



— BUREAU OF —  
RECLAMATION

## American River Group

1:30 PM – 3:30 PM

Conference Line: +1 (321) 209-6143; Access Code: 985 598 947#

Webinar: [Join Microsoft Teams Meeting](#)

Thursday, June 23, 2022

### Agenda

1. Introductions
2. Dam Informational Presentation - Thuy Washburn, USBR
  - a. 1:30-1:50pm presentation
  - b. 1:50-2:00pm questions
3. Housekeeping
  - a. Meeting will be recorded for notetaking purposes
4. Fisheries Update
  - a. CDFW
  - b. CFS
  - c. PSMFC
5. Operations Forecast
  - a. SMUD
  - b. PCWA
6. Central Valley Operations
7. Discussion
8. Next Meetings:
  - a. Regularly scheduled ARG meeting - Thursday, July 21, 1:30-3:30pm

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

JUNE 22, 2022

RUN DATE: JUNE 23, 2022

TABLE 1. RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2021	WY 2022	15 YR MEDIAN
TRINITY	LEWISTON	454	467	653
SACRAMENTO	KESWICK	8,005	4,255	10,875
FEATHER	OROVILLE (SWP)	2,750	3,500	3,300
AMERICAN	NIMBUS	1,845	2,256	3,351
STANISLAUS	GOODWIN	1,504	904	504
SAN JOAQUIN	FRIANT	265	1,582	354

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	1,634	1,190	724	44
SHASTA	4,552	3,254	1,826	1,796	55
FOLSOM	977	745	312	849	114
NEWMLEONES	2,420	1,415	1,260	805	57
FED. SAN LUIS	966	416	177	287	69
TOTAL NORTH CVP	11,363	7,464	4,765	4,461	60
MILLERTON	520	398	259	358	90
OROVILLE (SWP)	3,538	2,365	1,205	1,792	76

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	461	188	2,443	947	49
SHASTA	2,433	1,964	9,703	4,048	60
FOLSOM	1,488	294	5,594	2,092	71
NEW MELONES	498	N/A	2,199	785	64
MILLERTON	717	175	3,311	1,072	67

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	18.87	12.06	54.65	30.54 (6 0 )	62	0.00
SACRAMENTO AT SHASTA DAM	41.27	17.41	112.33	59.65 (6 5 )	69	0.00
AMERICAN AT BLUE CANYON	64.06	15.64	103.88	64.73 (4 7 )	99	0.00
STANISLAUS AT NEW MELONES	19.39	N/A	45.33	26.73 (4 4 )	73	0.00
SAN JOAQUIN AT HUNTINGTON LK	18.87	12.06	54.65	30.54 (6 0 )	62	0.00

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

**JUNE 2022**

**FOLSOM LAKE DAILY OPERATIONS**

RUN DATE: June 23, 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	864.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	455.63	864.2	-0.6	1,687	1,679	3	0	192	133	0.38	0
2	455.53	863.1	-1.1	1,810	2,071	6	0	185	81	0.23	0
3	455.48	862.6	-0.5	1,650	1,680	6	0	171	60	0.17	0
4	455.49	862.7	+0.1	2,054	1,782	0	0	173	46	0.13	0
5	455.51	862.9	+0.2	2,261	2,000	0	0	155	0	0	0.4
6	455.53	863.1	+0.2	2,227	1,965	0	0	130	25	0.07	0
7	455.62	864.1	+1	2,955	2.22	0	0	158	98	0.28	0
8	455.72	865.1	+1.1	2,751	1,933	7	0	194	84	0.24	0
9	455.75	865.4	0.3	2,445	2,015	5	0	191	74	0.21	0
10	455.68	864.7	-0.7	1,855	1,909	7	0	189	123	0.35	0
11	455.7	864.9	+0.2	2,281	1,845	6	0	191	133	0.38	0
12	455.64	864.3	-0.6	2,005	2,075	5	0	185	60	0.17	0
13	455.61	863.9	-0.3	1,614	1,498	4	0	177	95	0.27	0
14	455.49	862.7	-1.3	2,279	2,605	5	0	190	119	0.34	0
15	455.48	862.6	-0.1	2,616	2,329	10	0	200	130	0.37	0
16	455.36	861.3	-1.3	1,841	2,148	5	0	199	129	0.37	0
17	455.14	859	-2.3	1,487	2,356	8	0	184	112	0.32	0
18	454.97	857.2	-1.8	1,714	2,336	7	0	178	98	0.28	0
19	454.81	855.5	-1.7	1,646	2,197	7	0	183	108	0.31	0
20	454.54	852.7	-2.8	1,244	2,346	6	0	184	139	0.4	0
21	454.33	850.5	-2.2	1,524	2,317	5	0	193	122	0.35	0
22	454.15	848.6	-1.9	1,427	2,037	0	0	202	142	0.41	0
TOTALS	N/A	N/A	-16.1	43,373	45,343	102	0	4,004	2,111	6.03	0.4
ACRE- FEET	N/A	N/A	-16.1	86,030	89,938	202	0	7,942	4,187	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	89,938
SPILL	202
PUMPING PLANT	7,942
OUTLET	0
TOTAL	98,082

TIME	PRECIPITATION
THIS MONTH	0.4
JULY 1, 2021 TO DATE	24
OCT 1, 2021 TO DATE	23.95

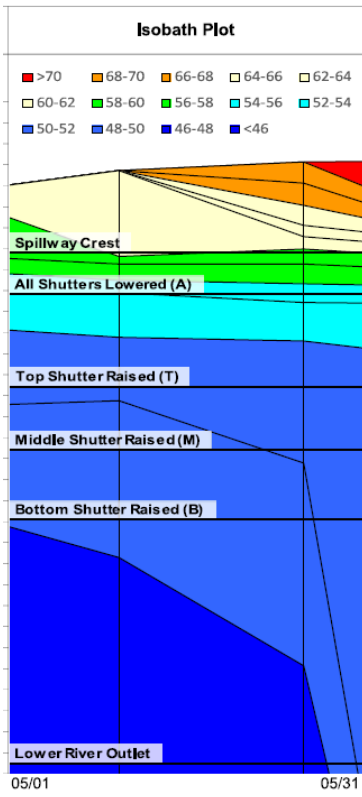


Figure 1. Isobath Plot 05/01- 05/31.

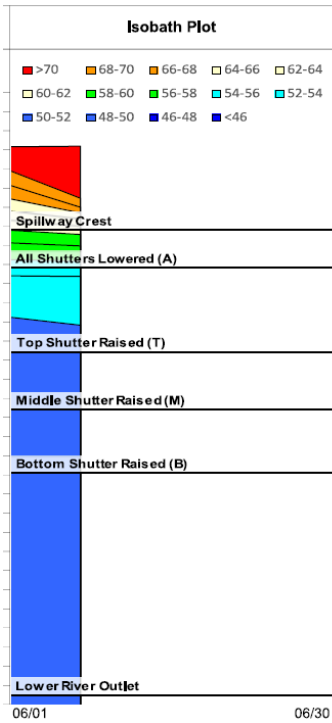


Figure 2. Isobath Plot 06/01- 06/30

### Folsom Dam & Lake - American River Basin 2022-06-23T08:16:45-0700

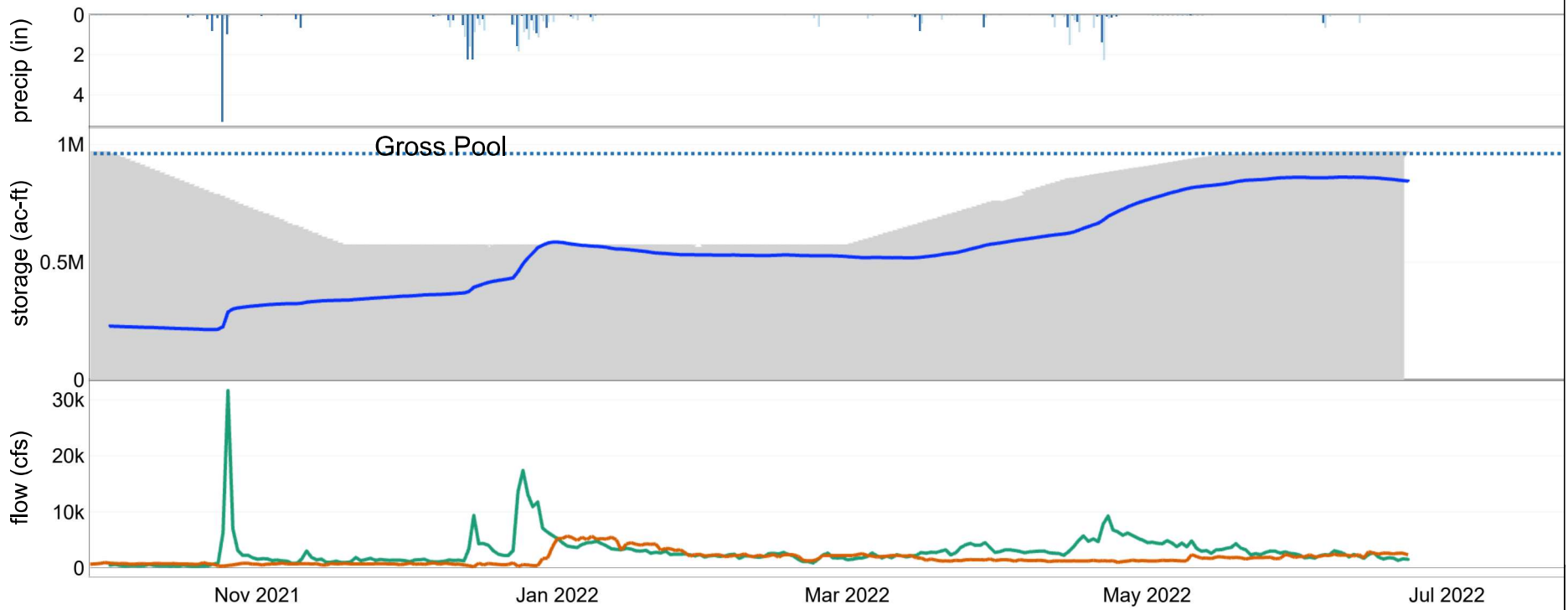


Table 5. Isobath Plot 05/01- 05/31

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
APR	53.2	51.1	51.4	55.8	57.4	59	59.9	1037	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5/1	55.3	52.2	52	58.2	59.9	62.2	63.1	1003	775	A	71	T	27	T	2
5/2	56.2	51.6	51.8	58.5	60.8	62.3	62	982	781	A	72	T	26	T	2
5/3	55.7	52	52.3	58.4	59.5	61.6	65.8	1019	787	A	71	A	27	T	1
5/4	56.2	52.4	51.7	58.1	61.6	63.3	69.6	1012	794	A	60	A	36	T	4
5/5	56.6	52.2	51.5	57.1	59.6	62.3	64	1024	800	A	61	A	38	T	1
5/6	56.9	53.1	52.1	57.5	59.7	61.2	63.4	1025	805	A	50	A	49	A	1
5/7	57.3	53.5	52.9	57.7	60.2	62.4	61.6	1026	811	A	54	A	45	A	2
5/8	56.6	52.5	51.8	56.9	59.1	61	55.7	1033	816	A	48	A	50	A	2
5/9	54.7	51.4	52.8	57.5	57.2	58.3	52.2	1024	820	A	3	A	49	A	48
5/10	53.4	51.1	53.2	56.8	57.8	58.4	51	1518	823	A	3	A	72	A	25
5/11	52.5	51.6	53	56.7	57.9	59.1	55.6	1528	826	A	3	A	24	A	73
5/12	52.6	51.7	52.7	56.7	57.8	59.1	58.2	1528	828	A	70	A	1	A	28
5/13	53.5	52.7	53.2	57.3	58.9	60.5	64.7	1533	830	A	63	A	1	A	36
5/14	55.7	53.4	53	58.2	60.4	62.5	72.5	1529	832	A	37	A	1	A	62
5/15	58.1	54.3	52.8	58.1	61	63.2	71.3	1508	834	A	63	A	36	A	1
5/16	60.1	54.2	53	57.8	60	62.2	65.7	1509	838	A	1	A	65	A	34
5/17	61.4	54.5	53.1	58.3	60.4	62.6	69.4	1521	841	A	31	A	17	A	
5/18	62	55.5	52.4	59	61.4	63.8	75.1	1513	846	A	59	A	23	A	52
5/19	62.2	57.2	53.6	59.4	61.6	64.1	79	1518	849	A	19	A	52	A	17
5/20	61.6	57.6	53.8	58.7	60.2	62.1	69.6	1514	852	A	32	A	21	A	30
5/21	61.3	58.9	54.3	58.3	60.6	62.4	70.8	1515	853	A	55	A	27	A	47
5/22	61.6	59.5	54.3	58.5	60.7	63	72.3	1520	854	A	1	A	63	A	18
5/23	62	59.9	54.3	58.7	61	63.5	74.7	1517	855	A	27	A	19	A	36
5/24	63.2	60.5	54.2	58.9	61.4	64	78.6	1514	856	A	52	A	25	A	55
5/25	64.6	60.4	54.3	58.6	61.7	64.4	82.8	1508	858	A	22	A	52	A	22
5/26	65.3	60.2	54.5	58.1	60.9	63.3	67.8	1491	861	A	38	A	28	A	26
5/27	65.1	60.5	54.5	59	60.7	62.3	64.7	1496	862	A	72	A	27	A	34
5/28	64.3	60.1	54.1	59.1	61.1	63.2	65	1682	863	A	16	A	58	A	26
5/29	63.9	60.6	54.9	59.7	61.1	62.9	66.4	1771	864	A	27	A	19	A	54
5/30	63.6	60.6	54.9	59.1	61.2	63.2	66.9	1819	865	A	65	A	33	A	2

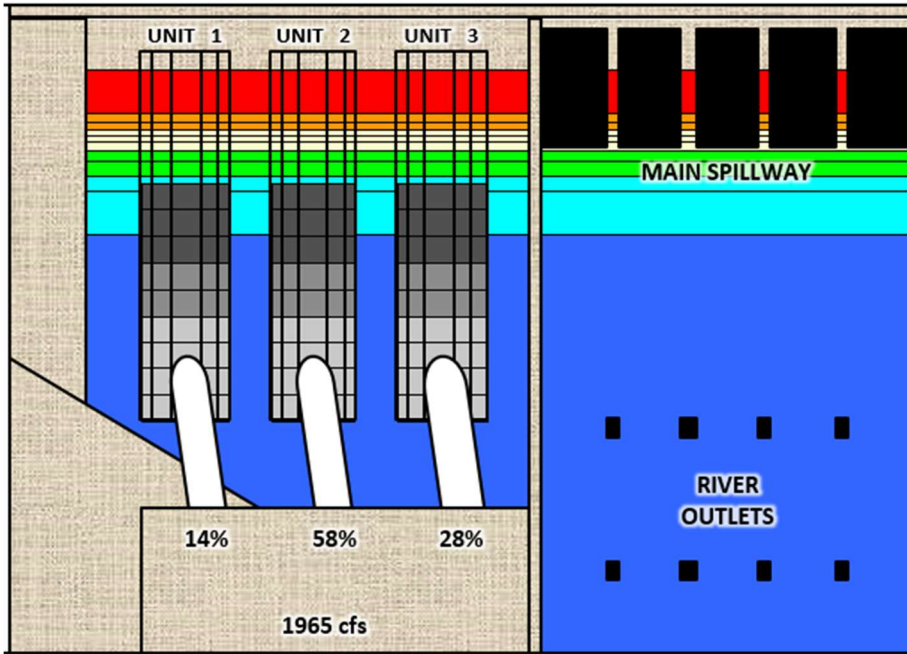






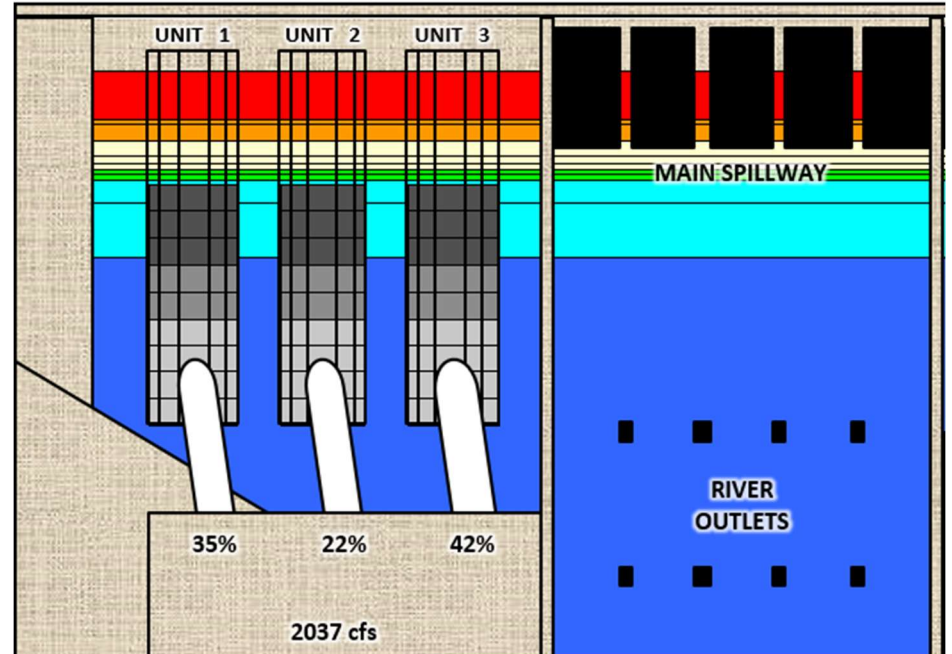


# FOLSOM DAM



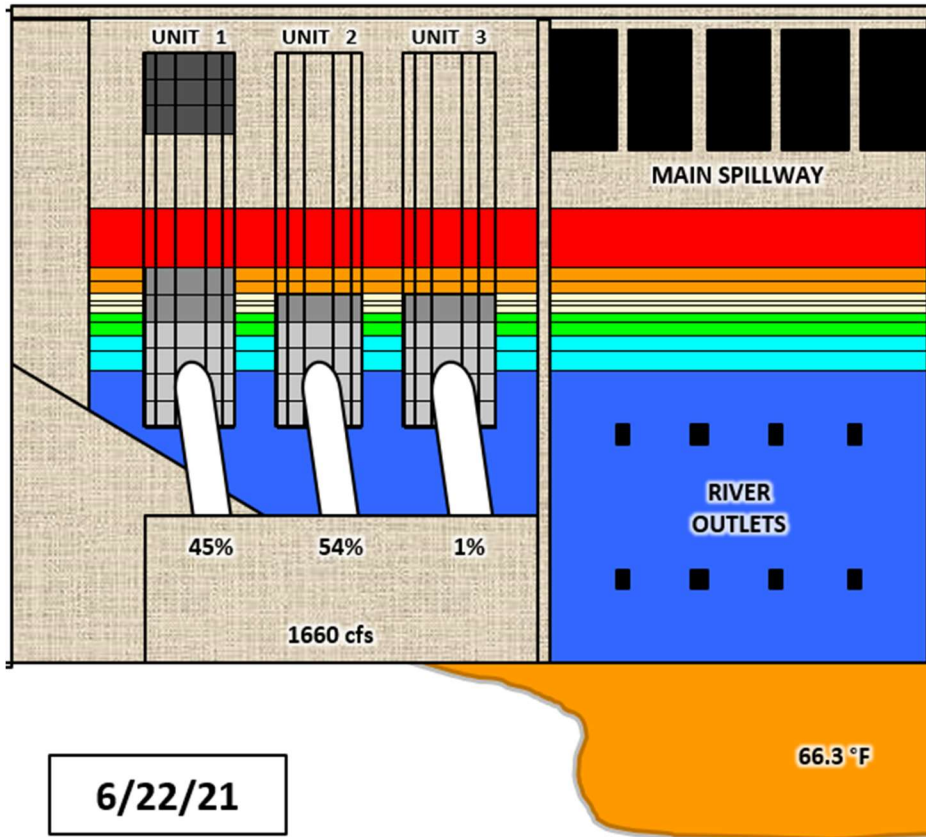
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# FOLSOM DAM

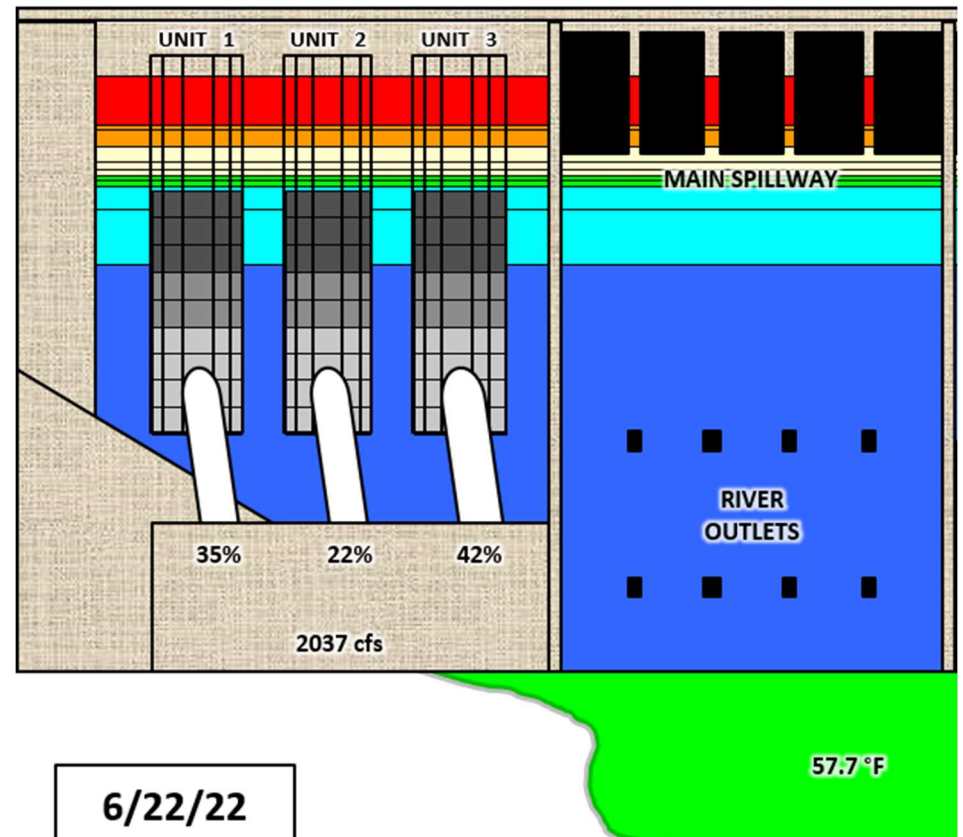


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# FOLSOM DAM



# FOLSOM DAM



## American River Summary Conditions – June (On-going)

- Releases are currently at 2,500 cfs
  - May 28, 2022 from 1,500 cfs to 1,750 cfs
  - June 7, 2022 from 1,750 cfs to 2,000 cfs
  - June 15, 2022 from 2,000 cfs to 2,250 cfs
  - June 23, 2022 from 2,250 cfs to 2,500 cfs
  - Scheduled: June 24, 2022, from 2,500 cfs to 3,000 cfs
  - Scheduled: June 27, 2022, from 3,000 cfs to 4,500 cfs

### Temperature Management:

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

### Folsom Shutter Configuration and Changes:

Drawing water from the warmest elevation with the current Configuration

### American River 90% Outlook:

#### May 90% Exceedance

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

Reservoir	End of 2021 Carryover Storage Volume	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Folsom Storage	768	855	770	549	372	349	298	252	214
Folsom Elevation	N/A	455	446	423	399	395	387	378	370

Table 8. Monthly River Release (TAF/cfs)

Reservoir	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
American TAF	86	149	277	239	76	62	60	61
American cfs	1402	2500	4501	3888	1273	1004	1001	1000

#### June 90% Exceedance

Table 9. 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 10. 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 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 <sup>1</sup>
October	May ARI <sup>2</sup> (50% exceedance)	515 cfs	N/A	N/A	515 cfs	627 cfs
November	May ARI <sup>2</sup> (50% exceedance)	515 cfs	N/A	N/A	515 cfs	583 cfs
December	May ARI <sup>2</sup> (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 <sup>3</sup> (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) <sup>3</sup>	N/A
April	April ARI <sup>3</sup> (90% exceedance)	1006 cfs	Not applicable	1215 cfs	1215 cfs Operating to 1000 cfs) <sup>3</sup>	N/A
May	May ARI (50% exceedance)	1270 cfs	Not applicable	1215 cfs	1270 cfs	N/A
May	May ARI (90% exceedance)	1209 cfs	N/A	1215 cfs	1270 cfs	NA
June	May ARI <sup>2</sup> (50% exceedance)	1269	Not applicable	Not applicable	1, 269 cfs	N/A

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

<sup>1</sup> Average of daily release over the month from NAT station on CDEC.

<sup>2</sup> 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.

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

## NIMBUS FISH HATCHERY

Presented by Emily Fisher, CDFW, 916-272-4113, [emily.fisher@wildlife.ca.gov](mailto:emily.fisher@wildlife.ca.gov)

- Steelhead are being tagged
  - Tagging will likely be finished this week
- Last raceway of Chinook was released into the Bay on 6/16/2022
- Total of 4,667,171 Chinook released

## JUVENILE SALMONID MONITORING

Presented by Emily Fisher, CDFW, 916-272-4113, [emily.fisher@wildlife.ca.gov](mailto:emily.fisher@wildlife.ca.gov)

- 761 juvenile Chinook salmon and 81 steelhead trout observed thus far
- Increase of 3 steelhead trout and 30 Chinook salmon from last ARG
- Unable to monitor Upper Sunrise in May due to staffing constraints
- Rossmoor and Riverbend were sampled on 6/22/2022
- Upper Sunrise side channel has re-connected to the main river
- Majority of salmonids located in the upper reach of the river
- Lower Sunrise side channel was monitored by snorkeling this month due to low DO and large amount of vegetation

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
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
April	CS	1	160	2	N/A	3	461	6	0	0	N/A	0	0
May	SH	1	2	Not seined at this time	Not seined at this time	0	0	0	1	0	N/A	0	3
May	CS	1	25	Not seined at this time	Not seined at this time	1	0	0	0	0	N/A	0	1
June	SH	0	0	0	0	0	0	Not seined at this time	0	Not seined at this time	Not seined at this time	0	0

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
June	CS	0	2	0	0	0	0	Not seined at this time	0	Not seined at this time	Not seined at this time	0	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



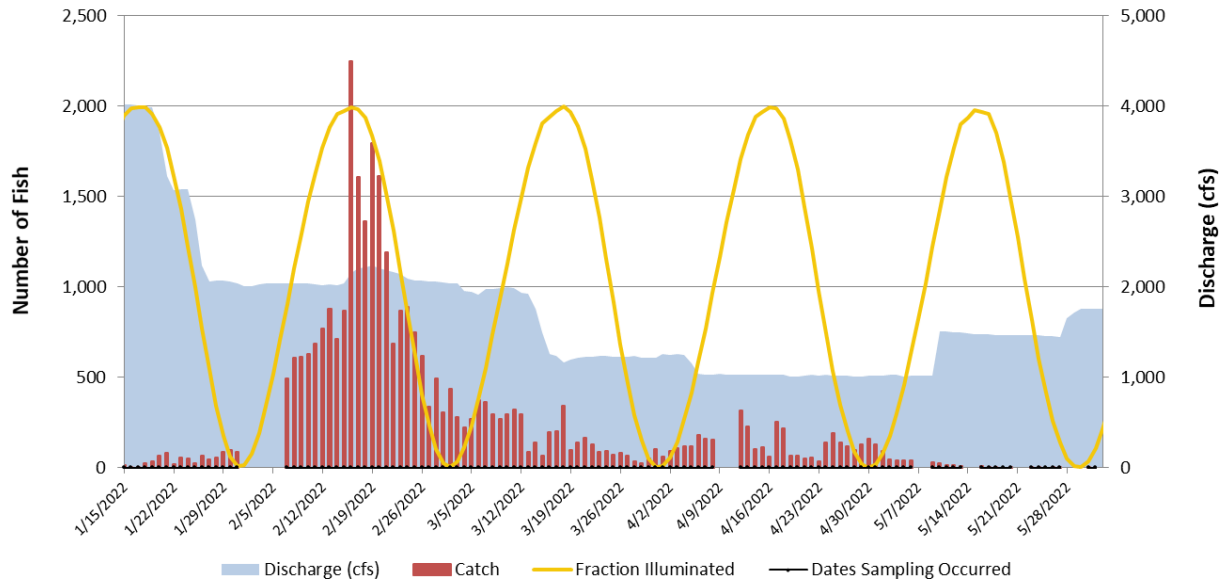
**UPDATED 6/1/22 (end of the sampling season)**

**Unmarked Juvenile Chinook Salmon (length-at-date):**

Fall	Late Fall	Spring	Winter
31,191	0	392	0

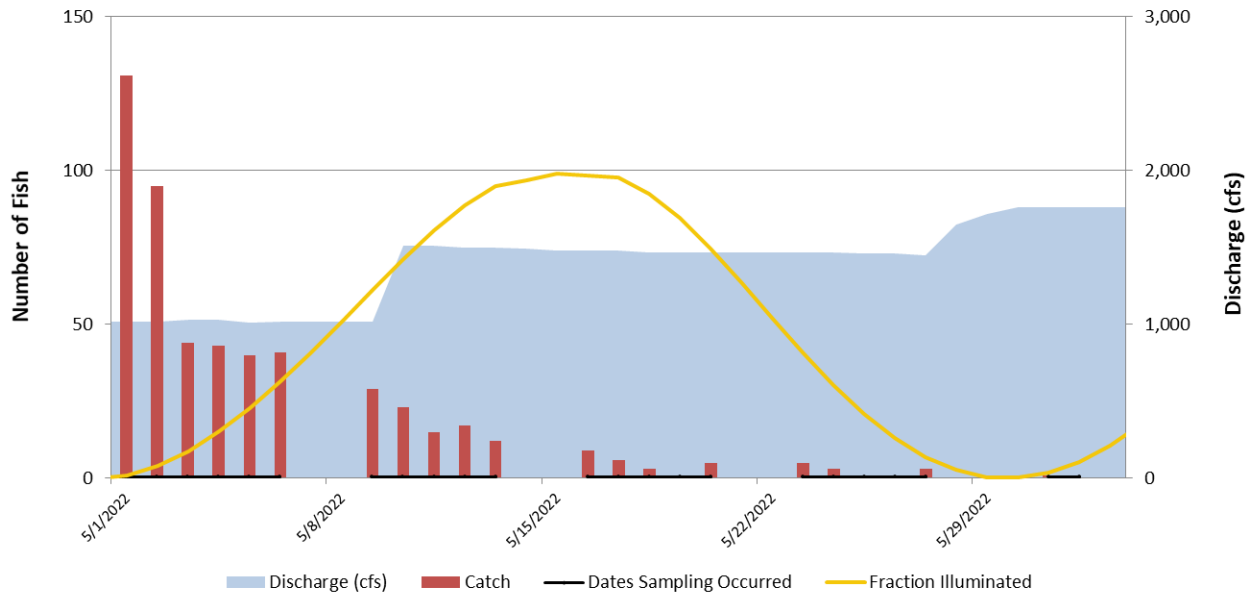
**Lower American River at Watt Ave (RSTs):**

Daily catch of unmarked Chinook Salmon and daily average discharge at Fair Oaks during the 2022 Lower American River rotary screw trap survey season.



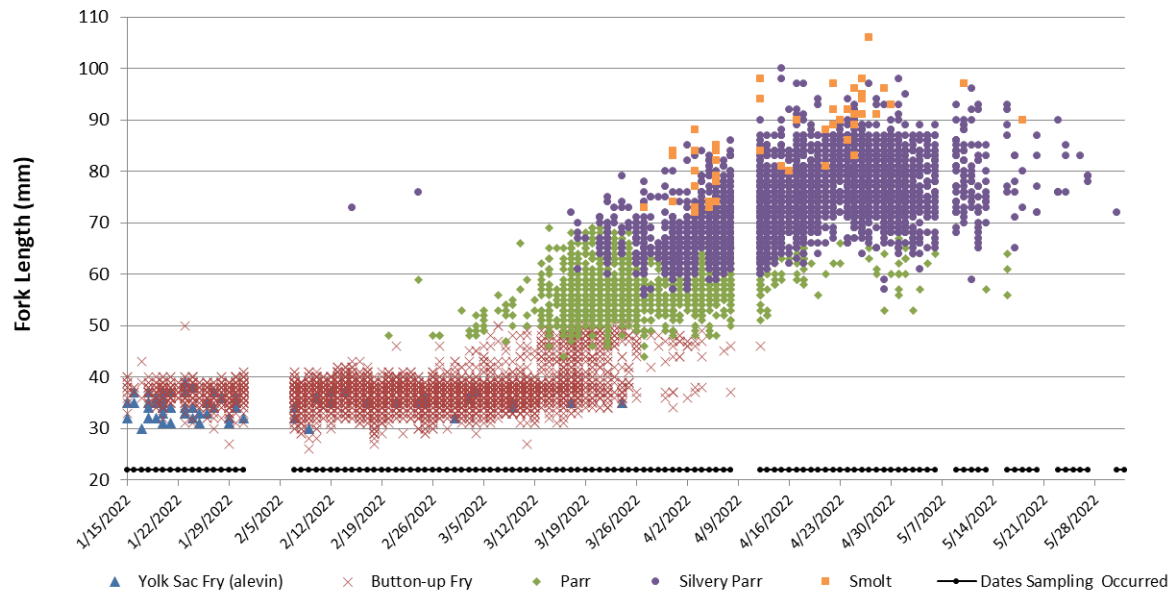
**Lower American River at Watt Ave (RSTs):**

Daily catch of unmarked Chinook Salmon and daily average discharge at Fair Oaks from May 1st to June 1st during the 2022 Lower American River rotary screw trap survey season.



**Lower American River at Watt Ave (RSTs):**

Daily fork length distribution by life stage of unmarked Chinook Salmon measured during the 2022 Lower American River rotary screw trap survey season.



**Lower American River RST CalFish Webpage:**

<https://www.calfish.org/ProgramsData/ConservationandManagement/CentralValleyMonitoring/SacramentoValleyTributaryMonitoring/LowerAmericanRiver-RSTMonitoring.aspx>

## SMUD Upper American River Project Update

Conditions – Monday 20 June 2022

June precipitation through 6/20/2022 is 1.62 inches, which is 205.1% of the June average of 0.79 inches. Precipitation for the water year to date is 50.55 inches which is 90.7% of average to date (55.76 inches) and 88.2% of the entire water year average of 57.32 inches.

Runoff into the storage reservoir basins is 99.7% of median to date through 6/20/2022. The snowpack is 0.0% of average at selected snow sensors.

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

- 370,306 acre feet (May 19 was 346,816 AF)
- 98% full
- 106% of historical average (20 June historical average: 348,669 AF)

### Individual Reservoir Storage

- Loon Lake: 67,730 AF
- Ice House: 39,917 AF
- Union Valley: 262,660 AF

Last year (on June 20, 2021), storage was at 68% (258,969 AF). *\*Total capacity: 329,210 AF.*

### Chili Bar releases into the South Fork American River

(Previous month) May 2022 releases:

- Daily average flow: 1,702 cfs
- Total releases: 104,673 AF

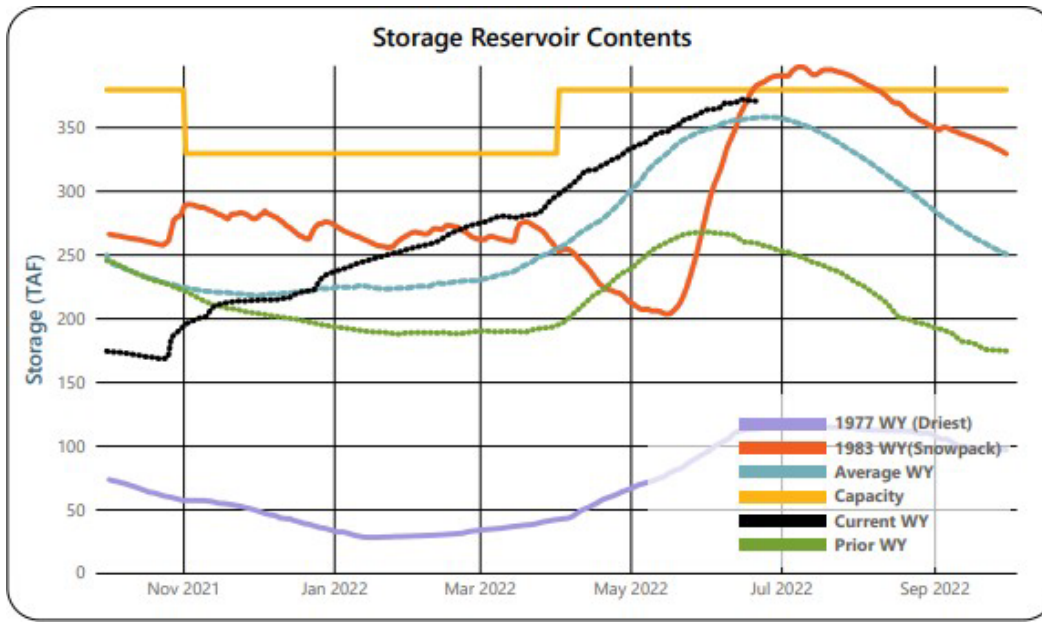
(Current month) June 2022 releases (June 1-20)

- Daily average flow so far: 1,039 cfs
- Total releases so far: 41,223 AF

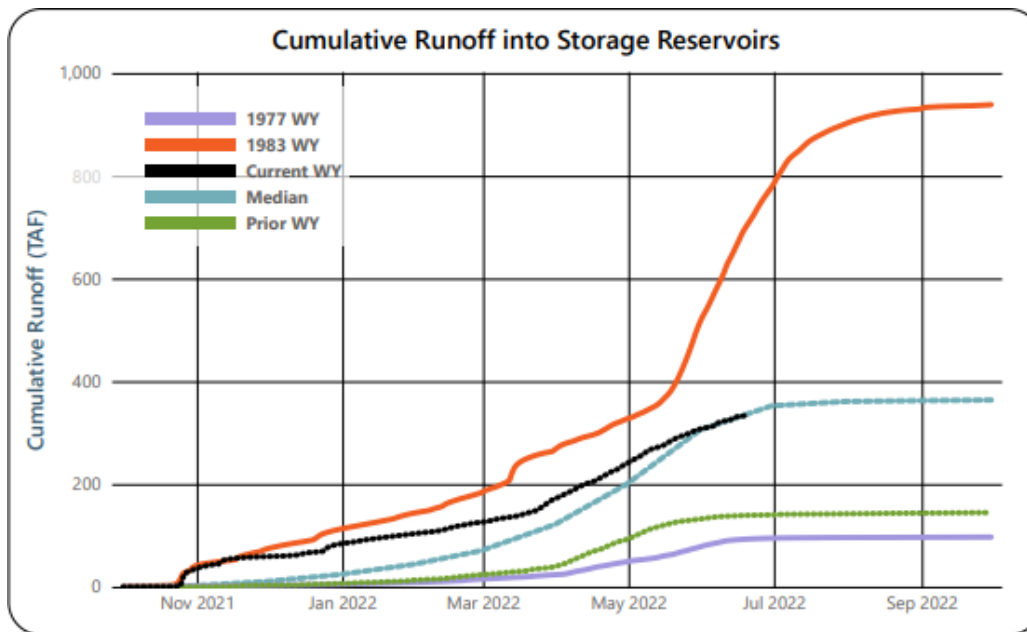
Based on a new forecast from June 9, 2022, the total flow volume released from the South Fork American River at Chili Bar are below (October 2021 – September 2022) (Figure 1):

Forecast	Volume (AF)
50% (median)	677,774
90% (dry)	668,003

June 21, 2022 reservoir storage: (Figure 2)



June 21, 2022 runoff into SMUD storage: (Figure 3)



South Fork American River Natural Runoff Forecast (in cfs, daily average forecasted flow, forecast 2022-06-21) (Figure 4)

<b>BASIN</b>	<b>Fri June 24</b>	<b>25-Jun</b>	<b>26-Jun</b>	<b>27-Jun</b>	<b>28-Jun</b>	<b>29-Jun</b>
SFA above Slab	128	128	129	127	121	116
Slab Creek Reservoir	128	127	126	125	124	123
Combined South Fork	256	256	255	252	245	240