Restoration Administrator Flow Recommendation

To: Don Portz, Chad Moore, Emily Thomas, Adam Nickel

CC: Michael Jackson, Rufino Gonzalez, Doug Obegi, Steve Ottemoeller, Ian Buck-Macleod,

TAC

Date: April 28, 2020

From: Tom Johnson, Restoration Administrator

Subject: Updated Recommendation for 2020 Restoration Flows

The following is an updated Flow Recommendation by the Restoration Administrator (RA) for remaining 2020 Restoration Flows pursuant to the January 2020 Restoration Flow Guidelines (RFG), as amended, and Exhibit B of the Settlement.

Background

The current conditionally approved Restoration Flow Recommendation (Recommendation) for 2020 is dated April 17, 2020 based on the Restoration Allocation (Allocation) from Reclamation dated April 14, 2020, which designates 2020 currently as a **Dry** Water Year Type with an Unimpaired Inflow hybrid forecast of 920 thousand acre-feet (TAF), and a current allocation of Restoration Flows of 211.123 TAF as measured at Gravelly Ford. The Allocation also specifies certain contractual and operational constraints on Restoration Flow releases for 2020.

Since the April 14, 2020 Allocation, additional forecast information plus the ASO flight data has improved the runoff forecast certainty. This updated Recommendation is in response this to evolving runoff forecast information.

Additional Considerations

At this juncture, it appears that a substantial block of URF's will be generated, even if the balance of the runoff year returns to a dryer condition. Thus, I feel confident in releasing an initial block of URF's for disposition by the Program.

Additionally, as of today, a total of 16 returning spring-run Chinook salmon have been captured (primarily at the East Side Bypass control structure) and transported to Reach 1 of the Restoration Area. Despite high (for Chinook salmon) water temperatures, it is possible that additional spring-run adults may be moving into the Restoration Area.

As was the case earlier this year, key current seepage constraints that limit flows in the river channel include a limit of 850 cfs in Reach 3 (inclusive of both Restoration Flows and deliveries to Henry Miller Reclamation District), and an estimated total flow limit of about 290 cfs in Reach 4A.

Recommendation for the Balance of Restoration Year 2020

At this time, I am recommending an updated flow schedule for the balance of the year as shown in **Table 1** (changes from the previous Recommendation are in red). I am recommending the increase of flows through the month of May to facilitate additional spring-run adult returns, and slightly increasing the recommended flows in July – September to provide cooler water temperatures in Reach 1.

With the current Allocation, this Recommendation produces approximately 58,000 acre-feet of Unreleased Restoration Flows (URF's, actual amount depending on current accounting of Restoration Flow releases to date). I am recommending the immediate release of 40 TAF of URF's for disposition by the Program. I will continue to hold back some URF's from sale until at least the May Allocation if drier conditions return and substantially lower Allocation.

Table 1. Summary of Restoration Flow Recommendations for April 16, 2020 through February 28, 2021.

Date Range	Friant Release	Buffer Flow Release	Restoration Flows at Gravelly Ford	Total Flow at Gravelly Ford*	Target Flow at Sack Dam
April 16 through April 29, 2020	As necessary	0 cfs	200 cfs	205 cfs	119 cfs
April 29 through May 28, 2020	As necessary	0 cfs	290 cfs	295 cfs	195 cfs
May 29 through June 30, 2020	As necessary	0 cfs	190 cfs	195 cfs	100 cfs
July 1 through July 31, 2020	As necessary	0 cfs	195 cfs	200 cfs	95 cfs
August 1 through September 30, 2020	As necessary	0 cfs	200 cfs	205 cfs	95 cfs
October 1 through October 31, 2020	As necessary	0 cfs	195 cfs	200 cfs	95 cfs
November 1 through November 20, 2020	As necessary, est. at 520 cfs	0 cfs	390 cfs	395 cfs	290 cfs
November 21 through December 31, 2020	Minimum of 350 cfs	0 cfs	230 cfs	235cfs	138 cfs
January 1, 2021 through February 28, 2021	Minimum of 350 cfs	O cfs	250 cfs	255 cfs	166 cfs

^{*}Total Flow includes the minimum Holding Contract flows of 5 cfs required at Gravelly Ford

Figures 1 and 2 below show the anticipated Flow Recommendation for this year at key locations in the Restoration Area.

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.

Figure 1 2020 Restoration Flows, First Half of Year

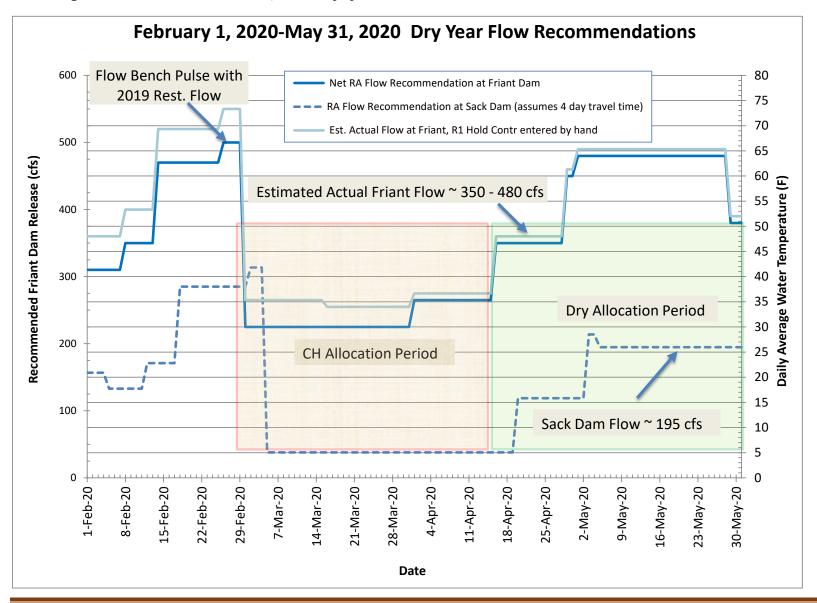


Figure 2 2020 Restoration Flows, Second Half of Year

