



— 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, January 20, 2022

Agenda

- Introductions
- Housekeeping
- Fisheries Update
 - a. CDFW
 - b. CFS
 - c. PSFMC
- Operations Forecast
 - a. SMUD
 - b. PCWA
- Central Valley Operations
- Discussion
 - a. Annual reporting
- Next Meetings:
 - a. Thursday, February 17, 1:30-3:30pm

FALL-RUN CHINOOK CARCASS SURVEY

Presented by Tracy Grimes, CDFW, 916-597-6913, tracy.grimes@wildlife.ca.gov

- Survey began 10/18/2021 and concluded 01/05/2022

Table 1. Preliminary count of Chinook salmon carcasses processed during the 2021 lower American River escapement survey.

Survey period	Dates	Ladder Entrance	Nimbus Basin	Section 1A	Section 1B	Section 2	Section 3	Total Carcasses Processed
1	Oct 18-21	15	3	0	0	0	0	18
2	Oct 26-28	0	3	3	0	1	1	12
3	Nov 1-3	0	5	6	0	1	0	19
4	Nov 8-10	0	2	10	0	3	0	30
5	Nov 15-18	0	18	80	39	18	1	282
6	Nov 22-24	0	12	195	126	84	12	660
7	Nov 29-Dec 2	0	37	689	453	295	28	1886
8	Dec 6-9	0	29	642	336	179	29	1446
9	Dec 13-16	0	35	298	84	46	12	563
10	Dec 20-22	1	10	168	34	14	1	274
11	Dec 28-29	0	2	27	1	0	0	37
12	Jan 3-5	0	4	12	1	1	0	22
n/a	Total	16	160	2130	1074	642	84	5249

Table 2. Preliminary count of female Chinook salmon carcasses assessed for spawning condition during the 2021 lower American River escapement survey.

Date	Survey period	Unspawned	Partial	Spawned	Total
Oct 18-21	1	2	0	0	2
Oct 26-28	2	3	0	0	3
Nov 1-3	3	1	0	0	1
Nov 8-10	4	n/a	0	5	5
Nov 15-18	5	1	9	38	48
Nov 22-24	6	14	7	57	78
Nov 29- Dec 2	7	25	25	130	180
Dec 6-9	8	16	7	76	99
Dec 13-16	9	10	3	30	43
Dec 20-22	10	0	0	16	16
Dec 28-29	11	1	0	2	3
Jan 3-5	12	1	0	1	2
n/a	Total	74	51	355	480
n/a	%	15	11	74	n/a

Data and annual reports available on CalFish:

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

Provisional Data Subject to Revision

CHINOOK REDD SURVEY

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

- Redd surveys began October 4, 2021 and concluded January 14, 2022
- Total of 141 Redds Measured

Table 3. Preliminary count of redds measured during the 2021 lower American River Chinook salmon redd survey. Note: Redds that are still being built or are actively guarded are not measured.

Week	NB	1A	1B	2	3	Total
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	1	1	1	0	0	2
4	0	1	1	0	0	1
5	0	1	1	0	0	2
6	0	0	0	0	0	0
7	1	2	11	7	0	21
8	1	5	5	4	2	17
9	1	15	5	12	0	33
10	*NA*	9	14	6	0	29
11	6	6	0	0	0	12
12	0	15	6	1	2	24
13	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
14	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
15	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

* We were unable to measure Redds due to poor visibility and high flows



Provisional Data Subject to Revision

NIMBUS HATCHERY

- Chinook spawning ended 12/16/21
- Egg Collection Goal: 9,375,000
- Egg Collection Actual: 9,454,527
- Eyed Egg Goal: 4,950,060
- Eyed Eggs Actual: 8,391,690
- Almost all eggs have hatched
- Fry are being held in indoor rearing tanks

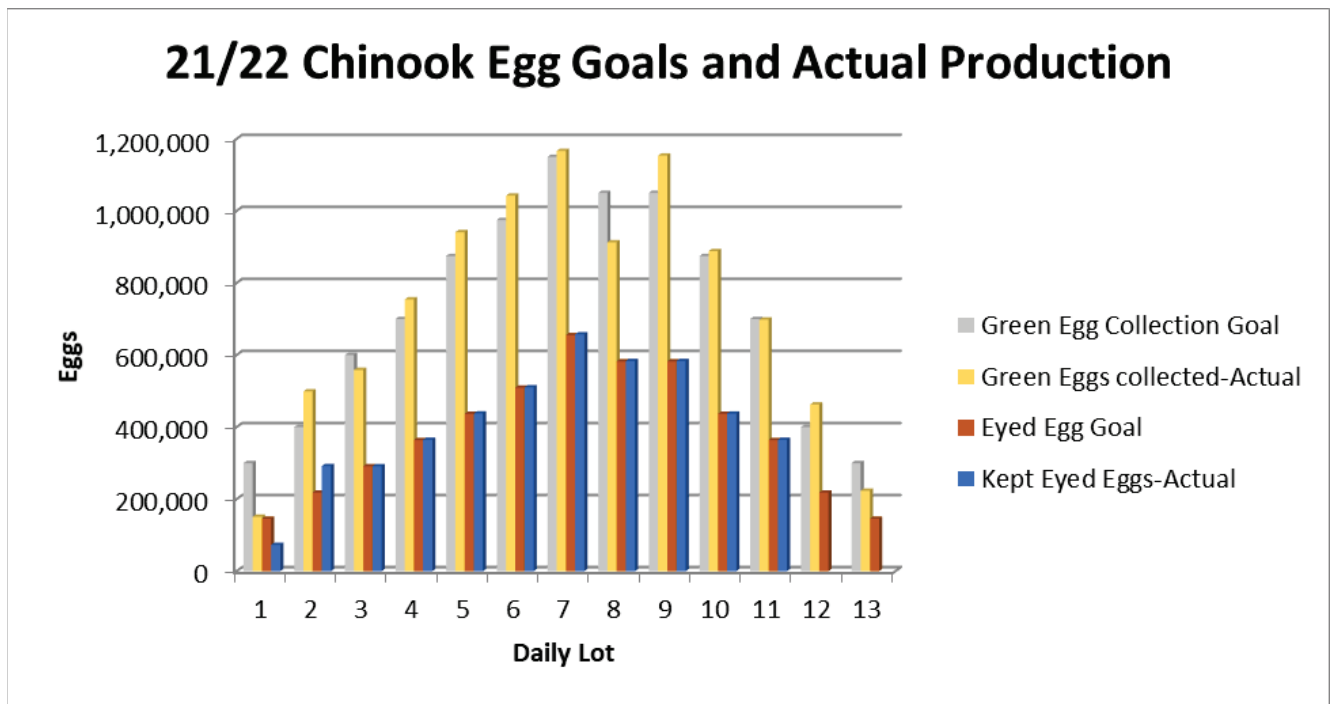


Figure 1. Comparison of fall-run Chinook salmon egg goals and actual egg production at Nimbus Fish Hatchery

Provisional Data Subject to Revision

- Steelhead spawning began 12/21/21
- Estimated 589,600 eggs to date
- Eggs are currently incubating in egg incubation stacks

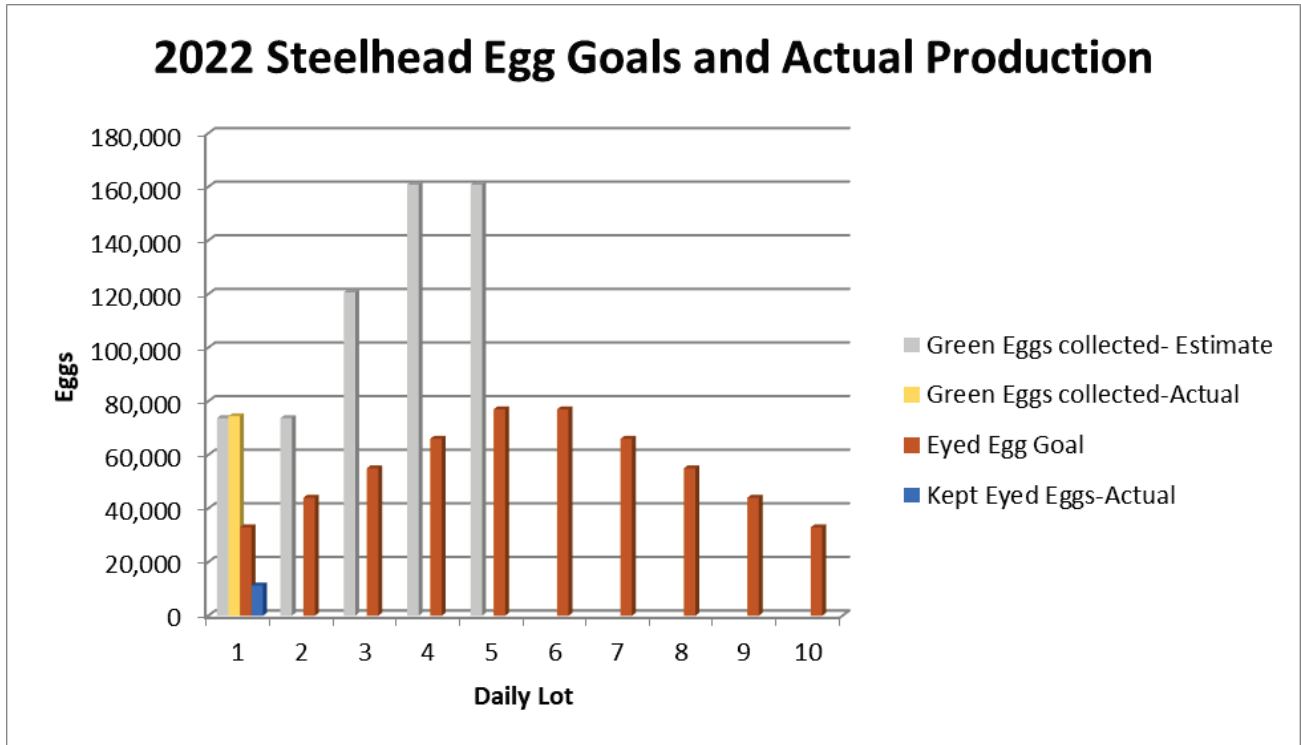


Figure 2. Comparison of steelhead egg goals and actual egg production at Nimbus Fish Hatchery

Lower American River 2022 Steelhead Spawning and Stranding Survey Summary

Spawning

Table 1. Steelhead, Chinook salmon, older redds with some algae present, and test redd counts during 2022 spawning surveys.

Dates	Steelhead	Chinook	Older with some algae ¹	Test	Total
Jan 12-14	5	0	3	4	12

¹Older redds likely constructed within the previous 2 weeks

Spawning surveys are occurring next week (26-28 Jan).

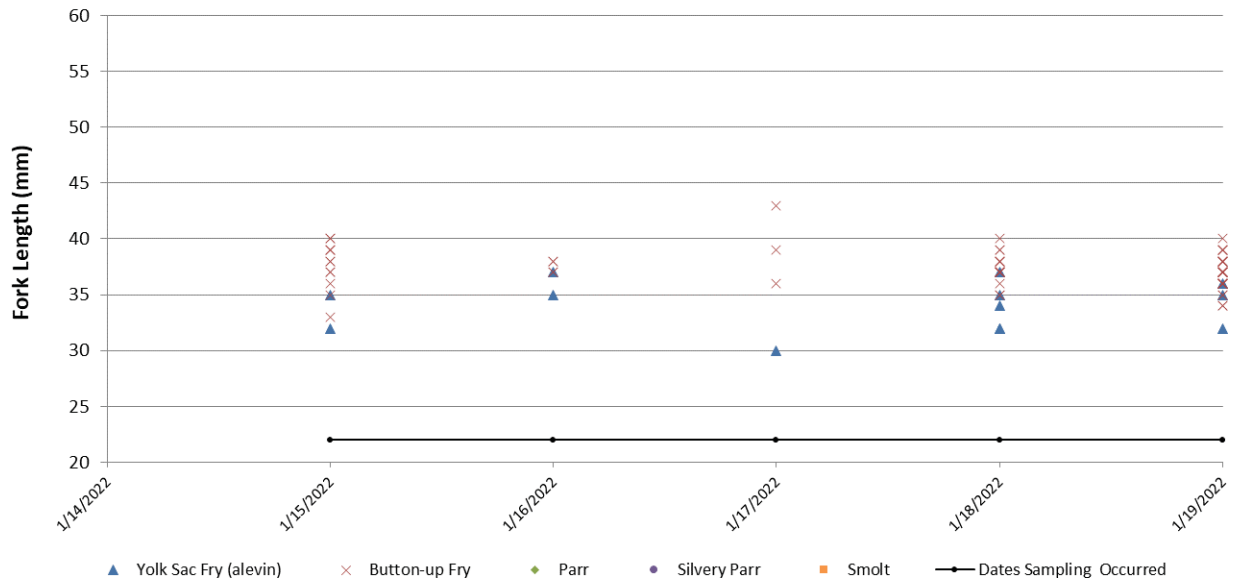
UPDATED 1/19/22

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

all	Late Fall	Spring	Winter
82	0	0	0

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 – Tuesday 18 January 2022

January precipitation through 01/18/2022 at Fresh Pond is 0.74 in., which is 8% of the January average of 9.55". Water year total to date is 147% of average to date (24.86"). No precipitation is forecasted for the area in the next two weeks.

Runoff into the storage reservoir basins is 273% of median to date through Jan 17. The snowpack is 109% of average at selected snow sensors.

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

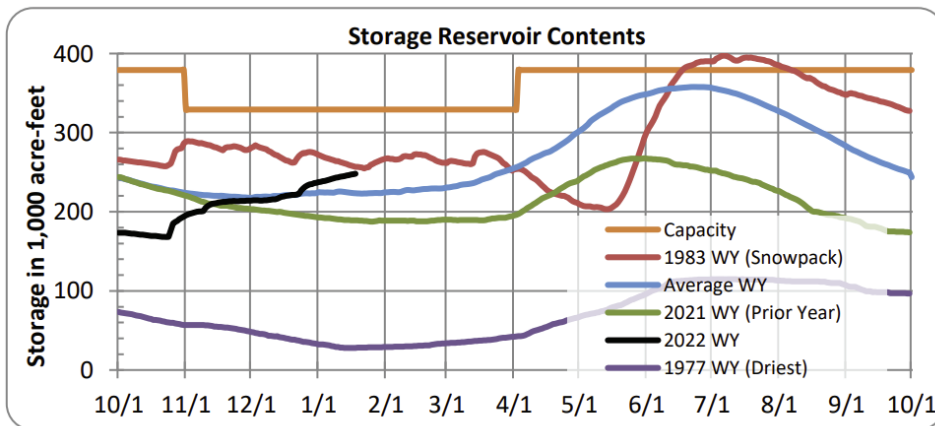
- 248,086 Acre-feet (Storage this time last month: 219,511 acre feet)
- 65% full
- 112% of historical average (18 January historical average: 221,715 AF)
- 1% increase in storage since last week

Individual Reservoir Storage

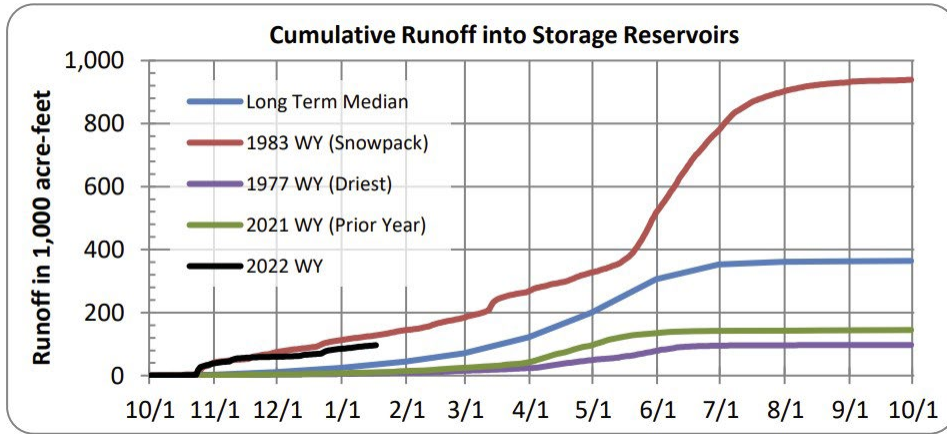
- Loon Lake: 28,560 AF
- Ice House: 33,038 AF
- Union Valley: 186,488 AF

Last year (on January 18, 2021), storage was at 50% (189,256 AF). **Total capacity: 379,174 AF.*

January 18, 2022 reservoir storage: (Figure 1)



January 18, 2022 runoff: (Figure 2)



Chili Bar releases into the South Fork American River

(Previous month) December 2021 releases:

- Daily average flow: 900 cfs
- Total releases: 55,385 AF

(Current month) January 2022 releases (January 1-17)

- Daily average flow so far: 750 cfs
- Total releases so far: 25,169 AF

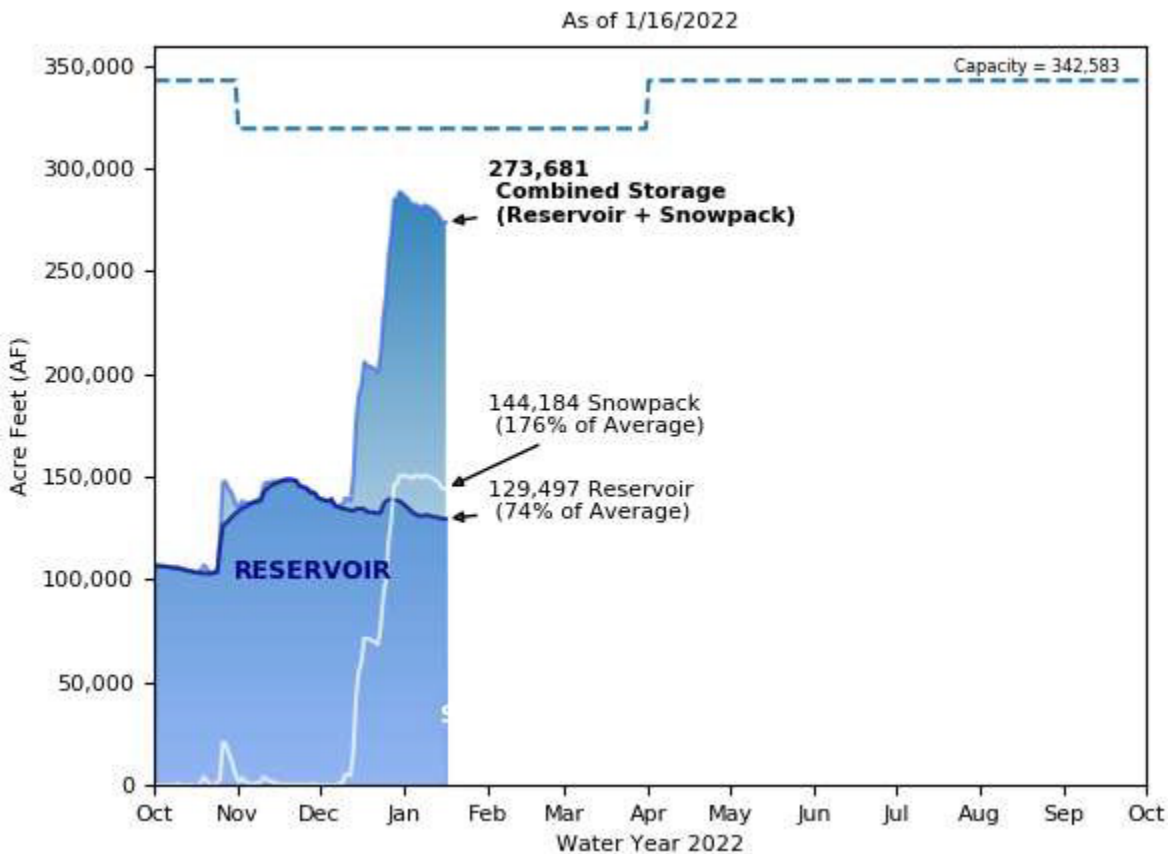
South Fork American River Natural Runoff Forecast (in cfs, daily average forecasted flow, forecast 2022-01-18) (Table 2)

BASIN	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan
SFA above Slab	234.9	227.8	221.5	220.6	219.7	214.3
Slab Creek Reservoir	185.5	178.7	171.6	165.7	160.5	154.9
Combined South Fork	420	407	393	386	380	369

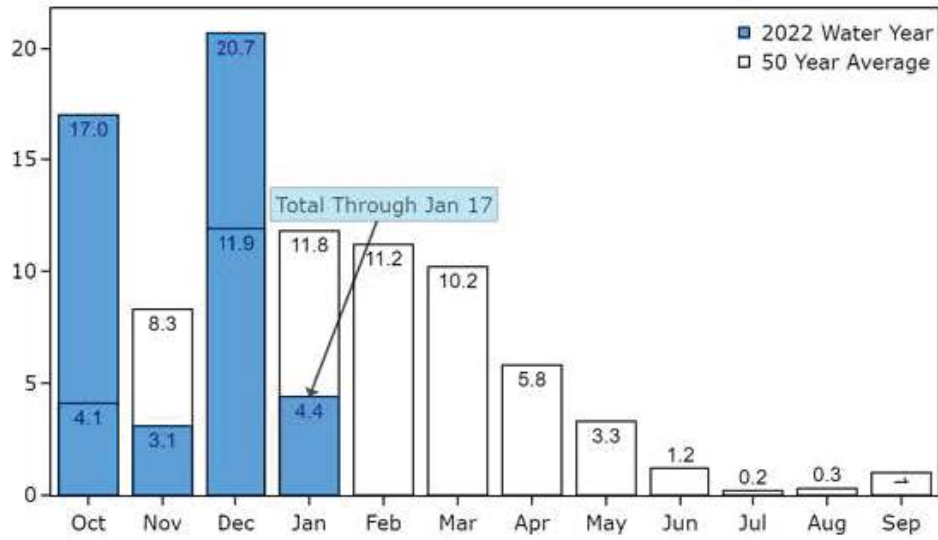
PCWA MFP OPERATIONS OVERVIEW for American River Operations Group (Real Time Data as of January 18, 2022)

- ❖ **French Meadows Storage = 49,000 AF of 136,405 AF = 36% Capacity**
 - MFAR above FM Inflow (R24) = 7-day AVG 130 cfs
- ❖ **Hell Hole Storage = 79,000 AF of 207,590 AF = 38% Capacity**
 - Five Lakes Inflow (R23) = 7-day AVG 20 cfs
 - Rubicon Inflow (R22) = 7-day AVG 100 cfs
- ❖ **Combined Storage (FM+HH) = 128,000 AF/342,590 AF = 37% Capacity; 74% of AVG**
 - 7 Day Change = -7,000 AF
- ❖ **MFAR @ R11: 7-day daily average 1,300 cfs**
- ❖ **NFAR @ ARPS: 7-day daily average 2,300 cfs**

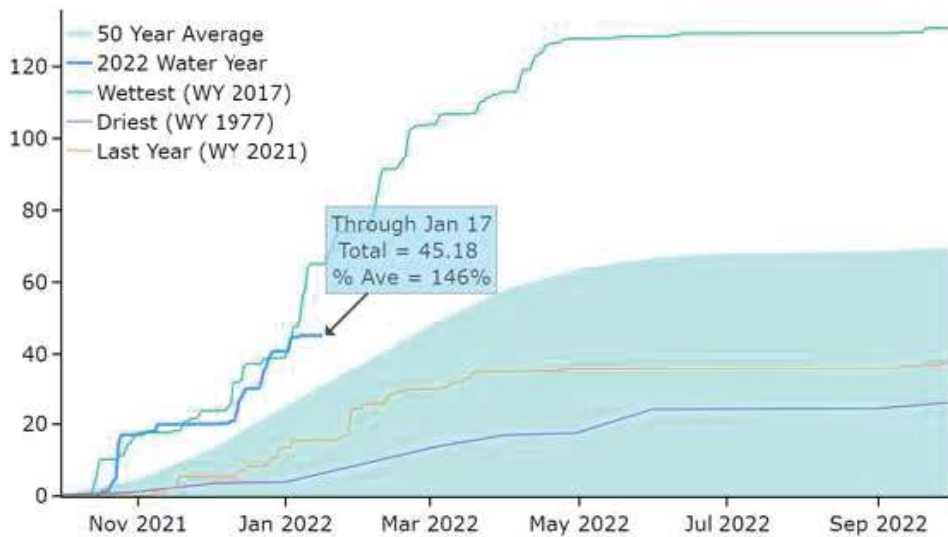
MFP Reservoir and Snowpack Storage



Lake Spaulding Precipitation: Water Year 2022



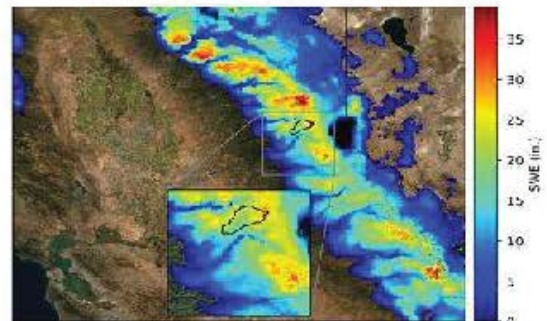
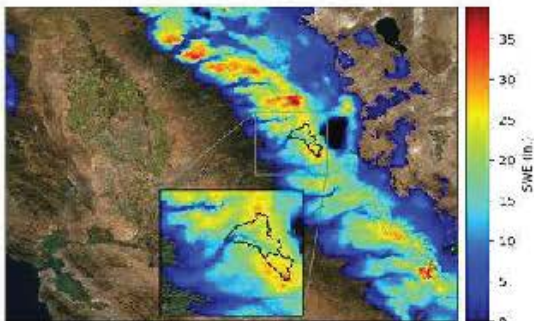
Lake Spaulding Precipitation: Water Year 2022



Combined Total Acre Feet = 144,627 AF

Hell Hole 01/17/2022
Total AF from SWE: 89,538 acre feet

French Meadows 01/17/2022
Total AF from SWE: 55,088 acre feet



Combined 7 Day Change = -4,814 AF

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

DAILY CVP WATER SUPPLY REPORT

JANUARY 18, 2022

RUN DATE: January 19, 2022

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2021	WY 2022	15YR MEDIAN
TRINITY	LEWISTON	314	305	304
SACRAMENTO	KESWICK	3,234	3,280	3,285
FEATHER	OROVILLE (SWP)	1,250	950	1,450
AMERICAN	NIMBUS	1,208	3,947	1,702
STANISLAUS	GOODWIN	202	202	227
SAN JOAQUIN	FRIANT	370	649	370

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15YRAVG	WY 2021	WY 2022	%01 15 YR AVG
TRINITY	2,448	1,344	1,251	738	55
SHASTA	4,552	2,481	2,083	1,568	63
FOLSOM	977	386	276	548	142
NEWMELONES	2,420	1,341	1,550	975	73
FED. SAN LUIS	966	550	385	224	41
TOTAL NORTH CVP	11,363	6,102	5,545	4,053	66
MILLERTON	520	270	172	295	109
OROVILLE (SWP)	3,538	1,655	1,220	1,567	95

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

RESERVOIR	CURRENT WY2022	WY1977	WY1983	15 YR AVG	% 01 15 YR AVG
TRINITY	170	36	308	178	95
SHASTA	1,243	833	1,738	1,192	104
FOLSOM	616	132	1,252	502	123
NEW MELONES	208	----	439	187	111
MILLERTON	221	77	620	193	114

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2022	WY1977	WY1983	AVG (N YRS)	%OF AVG	LAST 24HRS
TRINITY AT FISH HATCHERY	13.76	4.40	19.85	15.64 (60)	88	0.00
SACRAMENTO AT SHASTA DAM	34.90	5.34	31.84	28.07 (65)	124	0.00
AMERICAN AT BLUE CANYON	48.00	7.61	41.05	30.09 (47)	160	0.00
STANISLAUS AT NEWMELONES	15.64	----	14.75	11.77 (44)	133	0.00
SAN JOAQUIN AT HUNTINGTON LK	19.10	4.80	29.80	17.37 (47)	110	0.00

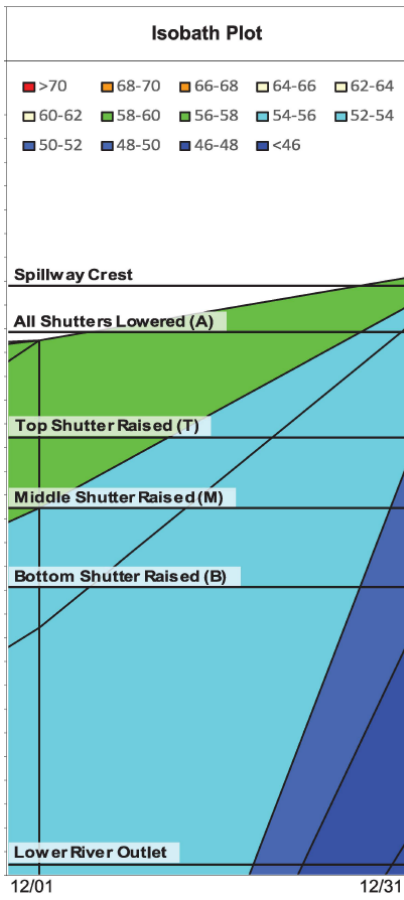


Figure 3. Isobath Plot 12/01/21- 12/31/21

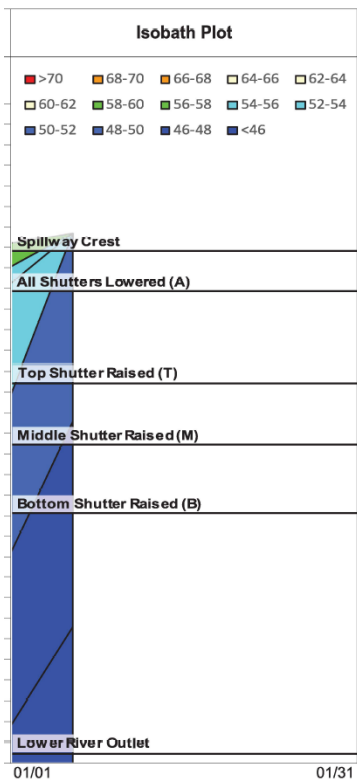


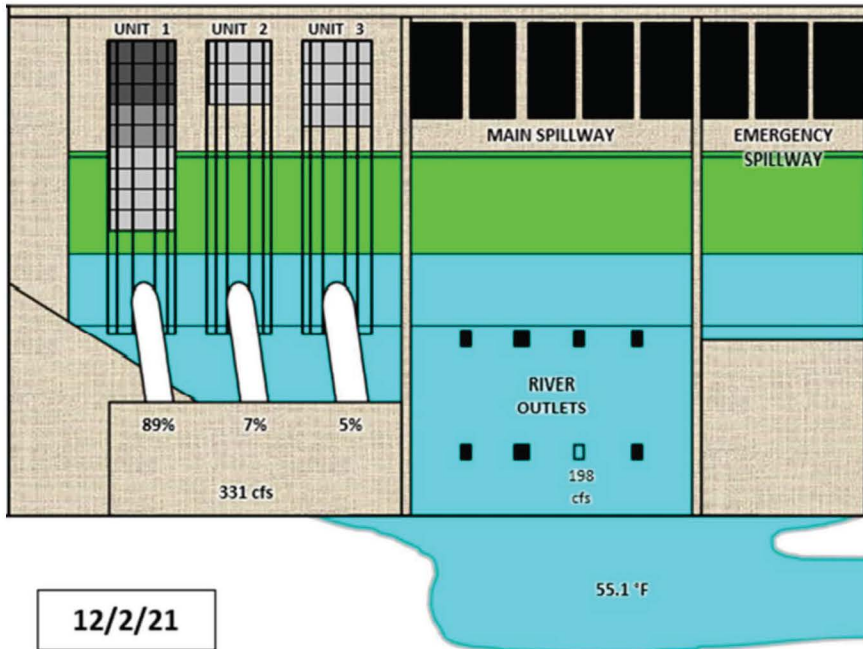
Figure 4. Isobath Plot 01/01/22-01/31/22

Table 3. Isobath Plot 12/01/21- 12/31/21

Mean Daily Temperatures (°F) = MDT, Unit Shutter Position = USP, Load Percentage = LP

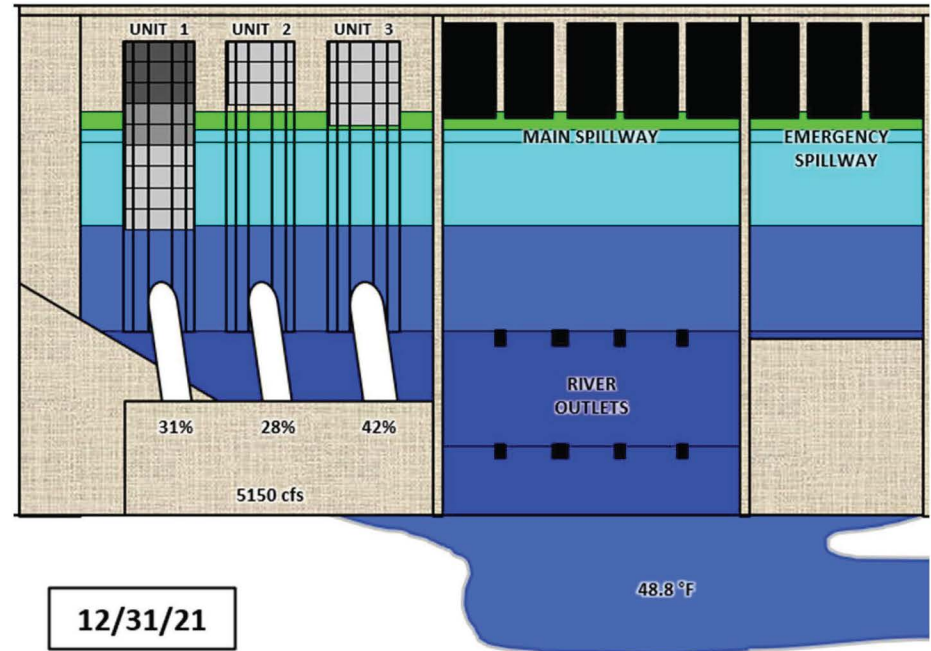
Date	MDT Water NFA	MDT Water ARP	MDT Water AFD	MDT Water AFO	MDT Water AWP	MDT Water AWB	MDT Air CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP Unit 1	LP Unit 1	USP Unit 2	LP Unit 2	USP Unit 3	LP Unit 3
Nov	52.2	50.9	55.8	56.7	56.8	56.8	54.5	582	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12/1	48.5	47.1	55.3	55.9	55.6	55.8	54.7	574	358	B	94	B	3	B	3
12/2	48.3	47	55.1	55.7	55.6	55.8	52.6	551	359	B	89	B	7	B	5
12/3	48.3	46.7	55.3	55.5	54.8	54.9	49.3	576	361	B	57	B	5	B	39
12/4	48.2	46.6	55.2	55.4	55	54.7	49.2	571	363	B	50	B	7	B	43
12/5	48.1	46.9	55	55.2	54.8	54.9	48.5	563	363	B	3	B	5	B	92
12/6	47.7	46.9	55.2	54.9	53.7	53.5	47.8	569	364	B	41	B	4	B	55
12/7	48.3	47.3	55	54.8	54.1	53.7	49	571	365	B	76	B	5	B	19
12/8	49.2	47.9	55	54.7	54	53.7	49.6	570	365	B	45	B	4	B	51
12/9	49.5	48.6	55	54.6	54.4	54.5	50.1	575	367	B	51	B	5	B	43
12/10	48.1	46.8	54.8	53.9	52.8	52.9	43.5	574	368	B	47	B	6	B	47
12/11	46.4	44.9	54.7	53.5	52.1	51.8	45.5	570	369	B	61	B	6	B	32
12/12	46.9	46	54.3	53.3	52.5	52.1	48.7	564	371	B	66	B	8	B	25
12/13	47.6	47.1	54.1	53	51.6	51.4	49.2	559	377	B	83	B	11	B	6
12/14	46.9	46.7	53.7	52.7	51.3	51.1	43.5	568	395	B	42	B	40	B	18
12/15	45.7	45.6	53.7	52.1	50.8	50.4	44.8	562	402	B	2	B	4	B	94
12/16	45.9	46.4	53.1	51.7	50.5	50.2	46.2	575	409	B	91	B	5	B	4
12/17	45.1	45	52.5	51.4	50.3	49.8	40.6	563	416	B	91	B	6	B	3
12/18	45.1	44.3	51.9	51.1	49.5	48.9	37.8	568	421	B	15	B	6	B	79
12/19	45	44.3	51.6	51	50	49.3	42.1	568	424	B	42	B	7	B	52
12/20	43.9	42.7	51.4	50.8	49.3	49	40	564	428	B	88	B	9	B	4
12/21	43.5	42.6	50.8	50.8	49.9	49.5	42.4	560	431	B	3	B	4	B	93
12/22	44.4	42.9	50.7	51	50.3	50.3	46.6	565	435	B	96	B	2	B	2
12/23	45.8	46.5	50.7	51.4	51.5	51.9	53.4	572	462	B	n/a	B	n/a	B	n/a
12/24	46.9	46.7	50.7	51.7	52	52.6	51.5	571	495	B	n/a	B	n/a	B	n/a
12/25	46.9	45.4	50.7	51.2	50.5	51	47.6	574	520	B	n/a	B	n/a	B	n/a
12/26	45.8	44.8	50.7	50.7	48.9	48.6	43.1	576	541	B	n/a	B	n/a	B	n/a
12/27	44.3	44.6	49.6	50.6	49.1	48.7	44.9	592	564	B	6	B	7	B	87

FOLSOM DAM



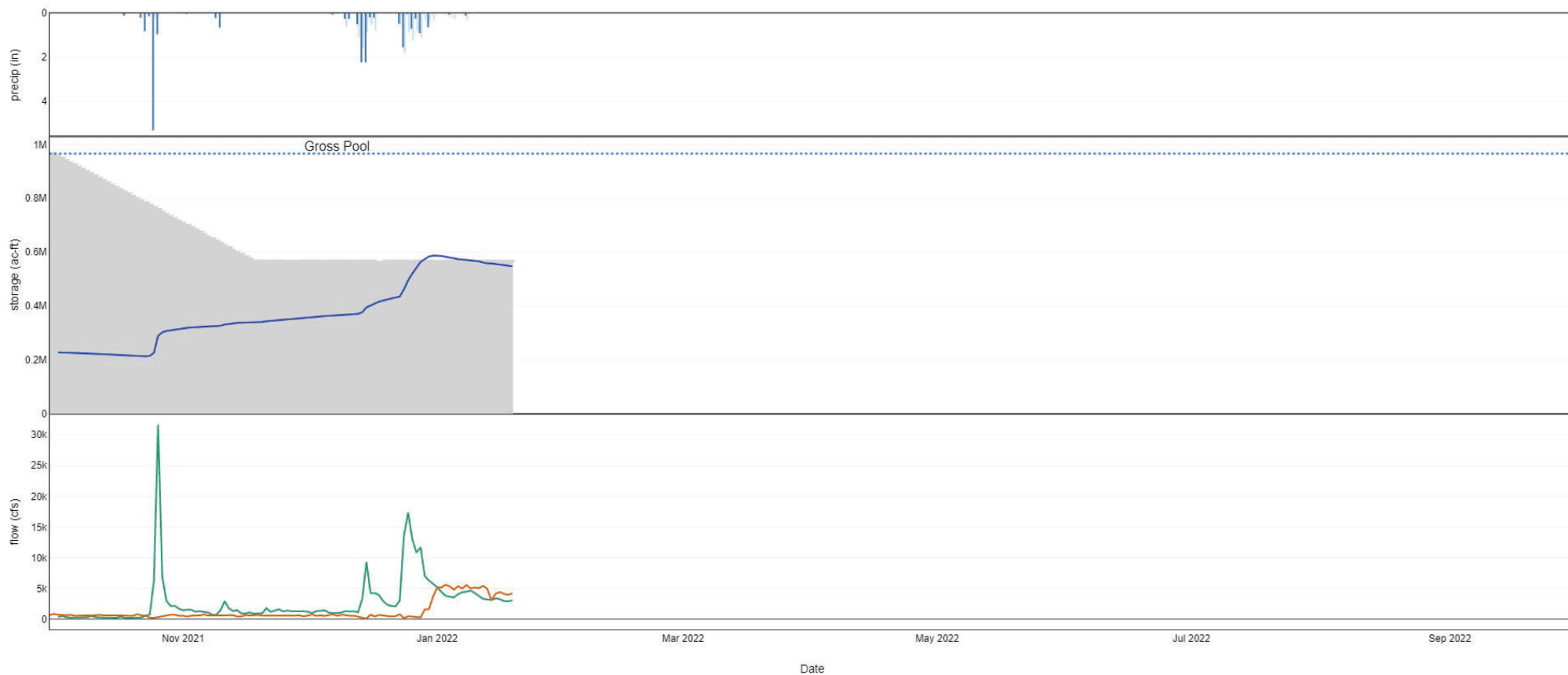
12/2/21

FOLSOM DAM

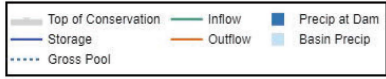
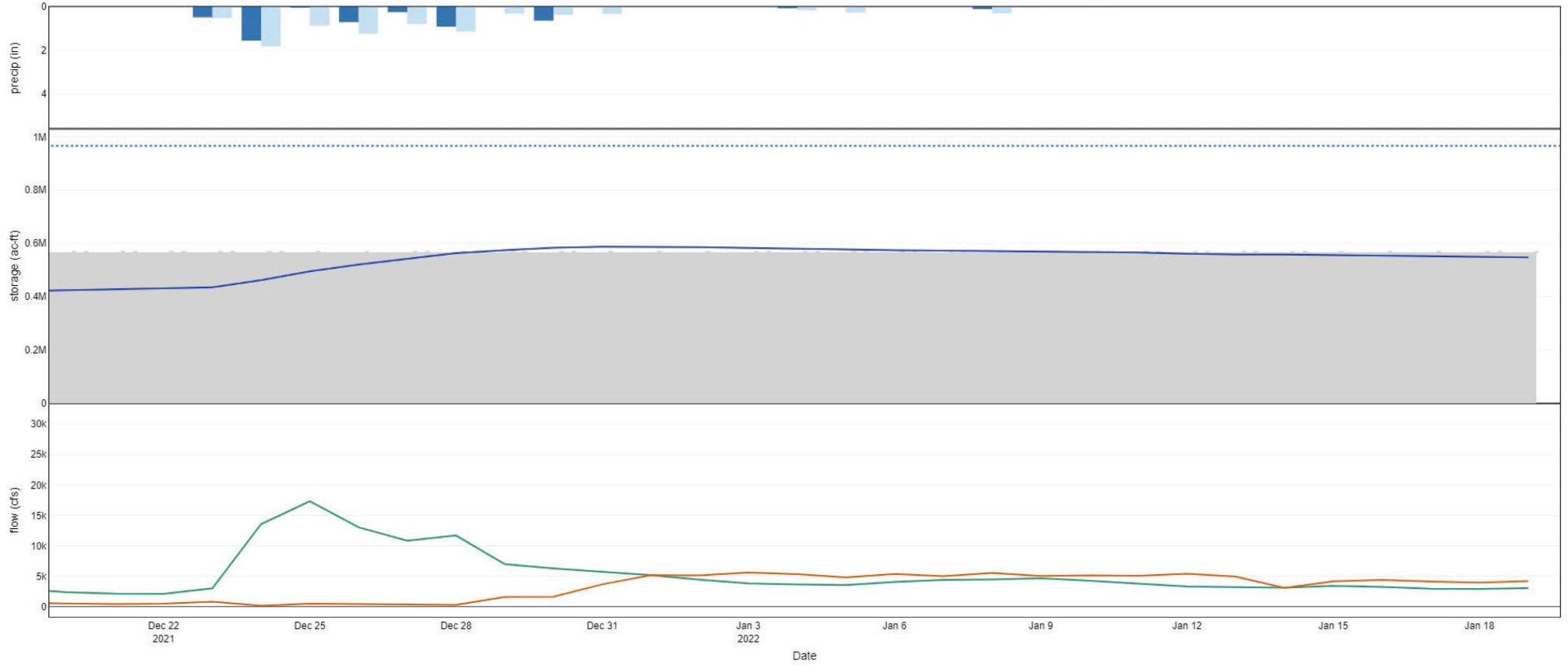


12/31/21

Folsom Dam & Lake - American River Basin
2022-01-19T15:16:30-0800



Folsom Dam & Lake - American River Basin
 2022-01-19T15:16:30-0800



American River Summary Conditions – December (On-going)

Storage/Release Management Conditions

- Releases are currently at 3,500 cfs
- Release cut to 3,000 on Friday, January 21, 2022
- Continue to look at further release cuts

Temperature Management:

- Top Shutters: Units 1, 2, & 3 – raised
- Middle Shutters: Units 1, 2 and 3 -- raised,
- Bottom Shutters: Units 1,2 and Unit 3 – raised

Folsom Shutter Configuration and Changes:

*Next action – Lower Shutters in Jan/Feb depending on Lake elevation

American River 90% Outlook:

American River Release Outlook for December

Table 5. Federal End of Month Storage/Elevation (TAF/Feet)

Month	n/a	Dec	Jan	Feb	Mar	Apr	May
Folsom	357	452	582	559	743	798	882
n/a	Elev.	410	426	424	444	449	457

Table 6. Monthly River Releases (TAF/cfs)

Month	n/a	Dec	Jan	Feb	Mar	Apr	May
American	TAF	34	34	222	92	199	132
n/a	cfs	550	550	4000	1500	3351	2142

American River Release Outlook for January

Table 6. Federal End of Month Storage/Elevation (TAF/Feet)

Month	n/a	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Folsom	588	554	565	741	869	955	946	802	777	745	662
n/a	Elev.	423	424	444	456	464	463	450	447	444	435

Table 7. Monthly River Releases (TAF/cfs)

Month	n/a	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
American	TAF	277	278	246	238	307	238	246	123	119	123
n/a	cfs	4500	5000	4000	4000	5000	4000	4000	2004	2007	2004

Operations Outlook Table

River	n/a
American River	Fall-run Chinook Salmon are spawning. Eggs are in gravel.
American River	Juvenile and adult O. mykiss are present and holding. Spawning has not yet been observed but historical data suggests it should begin in early January.
n/a	Updated 12/16/21