

## **American River Operations Group**

July 19th, 2018 Meeting Notes

### **Attendees:**

Jessica Andrieux, Zarela Guerrero, Spencer Marshall, Peggy Manza, Ian Smith, Reclamation; Duane Linander, Ken Kundargi, Jeanine Phillips, Tanya Sheya, CDFW; Lilly Allen, Rod Hall, Water Forum; Helen Thompson, Nicole Williamson, State Water Board; Ansel Lundberg, SMUD; I-Pei Hodge, East Bay MUD; Craig Anderson, USFWS Jeff Meyer, Western Hydrolics; Gary Sprague, NMFS; Ben Barker, PCWA; Chris Hammersmark, CBEC and Water Forum; Sean Bigley, City of Roseville; Greg Zlotnick, SJWD

### **Handouts:**

- Agenda
- Daily CVP Water Supply Report
- Temperature Control Report – June 1st through July 18<sup>th</sup>
- Folsom Lake Temperature Profiles
- Folsom Lake Isothermobaths
- Folsom Cold Water Pool
- 90% and 50% Runoff Exceedance Outlook

### **Fishery Update:**

Jeanine Phillips provided release updates. Steelhead releases occurred on both Feb. 1<sup>st</sup> and 21<sup>st</sup> at Sunrise Ave. 45% of production goal was met for Steelhead, which is about 212,000 fish. 100% of production goal was met for Chinook. Chinook releases occurred on May 10<sup>th</sup>, 21<sup>st</sup>, June 6<sup>th</sup>, and 8<sup>th</sup>. Releases in early May were at Sunrise Ave. and totaled 1.3 million. Releases in late May and June were in the Delta and totaled 2.7 million, which met the production goal. CDFW made a request to have the weir at Hazel Ave. installed in early August in order to prevent fish from reaching the basin below Nimbus Dam. CDFW stated this would maximize recreational catch as well as maximize hatchery catch of Chinook salmon for spawning. Lowering releases in August in order to accomplish this would cause water temperatures to exceed temperature control at Watt. The weir is typically installed in mid-September when releases ramp down. Given these considerations, the weir will not be installed prior to mid-September.

Lily Allen with the Water Forum expressed their desire to clean out the Sunrise boat launch. Completing this during low flows in September is highly desirable. Water Forum is still engaged in talks with the ACOE and Flood Board in order to be issued 408 permitting for the gravel restoration project. Sailor Bar restoration is still in the planning process and awaiting permitting.

### **Operations Outlook:**

Ben Barker provided operations updates for PCWA. Storage on July 19<sup>th</sup> is 112 TAF at French Meadows. Hell Hole is 147 TAF. Combined storage capacity is currently at 76%. Current project

at Hell Hole reservoir requires releasing an additional 30 TAF this year.

Ansel Lundberg provided operations updates for SMUD. Reservoir storage is currently at 88% capacity. Total storage at 3 largest reservoirs (Loon Lake, Union Valley, Ice House) is 332, 682 acre-feet. 62 TAF released into the south fork of the American River in June. July releases total just under 30 TAF.

Peggy Manza provided operations updates for the Lower American River. First temperature shutter pull occurred on July 12<sup>th</sup>, resulting in cooler water conditions. Greg Zlotnick requested that the calculated total amount of monthly releases be made available to ARG on a monthly basis.

American Reservoir releases are essentially 5,000 cfs . Storage is at 721 TAF, which is high for this time of year based on the 15 year average. Accumulated inflow is 2,289 TAF. Accumulated precipitation is 64.57 inches.

### **Temperature Management:**

Peggy provided temperature management updates. End of June water temperature reached 63.7 degrees at Watt Ave. Temperatures at the surface of Folsom reservoir are near 82 degrees. Temperatures are very uniform. Isothermobath reflects a steady drop in cold water pool because of top layer warming. 90% and 50% runoff exceedance outlooks are beginning to converge. Higher end-of-year storage in the 50% outlook is what is allowing for a little more use of Folsom reservoir water in September. 90% outlook still holding at schedule 26. The 50% outlook schedule increased from schedule 19 in June to schedule 23 in July. The 90% outlook schedule is currently at schedule 26, which has a requirement for 66 degrees in July, August, and September, and a target of 59 degrees starting November 1st. Carryover cold water pool in the 50% outlook is much colder than the 90% outlook. The Coldwater Pool Management Model (iCPMM) is the official name of the model used. Due to uncertainties in modeling, it is unknown at this time whether or not power bypass will be implemented in the fall in order to meet fall temperature requirements. Power bypass will be discussed as the need arises.

Army Corps of Engineers has issued Reclamation a temporary deviation from current flood control diagram. In 2017, USFW had engaged in short-term consultation for the long-term implementation of the Water Control Manual, which provides coverage through the current water-year (October 1<sup>st</sup>, 2018). The temporary deviation is in fact what is contained in the new Water Control Manual.

The next meeting is scheduled to take place on **Thursday August 16th, 2018** at Central Valley Operations Office, 3310 El Camino Ave., Sacramento, CA 95821, in Room 302, at 1:30pm.

## **American River Group**

Thursday July 19, 2018 1:30 PM  
Central Valley Operation Office, Room LL-20  
3310 El Camino Ave.  
Sacramento, CA 95821

1. Fisheries Updates

2. Operations Forecast

3. Temperature Management

---

### **American River Summary Conditions - July (On-going):**

- No unusual conditions or occurrences to report.

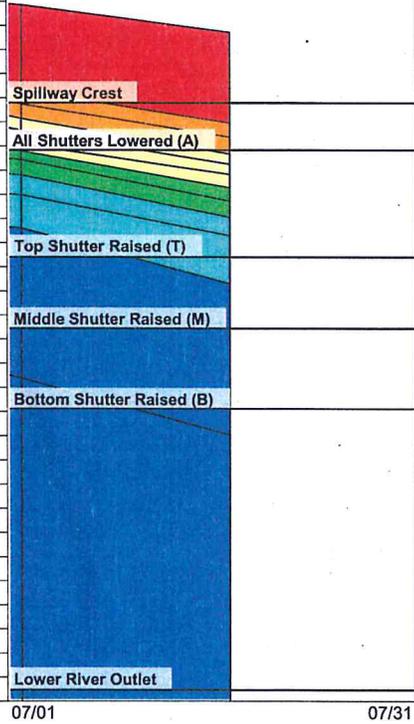
### **Storage/Release Management Conditions:**

- Releases to meet Delta needs over summer.

### **Temperature Management:**

- So far no difficulties meeting temperature targets at Watt Ave.

DATE	Mean Daily Temperatures (°F)							Release (CFS)	Storage (TAF)	Unit Shutter Position / Load Percentage						Isobath Plot			
	Water						Air			Unit 1			Unit 2				Unit 3		
	NFA	ARP	AFD <sup>1</sup>	AHZ	AWP	AWB	CSU			Nimbus	Folsom								
Jun	65.7	64.2	56.1	57.2	59.9	61.0	72.1	3391											
07/01	69.6	66.4	58.9	59.9	62.7	63.9	76.8	3829	836	A	33	A	15	A	52				
07/02	70.3	66.8	59.5	60.0	62.5	63.3	70.8	4245	830	A	52	A	34	A	14				
07/03	70.5	68.7	59.5	60.4	62.7	63.4	68.5	4344	823	A	18	A	47	A	35				
07/04	70.4	69.3	59.8	60.3	62.5	63.1	65.9	4346	816	A	12	A	35	A	52				
07/05	69.4	69.5	60.5	60.7	62.8	63.3	? 72.0	4684	808	A	49	A	35	A	16				
07/06	67.3	67.8	60.8	61.1	63.1	63.6	? 77.8	4845	801	A	34	A	48	A	18				
07/07	65.0	66.8	60.8	61.3	63.5	64.2	79.7	4846	795	A	28	A	28	A	44				
07/08	65.0	65.9	61.0	61.5	63.7	64.4	? 76.8	4844	789	A	46	A	40	A	14				
07/09	64.9	64.5	61.4	61.9	64.0	64.6	78.8	4845	783	A	27	A	29	A	44				
07/10	64.8	64.2	61.7	62.2	64.3	65.0	80.1	4846	777	A	46	A	36	A	18				
07/11	63.6	67.8	61.8	62.5	64.7	65.4	78.7	4847	770	A	17	A	46	A	37				
07/12	62.6	68.2	60.6	62.7	64.9	65.5	80.0	4848	764	T	16	A	36	A	49				
07/13	60.0	67.1	60.9	61.6	63.8	64.5	80.7	4845	757	T	16	A	46	A	38				
07/14	61.1	66.6	61.5	61.7	64.0	64.6	78.3	4845	751	T	11	A	36	A	53				
07/15	63.9	67.6	61.6	62.2	64.6	65.3	74.1	4846	744	T	11	A	44	A	46				
07/16	64.8	68.1	61.2	62.5	64.8	65.5	76.2	4846	736	T	20	A	36	A	44				
07/17	65.5	68.9	61.5	62.1	64.5	65.2	77.5	5003	729	T	17	A	39	A	43				
07/18	65.4	70.0	61.6	62.3	64.8	65.6	81.0	4846	721	T	20	A	34	A	46				
07/19																			
07/20																			
07/21																			
07/22																			
07/23																			
07/24																			
07/25																			
07/26																			
07/27																			
07/28																			
07/29																			
07/30																			
07/31																			
Jul	65.8	67.5	60.8	61.5	63.8	64.5	76.3	4700											
							Total AF	167801											



**Legend**

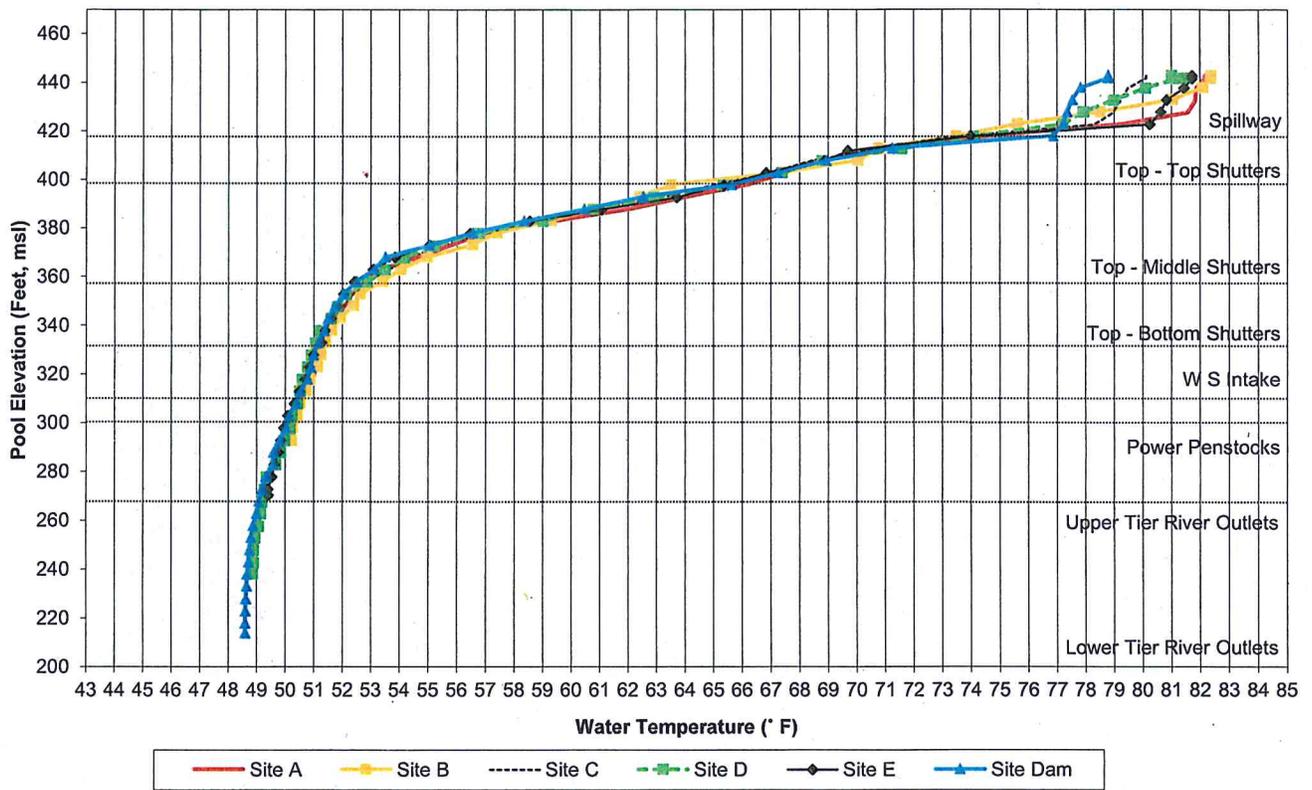
- ? = 1-9 hours of data missing
- ! = 10 or more hours of data missing
- # = Station out of service
- = Monthly Averages

- A = All Shutters Lowered
- T = Top Shutter Raised
- M = Middle Shutter Raised
- B = Bottom Shutter Raised
- O = Unit Outage

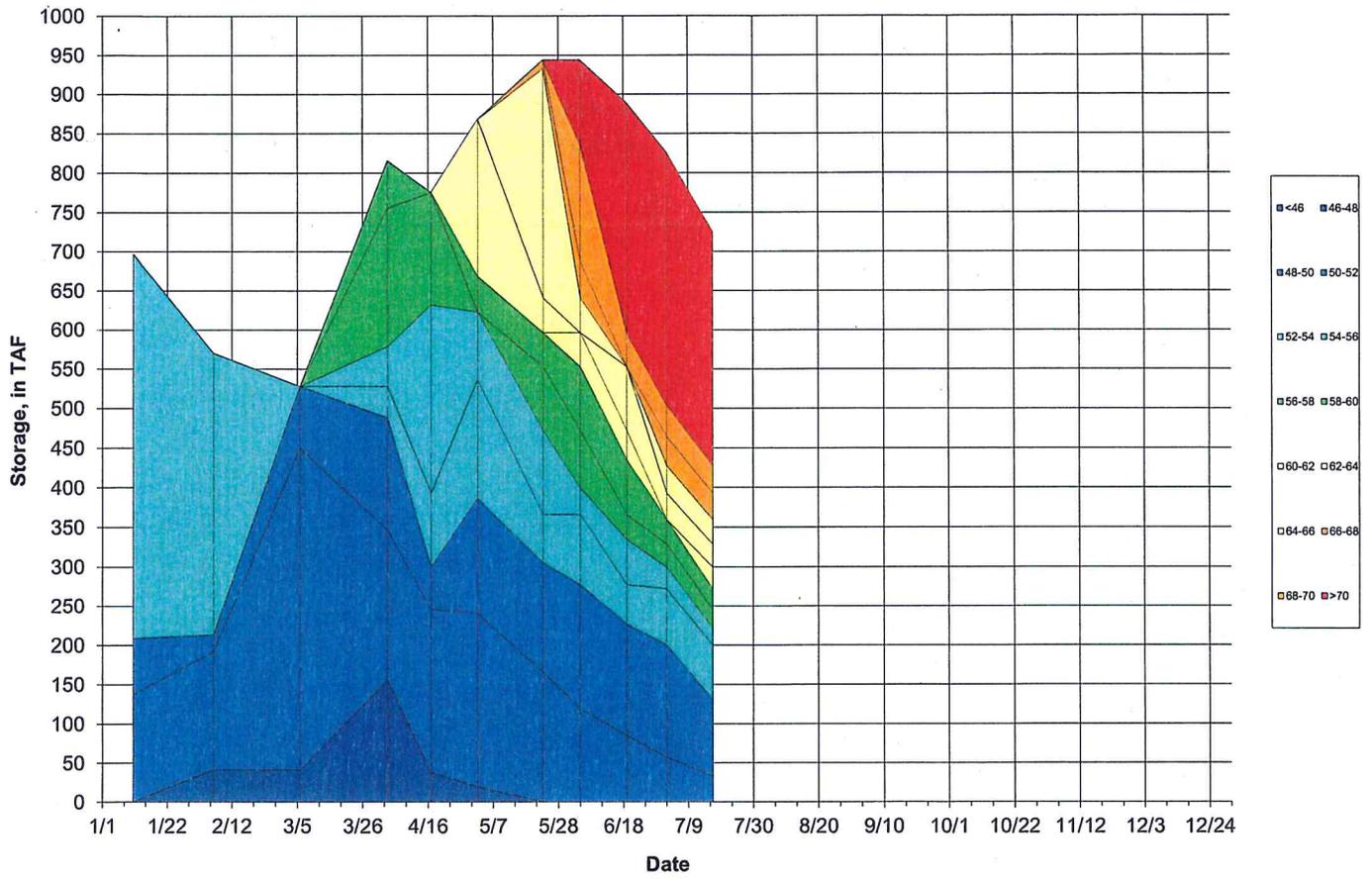
**Notes**

- <sup>1</sup> AFD is a weighted average using hourly flow values
- 2
- 3
- 4
- 5
- 6

## Folsom Lake Temperature Profiles: 17-Jul-2018



Folsom Lake Isothermobaths - 2018  
(Water Temperature, in ° F)



## Folsom Cold Water Pool

Folsom Reservoir: Cold Water Volume

<b>Profile Date</b>	<b>Volume less than 58°F (TAF)</b>
07/17/18	245.8

Proposed Power Generation Bypass/Lower River Outlet for Temperature Management

<b>Date</b>	<b>Bypass/Lower River Outlet (cfs)</b>	<b>Temperature not to exceed downstream of Nimbus Dam (°F)</b>	<b>Cumulative Use of Cold Water Pool Volume (TAF)</b>
N/A at this time			

## DRAFT June 2018

### 90% Runoff Exceedance Outlook:

Inflow based on 90% historical average runoff for all months.

#### Federal End of the Month Storage/Elevation (TAF/Feet)

		Jul	Aug	Sep			
Folsom	841	578	434	381			
Elev.		426	408	400			

#### Monthly River Releases (cfs)

	Jul	Aug	Sep			
American	5068	3200	1811			
MRR	1750	1750	1750			

### 50% Runoff Exceedance Outlook:

Inflow based on 50% historical average runoff for all months.

#### Federal End of the Month Storage/Elevation (TAF/Feet)

		Jul	Aug	Sep			
Folsom	841	608	482	407			
Elev.		429	414	404			

#### Monthly River Releases (cfs)

	Jul	Aug	Sep			
American	5000	3100	2400			
MRR	1750	1750	1750			

Please note:

CVP actual operations do not follow any forecasted operation or outlook; actual operations are based on real-time conditions.

CVP operational forecasts or outlooks consider general system-wide dynamics and do not necessarily address specific watershed/tributary details.

CVP releases represent monthly averages.

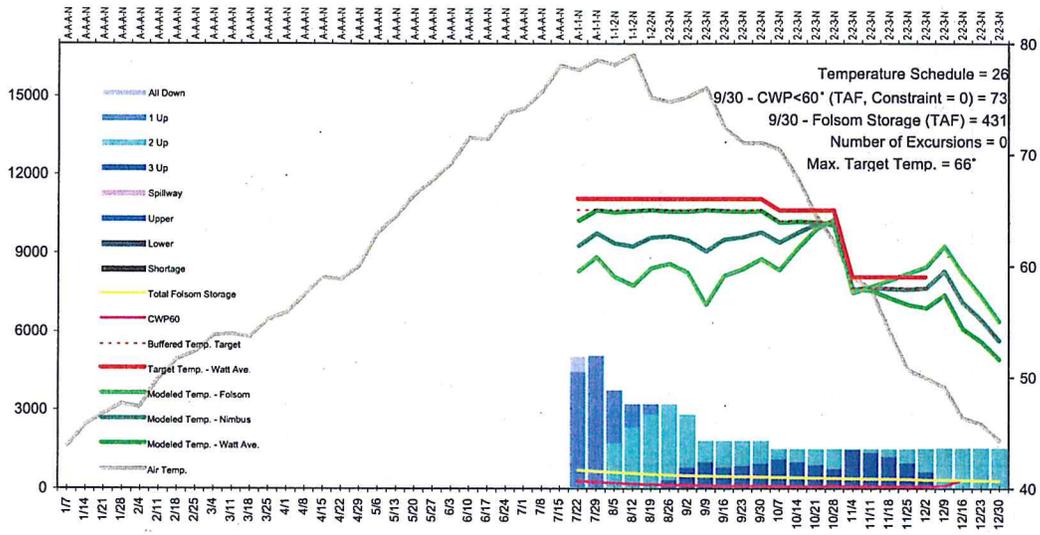
CVP operations are updated monthly as new hydrologic information is made available December through May.

Shaded area represents less confident hydrologic inputs of the future water year.

### July 2018 90%-Exceedance Outlook

USBR Pred.

Release (cfs) / Volume (TAF)



Temperature (°F)

Release (cfs) / Volume (TAF)

