

Restoration Administrator Flow Recommendation

To: Michael Mitchener
CC: Apurba Borah, Alicia Forsythe, Peter Vorster, Steve Ottemoeller, TAC
Date: October 22, 2013
From: Tom Johnson, Restoration Administrator
Subject: Recommendations for Fall 2013 Flows

The following is a recommendation by the Restoration Administrator (RA) for the fall 2013 flow pulse, pursuant to Section xxx of the Settlement.

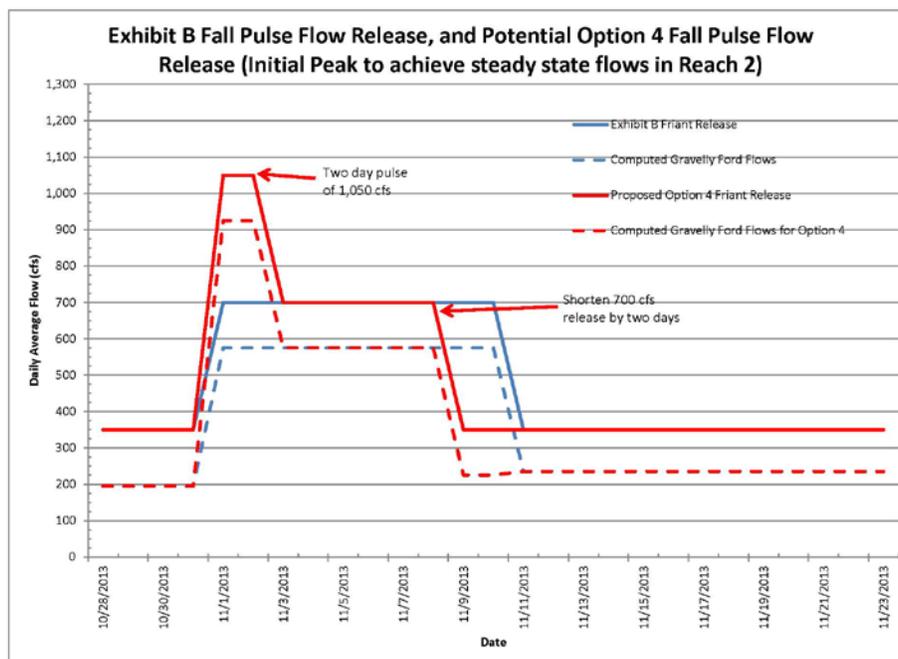
Attached to this memorandum is the presentation that was shared with the Paragraph 13(j)(i) Flow Forecasting Workgroup Meeting on October 10, 2013. The attachment provides additional background on the rationale for the recommendation.

Recommendation

The RA is recommending the following:

- Ramp up from base flows commencing noon on or around Oct 29 (up to two days earlier or later would be acceptable).
- Ramp up to 1050 cfs release at Friant Dam for two days.
- Ramp down to 700 cfs at Friant Dam for six days.
- Ramp down to base flows.

This release pattern is shown graphically below:

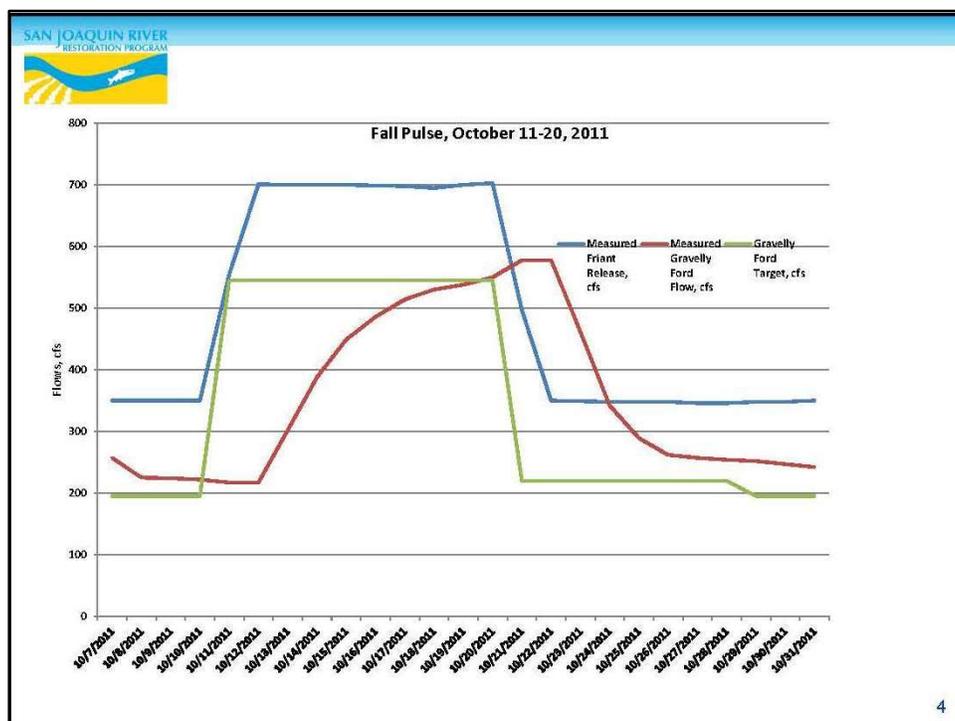


Rationale

Based on the review of the performance of the 2011 and 2012 flow releases undertaken by Reclamation and shared with the RA on September 26th of this year, it appears that the flow response at Gravelly Ford (GRF) to a 700 cfs release at Friant Dam is highly attenuated, resulting in a delayed and diffuse fall pulse flow at GRF. There are many salmonids biological responses that are cued by rapid flow changes or pulses; it is important to understand the ability of the San Joaquin system to send those cues. This year's fall pulse release pattern is designed to test the ability of the system to provide an incisive flow cue at GRF. This year's pulse will utilize the same total release volume the past two years (as stipulated in Exhibit B of the Settlement); the timing and magnitude of the release will be different.

Examples of previous and anticipated channel response are provided below.

Channel Response, 2011 pulse:



Anticipated Channel Response, 2013 pulse from HEC-RAS model:

