608

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

FEBRUARY 2016

NEW MELONES LAKE DAILY OPERATIONS

RUN DATE: February 12, 2016

DAY	ELEV	STORAGE 1000 ACRE-FEET IN LAKE	CHANGE	COMPUTED* INFLOW C.F.S.	RELEASE - C.F.S. POWER	SPILL	OUTLET	EVAPORATION C.F.S.	INCHES	PRECIP INCHES
		392.9								
1	833.79	396.1	+3.2	1,726	130	0	0	3	.02	.01
2	834.49	398.9	+2.8	1,458	13	0	0	9	.07	.00
3	835.18	401.7	+2.8	1,460	39	0	0	1	.01	.00
4	835.74	404.0	+2.3	1,210	51	0	0	1	.01	.00
5	836.30	406.3	+2.3	1,227	57	0	0	8	.06	.00
6	836.83	408.5	+2.2	1,154	43	0	0	8	.06	.00
7	837.40	410.9	+2.4	1,229	30	0	0	8	.06	.00
8	837.95	413.2	+2.3	1,236	74	0	0	11	.08	.00
9	838.50	415.5	+2.3	1,244	77	0	0	9	.07	.00
10	839.00	417.6	+2.1	1,125	39	0	0	33	.24	.00
11	839.49	419.6	+2.1	1,260	189	0	0	33	.24	.00
TOTALS			**+26.8**	**14,329**	**742**	**0**	**0**	**124**	**.92**	**.01**
ACRE-FEET			**+26,800**	**28,422**	**1,472**	**0**	**0**	**246**		

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

SUMMARY

RELEASE (ACRE-FEET)				PRECIPITATION	
POWER	1,472	OUTLET	0	THIS MONTH =	.01
SPILL	0	TOTAL	1,472	JULY 1, 2015 TO DATE =	19.96

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

FEBRUARY 2016 **GOODWIN RESERVOIR DAILY OPERATIONS** RUN DATE: February 12, 2016

DAY	ELEV	STORAGE ACRE-FEET RES.	STORAGE ACRE-FEET CHANGE	TULLOCH RELEASE	RELEASE - C.F.S. RIVER OUTLET	RELEASE - C.F.S. RIVER SPILL	RELEASE - C.F.S. CANALS JOINT MAIN	RELEASE - C.F.S. CANALS SOUTH MAIN
		525						
1	359.81	524	-1	209	0	201	0	0
2	359.81	524	+0	209	0	201	0	0
3	359.83	525	+1	210	0	201	0	0
4	359.83	525	+0	213	0	204	0	0
5	359.81	524	-1	210	0	202	0	0
6	359.81	524	+0	212	0	203	0	0
7	359.81	524	+0	213	0	203	0	0
8	359.83	525	+1	212	0	205	0	0
9	359.81	524	-1	211	0	202	0	0
10	359.83	525	+1	210	0	201	0	0
11	359.81	524	-1	214	0	210	0	0
TOTALS			**-1**	**2,323**	**0**	**2,233**	**0**	**0**
ACRE-FEET			**-1**	**4,608**	**0**	**4,429**	**0**	**0**

JOINT MAIN OPERATED BY SSJID AND OID.
SOUTH MAIN OPERATED BY OID.

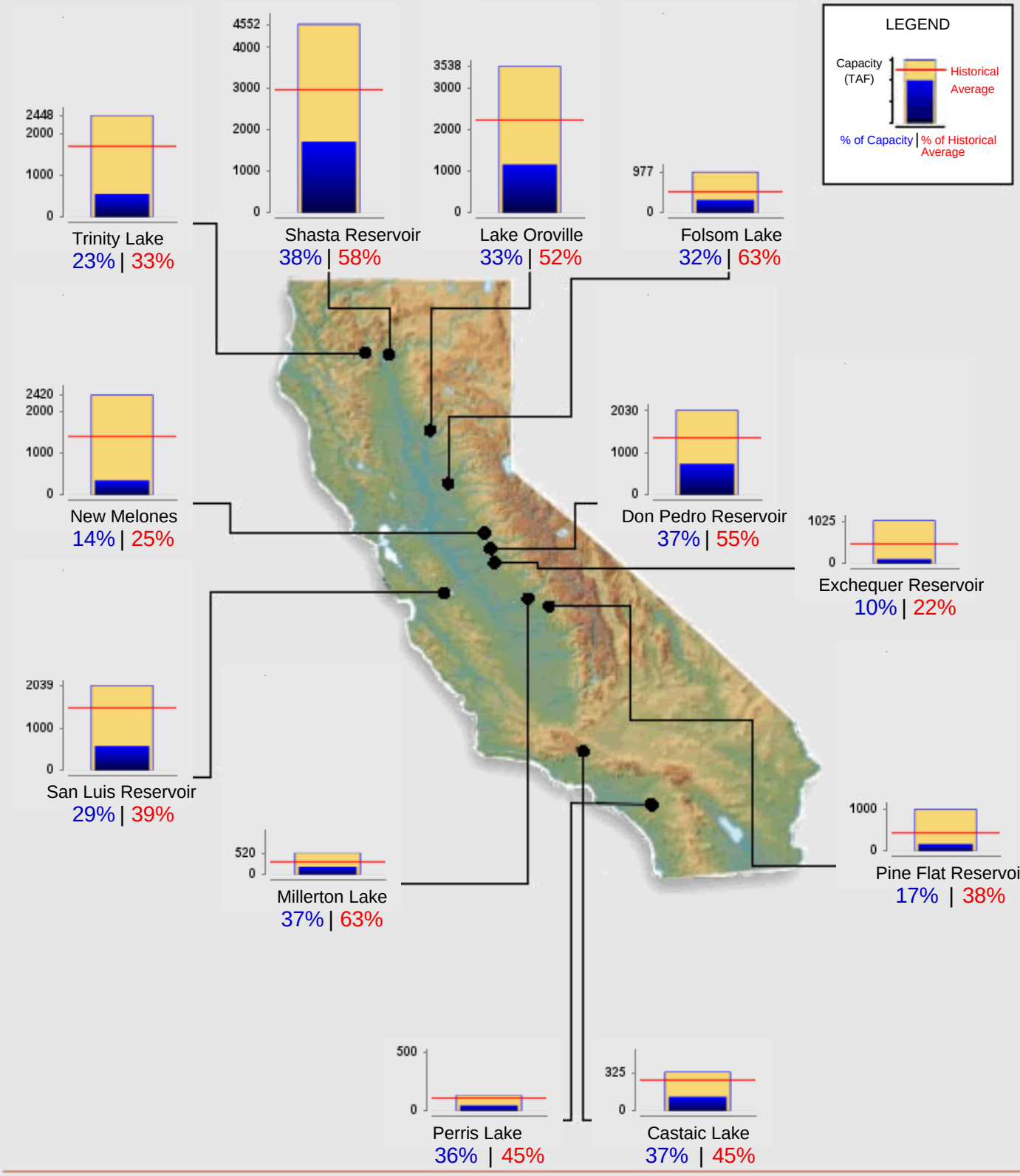
SUMMARY
RELEASE (ACRE-FEET)

JOINT MAIN CANAL	0	OUTLET	0
SOUTH MAIN CANAL	0	SPILL	4,429
		TOTAL	4,429

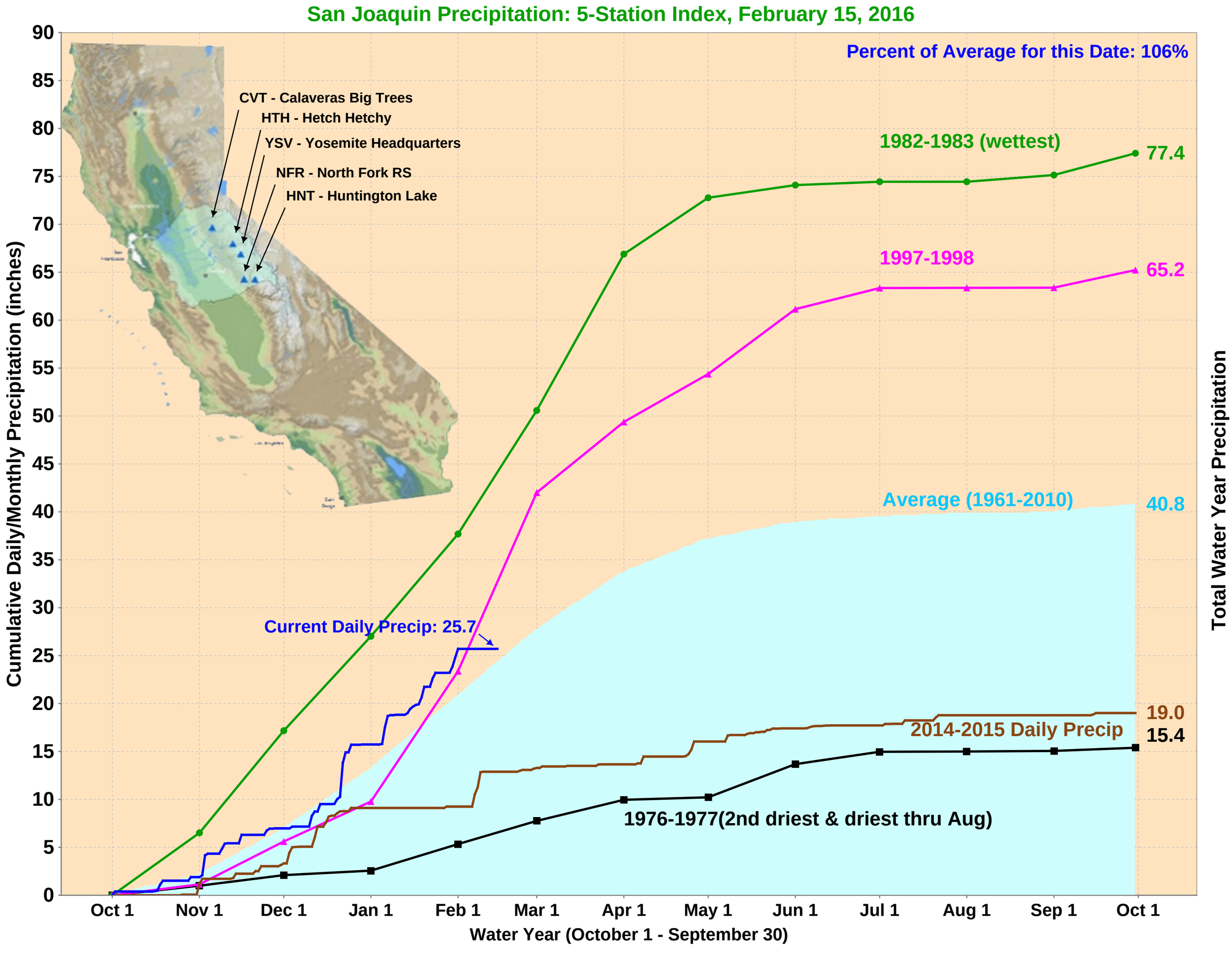
Reservoir Conditions

Ending At Midnight - January 18, 2016

CURRENT RESERVOIR CONDITIONS



Graph Updated 01/19/2016 06:45 AM


San Joaquin Precipitation: 5-Station Index, February 15, 2016
Percent of Average for this Date: 106%
CVT - Calaveras Big Trees
HTH - Hetch Hetchy
YSV - Yosemite Headquarters
NFR - North Fork RS
HNT - Huntington Lake
1982-1983 (wettest)
77.4
1997-1998
65.2
Average (1961-2010)
40.8
Current Daily Precip: 25.7
2014-2015 Daily Precip
19.0
15.4
1976-1977(2nd driest & driest thru Aug)
Cumulative Daily/Monthly Precipitation (inches)
Total Water Year Precipitation
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
Oct 1
Nov 1
Dec 1
Jan 1
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
Aug 1
Sep 1
Oct 1
Water Year (October 1 - September 30)

2/17/2016

Update on NMFS RPA Implementation:

Reasonable and prudent alternative (RPA) Action III.1.3
October through mid-April, the Appendix 2-E minimum flow schedule for the Critical yeartype (based on the New Melones Water supply parameter, not the San Joaquin "60-20-20" Index) requires minimum instream flows of 200 cfs. In January and February, the Critical year schedule requires one small winter instability flow (793 AF in addition to the 200 cfs base flow) in each month.

SOG advised, and NMFS approved, that for January 2016, the natural storm pulse January 5-7, 2016 (realized storm flow in-river at Orange Blossom Bridge was 1169 AF in addition to the 200 cfs base flow; see Figure 1) be considered to satisfy the January winter instability flow (Critically Dry yeartype) in the Appendix 2-E flow schedule. Details were provided in the handouts for the 1/20/16 SRF meeting.

SOG anticipates providing final advice on the February winter instability flow by 2/19/16, after reviewing the latest storage conditions, inflow forecasts, and observed flow events at the February SOG meeting on 2/17/16. NMFS approved a request to maintain the base flows of 200 cfs during February until that advice is finalized.

RPA Action III.1.2
From January 1 to May 31, the temperature criteria in Action III.1.2 of the 2009 NMFS BiOp are that water temperature (measured as the 7 day average of daily maximum temperature, or 7DADM) be below 55°F at Orange Blossom Bridge for steelhead spawning and incubation and be below 52°F at Knights Ferry for steelhead smoltification. The 7DADM temperatures at Orange Blossom Bridge (measured) and Knights Ferry (estimated) since 1/7/15 (the first day for which a 7DADM under the Jan 1 to May 31 criteria can be calculated) have been below the temperature criteria (Figure 1).

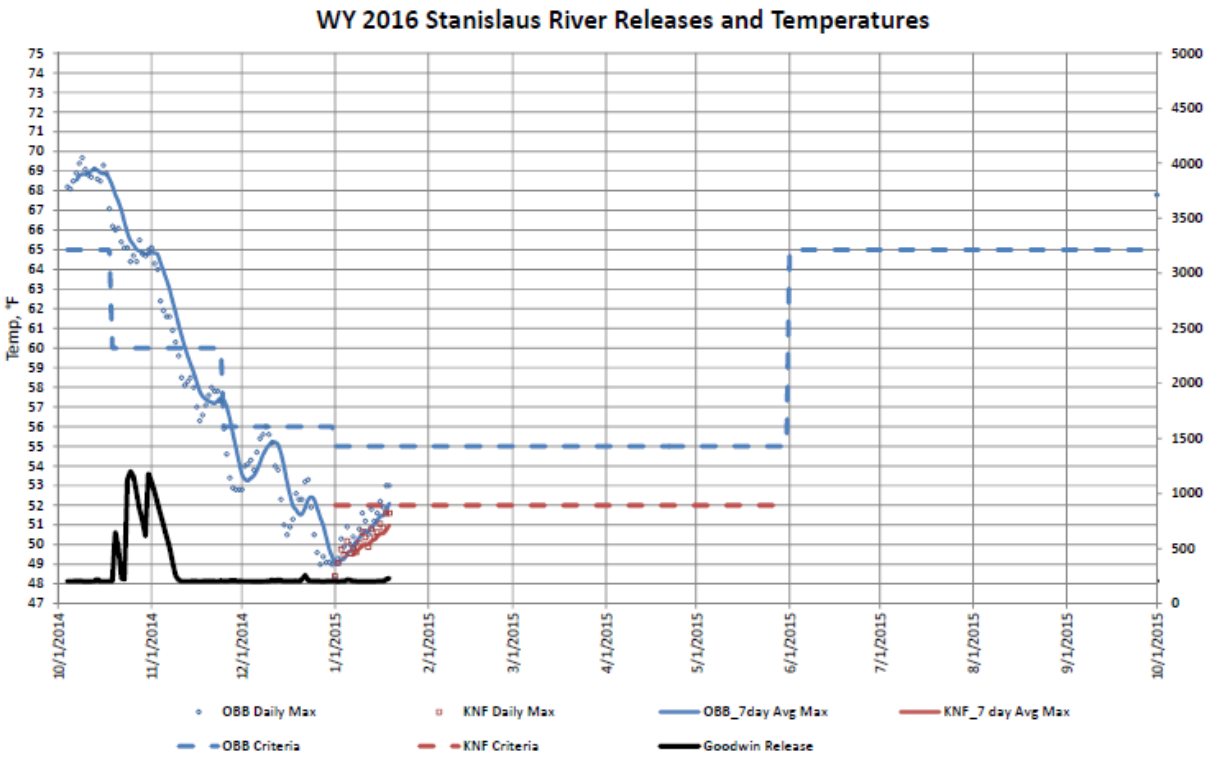
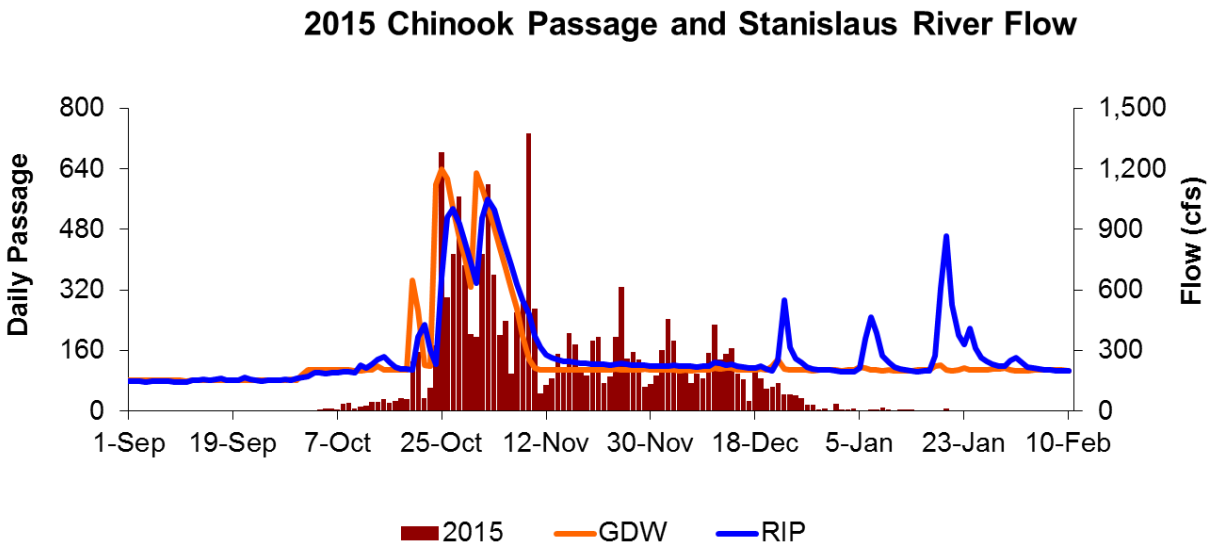


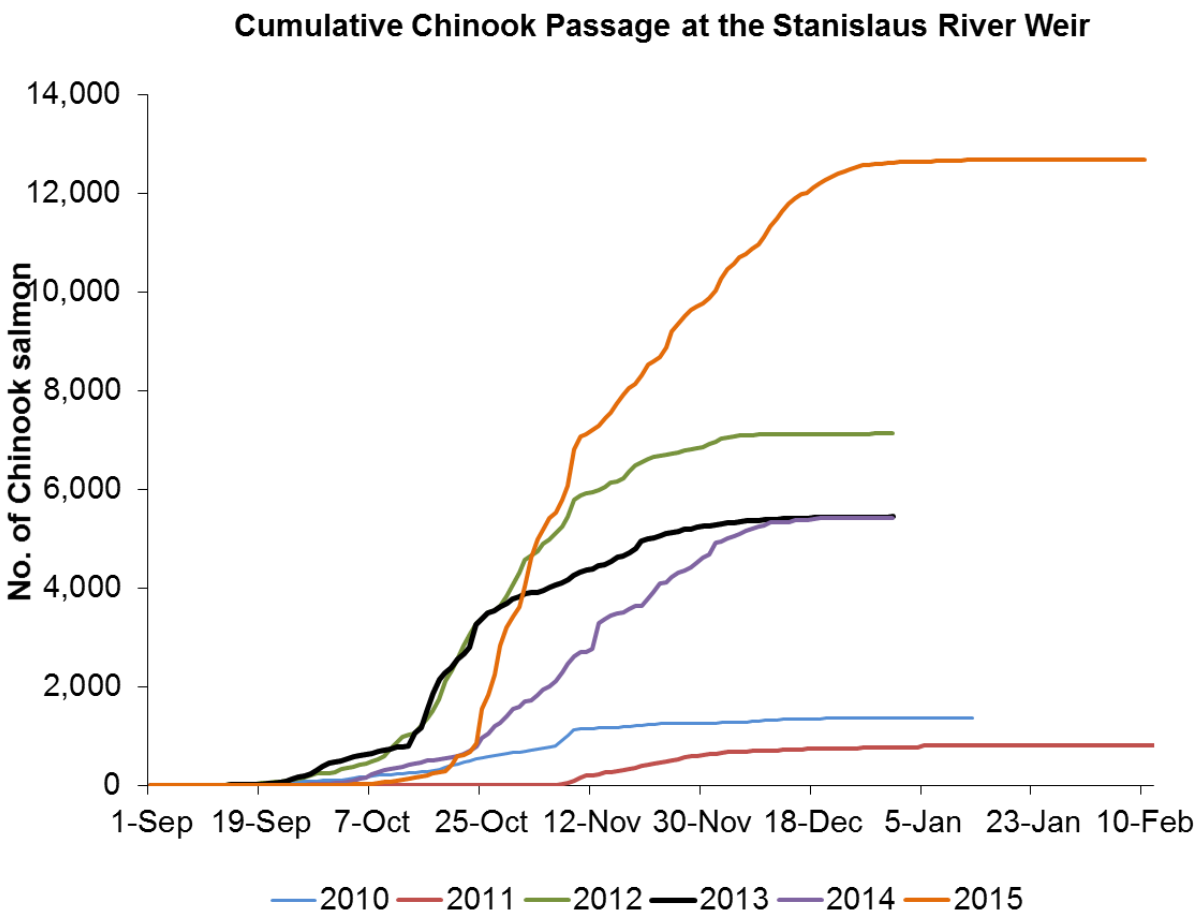
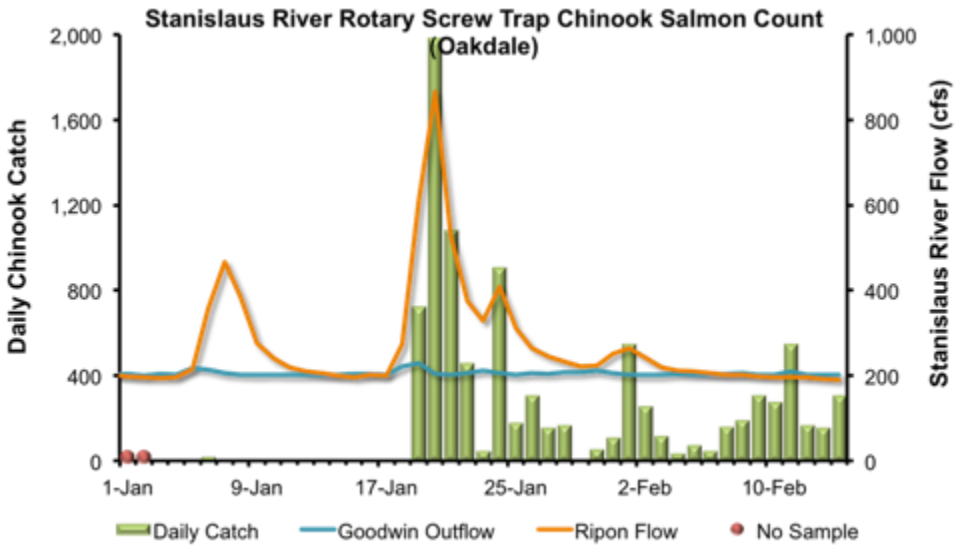
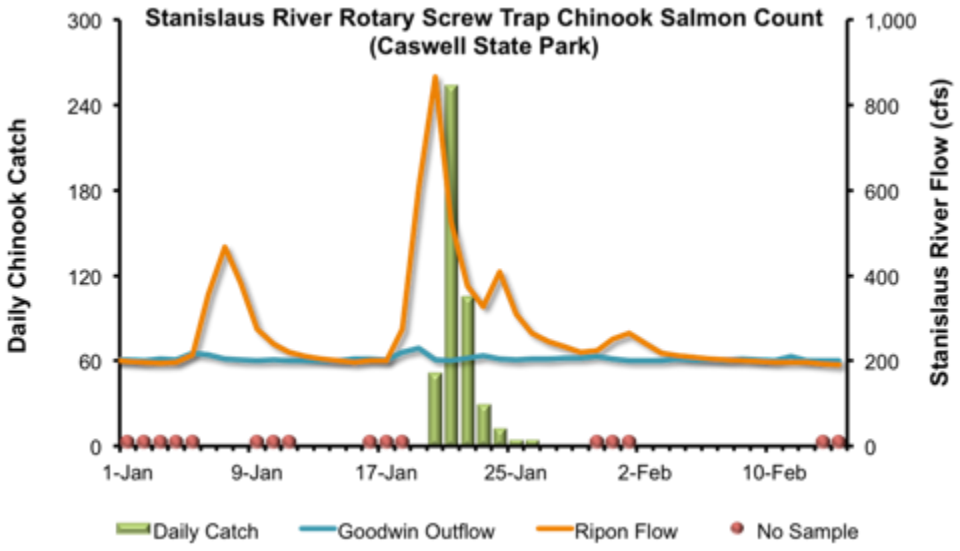
Figure 1: Stanislaus water temperatures at Orange Blossom Bridge (measured) and Knights Ferry (estimated). The 7DADM targets October through December are per the temperature management plan submitted to the SWRCB in August 2015; the 7DADM targets January through September are per Action III.1.2 in the NMFS BiOp.

Update on Fish Monitoring

The California Department of Fish & Wildlife (CDFW) concluded their fall-run Chinook carcass and redd surveys in January; the latest information on this monitoring effort was reported in the fish monitoring update for the 1/20/16 SRF meeting.

The Stanislaus weir near Riverbank began sampling on Friday, 9/15/15. Through 2/10/16, the net upstream passage of adult fall-run Chinook salmon at the weir just downstream of Riverbank was 12,686 – nearly double the next-highest passage (seasonal total of 7,248 in 2012) observed since the weir sampling began in 2003. 26% of the Chinook were ad-clipped. A net upstream passage of five *Oncorhynchus mykiss* (two >16"; four of five, including both >16" fish, were ad-clipped) has been observed at the weir. The figures below were provided by FISHBIO in their 2/12/16 Stanislaus weir update.


2015 Chinook Passage and Stanislaus River Flow
Daily Passage
Flow (cfs)
800
640
480
320
160
0
1,500
1,200
900
600
300
0
1-Sep
19-Sep
7-Oct
25-Oct
12-Nov
30-Nov
18-Dec
5-Jan
23-Jan
10-Feb
2015
GDW
RIP


Cumulative Chinook Passage at the Stanislaus River Weir
No. of Chinook salmon
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
1-Sep
19-Sep
7-Oct
25-Oct
12-Nov
30-Nov
18-Dec
5-Jan
23-Jan
10-Feb
2010
2011
2012
2013
2014
2015

Rotary screw trapping at Oakdale and Caswell began in early January. Chinook catch at these sampling locations is summarized in the figures below, provided by FISHBIO in their 2/15/16 San Joaquin Basin Update.