

Provisional Data Subject to Revision

JUVENILE SALMONID MONITORING

Presented by Emily Fisher, CDFW, 916-272-4113, emily.fisher@wildlife.ca.gov

- 761 juvenile Chinook salmon and 82 steelhead trout observed thus far
- 2 unknown salmonids observed at Rossmoor
- Lower Sunrise side channel was monitored by snorkeling this month
- Staff were not able to safely access Paradise Beach

Month	Category	Nimbus Main Channel	Nimbus Side Channel	Upper Sunrise Main Channel	Upper Sunrise Side Channel	Lower Sunrise Main Channel	Lower Sunrise Side Channel**	Rossmoor Main Channel	Gristmill Main Channel	Riverbend Main Channel	Riverbend Side Channel	Watt Avenue Main Channel	Paradise Beach Main Channel
March	SH	1	*	7	N/A	7	3	3	0	0	N/A	1	0
March	CS	0	*	0	N/A	8	76	8 (+1 UNID)	2	4	N/A	0	0
April	SH	2	8	5	N/A	3	33	0	0	0	N/A	1	0

Provisional Data Subject to Revision

Month	Category	Nimbus Main Channel	Nimbus Side Channel	Upper Sunrise Main Channel	Upper Sunrise Side Channel	Lower Sunrise Main Channel	Lower Sunrise Side Channel**	Rossmoor Main Channel	Gristmill Main Channel	Riverbend Main Channel	Riverbend Side Channel	Watt Avenue Main Channel	Paradise Beach Main Channel
April	CS	1	160	2	NA	3	461	6	0	0	N/A	0	0
May	SH	1	2	***	***	0	0	0	1	0	N/A	0	3
May	CS	1	25	***	***	1	0	0	0	0	N/A	0	1
June	SH	0	0	0	0	0	0	1	0	0	0	0	0
June	CS	0	2	0	0	0	0	0	0	0	0	0	0
July	UNID	***	***	***	***	0	0	2	0	***	***	***	***

- NA: Side channel no longer present, salmonids were salvaged from isolated pools in the upper Sunrise side channel in March
- *: Not able to seine due to presence of steelhead redds
- **: Lower Sunrise Side Channel is not connected at the upstream end
- ***: Not seined at this time

SMUD Upper American River Project Update

Conditions –Tuesday 19 July 2022

No precip in July. Precipitation for the water year to date is 50.55 inches which is 90.2% of average to date (56 inches) and 88.2% of the entire water year average of 57.32 inches.

Runoff into the storage reservoir basins is 95.1% of median to date through 7/19/2022.

Combined reservoir storage for Loon Lake, Union Valley and Ice House Reservoirs

- 350,408 acre feet (June 20 was 370,306 AF)
- 92% full
- 106% of historical average (19 July historical average: 331,355 AF)

Individual Reservoir Storage

- Loon Lake: 66,035 AF
- Ice House: 38,450 AF
- Union Valley: 245,490 AF

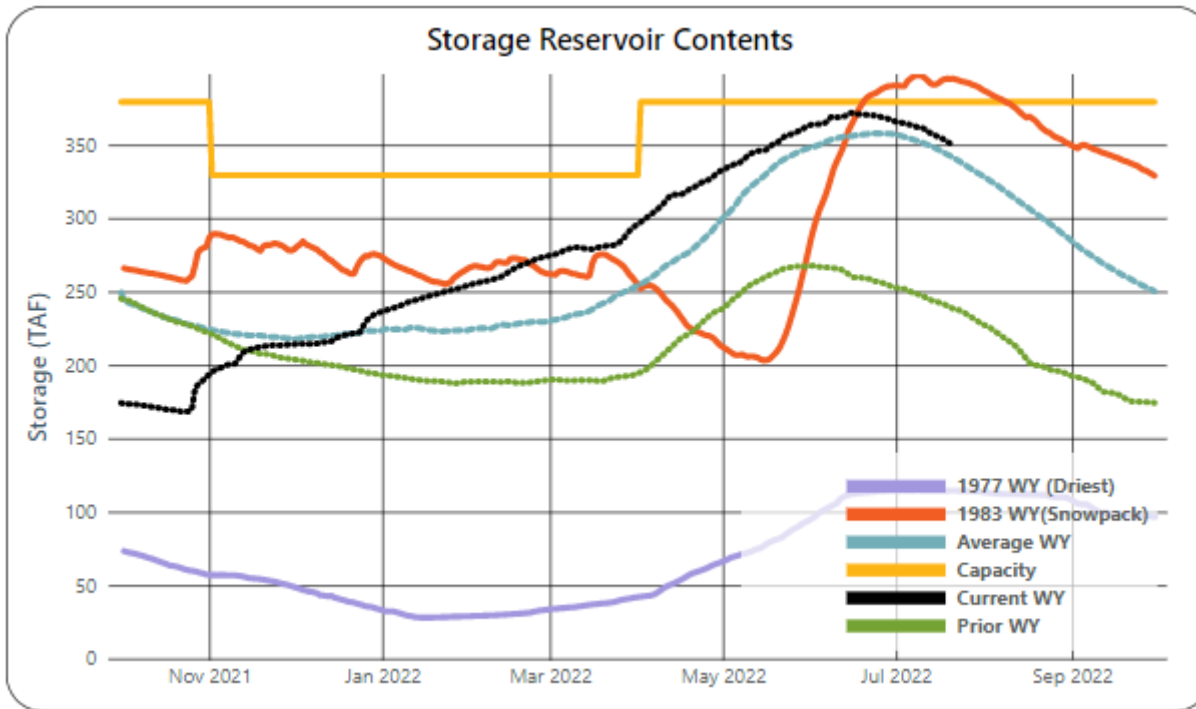
Last year (on July 19, 2021), storage was at 63% (239,779 AF). *Total capacity: 329,210 AF.

No Chili Bar data today.

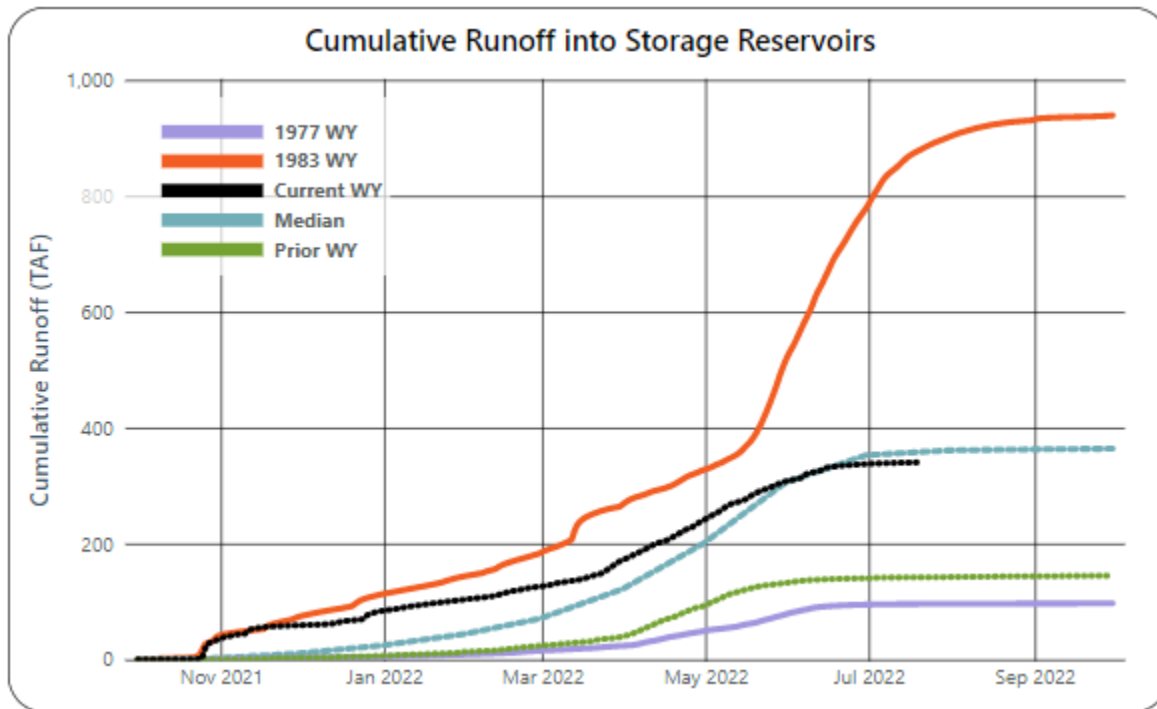
South Fork American River Natural Runoff Forecast (in cfs, daily average forecasted flow, forecast 2022-07-19) (Figure 1)

BASIN	Fri July 22	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul
SFA above Slab	82	80	78	76	74	73
Slab Creek Reservoir	99	97	96	95	93	92
Combined South Fork	181	178	174	171	168	164

July 19, 2022 reservoir storage: (Figure 2)

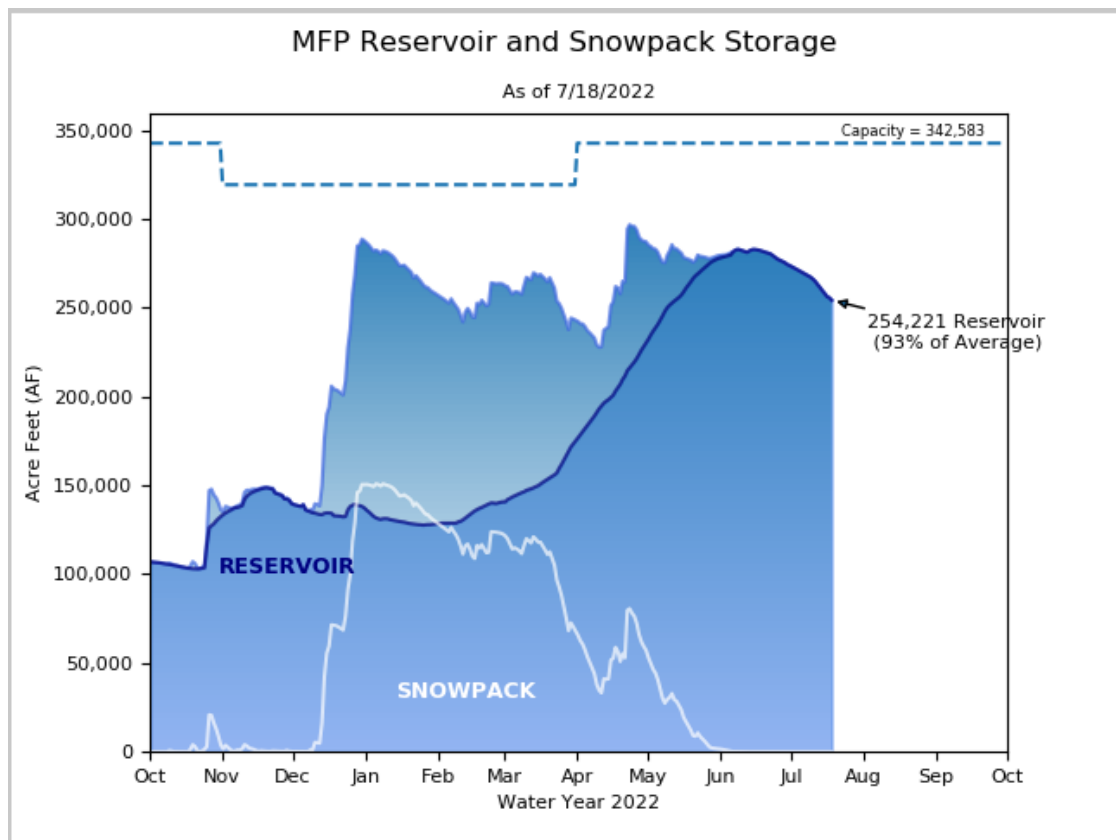


July 19, 2022 runoff into SMUD storage: (Figure 3)

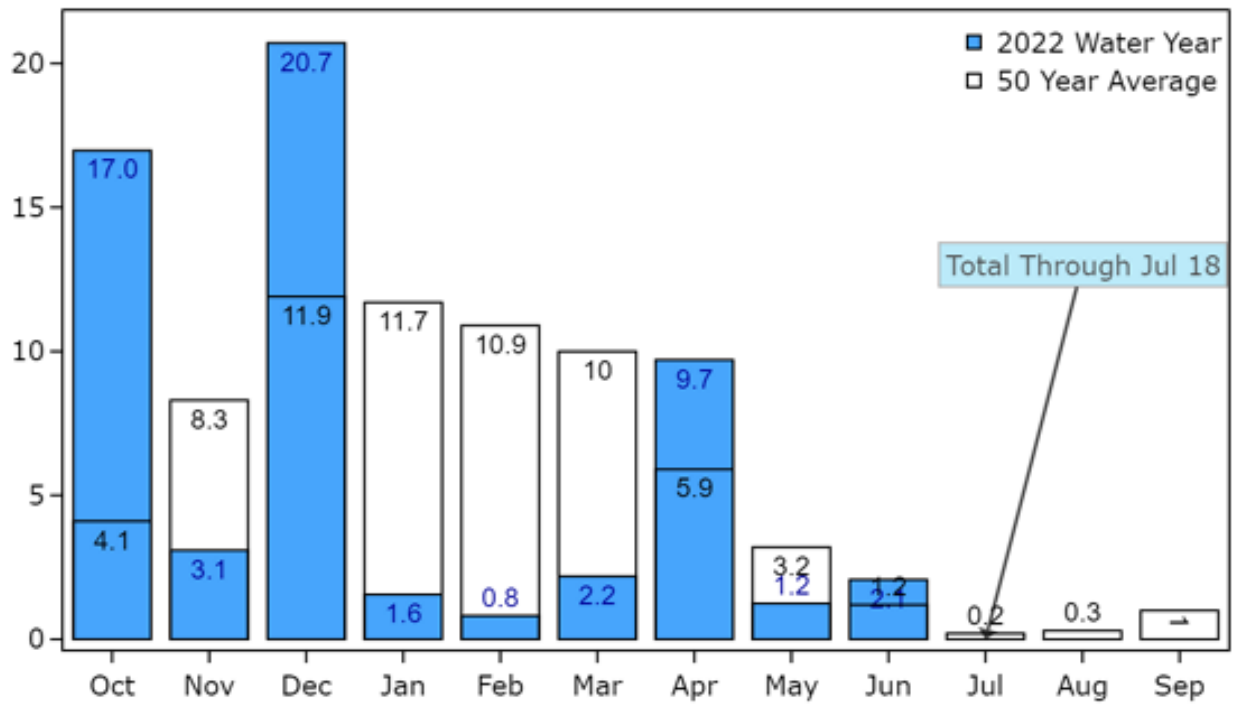


PCWA MFP OPERATIONS OVERVIEW for American River Operations Group (Real Time Data as of July 20, 2022)

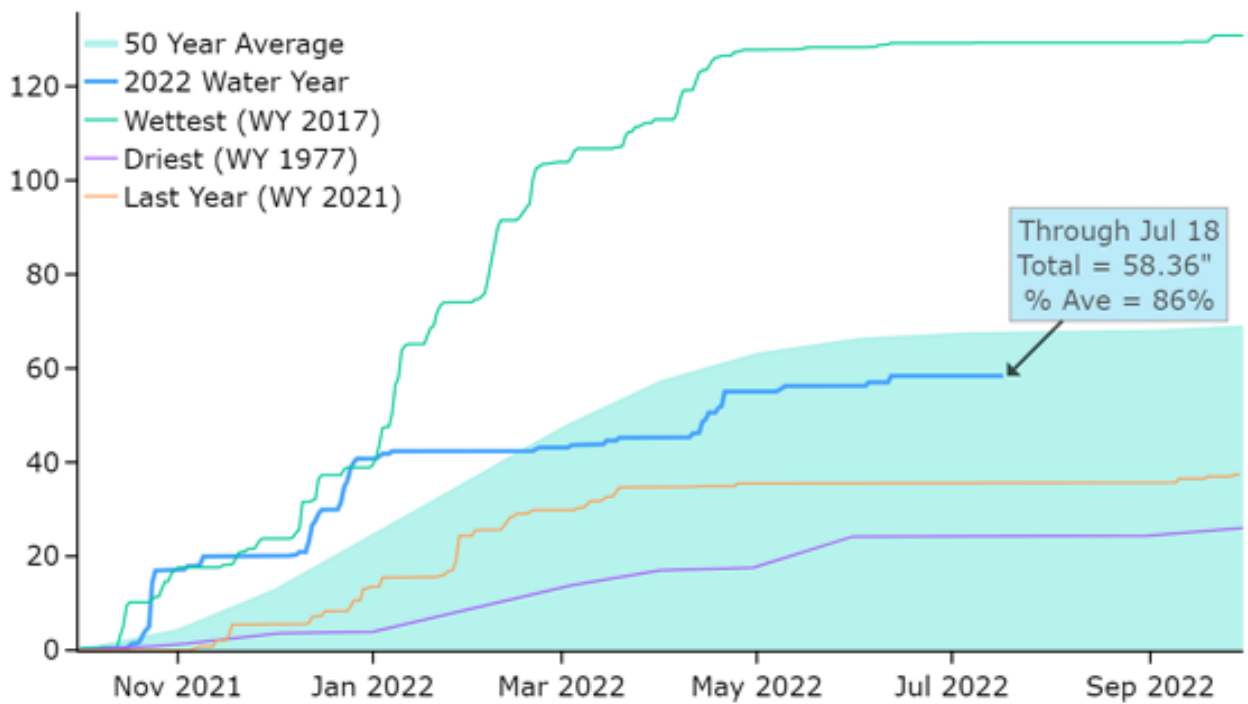
- ❖ **French Meadows Storage = 104,000 AF of 136,405 AF = 77% Capacity**
 - MFAR above FM Inflow (R24) = 7-day AVG ~16 cfs
- ❖ **Hell Hole Storage = 146,000 AF of 207,590 AF = 70% Capacity**
 - Five Lakes Inflow (R23) = 7-day AVG 22 cfs
 - Rubicon Inflow (R22) = 7-day AVG 16 cfs
- ❖ **Combined Storage (FM+HH) = 250,000 AF/342,590 AF = 73% Capacity; 94% of AVG YTD**
 - 14 Day Change = -18,000 AF
 - 7 Day Change = -10,000 AF
- ❖ **MFAR @ R11: 7-day AVG 800 cfs**
- ❖ **NFAR @ ARPS: 7-day AVG 900 cfs**
- ❖ **PCWA to EBMUD Transfer (20,000 AF) anticipate last week of July through September.**



Lake Spaulding Precipitation: Water Year 2022



Lake Spaulding Precipitation: Water Year 2022



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA
DAILY CVP WATER SUPPLY REPORT

JULY 19, 2022

RUN DATE: JULY 20, 2022

TABLE 1. RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2021	WY 2022	15 YR MEDIAN
TRINITY	LEWISTON	452	472	463
SACRAMENTO	KESWICK	9,247	4,507	12,408
FEATHER	OROVILLE (SWP)	3,000	4,000	4,500
AMERICAN	NIMBUS	1,024	4,474	3,906
STANISLAUS	GOODWIN	1,501	303	349
SAN JOAQUIN	FRIANT	275	230	351

TABLE 2. STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESEVOIR	CAPACITY	15 YR AVG	WY 2021	WY 2022	% O 15 YR AVG
TRINITY	2,448	1,536	1,066	684	45
SHASTA	4,552	2,939	1,561	1,722	59
FOLSOM	977	635	259	666	105
NEWMLEONES	2,420	1,365	1,109	741	54
FED. SAN LUIS	966	304	86	191	63
TOTAL NORTH CVP	11,363	6,778	4,081	4,004	59
MILLERTON	520	373	224	309	83
OROVILLE (SWP)	3,538	2,109	971	1,547	73

TABLE 3. ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2022	WY 1997	WY 1983	15 YR AVG	% O 15 YR AVG
TRINITY	474	194	2,719	987	48
SHASTA	2,575	2,126	10,088	4,234	61
FOLSOM	1,567	298	6,107	2,209	71
NEW MELONES	524	N/A	2,557	857	61
MILLERTON	773	241	4,042	1,250	62

TABLE 4. ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2022	WY 1977	WY 1983	AVG (IN YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	18.88	12.06	55.02	30.81 (60)	61	0.00
SACRAMENTO AT SHASTA DAM	41.35	17.42	112.56	60.14 (65)	69	0.00
AMERICAN AT BLUE CANYON	64.06	15.64	103.88	65.01 (47)	99	0.00
STANISLAUS AT NEW MELONES	19.39	N/A	45.33	26.82 (44)	72	0.00
SAN JOAQUIN AT HUNTINGTON LK	24.26	17.20	81.40	40.33 (47)	60	0.00

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

JULY 2022

FOLSOM LAKE DAILY OPERATIONS

RUN DATE: July 20, 2022

Day	ELEV	Storage In Lake (1000 Acre-Feet)	Storage Change (1000 Acre-Feet)	Computed Inflow C.F.S.	Power	Release C.F.S. River Spill	Outlet	Pumping Plant	Evaporation-C.F.S.	Evaporation-Inches	Precip. Inches
N/A	N/A	807.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	449.37	799.1	-7.9	1,613	5,291	0	0	178	111	.33	.00
2	448.54	790.7	-8.4	1,000	4,971	1	0	176	108	.32	.00
3	447.83	783.5	-7.2	1,678	5,033	7	0	176	87	.26	.00
4	446.98	774.9	-8.6	1,254	5,307	13	0	172	80	.24	.00
5	446.11	766.2	-8.7	1,253	5,356	0	0	175	113	.34	.00
6	445.32	758.3	-7.9	1,297	4,963	0	0	180	119	.36	.00
7	444.52	750.4	-7.9	1,297	5,016	0	0	182	95	.29	.00
8	443.72	742.5	-7.9	927	4,616	0	0	177	111	.34	.00
9	442.92	734.7	-7.9	998	4,674	0	0	175	107	.33	.00
10	442.13	727.0	-7.7	1,381	4,985	0	0	175	107	.33	.00
11	441.42	720.1	-6.9	1,276	4,451	0	0	174	126	.39	.00
12	440.77	713.8	-6.3	1,833	4,699	0	0	180	125	.39	.00
13	440.06	706.9	-6.8	1,463	4,616	0	0	191	105	.33	.00
14	439.39	700.5	-6.4	1,575	4,514	0	0	191	105	.33	.00
15	438.76	694.5	-6.0	1,887	4,623	0	0	185	111	.35	.00
16	438.04	687.7	-6.8	1,539	4,698	0	0	193	98	.31	.00
17	437.26	680.3	-7.4	1,354	4,737	0	0	202	128	.41	.00
18	436.51	673.3	-7.0	1,572	4,791	0	0	203	131	.42	.00
19	435.78	666.4	-6.8	1,593	4,687	6	0	202	140	.45	.00
TOTALS	N/A	N/A	-140.5	26,790	92,028	27	0	3,487	2,107	6.52	.00
ACRE- FEET	N/A	N/A	-140,500	53,138	182,538	54	0	6,916	4,179	N/A	N/A

COMMENTS:

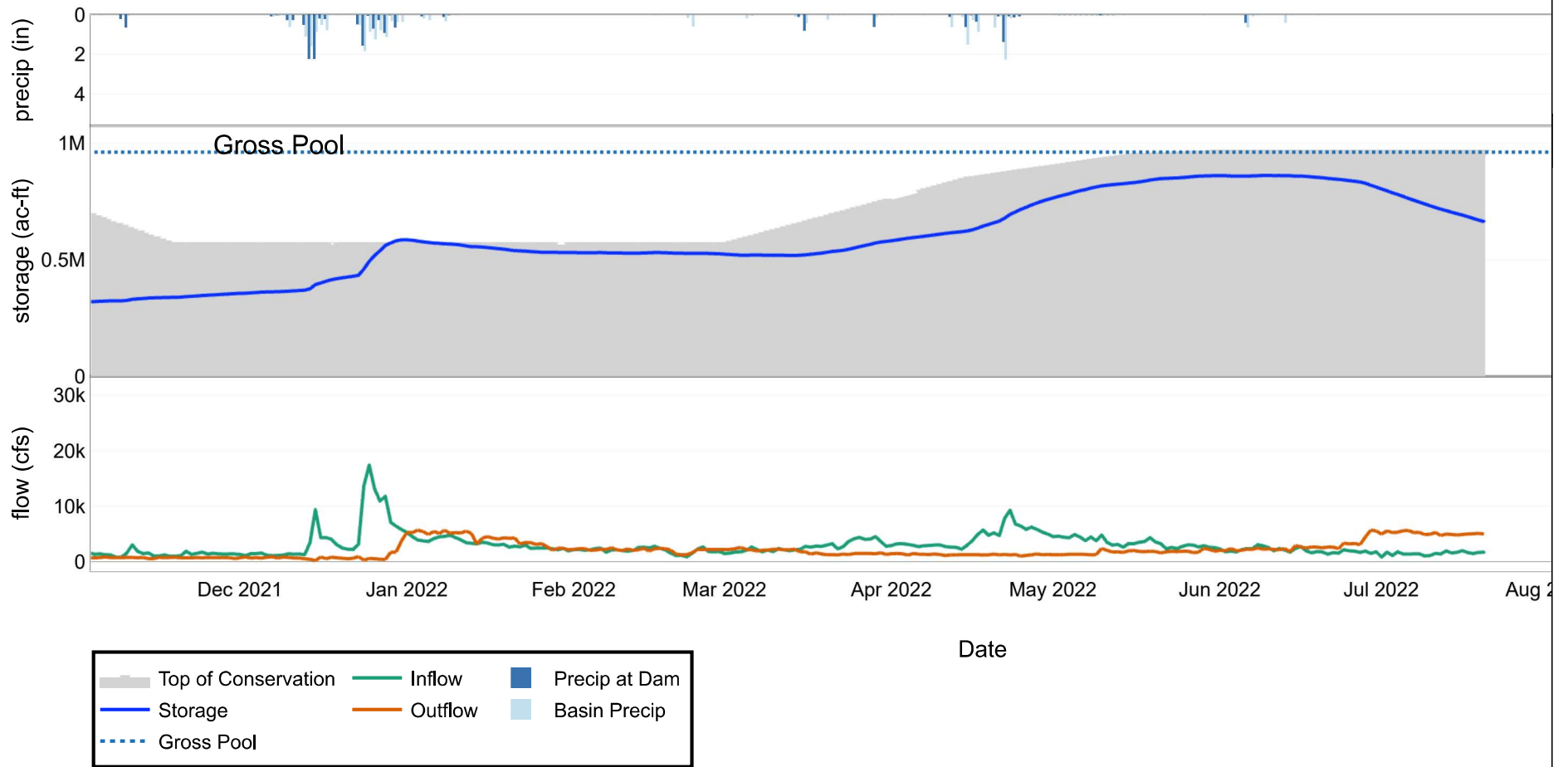
* COMPUTED INFLOW IS THE SUM OF CHANGE IN STORAGE, RELEASES, PUMPING AND EVAPORATION.

SUMMARY

RELEASE (ACRE- FEET)	N/A
POWER	182, 538
SPILL	54
PUMPING PLANT	6,916
OUTLET	0
TOTAL	189,508

TIME	PRECIPITATION
THIS MONTH	.00
JULY 1, 2021 TO DATE	.00
OCT 1, 2021 TO DATE	23.95

Folsom Dam & Lake - American River Basin 2022-07-20T10:16:46-0700



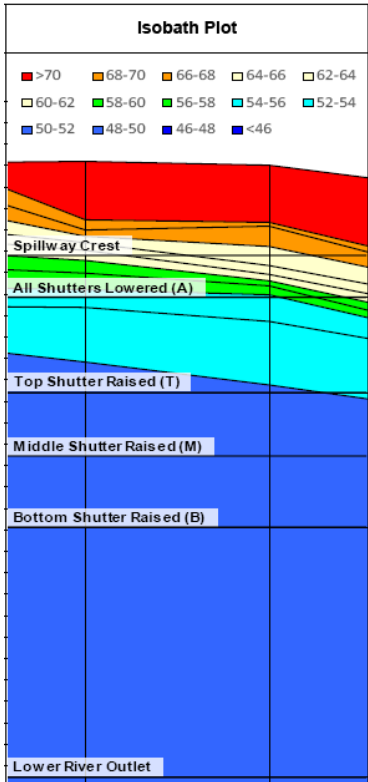


Figure 1. Isobath Plot 06/01- 06/30.

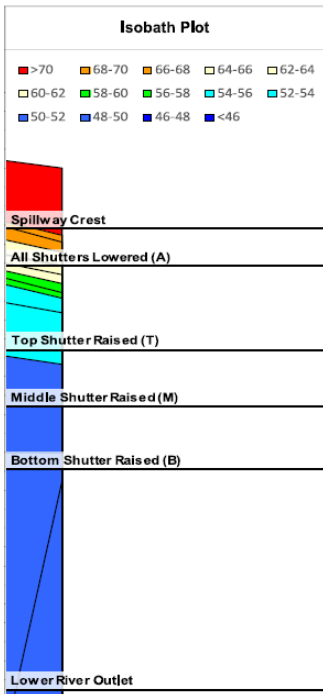
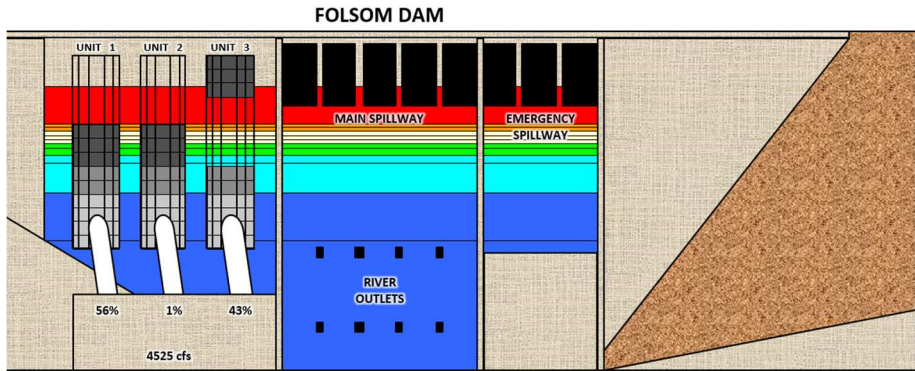
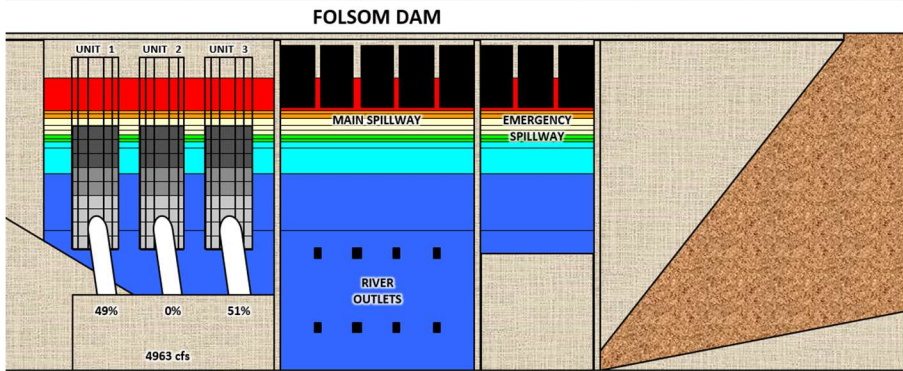


Figure 2. Isobath Plot 07/01- 07/31

Table 5. Isobath Plot 06/01- 06/30

Mean Daily Temperatures (°F) = MDT, Unit Shutter Position = USP, Load Percentage = LP, A= All Shutters Lowered, B= Bottom Shutter Raised, and T= Top Shutter Raised

Date	MDT Water NFA	MDT Water ARP	MDT Water AFD	MDT Water AFO	MDT Water AWP	MDT Water AWB	MDT Air CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP Unit 1	LP Unit 1	USP Unit 2	LP Unit 2	USP Unit 3	LP Unit 3
MAY	59.3	55.7	53.3	58.2	60.2	62.2	66.8	1404	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/1	64.0	63.3	55.2	59.3	61.4	63.4	74.8	1810	864	A	41	A	2	A	57
6/2	64.7	63.9	55.0	58.8	60.8	62.9	73.1	1816	863	A	60	A	24	A	17
6/3	65.0	64.3	55.0	58.9	60.7	62.5	69.1	1810	863	A	1	A	63	A	35
6/4	64.5	62.8	55.2	59.0	60.0	61.6	68.0	1807	863	A	30	A	5	A	65
6/5	63.7	61.4	55.7	58.6	60.0	61.4	68.6	1810	863	A	68	A	31	A	1
6/6	64.9	62.7	55.7	58.8	61.2	63.1	72.8	1817	863	A	14	A	63	A	23
6/7	65.5	62.8	55.4	59.5	61.6	63.7	74.0	1960	864	A	19	A	18	A	63
6/8	65.8	61.7	55.6	59.0	61.1	63.1	73.8	2009	865	A	65	A	21	A	14
6/9	65.3	62.2	55.9	59.7	61.8	64.0	78.7	2018	865	A	15	A	59	A	25
6/10	66.2	65.8	55.8	60.5	63.1	65.3	85.0	2013	865	A	26	A	16	A	59
6/11	65.7	65.5	55.8	59.8	62.8	N/A	81.1	2004	865	A	54	A	26	A	20
6/12	65.8	64.1	55.8	60.1	62.5	N/A	72.9	2002	864	A	16	A	62	A	22
6/13	66.5	63.3	55.9	61.6	62.6	N/A	70.6	2013	864	A	22	A	15	A	63
6/14	67.0	62.4	56.1	60.8	62.8	N/A	74.4	2005	863	A	50	A	29	A	21
6/15	66.9	62.2	56.4	59.7	62.1	N/A	76.1	2184	863	A	12	A	56	A	33
6/16	67.5	62.4	56.3	59.5	61.2	N/A	69.2	2256	861	A	32	A	19	A	49
6/17	65.3	63.3	56.5	60.1	61.1	62.4	62.8	2256	859	A	52	A	34	A	14
6/18	63.4	62.7	57.3	60.0	61.5	62.9	64.4	2252	857	A	16	A	63	A	21
6/19	63.8	62.9	57.2	60.1	61.5	63.2	70.2	2260	855	A	23	A	17	A	60
6/20	64.8	64.3	57.4	61.0	62.5	64.1	76.3	2260	853	A	50	A	21	A	29
6/21	66.4	66.3	57.5	60.9	63.0	64.9	83.7	2261	850	A	18	A	56	A	26
6/22	65.8	66.4	57.7	61.0	63.2	65.1	84.4	2256	849	A	34	A	20	A	46
6/23	64.2	67.3	57.9	61.5	63.2	65.2	85.7	2430	846	A	38	A	41	A	21
6/24	64.4	67.5	57.8	61.4	62.8	64.9	81.9	2889	843	A	21	A	59	A	20
6/25	64.5	67.7	58.1	61.6	63.0	64.6	79.4	3058	840	A	61	A	22	A	16
6/26	67.3	67.6	58.3	61.6	62.9	64.6	79.3	3048	837	A	12	A	69	A	19
6/27	67.0	67.5	58.5	61.8	62.5	64.2	77.3	4030	832	A	42	A	12	A	46
6/28	68.4	67.8	58.8	61.4	62.1	63.6	77.9	4987	823	A	42	A	15	A	42
6/29	66.2	68.7	59.1	61.4	62.0	63.2	73.0	5102	815	A	42	A	23	A	34
6/30	66.2	68.7	59.5	61.5	62.0	63.1	67.6	5059	807	A	47	A	5	A	47



7/6/22



60.9 °F
Air Temperature - 69.3 °F

NIMBUS DAM 4981 cfs

Hazel Ave - 63.4 °F

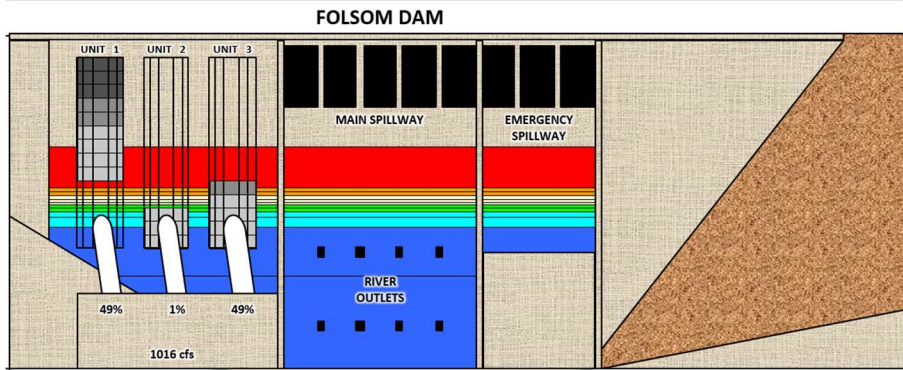
7/20/22



61.3 °F
Air Temperature - 77.8 °F

NIMBUS DAM 4483 cfs

Hazel Ave - 63.3 °F



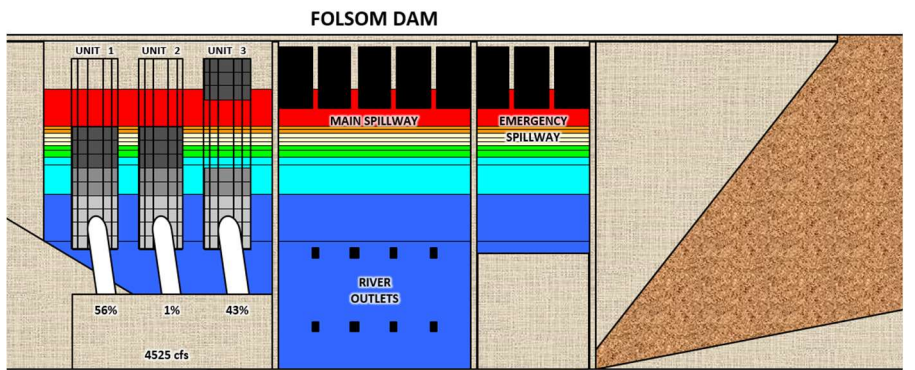
7/20/21



63.2 °F
Air Temperature - 74.9 °F

NIMBUS DAM 993 cfs

Hazel Ave - 68.3 °F



7/20/22



61.3 °F
Air Temperature - 77.8 °F

NIMBUS DAM 4483 cfs

Hazel Ave - 63.3 °F

American River Summary Conditions – July (On-going)

- Releases are currently at 4,500 cfs
 - Scheduled: July 22, 2022, from 4,500 cfs to 4,250 cfs

Temperature Management:

- Top Shutters: Units 1, 2, down and 3 -- raised
- Middle Shutters: Units 1, 2, and 3 -- down
- Bottom Shutters: Units 1, 2, and 3 --down

Folsom Shutter Configuration and Changes:

Drawing water from Units 1 and 3 blending. Unit 2 – Outage thru September

American River 90% Outlook:

June 90% Exceedance

Table 7. Federal End of the Month Storage/Elevation (TAF/Feet)

Reservoir	End of 2021 Carryover Storage Volume	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Folsom Storage	865	784	560	363	303	264	230	203
Folsom Elevation	N/A	448	424	397	388	381	374	368

Table 8. Monthly River Release (TAF/cfs)

Reservoir	Jun	Jul	Aug	Sep	Oct	Nov	Dec
American TAF	169	280	258	113	80	77	80
American cfs	2838	4562	4203	1904	1300	1300	1300

American River Base Flow Table

Month	Index Used for Index-based MRR	Index Based MRR	RDPA-based MRR for fall-run Chinook salmon (applicable in January and February)	RDPA-based MRR for steelhead (applicable February through May)	Controlling MRR	Actual Average Monthly Nimbus release ¹
October	May ARI ² (50% exceedance)	515 cfs	N/A	N/A	515 cfs	627 cfs
November	May ARI ² (50% exceedance)	515 cfs	N/A	N/A	515 cfs	583 cfs
December	May ARI ² (50% exceedance)	515 cfs	N/A	N/A	515 cfs	890 cfs
January	January SRI (75% exceedance)	1750 cfs	515 cfs	N/A	515 cfs	3787 cfs
February	February ARI (50% exceedance)	1750 cfs	1750 cfs	500 cfs	1750 cfs	2047 cfs
March	March ARI (50% exceedance)	1,7333 cfs	1, 215 cfs	500 cfs	1, 197 cfs	1620 cfs
March	March ARI ³ (90% exceedance)	1,197 cfs	1, 215 cfs	500 cfs	1, 197 cfs	1620 cfs
April	April ARI (50% exceedance)	1142 cfs	Not applicable	1215 cfs	1215 cfs Operating to 1000 cfs) ³	1037 cfs
April	April ARI ³ (90% exceedance)	1006 cfs	Not applicable	1215 cfs	1215 cfs Operating to 1000 cfs) ³	1037 cfs
May	May ARI (50% exceedance)	1270 cfs	Not applicable	1215 cfs	1270 cfs	1404 cfs
May	May ARI (90% exceedance)	1209 cfs	N/A	1215 cfs	1270 cfs	1404 cfs
June	May ARI ² (50% exceedance)	1269 cfs	Not applicable	Not applicable	1269 cfs	2516 cfs
Jul	May ARI ² (50% exceedance)	1702 cfs	Not applicable	Not applicable	1702 cfs	N/A

MRR= Minimum Release Requirements; RDPA= Redd Dewatering Protective Adjustment; ARI= American River Index; SRI= Sacramento River Index

¹ Average of daily release over the month from NAT station on CDEC.

² Since new forecasts are usually provided January through May, the May ARI would also be used for June-September of the current water year and October through December of the next water year unless there is an update to the ARI after May.

³ Due to critical CVP system wide ops, MRR 90% was considered and implemented.