Restoration Administrator Flow Recommendation

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CC: Michael Jackson, Rufino Gonzalez, Gary Bobker, Steve Ottemoeller, Ian Buck-Macleod, TAC, FWC
Date: May 22, 2024
From: Tom Johnson, Restoration Administrator
Subject: Updated Recommendation for 2024 Restoration Flows — DRAFT

The following is a Restoration Flow Recommendation (Recommendation) by the Restoration Administrator (RA) for the 2024 Restoration Year Flows pursuant to the Restoration Flow Guidelines (RFG) Ver. 2.1, as amended, and Exhibit B of the Settlement.

Background

The SJRRP has issued a Final 2024 Restoration Allocation (Allocation) dated May 17, 2024, which designates 2024 as a **Normal-Wet** Water Year Type with an Unimpaired Inflow hybrid forecast of 1,776 thousand acre-feet (TAF) and provides an allocation of Restoration Flows of 329.026 TAF as measured at Gravelly Ford (GRF) based on the 50% exceedance forecast. The Allocation also specified certain contractual and operational constraints on Restoration Flow releases for 2024. Recently relieved seepage constraints in Reach 4A have increased the target for GRF and SDP to about 650 cubic feet per second (cfs) and 500 cfs of Restoration Flows, respectively. This Recommendation accommodates those changed seepage limitations.

At this time, Reclamation has declared Uncontrolled Season, and forecasts show the potential for Uncontrolled Season actions into early June. For approximately two weeks, flood control releases via the spillway increased flows in the SJR above Restoration Flows plus Holding Contract flows, and those flood control flows may remain for a few days further.

Recommendation for 2024 Restoration Year

At this time, I am recommending a flow schedule for the balance of the 2024 Restoration Year as shown in Table 1, and as follows:

1. Since the cessation of flood control releases from the spillway and river outlet, releases from Friant Dam have been steady at 370 cfs, which is an estimate of the steady state flow that will include Restoration Flows of 180 cfs plus Friant riparian releases of 190 cfs once flood control releases have passed down the river. Restoration Flows through May 28 should not fall below 180 cfs (175 cfs of Restoration Flows plus 5 cfs) at GRF.
2. Buffer Flows plus URF Exchanges are utilized from May 29 through October 31, 2024, to maintain a connected river (targeting at least 60 cfs at EBM); after October 31, base flows releases will result in flows greater than 70 cfs at EBM. This Recommendation does not utilize shifted spring flexible flows.

3. Pursuant to Paragraphs 13(a) and 18, plus Exhibit B of the Settlement, and Section 9 of Version 2.1 of the Restoration Flow Guidelines, buffer flows are recommended for May 29 through November with the following deployment:
    a. Buffer Flows of 15 cfs (approx. 9% of Restoration Flows) during May 29 through May 31.
    b. Buffer Flows of 10% of Restoration Flow releases during June through August (i.e. fixed Buffer Flows).
    c. Buffer Flows of 10% of Restoration Flow releases during September through October. In addition, flexibly deploy November buffer flows in September.
    d. Buffer Flows of 10% of Restoration Flow releases during November. This will net up to 1350 AF of buffer flows, of which 952 AF are additionally deployed in September.
4. A total of 8,700 acre-feet of exchanges are called upon for the June 1 – September 30 period.
5. Deploys a combination of base flows and Fall Pulse flows in November and December to facilitate a science experiment in the river. The fall pulse will likely be deployed in two parts in November and December
6. Resumes Exhibit B base flows from January 1, 2024, through February 28, 2025

This Recommendation is intended to a) release the maximum possible volume of Restoration Flows down the river, as limited by seepage and cold pool considerations and b) keep the river connected for the entirety of the year.

No recapture other than de-minimus amounts are planned in the Restoration Area. All Restoration Flow releases are to flow through the entirety of the Restoration Area. If there are operational or other constraints that preclude Restoration Flows traveling the entire length of the Restoration Area, the Restoration Recommendation will be adjusted to reduce Restoration Flow releases to the level of the controlling operational constraint.

Table 1 provides a summary of the Restoration Flow Recommendations for May 22, 2024, through February 28, 2025

Additional Elements of this Recommendation

This Recommendation anticipates the release of 178 TAF of Restoration Flows to the river, leaving approximately 150 TAF as Unreleased Restoration Flows (URF's), depending on Restoration Flow utilization during the May pulse. 135 TAF net (141.947 gross) of URF's have been released; leaving approximately 8.7 TAF (gross) of URF's to be released. *All URF's are released immediately for disposition.*

Depending on changing hydrologic conditions, I will adjust or revise this recommendation as necessary.

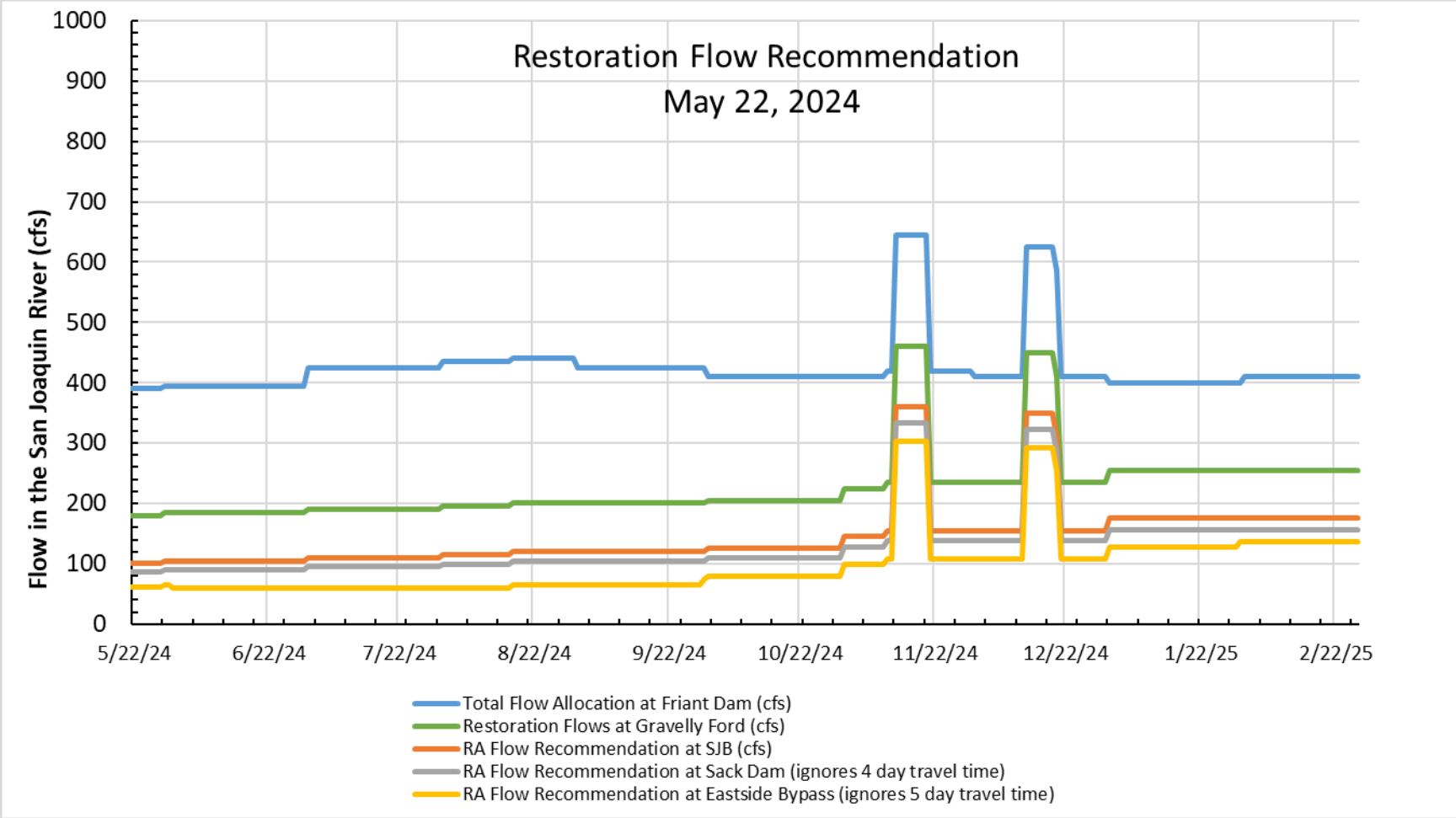
Additional Consultation

I will continue to coordinate with the TAC, Program Office, and Implementing Agencies to monitor hydrologic conditions, fish population conditions, uncontrolled season releases, operational conditions, and other factors, and will update the Restoration Flow Recommendation as conditions change.

Table 1. Summary of Restoration Flow Recommendations for May 22, 2024, through February 28, 2025.

Restoration Flow Period	Date Range	Friant Release (Estimate Varies Due to Holding Contracts)	Buffer Flows Utilized (Flexible + Base)	URF Exchange Release	Restoration Flows at Gravelly Ford	Total Rest. Flows (Rest Flow + Buffer + Exchange)	Total Flow at Gravelly Ford [1]	Target Restoration Flow at Sack Dam (estimate) [2]
2024 Spring Flexible Flow Period [3]	From 05/22/2024	Not less than 370 cfs	0 cfs	0 cfs	Not less than 175 cfs	Not less than 175 cfs	Not less than 180 cfs	As occurs
Base Flow + Buffer Flows	05/29/2024 to 05/31/2024	As necessary, estimate 370 – 430 cfs	10 cfs	0 cfs	165 cfs	175 cfs	180 cfs	90 cfs
	06/01/2024 to 06/30/2024	As necessary, estimate 395 – 450 cfs	10% of Rest. Flows = 16 cfs/day	4 cfs/day	160 cfs	180 cfs	185 cfs	90 cfs
	07/01/2024 to 07/31/2024	As necessary, estimate 415 – 465 cfs	10% of Rest. Flows = 12 cfs/day	53 cfs/day	120 cfs	185 cfs	190 cfs	95 cfs
Base Flow + Buffer Flows	08/01/2024 to 08/16/2024	As necessary, estimate 415 – 465 cfs	10% of Rest. Flows = 12 cfs/day	58 cfs/day	120 cfs	190 cfs	195 cfs	100 cfs
	08/17/2024 to 08/31/2024	As necessary, estimate 415 – 465 cfs	10% of Rest. Flows = 12 cfs/day	63 cfs/day	120 cfs	195 cfs	200 cfs	100 cfs
	09/01/2024 to 09/30/2024	As necessary, estimate 415 – 465 cfs	10% of Rest. Flows + 16 cfs flex = 30 cfs/day	25 cfs	140 cfs	195 cfs	200 cfs	100 cfs
	10.01/2024 to 10/31/2024	As necessary, estimate 395 – 450 cfs	10 cfs, balance = flex release Sept.	0 cfs	190 cfs	200 cfs	205 cfs	110 cfs
Base Flows + Fall Pulse	11/01/2024 to 12/31/2024	As necessary, estimate 410 – 475 cfs	0 cfs, balance = flex release Sept.	0 cfs	230 cfs	230 cfs	235 cfs	110 to 130 cfs
	To Be Determined, estimate 11/13/2024 and 12/13/2024	Two pulses of 650 cfs for 8 days	0 cfs	0 cfs	As occurs, up to 455 cfs	As occurs, up to 455 cfs	As occurs, up to 460 cfs	As occurs, up to 320 cfs
Base Flows	01/01/2025 to 02/28/2025	As necessary, estimate 410 – 475 cfs	0 cfs	0 cfs	250 cfs	250 cfs	255 cfs	160 cfs

[1] Total Flow includes the minimum Holding Contract flows of 5 cfs required at Gravelly Ford
[2] Flows in the Eastside Bypass (EBM) should always remain above 60 cfs
[3] March 1 through May 28 flows are as per Flexible Flow period rules, see RFG 2.1, Sec 4.1.2
[5] Exchange Flows in September or October until Exchange is fulfilled
[6] Shift of Fall Flexible Flow is per Exhibit B, 4(d), see RFG 2.1, Sec 4.1.5


Restoration Flow Recommendation
May 22, 2024
Flow in the San Joaquin River (cfs)
1000
900
800
700
600
500
400
300
200
100
0
5/22/24
6/22/24
7/22/24
8/22/24
9/22/24
10/22/24
11/22/24
12/22/24
1/22/25
2/22/25
Total Flow Allocation at Friant Dam (cfs)
Restoration Flows at Gravelly Ford (cfs)
RA Flow Recommendation at SJB (cfs)
RA Flow Recommendation at Sack Dam (ignores 4 day travel time)
RA Flow Recommendation at Eastside Bypass (ignores 5 day travel time)

Summary Volumes

Gravelly Ford Flows Available Versus RA Recommendation	Available	Used	Balance
Total GRF River Flow Target without 5 cfs (March 1, 2024 to February 28, 2025)	355.428 TAF	191.996 TAF	163.432 TAF
Restoration Allocation Flos	**329.026 TAF**	**178.380 TAF**	**150.646 TAF**
Exchange Flow	8.700 TAF	8.700 TAF	**0.000 TAF**
Buffer Flows	17,702 TAF	4.917 TAF	**12.785 TAF**
	URF's Disposed of as of	**05/22/2024**	141.947
	Use Buffer Flows? Yes	**Net Alloc Remainder**	**8.699.TAF**

BUFFER FLOWS (Volumes per RFG V2.1 Section 9.3)	Avalable	Used	Balance
Cumulative FLEXIBLE Buffer Flows May 1 to September 30 =	5.000 TAF	0.000 TAF	
Cumulative FIX + FLEXIBLE Buffer Flows May 1 to September 30 =	10.621 TAF	2.428 TAF	
Cumulative Buffer Flows October 1 to December 31 (Flex==>September 3 to January 28) =	7.081 TAF	2.340 TAF	
Total Buffer Flows =	17.702 TAF	4.917 TAF	

Accounts Summary at

Gravelly Ford, this Restoration Year	Available	Used	Balance
Continuity (Baseflows):	136.443 TAF	136.443 TAF	0.00000 TAF
Spring Flexible Flows:	**185.641 TAF**	**35.004 TAF**	
Fall Flexible Flows:	6.942 TAF	6.902 TAF	
Riparian Recruitment Flows:	0.000 TAF	0.000 TAF	0.000 TAF
Extra Summer Flow (Water Supply Test):	0.000 TAF		
URF Exchanges Scheduled:	8.700 TAF	8.700 TAF	
Buffer Flows:	17.702 TAF	4.917 TAF	
Last Year Feb Flows:	0.000 TAF	0.000 TAF	0.000 TAF