

American River Group

Thursday December 14, 2017 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

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

- Preparing for flood control season

Storage/Release Management Conditions:

- Increased releases to bring Folsom down to flood control rule

Temperature Management:

- Concluded for this year.

DAILY CVP WATER SUPPLY REPORT

DECEMBER 13, 2017

RUN DATE: December 14, 2017

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2017	WY 2018	15 YR MEDIAN
TRINITY	LEWISTON	308	300	306
SACRAMENTO	KESWICK	4,840	4,434	4,516
FEATHER	OROVILLE (SWP)	1,750	2,400	1,850
AMERICAN	NIMBUS	4,973	3,289	1,785
STANISLAUS	GOODWIN	200	602	252
SAN JOAQUIN	FRIANT	204	375	130

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	1,380	1,140	1,762	128
SHASTA	4,552	2,438	3,009	3,222	132
FOLSOM	977	407	625	600	147
NEW MELONES	2,420	1,294	558	1,983	153
FED. SAN LUIS	966	447	333	0	0
TOTAL NORTH CVP	11,363	5,965	5,665	7,567	127
MILLERTON	520	251	325	351	140
OROVILLE (SWP)	3,538	1,694	1,602	1,268	75

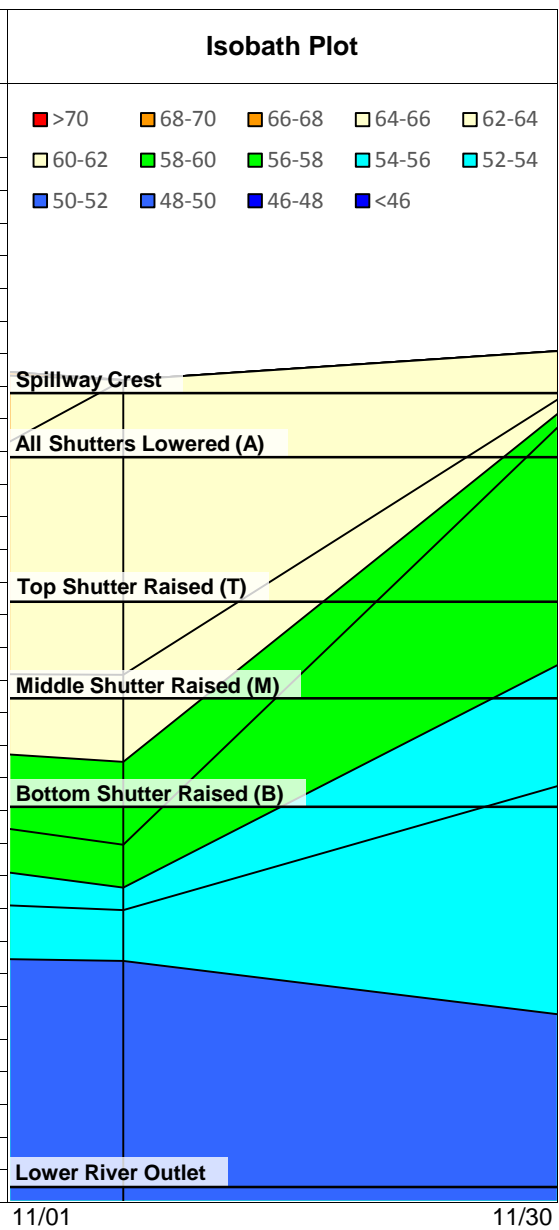
ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2018	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	71	22	130	96	74
SHASTA	672	560	818	676	99
FOLSOM	337	97	640	225	150
NEW MELONES	127	0	274	101	126
MILLERTON	230	60	345	120	191

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	7.09	1.25	12.25	9.06 (55)	78	0.01
SACRAMENTO AT SHASTA DAM	11.02	1.63	16.37	15.75 (60)	70	0.00
AMERICAN AT BLUE CANYON	18.75	3.27	27.65	17.09 (42)	110	0.00
STANISLAUS AT NEW MELONES	4.36	0.00	11.38	6.35 (39)	69	0.00
SAN JOAQUIN AT HUNTINGTON LK	3.90	1.80	20.00	8.66 (42)	45	0.00

DATE	Mean Daily Temperatures (°F)							Release (CFS)	Storage (TAF)	Unit Shuter Position / Load Percentage							
	Water						Air			Nimbus	Folsom	Unit 1		Unit 2		Unit 3	
	NFA	ARP	AFD ¹	AHZ	AWP	AWB	CSU					Unit 1	Unit 2	Unit 3	Unit 3	Unit 3	Unit 3
Oct	58.5	55.6	61.8	61.8	62.6	62.7	62.9	2395									
11/01	56.6	55.1	60.0	59.5	60.4	60.4	? 57.6	2096	553	B	71	M	29	M	0		
11/02	55.9	54.4	59.7	59.4	59.9	59.8	57.1	2097	549	B	69	B	30	M	0		
11/03	55.6	54.4	59.5	59.4	60.0	59.9	60.3	2094	546	B	68	B	32	M	0		
11/04	55.5	54.2	59.5	59.0	59.7	59.6	? 57.3	2095	543	B	68	B	32	M	0		
11/05	56.3	54.1	59.6	58.6	59.1	58.8	51.0	2009	541	B	70	B	30	M	0		
11/06	55.8	53.1	59.8	58.5	59.0	58.8	51.0	2095	539	B	67	B	32	M	0		
11/07	54.5	52.1	59.9	58.6	59.0	58.7	50.5	2093	536	B	82	B	17	M	0		
11/08	53.6	51.5	59.5	58.7	59.0	58.6	55.4	2057	532	B	15	B	85	M	0		
11/09	54.8	53.3	59.6	58.9	59.9	59.8	60.0	2074	529	B	29	B	71	M	0		
11/10	55.2	54.1	59.6	59.0	59.8	59.7	58.0	2069	528	B	15	B	84	M	0		
11/11	55.1	53.7	59.6	59.0	59.7	59.6	53.7	2062	528	B	15	B	84	M	0		
11/12	55.0	53.3	59.5	58.9	59.6	59.5	? 54.5	2066	527	B	15	B	84	M	0		
11/13	54.5	52.7	59.3	58.9	59.5	59.4	? 58.0	2059	526	B	15	B	85	M	0		
11/14	55.4	53.7	59.2	58.9	59.9	59.9	56.8	2064	525	B	12	B	87	M	0		
11/15	54.7	53.1	59.2	59.0	59.4	59.1	? 54.7	2069	525	B	18	B	82	M	0		
11/16	53.9	53.5	59.0	58.6	59.3	59.2	? 56.0	2047	544	B	12	B	87	M	0		
11/17	51.3	52.6	58.8	58.3	59.1	59.0	53.0	2042	565	B	8	B	91	M	0		
11/18	49.8	50.9	57.8	57.9	58.3	58.0	48.8	2039	571	B	12	B	87	M	0		
11/19	49.4	50.0	56.7	57.7	58.2	57.8	? 49.9	2044	574	B	15	B	84	M	0		
11/20	50.2	50.4	56.2	57.3	58.1	58.1	56.5	2050	575	B	15	B	85	M	0		
11/21	50.7	50.8	55.8	56.5	57.5	57.7	55.5	2052	579	B	0	B	99	M	0		
11/22	51.2	51.0	55.7	56.0	57.0	57.2	? 57.3	2051	582	B	0	B	99	M	0		
11/23	51.9	50.9	55.7	55.9	56.8	56.9	? 58.2	2088	584	B	28	B	72	M	0		
11/24	52.4	51.4	55.6	55.7	56.9	57.1	59.3	2101	586	B	6	B	94	M	0		
11/25	52.6	51.8	55.6	55.8	56.9	57.1	58.6	2101	588	B	20	B	79	M	0		
11/26	52.4	51.8	55.6	55.7	56.5	56.6	? 58.5	2066	591	B	16	B	84	M	0		
11/27	51.6	52.4	? 55.6	? 55.3	? 56.2	56.3	52.0	2050	601	B	20	B	79	M	0		
11/28	49.9	50.8	55.6	55.1	55.6	55.4	50.2	2057	607	B	22	B	77	M	0		
11/29	48.9	49.9	55.6	54.7	55.3	55.2	48.2	2033	613	B	99	B	0	M	0		
11/30	48.7	49.0	55.4	54.6	55.2	55.0	49.3	2010	615	B	83	B	17	M	0		
-																	
Nov	53.1	52.3	57.9	57.7	58.3	58.3	54.9	2064									
									Total AF	122836							



Legend

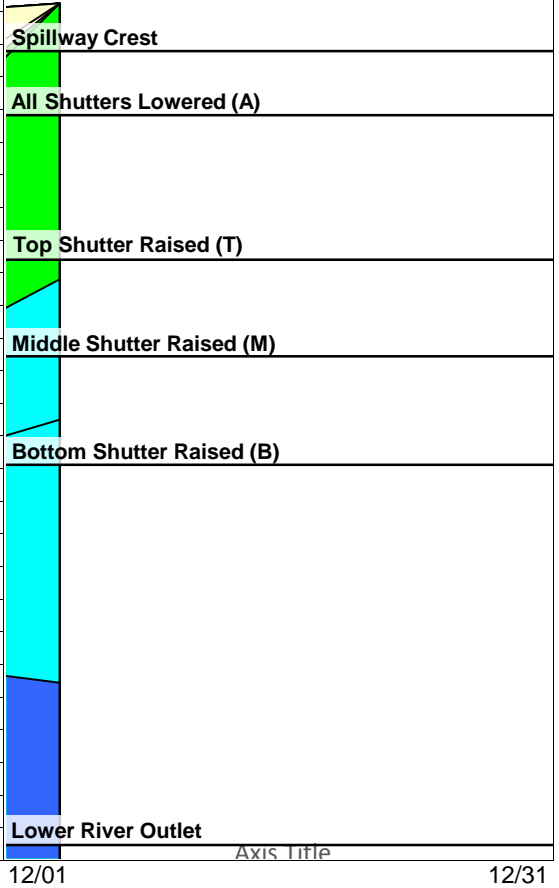
- ? = 1-9 hours of data missing
- I = 10 or more hours of data missing
- # = Station out of service
- Light Blue Box = Monthly Averages

- A = All Shuttters 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			<div style="display: flex; flex-wrap: wrap; gap: 5px;"> <div style="width: 15px; height: 10px; background-color: red; border: 1px solid black;"></div> >70 <div style="width: 15px; height: 10px; background-color: orange; border: 1px solid black;"></div> 68-70 <div style="width: 15px; height: 10px; background-color: yellow; border: 1px solid black;"></div> 66-68 <div style="width: 15px; height: 10px; background-color: lightyellow; border: 1px solid black;"></div> 64-66 <div style="width: 15px; height: 10px; background-color: #ffffcc; border: 1px solid black;"></div> 62-64 <div style="width: 15px; height: 10px; background-color: #90ee90; border: 1px solid black;"></div> 60-62 <div style="width: 15px; height: 10px; background-color: #32cd32; border: 1px solid black;"></div> 58-60 <div style="width: 15px; height: 10px; background-color: #4db6ac; border: 1px solid black;"></div> 56-58 <div style="width: 15px; height: 10px; background-color: #00bcd4; border: 1px solid black;"></div> 54-56 <div style="width: 15px; height: 10px; background-color: #009688; border: 1px solid black;"></div> 52-54 <div style="width: 15px; height: 10px; background-color: #2196f3; border: 1px solid black;"></div> 50-52 <div style="width: 15px; height: 10px; background-color: #42a5f5; border: 1px solid black;"></div> 48-50 <div style="width: 15px; height: 10px; background-color: #2196f3; border: 1px solid black;"></div> 46-48 <div style="width: 15px; height: 10px; background-color: #1e8449; border: 1px solid black;"></div> <46 </div>																	
	NFA	ARP	AFD ¹	AHZ	AWP	AWB	CSU																															
Nov	53.1	52.3	57.9	57.7	58.3	58.3	54.9	2064																														
12/01	48.6	48.6	55.1	54.6	55.0	54.9	49.3	2928	616	B	74	B	26	M	0																							
12/02	48.5	48.2	54.9	54.4	55.0	54.9	? 49.4	3246	615	B	65	B	34	M	0																							
12/03	48.9	48.6	54.8	54.3	55.0	55.0	51.2	3268	615	B	67	B	32	M	0																							
12/04	47.5	46.7	54.7	53.7	54.0	53.7	49.6	3270	613	B	66	B	34	M	0																							
12/05	46.5	45.9	54.4	53.3	53.5	53.2	48.4	3263	612	B	66	B	34	M	0																							
12/06	46.4	45.5	54.4	53.3	53.7	53.4	? 46.1	3290	611	B	65	B	35	M	0																							
12/07	46.2	45.4	54.1	53.3	53.7	53.5	46.5	3313	609	B	64	B	36	M	0																							
12/08	46.3	45.8	53.8	53.2	53.7	53.5	? 47.1	3329	609	B	67	B	33	M	0																							
12/09	46.2	45.9	53.6	53.0	53.5	53.3	45.6	3328	607	B	32	B	68	M	0																							
12/10	46.0	45.7	53.3	52.7	53.2	53.1	45.9	3326	606	B	64	B	36	M	0																							
12/11	45.7	45.5	53.1	52.4	52.9	52.7	45.3	3328	604	B	30	B	70	M	0																							
12/12	45.4	45.4	53.0	52.2	52.7	52.5	45.2	3328	602	B	34	B	65	M	0																							
12/13	45.4	? 45.4	52.8	52.1	52.5	52.3	44.5	3289	600	B	69	B	31	M	0																							
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Dec	46.7	46.4	54.0	53.3	53.7	53.5	47.2	3270																														
									Total AF	84309																												



Legend

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- = Monthly Averages

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DRAFT December 2017

90% Runoff Exceedance Outlook:

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

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

		Dec	Jan	Feb	Mar	Apr	May
Folsom	615	537	561	551	646	771	890
	Elev.	421	424	423	434	447	458

Monthly River Releases (cfs)

American	3500	2250	4000	3000	2000	1500
MRR	2000	1750	1750	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)

		Dec	Jan	Feb	Mar	Apr	May
Folsom	615	560	570	554	596	806	935
	Elev.	424	425	423	428	450	462

Monthly River Releases (cfs)

American	4000	7000	6500	7000	3000	4750
MRR	2000	1750	1750	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 hydrology information is made available December through May.

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

Folsom Lake Temperature Profiles: 04-Dec-2017

