

American River Group

Thursday March 15, 2018 1:30 PM
Central Valley Operation Office, Room 302
3310 El Camino Ave.
Sacramento, CA 95821

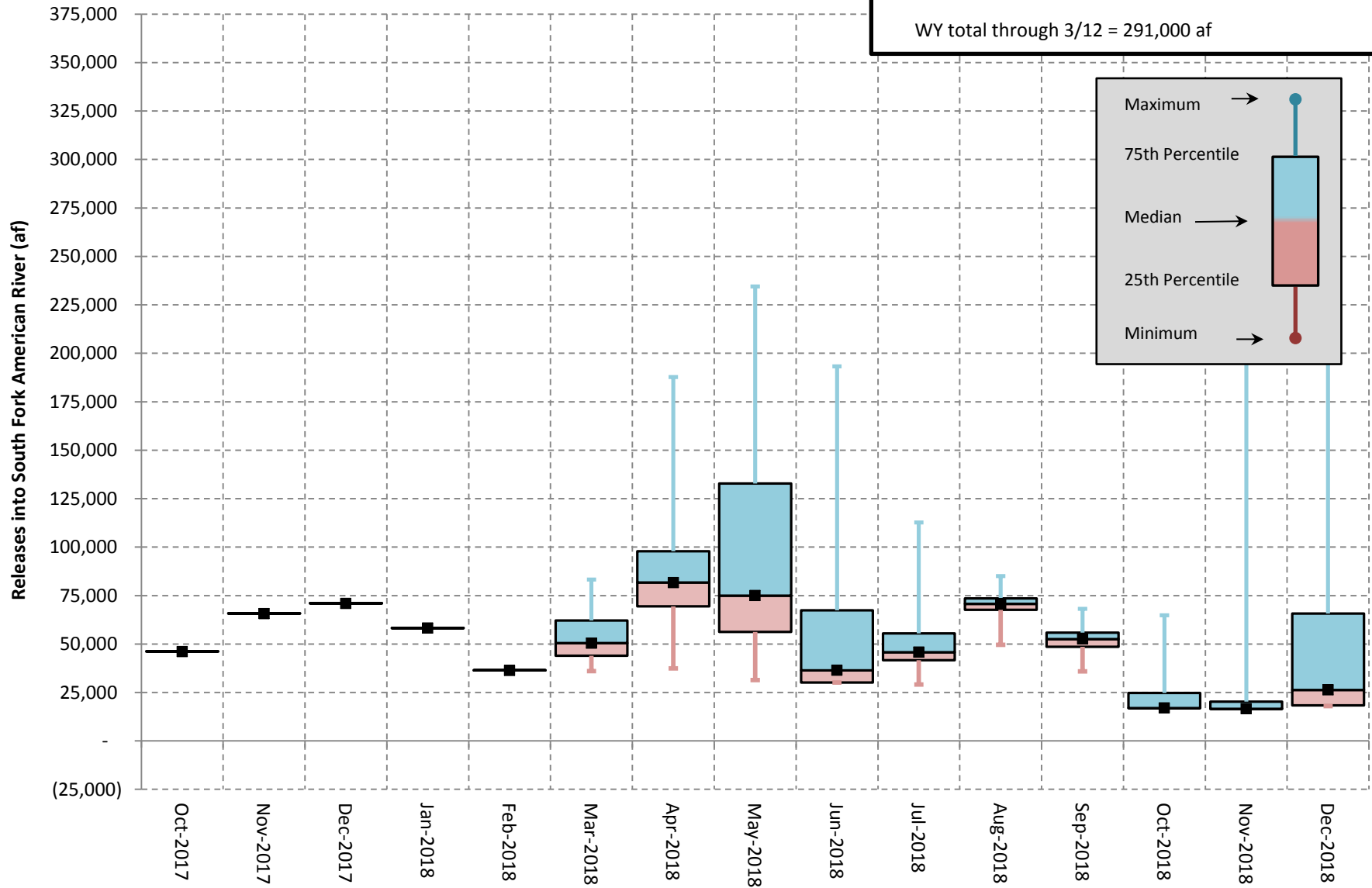
1. Fisheries Updates

2. Operations Forecast

3. Temperature Management

ET&C's Mar 12 Forecast+Actual Releases into the South Fork American River

2018 Water Year Median Forecast = 800,000 af
 WY total through 3/12 = 291,000 af



* This forecast was created using Plexos to simulate the operation of the UARP & Chili Bar given the NWS' Mar 12 Ensemble Forecast & actuals are from the A49 gage.

American River Summary Conditions – March (On-going):

- Very dry hydrology
- Wet commissioning test completed, some dry testing remains

Storage/Release Management Conditions:

- Reduced releases to February FMS level. Need to reduce further to March FMS level.

Temperature Management:

- Setting up cold water pool for this years temperature management.

DAILY CVP WATER SUPPLY REPORT

MARCH 13, 2018

RUN DATE: March 14, 2018

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2017	WY 2018	15 YR MEDIAN
TRINITY	LEWISTON	316	300	298
SACRAMENTO	KESWICK	9,632	3,138	3,812
FEATHER	OROVILLE (SWP)	13,700	1,750	1,750
AMERICAN	NIMBUS	5,695	1,771	1,793
STANISLAUS	GOODWIN	1,015	218	230
SAN JOAQUIN	FRIANT	8,923	300	150

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2017	WY 2018	% OF 15 YR AVG
TRINITY	2,448	1,662	1,969	1,801	108
SHASTA	4,552	3,324	3,440	3,492	105
FOLSOM	977	553	415	542	98
NEW MELONES	2,420	1,478	1,679	1,915	130
FED. SAN LUIS	966	738	963	827	112
TOTAL NORTH CVP	11,363	7,755	8,466	8,577	111
MILLERTON	520	323	286	337	104
OROVILLE (SWP)	3,538	2,284	2,969	1,520	67

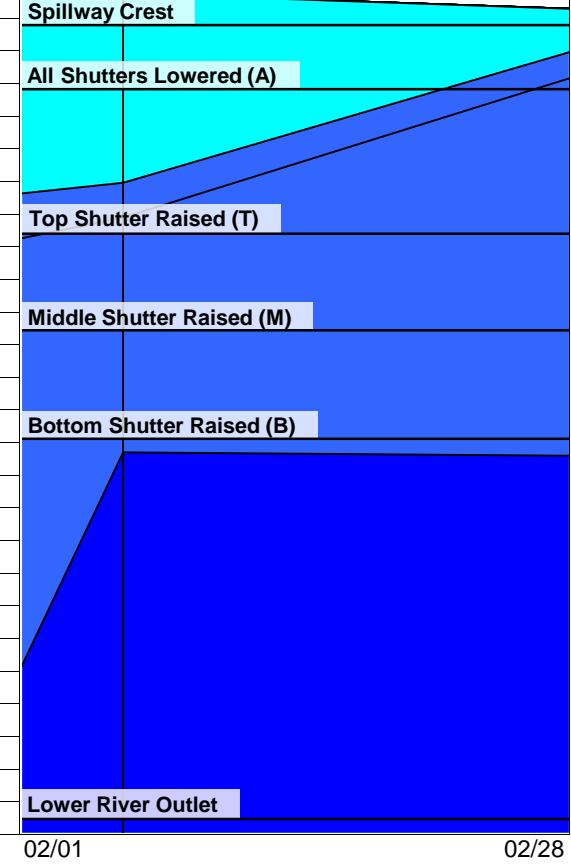
ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2018	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	212	63	1,045	499	43
SHASTA	1,579	1,250	5,755	2,714	58
FOLSOM	792	176	2,902	1,147	69
NEW MELONES	265	0	955	385	69
MILLERTON	358	103	1,351	401	89

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2018	DRIEST WY 1977	WETTEST WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	13.36	7.14	44.66	24.92 (56)	54	0.50
SACRAMENTO AT SHASTA DAM	23.29	8.17	88.81	47.72 (61)	49	0.42
AMERICAN AT BLUE CANYON	40.87	13.29	82.77	50.77 (43)	81	2.66
STANISLAUS AT NEW MELONES	11.78	0.00	35.73	20.83 (40)	57	0.11
SAN JOAQUIN AT HUNTINGTON LK	16.21	9.10	65.90	31.23 (43)	52	0.08

DATE	Mean Daily Temperatures (°F)							Release (CFS)	Storage (TAF)	Unit Shuter Position / Load Percentage						Isobath Plot		
	Water						Air			Nimbus	Folsom	Unit 1		Unit 2			Unit 3	
	NFA	ARP	AFD ¹	AHZ	AWP	AWB	CSU											
Jan	46.6	46.8	50.1	50.0	50.9	51.0	50.0	2694										
02/01	46.3	46.1	49.4	49.4	50.6	50.9	55.2	2876	581	B	10	B	19	M	71	Spillway Crest		
02/02	46.7	45.9	49.3	49.6	50.8	51.1	55.9	2851	580	B	0	B	36	M	64	All Shutters Lowered (A)		
02/03	47.0	45.8	49.3	49.5	50.7	51.1	56.5	2853	580	B	17	B	11	M	72			
02/04	47.4	45.6	49.2	49.5	50.7	51.1	57.1	2853	579	B	11	B	16	M	73			
02/05	47.7	46.2	49.2	49.4	50.7	51.1	57.5	2858	578	B	12	B	17	M	71			
02/06	47.7	47.0	49.2	49.5	50.6	51.0	57.7	2816	575	B	28	B	11	M	61			
02/07	47.8	46.1	49.5	49.4	50.7	51.2	57.2	2842	574	T	61	T	20	T	20			
02/08	47.8	46.4	50.3	49.4	50.7	51.2	57.2	2831	574	T	34	T	65	T	1			
02/09	47.8	46.6	50.6	49.7	51.0	51.2	57.5	2831	572	T	53	T	46	T	1			
02/10	47.8	46.7	50.8	50.2	51.3	51.4	55.3	2828	570	T	34	T	66	T	1			
02/11	46.7	45.2	50.3	50.1	50.7	50.6	48.6	2843	568	T	31	T	41	T	28			
02/12	46.7	45.3	50.4	49.9	50.9	51.0	47.9	2842	567	T	1	T	19	T	80			
02/13	46.1	45.4	50.5	49.6	50.6	50.8	49.0	2843	565	T	1	T	47	T	53	Top Shutter Raised (T)		
02/14	45.5	45.4	50.5	49.8	50.7	50.7	48.5	2865	562	T	24	T	76	T	1			
02/15	45.5	45.6	50.5	49.9	50.9	51.0	49.2	2880	558	T	58	T	37	T	5	Middle Shutter Raised (M)		
02/16	45.2	45.5	50.5	49.9	51.0	51.2	49.1	2752	556	T	49	T	48	T	4			
02/17	45.6	45.9	50.5	50.1	51.4	51.5	52.8	2343	555	T	69	T	30	T	1			
02/18	45.8	45.9	49.8	50.3	51.4	51.8	51.1	2269	553	T	45	T	54	T	1			
02/19	44.8	44.2	50.4	50.1	50.8	50.8	42.4	2269	551	T	77	T	22	T	1	Bottom Shutter Raised (B)		
02/20	43.3	42.9	50.3	49.3	50.0	50.1	41.3	2476	549	T	11	T	66	T	23			
02/21	43.1	43.4	50.3	49.3	50.1	50.1	43.5	2824	547	T	30	T	16	T	54			
02/22	42.7	43.1	50.0	49.4	50.0	50.0	42.7	2858	544	T	18	T	68	T	14			
02/23	42.3	42.9	50.1	49.2	50.1	50.0	41.4	2857	542	T	36	T	29	T	35			
02/24	42.1	42.9	49.8	49.2	49.9	49.8	42.8	2877	539	T	1	T	38	T	62			
02/25	42.8	43.5	49.6	49.4	50.6	50.8	48.1	2873	535	T	16	T	73	T	12			
02/26	43.4	44.7	49.5	49.4	50.0	49.9	44.6	2871	533	T	75	T	12	T	13			
02/27	43.4	44.3	49.6	48.8	49.8	49.9	45.9	2907	529	T	70	T	17	T	14			
02/28	43.2	44.4	49.3	48.8	49.8	49.9	46.4	2999	526	T	1	T	74	T	26	Lower River Outlet		
-																		
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Feb	45.4	45.1	50.0	49.6	50.6	50.8	50.1	2782										
								Total AF	154486									



Legend

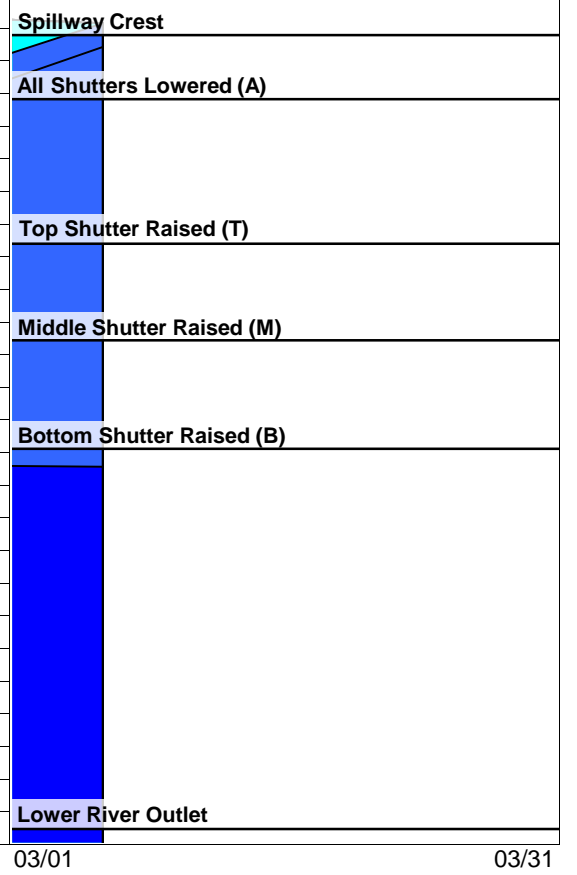
- ? = 1-9 hours of data missing
- ! = 10 or more hours of data missing
- # = Station out of service
- [Blue Box] = Monthly Averages

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

Notes

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

DATE	Mean Daily Temperatures (°F)							Release (CFS)	Storage (TAF)	Unit Shuter Position / Load Percentage						Isobath Plot		
	Water						Air			Nimbus	Folsom	Unit 1		Unit 2			Unit 3	
	NFA	ARP	AFD ¹	AHZ	AWP	AWB	CSU											
Feb	45.4	45.1	50.0	49.6	50.6	50.8	50.1	2782										
03/01	43.9	44.8	49.3	49.1	49.9	50.0	48.7	2917	525	T	16	T	14	T	71			
03/02	43.4	44.7	49.3	48.6	49.2	49.3	43.8	2436	527	T	12	T	52	T	35			
03/03	43.5	44.6	49.2	48.4	49.4	49.5	43.5	1948	529	T	12	T	59	T	29			
03/04	43.9	45.3	49.2	48.7	50.0	50.0	43.9	1768	530	T	28	T	25	T	47			
03/05	43.7	44.7	49.4	49.1	50.4	50.7	?	45.9	1746	531	T	36	T	33	T	31		
03/06	44.6	45.5	49.4	49.4	51.1	51.5	49.9	1752	531	T	16	T	20	T	64			
03/07	45.6	45.9	49.4	49.6	51.4	52.1	56.4	1749	532	T	15	T	63	T	21		Spillway Crest	
03/08	46.7	47.7	49.6	50.1	52.4	53.3	58.7	1736	532	T	24	T	24	T	52		All Shutters Lowered (A)	
03/09	47.7	48.2	49.6	50.6	52.7	53.6	58.5	1760	532	T	20	T	60	T	21			
03/10	47.9	47.4	49.4	50.5	51.7	52.3	55.4	1751	533	T	19	T	19	T	62			
03/11	48.3	47.1	43.7	50.3	52.5	53.0	56.3	1695	534	T	65	T	24	T	12			
03/12	49.2	48.7	49.7	50.6	53.0	54.0	61.6	1776	535	T	16	T	66	T	18		Top Shutter Raised (T)	
03/13	49.6	49.0	49.1	50.6	52.5	53.9	57.9	1771	542	T	21	T	21	T	58			
03/14																		
03/15																		
03/16																	Middle Shutter Raised (M)	
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03/27																		
03/28																		
03/29																		
03/30																		
03/31																	Lower River Outlet	
Mar	46.0	46.4	49.0	49.7	51.3	51.8	52.3	1908										
	Total AF							49200										



Legend

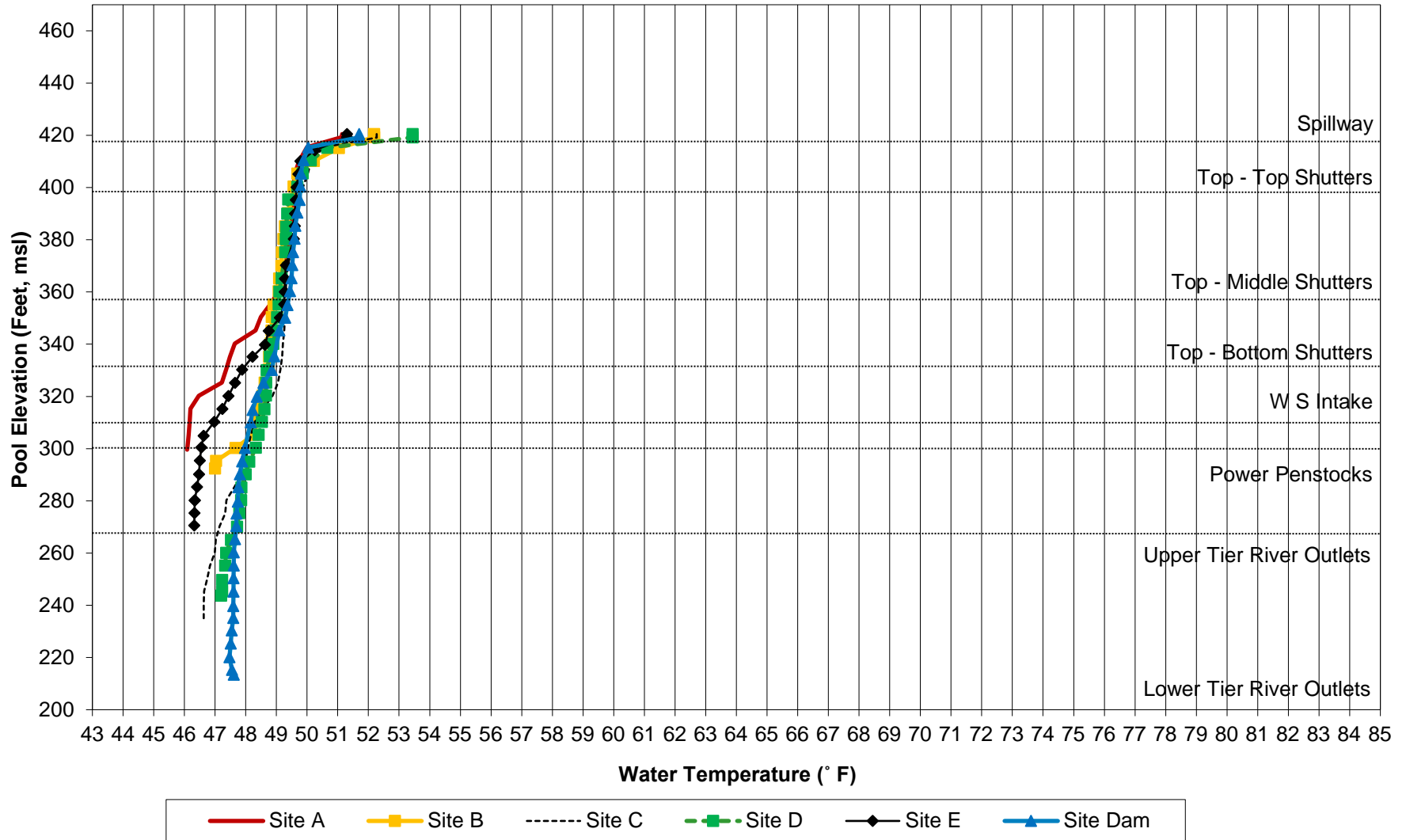
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Folsom Lake Temperature Profiles: 06-Mar-2018



DRAFT February 2018

90% Runoff Exceedance Outlook:

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

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

		Mar	Apr	May			
Folsom	526	594	643	557			
	Elev.	428	433	424			

Monthly River Releases (cfs)

American	1250	842	2468			
MRR	800	800	800			

50% Runoff Exceedance Outlook:

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

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

		Mar	Apr	May			
Folsom	526	606	594	626			
	Elev.	429	428	431			

Monthly River Releases (cfs)

American	1750	2786	1750			
MRR	900	900	900			

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 hydrology information is made available December through May.

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