



— BUREAU OF —
RECLAMATION

American River Group

Monthly Meeting Notes 12/17/20

1) Action Items

- John Hannon will share his presentation with the ARG.
- Ansel Lundberg will share information on which boat ramp is being repaired at Union Valley reservoir.
- Kearns & West will schedule a follow up discussion regarding flow reductions on Thursday, January 7th from 3 PM – 5 PM.
- PCWA will share the results from their modelling of operation scenarios in January 2021.

2) Introductions

- **USBR:** John Hannon, Levi Johnson, Peggy Manza, Spencer Marshall, Sarah Perrin, Ian Smith, Todd Plain, Thuy Washburn
- **Water Forum:** Chris Hammersmark
- **SMUD:** Ansel Lundberg
- **PCWA:** Ben Barker
- **PSMFC:** Cory Starr, Logan Day
- **CDFW:** Mike Healey, Morgan Kilgour, Tracy Grimes, Gary Novak, Jeanine Phillips, Duane Linander, Ken Kundargi
- **NMFS:** Barb Byrne
- **USFWS:** Craig Anderson, Paul Cadrett
- **SWRCB:** Reza Ghasemizedeh, Michael Macon, Emily Fisher
- **EBMUD:** I-Pei Hsiu
- **WAPA:** Mike Prowatzke
- **City of Sacramento:** Anne Sanger, Daniel Bowers, Brett Ewart, Brian Sanders
- **Cal State Sacramento:** Dede Birch
- **Fish Sciences:** Avery Scherer
- **Kearns & West:** Kai Walcott, Rafi Silberblatt
- **Independent:** Rod Hall
- **DWR:** Mike Ford

3) Presentation

John Hannon, Fish Biologist, Reclamation's Bay-Delta Office, shared photos of the new fish ladder in the Nimbus Basin. John Hannon committed to sharing the presentation with the ARG. Key points from the discussion are as follows:

- The salmon in the fish ladder are unlikely to spawn there since the substrate is too large.
- Since the high flows in 2017, there have been thousands of fish observed upstream of the weir. Because fishing was open in 2018, the number of fish in the area was less noticeable. However, since fishing is now closed, the large number of fish is more obvious.
- The weir was removed the week of December 13th, and it is expected that the fish will move downstream.
- The aerial photographs of the redds were taken in three flights: November 23, December 4 and 29th. These images were taken later than normal due to weather delays and late spawning.
- Based on observation, there weren't as many returns as compared to years prior.

4) Fisheries Update: CDFW

CDFW shared results through Week 10 of the Fall-run Chinook Carcass Survey, which included a total of 4216 carcasses, 53% of which were female. Of the total carcasses observed, 68% were located on or above the weir. CDFW observed that pre-spawn mortality of the 1058 females examined over the entire season is 30% and explained that this was arrived by a visual assessment of egg retention in females. CDFW staff stated that there was a decrease in pre-spawn mortality after the power bypass was initiated, though this rate has since increased, potentially because of the lack of habitat relative to the number of fish.

The percentage of carcasses in the Nimbus Basin is 45% excluding weir fish. CDFW noted low returns overall, similar to 2015 and 2018.

CDFW hatchery staff completed the last of the fall-run Chinook salmon collection for spawning on December 12; the LAR weir has been removed. A total of ~7.1 million eggs were collected, which is less than the ~9 million eggs staff anticipated. Despite falling short of the target, staff still expect to meet production goals. For additional details, see page two of the handout packet.

5) Operations Forecast

a. SMUD

For details on the Upper American River SMUD Operations, including precipitation, reservoir storage, releases, and runoff forecast, see page three of the handout packet.

SMUD shared their long-term forecast for SFAR releases below Chili Bar. They noted that they will be conducting maintenance work at Union Valley reservoir in 2021 and will be required to decrease the water level more than usual for that purpose. SMUD committed to providing details on which boat ramp is being repaired during maintenance.

SMUD also noted that they will be taking over ownership of Chili Bar Dam, which is scheduled for completion by the second quarter of the year. No operational changes are anticipated, and the FERC license will remain unchanged. SMUD has also commissioned a new powerhouse, South Fork, which is not expected to result in operational changes.

b. PCWA

For details on PCWA operations, including reservoir and snowpack storage, power production, and recreation flows, see pages four and five of the handout packet.

PCWA shared their “2021 Water Year Dashboard” and noted that the cumulative total of precipitation up to December 14 is 7.13 inches, which is 31% of the average year to date. PCWA will be monitoring scenarios using their operations models and have committed to sharing their results in January.

PCWA also noted that their first snow survey will be conducted at the end of January, possibly January 28th.

c. Central Valley Operations

For details on December CVO operations, including releases, storage, inflow, accumulated precipitation, and temperature management measures, see pages six and nine of the handout packet.

Regarding the “Daily CVP Water Supply Report”, CVO staff noted that most reservoirs are moving toward their minimum releases if they aren’t already there.

6) Central Valley Operations

a. Temperature Management

CVO staff referred to pages 7, 8 and 10 through 11 in the handouts in discussing water temperature management. Average air temperatures in November were warmer than usual, which is believed to have delayed the decrease in water temperatures to 56° F at AFO. December temperatures have been below 56° F and are trending down.

The power bypass, which started on October 28th, ended on November 26th. CVO staff stated that although they did not anticipate the bypass taking the entire four-week period, the timeframe was proposed based on the model’s estimation of available cold water volume, which was correct. NMFS staff suggested that an item be added to a future ARG agenda to discuss and capture the lessons learned from the fall 2020 power bypass to keep in mind when discussing future power bypasses. CVO agreed and stated that such a discussion would be helpful.

b. Exceedance Forecasts

For the 90 and 50% exceedance forecasts, refer to page 12 of the handouts.

90% runoff exceedance outlook: End-of-December storage forecasted to be 293 TAF and end-of-January storage forecasted to be 288 TAF.

50% runoff exceedance outlook: End-of-January storage in the 50% forecast (442 TAF) is forecasted to be higher than in the 90% forecast. Given the small size of Folsom reservoir, it can fill relatively quickly if there are consecutive precipitation events. However, CVO staff stated that storage is currently at 250,000 acre-feet, and allowable storage is 557,000 acre-feet, so additional water can be stored should there be winter storms.

c. **January Flow Reduction**

For details on the January flow reduction, refer to page 14 of the handout.

CVO staff proposed reducing flows below their current level (1,250 cfs) noting the dry water year, low storage forecasts, and possible minimal cold-water pool next summer if Folsom storage is low. CVO also acknowledged the need to balance fall-run redds (most fall-run Chinook spawned at 1,250 cfs) and steelhead spawning (which will begin soon). Given these sometimes competing factors, CVO staff presented three reduction scenarios for the ARG to consider: (1) decreasing flow to 1,185 cfs; (2) reducing water surface elevation by 0.5 feet (which was later corrected to 0.3 feet), associated with a flow of 958 cfs; and (3) lowering flow such that water surface elevation dropped to zero over not more than 10% of redds, associated with a flow of 605 cfs. During the discussion, additional scenarios were identified, including (4) reducing current releases by 70% to 875 cfs; and (5) reducing releases to the Minimum Release Requirement of 725 cfs as per the FMS.

Reduction proposal one: To reduce flows to 1,185 cfs, which is estimate of the possible SRI-based January MRR based on December's Sacramento River Index (SRI). There will be an updated SRI number in January 2021.

Reduction proposals two & three: To reduce releases to a level that would result in the river being decreased by 0.3 feet or such that water surface elevation dropped to zero over not more than 10% of redds respectively. Reduction proposals two and three were based off of a table generated from an operational model using redd survey and hydraulic data to determine the number of redds that could be impacted by a given change in flow. The model uses historical data and does not consider the current redd positions or bathymetry of the river (the latter of which was last updated in 2012), though modelers believe that it reasonably represents present conditions. Because Option 3 was associated with a flow (605 cfs) below the Minimum Release Requirement of 725 cfs, Option 3 was not considered by the group this month.

CDFW shared a concern that conditions may not be suitable even if redds aren't completely dewatered. They also noted that it would be important to conduct surveys of current conditions, especially in newly restored areas, to identify where the topography of the river has changed. CDFW stated that it would be important to err on the side of caution, especially since several hatcheries have not met their annual goals. CVO staff noted that it is important to strike a balance between maintaining flows for fall-run redds through fry emergence and reducing flows so that steelhead spawning occurs at flows that can be sustained through fry emergence. This challenge is even greater this year since the peak of fall-run Chinook spawning was later, so that fall-run fry will be emerging later.

CDFW asked about the possibility of flows increasing in January after a flow reduction to meet water quality requirements or as a result of flood concerns in the event of a large storm. CVO noted that no flood management releases were expected anytime during

January, but that changes due to downstream water quality requirements could happen. For Delta water quality concerns, Reclamation stated that, if needed, they could first reduce exports to a minimum and then increase releases from Folsom.

Reduction proposal four: To reduce releases to 875 cfs, which is 70% of the current flow. This proposal was in “the spirit of the FMS”, in that the FMS prohibits the January MRR from being less than 70% of the December MRR. Based on the dewatering table, a reduction to 875 cfs would result in 0 to 1 % of Chinook redds being dewatered. NMFS raised concern about the possibility of unnecessarily losing redds by reducing releases to 875 cfs and then increasing releases soon after for the water quality reasons discussed above.

Reduction proposal five: To reduce releases to 725 cfs, as suggested by the current FMS MRR for December and January. Based on the table, this would cause between a 1 to 2% dewatering. CDFW noted that given the dry year, such a reduction would pose a challenge for the species’ recovery. Delta water quality needs also make this not a practicable approach. No ARG member advocated for this proposal – it was simply acknowledged as the regulatory minimum.

CDFW expressed concern that a reduction would be premature as they anticipate flow fluctuations in the spring and noted that they’ve always preferred to have lower flows earlier in the season followed by increases mid-way through the season. They requested additional information regarding Delta flow requirements through steelhead emergence before providing a recommendation, as the current proposals were not ideal. CDFW noted that Chinook have had a challenging year as water temperatures were warm for too long which has been concerning.

CVO proposed using a stepped reduction, in which releases are reduced to 1,185 cfs (proposal 1) starting Monday, December 21 and then reevaluated after further discussion. ARG expressed interest in having a follow-up discussion to address concerns and scheduled a meeting for Thursday, January 7 from 3 PM to 5 PM PST. However, shortly after December’s ARG meeting, Reclamation notified members that a decision was made to hold the reduction until January 2021.

CVO will work with the operations team to compile information on Delta requirements for January’s discussion, including forecasts and projected water quality needs.

7) Discussion

Annual Report Update

USBR continues to work on the WY 2020 annual report and is currently making changes to ensure that the report is consistent with BDO requirements. As such, the report will not be completed by the end of the 2020 calendar year but will be circulated to the ARG for feedback in January 2021.

8) **Next ARG Meeting:** Thursday, January 21, 2021 from 1:30 PM – 3:30 PM



— BUREAU OF —
RECLAMATION

American River Group

1:30 PM – 3:30 PM

Webinar: [Join Microsoft Teams Meeting](#)

Thursday, December 17, 2020

Agenda

1. Introductions
2. Presentation
 - a. John Hannon, Fisheries Biologist, Bay-Delta Office
3. Housekeeping
4. Fisheries Update
 - a. CDFW
5. Operations Forecast
 - a. SMUD
 - b. PCWA
 - c. Central Valley Operations
6. Central Valley Operations
 - a. Temperature management
 - b. Exceedance forecast & temperature schedules
7. Discussion
 - a. 2020 Annual Report
8. Next Meeting: Thursday, January 21, 1:30-3:30pm

ARG MEETING FISHERIES UPDATE

December 17, 2020

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

NIMBUS HATCHERY

- Last fall-run Chinook salmon spawn on 12/14/20
- ~7.1million fall-run Chinook salmon eggs collected
- Percentage surviving to eyed stage is ~95%
- Weir removed week of 12/14/20
- Stray rate of hatchery fish is ~46% based on coded wire tag data through mid-November
 - Most strays are from the Mokelumne River Hatchery
 - Other hatcheries: Merced, Feather

FALL-RUN CHINOOK CARCASS SURVEY

- Survey began 10/13/2020, currently in week 10
- Total carcasses processed through 12/11 is 4216
 - 68% of carcasses located on or above the weir
- Pre-spawn mortality average is at 30% of 1058 females examined
- Survey scheduled until mid-January

SMUD Upper American River Project Update

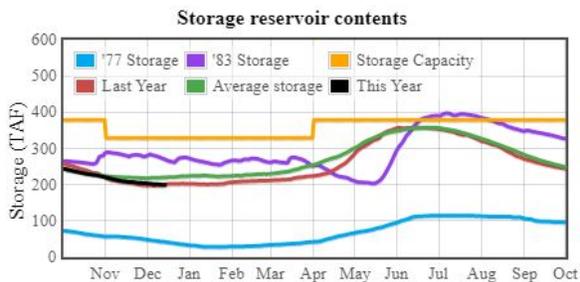
Conditions – 15 December 2020:

December precipitation through 12/15/2020 7:00:00 AM is 1.89 in., which is 21% of the December average of 9.14". Precip for the water year to date is 7.77" which is 53% of average to date (14.59") and 14% of the entire water year average of 57.32". November was good (86% avg), December is 20% so far. Our cloud seeding has begun this week for the season.

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

- 199,580 acre feet (November 15, 2020 storage: 207,884 acre feet)
- 52.6% capacity
- 89% of historical average (15 December historical average: 223,030 AF / 59%)
- 0% decrease in storage since last week

December 15 reservoir storage: (Figure 1)



- Loon Lake: 35,967 AF
- Ice House: 24,986 AF
- Union Valley: 138,627 AF

Last year (Dec 15, 2019), storage was at 53.1% (201,343 AF). **Total non-winter capacity: 379,174 AF.*

Chili Bar releases into the South Fork American River

November 2020 releases:

- Daily average flow: 396 cfs
- Total releases: 23,589 AF

December 2020 releases (Dec 1-14):

- Daily average flow so far: 346 cfs
- Total releases so far: 9,600 AF

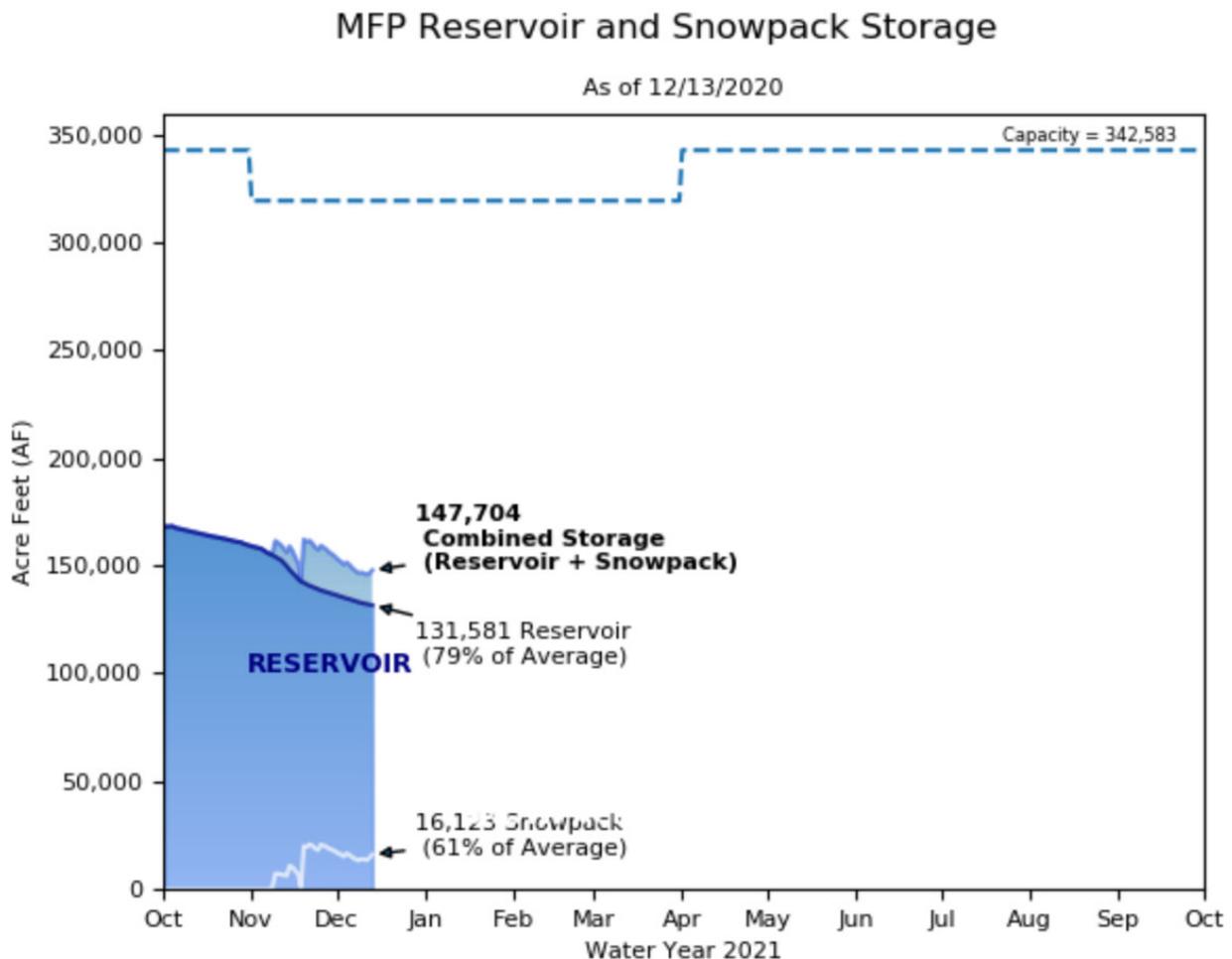
Runoff into the storage reservoir basins is 31% of median to date through Dec 14. The snowpack is 53% of average at selected snow sensors.

Runoff Forecast (in cfs, daily average forecast, forecast 2020-12-15) (Figure 2)

BASIN	Fri Dec 18	19-Dec	20-Dec	21-Dec	22-Dec	23-Dec
SFA above Slab	40.0	39.0	38.1	37.5	37.7	35.6
Slab Creek	16.0	15.5	15.3	15.1	15.2	14.4
Combined South Fork	56	55	53	53	53	50

PCWA MFP OPERATIONS OVERVIEW for American River Operations Group (Real Time Data as of December 15, 2020)

- ❖ **French Meadows Storage = 51,000 AF of 136,405 AF = 38% Capacity**
 - MFAR above FM Inflow (R24) = ~5 cfs
- ❖ **Hell Hole Storage = 80,000 AF of 207,590 AF = 39% Capacity**
 - Five Lakes Inflow (R23) = ~5 cfs
 - Rubicon Inflow (R22) = ~20 cfs
- ❖ **Combined Storage (FM+HH) = 131,000 AF/342,590 AF = 38% Capacity; 79% of Average**
- ❖ **MFAR @ R11: 7 day daily average ~230 cfs**



2021 Water Year Dashboard

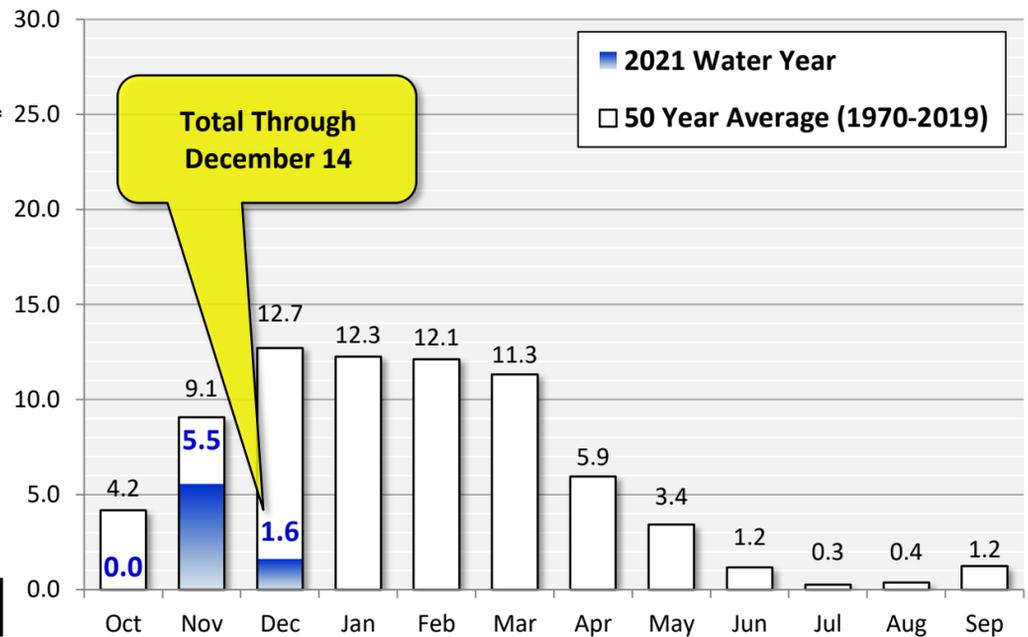


Updated through: December 14, 2020

Lake Spaulding Precipitation

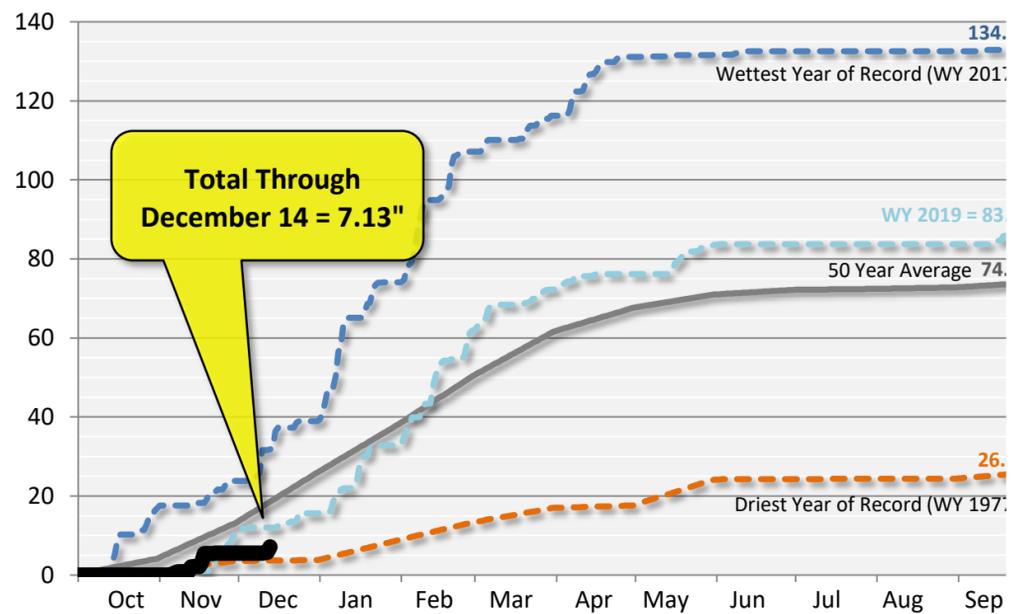
Monthly Totals (values in inches of precipitation):

	Historical Average ^{2/}	Actual This Year	Percent of Average
October	4.17	0.00	0%
November	9.07	5.52	61%
December	12.70	1.61	13%
January	12.26	--	--
February	12.11	--	--
March	11.31	--	--
April	5.94	--	--
May	3.41	--	--
June	1.18	--	--
July	0.25	--	--
August	0.37	--	--
September	1.23	--	--
October		7.1 inches	



Cumulative Totals (values in inches of precipitation):

Through Month of:	Historical Cumulative Average ^{2/}	Accumulation to Date	% of Average to Date
October	4.17	0.00	0%
November	13.24	5.52	42%
December	25.94	7.13	27%
January	38.20	--	--
February	50.32	--	--
March	61.63	--	--
April	67.57	--	--
May	70.99	--	--
June	72.16	--	--
July	72.42	--	--
August	72.79	--	--
September	74.02	--	--



Sierra Snow Survey Summary (Snow Water Equivalent)^{3/}

	% of Average					Courses Reported to Date
	Jan 1	Feb 1	Mar 1	Apr 1	May 1	
DWR Statewide (224 courses)	--	--	--	--	--	--
American River Basin (20 courses)	--	--	--	--	--	--
Yuba River Basin (19 Courses)	--	--	--	--	--	--
PCWA Middle Fork of the AR (4 courses)	--	--	--	--	--	--

End of Month Reservoir Storage Summary (values in acre-feet)^{4/}:

As of 12/14/2020	Capacity	October Storage	November Storage	November Average	Percent of Capacity	Percent of Average
Bowman Lake	68,500	38,013	35,338	39,037	52%	91%
Jackson Meadows	69,200	37,236	36,192	30,579	52%	118%
Lake Spaulding	74,773	3,779	13,316	34,162	18%	39%
Fordyce Lake	49,900	37,210	N/A	12,052	n/a	n/a
Rollins Lake	66,000	54,691	58,033	51,687	88%	112%
Folsom Lake	977,000	353,173	321,700	468,027	33%	69%
Hell Hole	207,590	97,212	82,304	104,663	40%	79%
French Meadows	135,000	61,574	53,680	61,838	40%	87%

Footnotes:

* Information on this report is provisional and subject to change.

1/ Cumulative total since October 1, 2020 reported at California Data Exchange Center (http://cdec.water.ca.gov/cgi-progs/stationInfo?station_id=LSP).

2/ Based on 50 year average for Lake Spaulding (1970 through 2019). Station ID = LSP

3/ Monthly snow water equivalent for DWR & American River Basin are reported at California Data Exchange Center (<http://cdec.water.ca.gov/cgi-progs/snow/COURSES>). PG&E and PCWA results can be found on CDEC but are also provided by PG&E. PCWA Station ID's are WBM, MCB, DMN, and TBC.

4/ Monthly reservoir storage reported at California Data Exchange Center (<http://cdec.water.ca.gov/stalInfo.html>). Station IDs are BWN, JCK, FOL, HHL, and FMD. Lake Spaulding, Fordyce Lake, and Rollins Lake storage provided by PG&E.

American River Summary Conditions – December (On-going)

- December has been fairly dry, one small precipitation event to date, not much on the horizon. Currently categorized as a critical year on 60-20-20 under both 90% and 75% exceedance criteria. Dry at 50% exceedance.

Storage/Release Management Conditions

- Releases currently at 1,250 cfs for Fall Run Chinook Salmon spawning in the American River.

Temperature Management:

- All shutters are pulled on all three units.
- The power bypass operation was terminated on November 26, 2020.
- Temperature finally reached 56 degrees F at AFO on November 25, 2020.
- Combination of warmer than average November meteorology and limited coldwater pool combined to make achieving 56 degrees F extremely difficult until seasonal cooling (air temperatures) finally arrived.

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

DAILY CVP WATER SUPPLY REPORT

DECEMBER 14, 2020

RUN DATE: December 15, 2020

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2020	WY 2021	15 YR MEDIAN
TRINITY	LEWISTON	296	315	305
SACRAMENTO	KESWICK	4,968	3,516	4,438
FEATHER	OROVILLE (SWP)	2,500	1,650	1,750
AMERICAN	NIMBUS	2,446	1,271	1,806
STANISLAUS	GOODWIN	803	204	252
SAN JOAQUIN	FRIANT	390	404	151

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2020	WY 2021	% OF 15 YR AVG
TRINITY	2,448	1,363	1,948	1,260	92
SHASTA	4,552	2,378	3,292	2,016	85
FOLSOM	977	389	517	304	78
NEW MELONES	2,420	1,350	1,969	1,529	113
FED. SAN LUIS	966	469	300	381	81
TOTAL NORTH CVP	11,363	5,950	8,026	5,490	92
MILLERTON	520	245	235	181	74
OROVILLE (SWP)	3,538	1,553	2,015	1,260	81

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

RESERVOIR	CURRENT WY 2021	WY 1977	WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	10	22	132	90	11
SHASTA	460	569	831	658	70
FOLSOM	121	98	649	219	55
NEW MELONES	73	----	277	100	73
MILLERTON	130	61	350	118	110

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2021	WY 1977	WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	2.77	1.25	12.25	9.14 (58)	30	0.63
SACRAMENTO AT SHASTA DAM	3.42	1.63	16.37	15.94 (63)	21	0.50
AMERICAN AT BLUE CANYON	6.69	3.27	27.97	17.08 (45)	39	0.03
STANISLAUS AT NEW MELONES	2.85	----	11.38	6.51 (42)	44	0.12
SAN JOAQUIN AT HUNTINGTON LK	2.59	1.80	20.00	8.66 (45)	30	0.52

Folsom Cold Water Pool

Folsom Reservoir: Cold Water Volume

Profile Date	Volume less than 58°F (TAF)
12/10/20	305.0

Penstock Elevation (ft)	Volume (TAF)	Approximate Max. Temp (F)
327	83	54.7

Power Generation Bypass/Lower River Outlet for Temperature Management

Date	Bypass/Lower River Outlet (cfs)	Temperature not to exceed downstream of Nimbus Dam (°F)	Cumulative Use of Cold Water Pool Volume (TAF)
10-28-2020	100 cfs	56 degrees	Est total use will be 28 taf if entire 28 days of bypass are necessary
10-29-2020	300 cfs		
10-30-2020	500 cfs		
11-25-2020	250 cfs		
11-26-2020	0 cfs		

DRAFT December 2020

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			
Folsom	322	293	288	332			
	Elev.	386	385	393			

Monthly River Releases (cfs)

American	1250	1185	1100			
MRR	725	725				

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			
Folsom	322	301	442	563			
	Elev.	387	409	424			

Monthly River Releases (cfs)

American	1271	1250	2000			
MRR	725	725				

Please note:

CVP actual operations do not follow any forecasted operation or outlook; actual operations are based on real-time conditions.

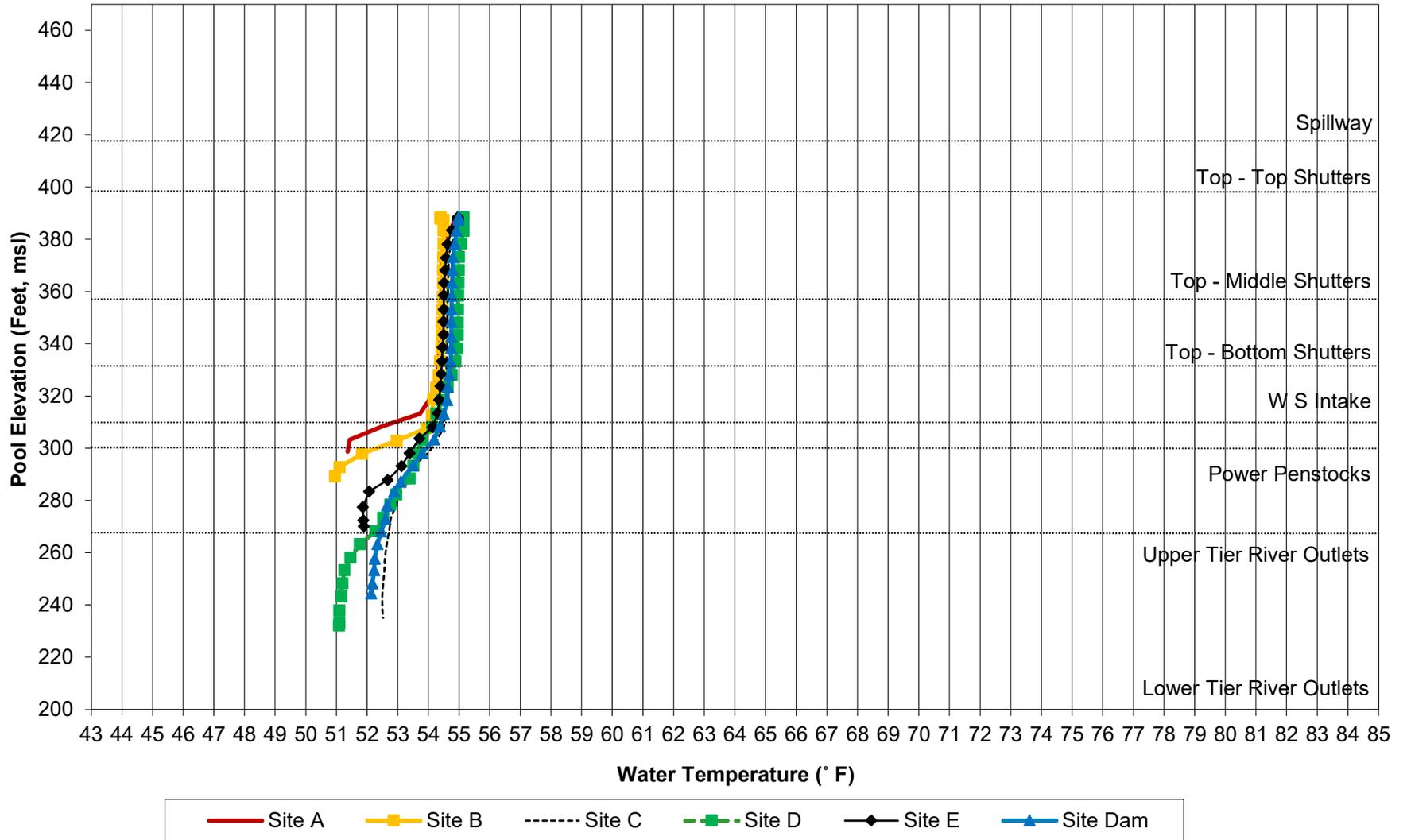
CVP operational forecasts or outlooks consider general system-wide dynamics and do not necessarily address specific watershed/tributary details.

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: 10-Dec-2020



January Flow Reduction

Summary of Current Ops:

- 2017 FMS MRR suggest 725 cfs for Dec and January
- Currently inflows are < 90% exceedance
- Current release 1,250 cfs
 - Flows higher than MRR due to the deciding to keep flows up for Fall Run
 - Oct flows were 1,250 cfs for temperature mgt and provide more spawning area for Full Run

Concerns/Issue for January Reduction:

- Dry year so far, low storage forecast, possible minimal cold water pool this season
- Two competing species Fall Run and Steelhead

FALL RUN

- **1,185 CFS (JAN MRR) TO AVOID DEWATERING**
- **HIGH FLOWS = LOW STORAGE**
- **LESS COLD WATER POOL FOR THIS SEASON**

STEELHEAD

- **LOWER FLOWS TO AVOID DEWATERING IF CONDITION CONTINUES TO STAY DRY**
- **LOWER FLOWS = HIGHER STORAGE**
- **MORE COLD WATER POOL FOR THIS SEASON**

Reduction proposals:

1. 1,185 cfs – Jan MRR estimated calculation based on the December SRI
If 7,800 TAF SRI \leq 11,500 TAF, then $MRR = .2568 * SRI - 1,203$
December SRI = 9,300 TAF
Dec SRI = 9,300 $MRR = (.2468 * 9,300 - 1203) = 1,185$ cfs
2. .5' reduction in the river. This will have minimal impact on REDDS and a possible good balance for this seasons' cold water pool
3. A lower flow that will have a 10% loss of REDDS to provide a good lower flow for Steelhead

***** Goal is to provide a balance release to both best benefit Fall Run REDDS and Steelhead spawning, at the same time to not jeopardizing this seasons' cold water pool**