

Summary of 01/20/16 Stanislaus Operation Group Meeting 1-3pm

Participants

Reclamation: Liz Kiteck, Amanda Bahls, Carolyn Bragg, Peggy Manza, Janice Pinero (phone), Michele Palmer

NMFS: Barb Byrne

FWS: J.D. Wikert

DFW: Dom Giudice (phone), Tim Heyne (phone), Duane Linander (phone), Ken Kundargi (phone)

DWR: Dan Yamanaka (phone), Mike Ford

SWRCB: Larry Lindsay (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 820' (343 TAF). This is 14% of capacity and 25% of the historical average for this time. Recent rains have resulted in a slow increase to storage.
- Reclamation shared the New Melones indices¹ for the 90% and 50% exceedance forecasts using Jan 1 inflow forecast numbers.
 - 90% - 724 taf
 - 50% - 1,195 taf
 - Under both the 90%, and 50% indices, New Melones will remain in a Critically Dry year type.

Winter Instability Flows

- **January:** After discussion at a special SOG meeting on January 13, 2016, SOG advised that the natural storm pulse (on January 5-7, 2016) be considered to satisfy the January winter instability flow (WIF) identified in Appendix 2-E for the Critically Dry year type. On January 15, 2016 NMFS agreed that the January WIF had been satisfied through the natural storm event (realized storm flow in-river at Orange Blossom Bridge was 1169 AF in addition to the 200 cfs base flow which surpasses the required 793 AF in addition to the 200 cfs base flow).
- **February:** SOG also recommended maintaining the 2-E base flow of 200 cfs in February until SOG could finalize advice based on discussion at the February meeting (February 17, 2016). NMFS approved the request and requested that final advice be provided by February 19, 2016.
 - If there is no significant storm pulse event by February 10, 2016, Reclamation will initiate an email discussion regarding options for SOG advice regarding implementation of the February winter instability flow.

¹ New Melones Index = End-of-February storage in New Melones + March-through-September inflow into New Melones

Temperatures

- From January 1-May 31 the temperature criteria for the Stanislaus in Action III.1.2. of the 2009 NMFS BiOp [measured as the seven day average of daily maximum temperature 7DADM)] are 52°F - at Knights Ferry and 55°F at Orange Blossom Bridge (OBB). Measured 7DADM temperatures at both locations are in compliance with the temperature criteria in Action III.1.2. of the 2009 NMFS BiOp.
- See attached *RPA Implementation Update* for further information.

Fish

- The California Department of Fish & Wildlife (CDFW) began conducting fall-run Chinook carcass and redd surveys the week of 9/28/15. Through the week of 1/11/16, CDFW has observed 5,246 redds on the Stanislaus River (compared to 244 on the Tuolumne and 1,174 on the Merced).
- The Stanislaus weir near Riverbank began sampling on Friday, 9/15/15. Through 1/11/16, the net upstream passage of adult fall-run Chinook salmon at the weir just downstream of Riverbank was 12,675 – nearly double the next-highest passage (seasonal total of 7,248 in 2012) observed since the weir sampling began in 2003.
- Anecdotal information on recent RST catches indicated that the recent natural flow pulse (with very rapid flow changes) was associated with increased migration of fish. This information supports past years' recommendations (such as 2015) where SOG reshaped the winter instability flows to mimic natural storm events and could indicate that faster ramping may be beneficial.
- See attached *RPA Implementation Update* for further information.

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.
- 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. Work would likely include floodplain and braided side channel restoration.
- Barb Byrne (NMFS) volunteered to send out information on the Fisheries Restoration Grant Program (FRGP; open to agencies, tribes, and NGOs) to the group. Applying for this grant can be time consuming.
- J.D. Wikert (FWS) commented on the status of gravel augmentation projects outlined under the RPA. Additional updates will be discussed in future meetings and Reclamation may hold a separate meeting with NMFS to discuss progress.

Update on Stanislaus River Forum

- The Stanislaus River Forum covered operations and RPA implementation.
- No information was provided for SOG to consider.

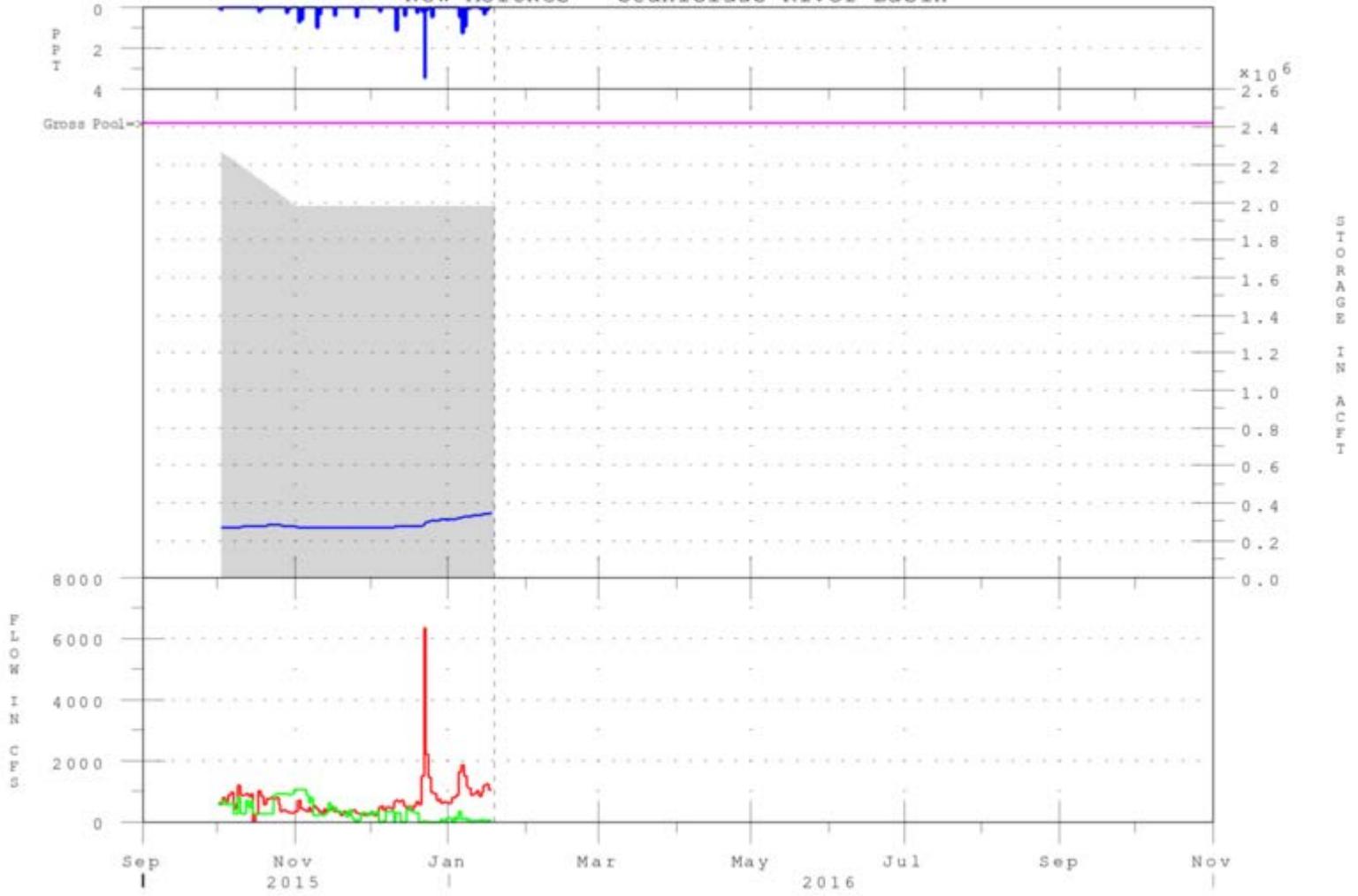
Drought Planning

- Corrected Version of Adopted State Water Board Order Granting in Part Petitions for Reconsideration of the Executive Director's February 3, 2015 Order and Subsequent Modifications to that Order.
http://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/2015/wro2015_0043.pdf
- CVP and SWP 2016 Drought Contingency Plan.
http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp/docs/feb_nov_2016plan.pdf

Next Steps

- Next SOG meeting is February 17th at 1:00 pm at the Central Valley Office.

New Melones - Stanislaus River Basin



— Inflow
— Outflow
— Top of Conservation Pool
— Reservoir Storage
— Precipitation

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

JANUARY 2016

TULLOCH RESERVOIR DAILY OPERATIONS

RUN DATE: 01/18/2016

DAY	ELEV	STORAGE ACRE-FEET RES.	CHANGE	COMPUTED* INFLOW C.F.S.	NEW MELONES RELEASE	POWER	RELEASE - C.F.S. SPILL	OUTLET	EVAP C.F.S. (1)
		55,812							
1	500.35	55,682	-130	152	149	217	0	0	1
2	499.97	55,271	-411	9	8	215	0	0	1
3	499.94	55,239	-32	203	196	215	0	0	4
4	499.73	55,015	-224	98	81	210	0	0	1
5	500.74	56,105	+1,090	757	354	207	0	0	0
6	501.61	57,060	+955	689	109	207	0	0	1
7	502.04	57,535	+475	451	120	209	0	0	3
8	501.94	57,424	-111	156	34	209	0	0	3
9	501.85	57,325	-99	166	89	209	0	0	7
10	501.60	57,049	-276	72	21	211	0	0	0
11	501.40	56,828	-221	102	63	209	0	0	4
12	501.13	56,530	-298	63	33	209	0	0	4
13	500.93	56,311	-219	100	56	208	0	0	2
14	500.73	56,094	-217	101	76	208	0	0	2
15	500.54	55,888	-206	123	65	209	0	0	18
16	500.32	55,650	-238	94	41	211	0	0	3
17	500.05	55,357	-293	65	34	211	0	0	2
TOTALS			-455	3,401	1,529	3,574	0	0	56
ACRE-FEET			-455	6,746	3,033	7,089	0	0	111

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

**SUMMARY
RELEASE (ACRE-FEET)**

POWER	7,089	OUTLET	0
SPILL	0	TOTAL	7,089

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

JANUARY 2016

NEW MELONES LAKE DAILY OPERATIONS

RUN DATE: January 18, 2016

DAY	ELEV	STORAGE		COMPUTED* INFLOW C.F.S.	POWER	RELEASE - C.F.S.			EVAPORATION		PRECIP INCHES
		1000 ACRE-FEET IN LAKE	CHANGE			SPILL	OUTLET	C.F.S.	INCHES		
		310.2									
1	811.35	311.2	+0.9	612	149	0	0	2	.02	.00	
2	811.80	312.7	+1.6	811	8	0	0	5	.04	.00	
3	812.12	313.9	+1.1	779	196	0	0	14	.12	.00	
4	812.56	315.4	+1.6	872	81	0	0	5	.04	.00	
5	813.29	318.0	+2.6	1,661	354	0	0	0	.00	.52	
6	814.26	321.5	+3.5	1,858	109	0	0	2	.02	1.30	
7	815.03	324.3	+2.8	1,521	120	0	0	8	.07	1.02	
8	815.63	326.4	+2.2	1,135	34	0	0	8	.07	.06	
9	816.17	328.4	+2.0	1,098	89	0	0	23	.20	.11	
10	816.64	330.1	+1.7	883	21	0	0	0	.00	.02	
11	817.10	331.8	+1.7	919	63	0	0	12	.10	.00	
12	817.63	333.7	+1.9	1,023	33	0	0	12	.10	.00	
13	818.06	335.3	+1.6	858	56	0	0	7	.06	.14	
14	818.54	337.0	+1.8	973	76	0	0	6	.05	.04	
15	819.12	339.2	+2.1	1,204	65	0	0	60	.50	.40	
16	819.76	341.6	+2.4	1,248	41	0	0	10	.08	.18	
17	820.31	343.6	+2.0	1,072	34	0	0	6	.05	.01	
TOTALS			+33.5	18,527	1,529	0	0	180	1.52	3.80	
ACRE-FEET			+33,500	36,748	3,033	0	0	357			

COMMENTS:

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

SUMMARY

RELEASE (ACRE-FEET)		PRECIPITATION	
POWER	3,033	OUTLET	0
SPILL	0	TOTAL	3,033
		THIS MONTH =	3.80
		JULY 1, 2015 TO DATE =	16.14

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

JANUARY 2016

GOODWIN RESERVOIR DAILY OPERATIONS

RUN DATE: January 18, 2016

DAY	ELEV	STORAGE		TULLOCH	RIVER		RELEASE - C.F.S.	
		ACRE-FEET	CHANGE		RELEASE	OUTLET	SPILL	JOINT MAIN
		524						
1	359.83	525	+1	217	0	203	0	0
2	359.83	525	+0	215	0	200	0	0
3	359.81	524	-1	215	0	204	0	0
4	359.81	524	+0	210	0	202	0	0
5	359.81	524	+0	207	0	218	0	0
6	359.83	525	+1	207	0	214	0	0
7	359.81	524	-1	209	0	205	0	0
8	359.81	524	+0	209	0	202	0	0
9	359.81	524	+0	209	0	201	0	0
10	359.81	524	+0	211	0	202	0	0
11	359.81	524	+0	209	0	201	0	0
12	359.81	524	+0	209	0	201	0	0
13	359.81	524	+0	208	0	201	0	0
14	359.83	525	+1	208	0	201	0	0
15	359.83	525	+0	209	0	204	0	0
16	359.83	525	+0	211	0	204	0	0
17	359.83	525	+0	211	0	202	0	0
TOTALS			+1	3,574	0	3,465	0	0
ACRE-FEET			+1	7,089	0	6,873	0	0

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

SUMMARY
 RELEASE (ACRE-FEET)

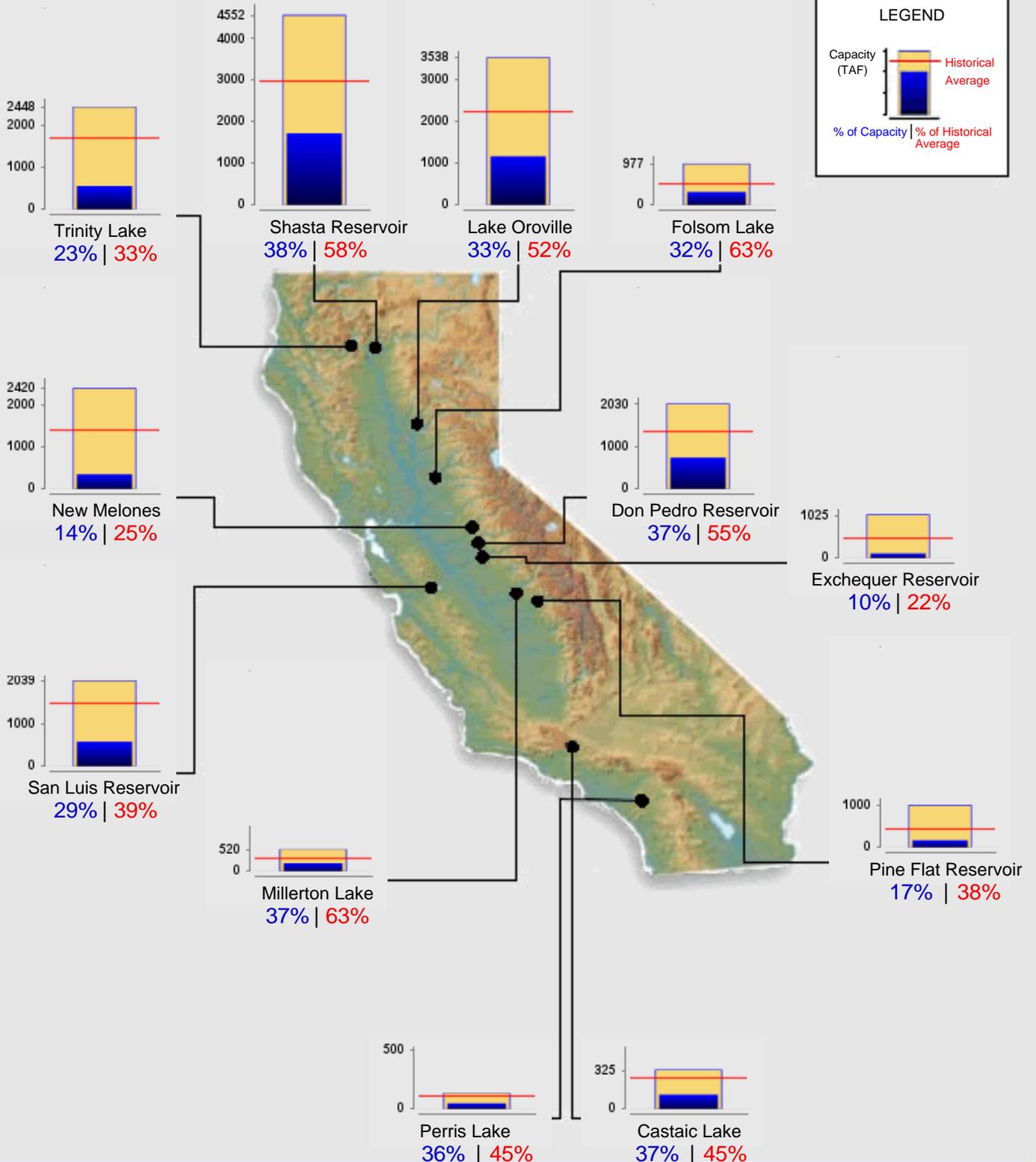
JOINT MAIN CANAL	0	OUTLET	0
SOUTH MAIN CANAL	0	SPILL	6,873
		TOTAL	6,873



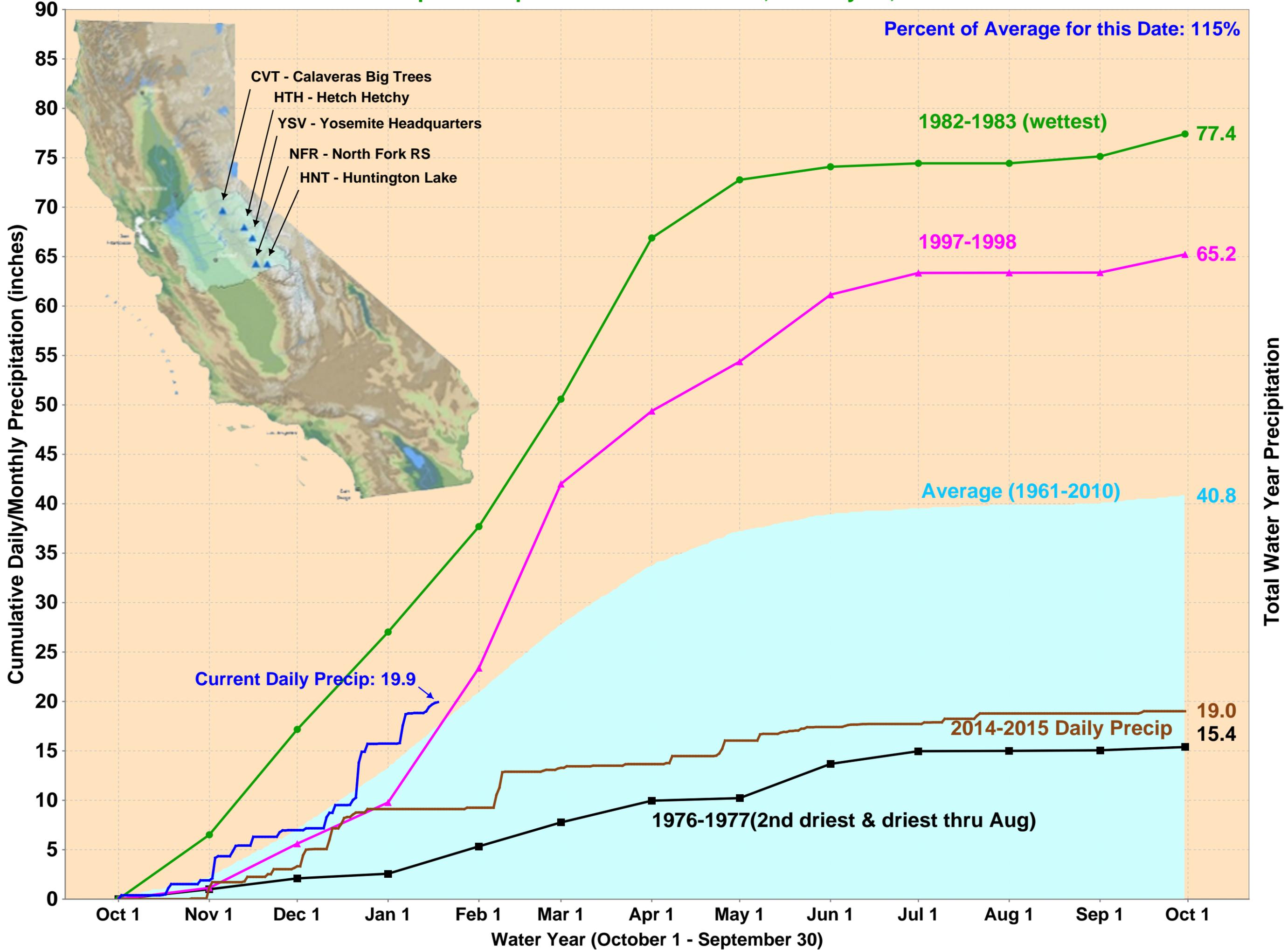
Reservoir Conditions

Ending At Midnight - January 18, 2016

CURRENT RESERVOIR CONDITIONS



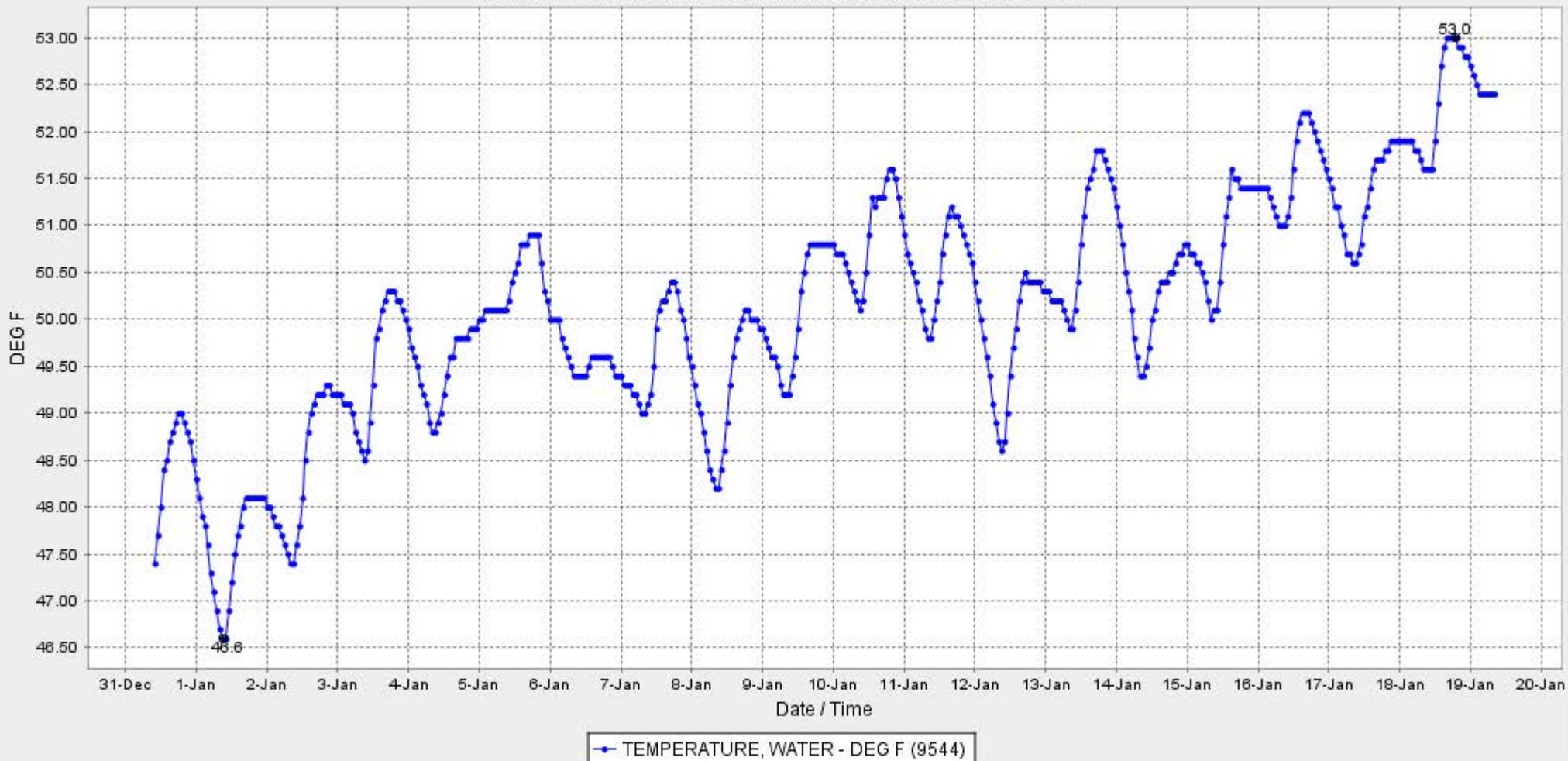
San Joaquin Precipitation: 5-Station Index, January 18, 2016



STANISLAUS R AT ORANGE BLOSSOM BRIDGE (OBB)

Date from 12/31/2015 09:49 through 01/19/2016 09:49 Duration : 19 days

Max of period : (01/18/2016 19:00, 53.0) Min of period: (01/01/2016 09:00, 46.6)



1/20/2016

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. The Stanislaus Operations Group (SOG) met to discuss the winter instability flows on 12/16/15 and again on 1/13/16.

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.

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.

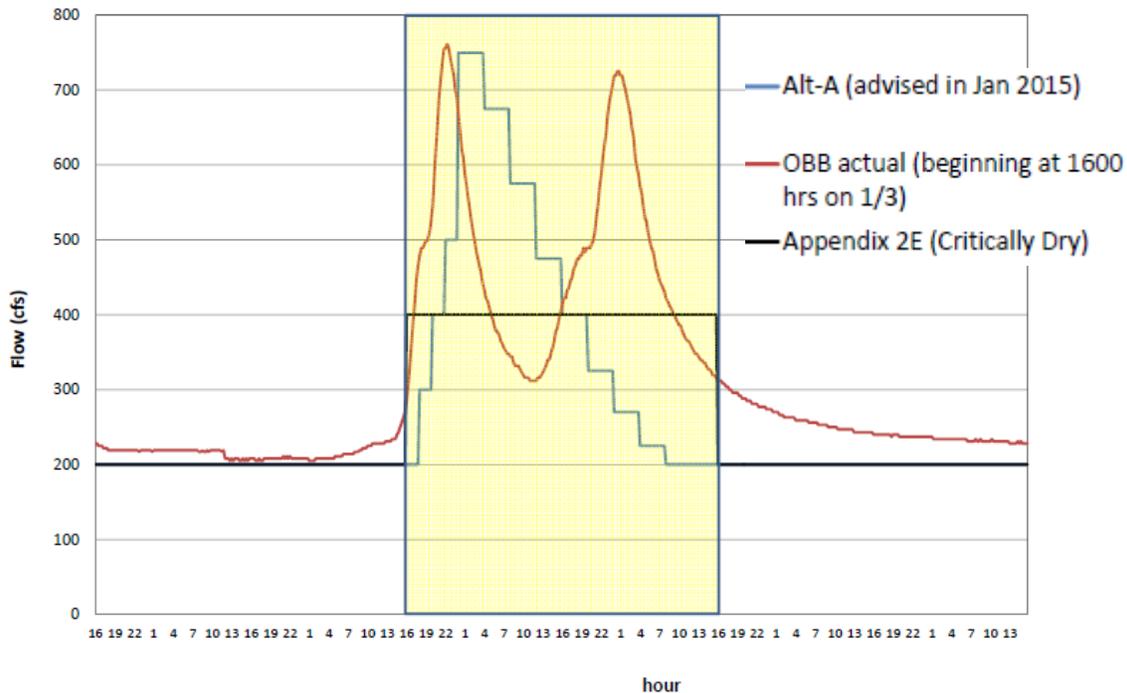


Figure 1: Comparison of January storm to the winter instability flow advised by SOG in 2015 (Alt-A) and to the default Appendix 2-E winter instability flow for a Critically Dry yeartype.

RPA Action III.1.2

Temperature management through 12/31/15 was guided by the temperature management plan developed by Reclamation in consultation with the fishery agencies and the local irrigation districts. That plan, consistent with the exception procedures in the 2009 NMFS BiOp, targeted the following water temperatures during late November and December¹ (measured as the seven day average of daily maximum temperature, or 7DADM):

November 20-December 31: 7DADM not to exceed 56°F at Orange Blossom Bridge (measured at CDEC station OBB).

Provides water temperatures suitable for spawning and incubation by fall-run Chinook salmon, adult migration and holding of Central Valley steelhead.

The 7DADM at Orange Blossom Bridge dropped below 56 °F on 11/28/16 (Figure 2).

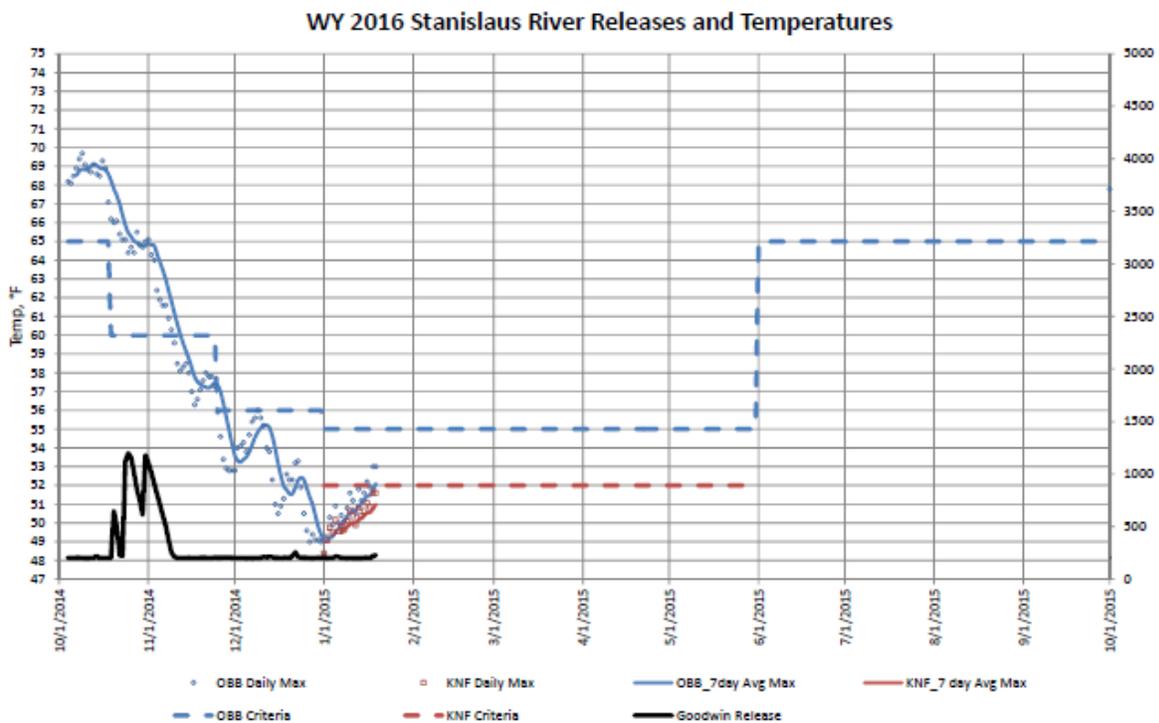


Figure 2: Stanislaus water temperatures at Orange Blossom Bridge (measured) and Knights Ferry (estimated). . The 7DADM targets October through December are per the temperature management plan submitted to the SWRCB in August 2015; the 7DADM targets January through September are per Action III.1.2 in the NMFS BiOp.

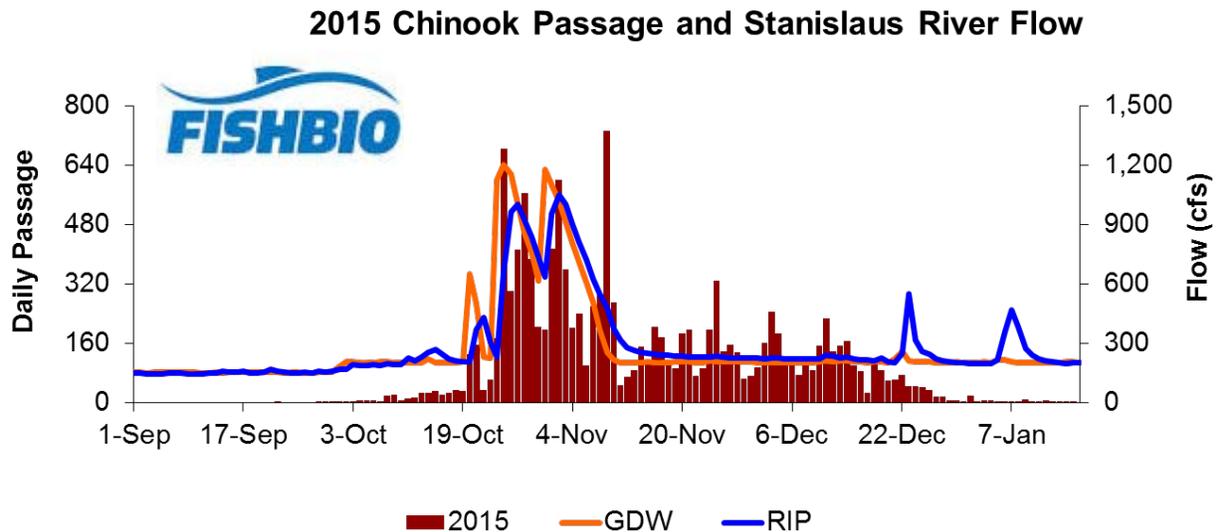
¹ That plan also noted that “given the severe drought conditions and uncertainty about operations this year, the following temperature targets might not be achieved on the targeted timeframe, but real-time blending decisions will be guided by these general targets with the limited resources available.”

Since 1/1/16, temperature management has been guided by the temperature criteria in Action III.1.2 of the 2009 NMFS BiOp. From January 1 to May 31, the temperature criteria in Action III.1.2 are that water temperature (measured as the 7DADM) be below 55°F at Orange Blossom Bridge (OBB) for steelhead spawning and incubation and be below 52°F at Knights Ferry for steelhead smoltification. The 7DADM temperatures at Orange Blossom Bridge and Knights Ferry since 1/7/15 (the first day for which a 7DADM under the 55°F BiOp criterion is available) have been below the temperature criteria (Figure 2).

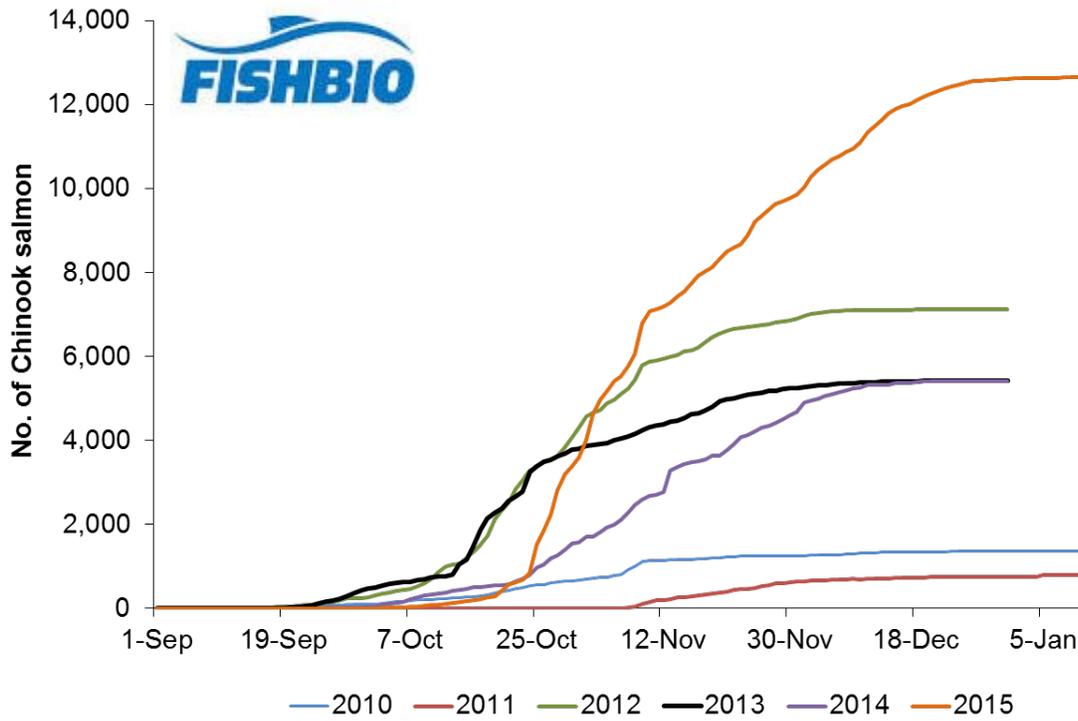
Update on Fish Monitoring

The California Department of Fish & Wildlife (CDFW) began conducting fall-run Chinook carcass and redd surveys the week of 9/28/15. Through the week of 1/11/16, CDFW has observed 5,246 redds on the Stanislaus River (compared to 244 on the Tuolumne and 1,174 on the Merced).

The Stanislaus weir near Riverbank began sampling on Friday, 9/15/15. Through 1/17/16, the net upstream passage of adult fall-run Chinook salmon at the weir just downstream of Riverbank was 12,675 – nearly double the next-highest passage (seasonal total of 7,248 in 2012) observed since the weir sampling began in 2003. A net upstream passage of three *Oncorhynchus mykiss* (all <16”, two of three were ad-clipped) has been observed at the weir. The figures below were provided by FISHBIO in their 1/18/16 Stanislaus weir update.



Cumulative Chinook Passage at the Stanislaus River Weir



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 1/18/16 San Joaquin Basin Update.

