RA INTERIM FLOW PROGRAM RECOMMENDATIONS: Updated and Revised May 10, 2013

Background

On May 9, I received a new Allocation and Default Flow Schedule (Allocation) from Reclamation that was based on the May 1 DWR Bulletin 120 update. The new Allocation is intended to be effective May 9, 2013. The May 1 Allocation results in a change to a Critical Water Year designation, and reduces the 90% unimpaired runoff forecast to 665 thousand acre feet (TAF) at Millerton Lake, a decrease of 45 TAF from the 710 TAF runoff forecast in the April 1 Reclamation Allocation.

In response to Reclamation's updated May 8 Allocation and consistent with the procedures set forth in the Restoration Flow Guidelines (RFG), I am transmitting the following updated RA Interim Flow Schedule recommendations for review and action by Reclamation. My revised recommendations reflect discussions with Reclamation staff concerning errors in my original May 9 recommendation relating to calculating remaining Interim Flow volumes. My misunderstandings are corrected in the following recommendations.

Factors Considered by the RA in Preparing this Updated Interim Flow Program Recommendation

The Restoration Allocation I received on May 9 is intended to be effective on May 9. Because of the urgent Reclamation need for my recommendations, I was not able to conduct the normal level of consultation with the TAC and other agencies following the May 9 conference call convened by Reclamation. The May 9 conference call included Reclamation staff and representatives of Friant, NRDC, USFWS, and the RA.

Based on our discussion during the May 9 conference call, it appears that most of the participants agree that it likely that, given the best available information, the Water Year determination will return to a Dry Water year determination in the near future. Factors supporting this expectation include the amount of inflow already received by Millerton (571.9 TAF), forecasted precipitation and runoff, and the minimal shortfall in the current 90 percent forecast to achieve the Dry Water Year runoff threshold of 670 TAF. My recommendations reflect the likelihood that the current Critical High Water Year determination will be revised again in the near future by Reclamation to result in a Dry Water Year determination.

The Default Flow Schedule

The Default Flow Schedule transmitted to me by Reclamation (see Table 1 – Reclamation Default Flow Schedule) provides for a reduction in Interim Flow releases from Friant Dam from the current 275 cfs to 215 cfs, starting today and continuing through June 30, 2013. Based on the discussion during our May 9 conference call, Reclamation made it clear that it understood that the proposed Default Flow Schedule recognized the current potential for over-allocation of Interim Flows during the Spring Flexible Flow period if the current water year continues to be a Critical High year.

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As noted in the May 9 Allocation and Default Flow Schedule transmitted by Reclamation, the change from a Dry Water Year determination to a Critical High Water Year forecast resulted in an extra volume of 9,895 acre-feet already released during the Spring Flexible Flow Period.

Table 1—Reclamation Default Flow Schedule

Date	Flow
Mar 1 – Mar 21	350 cfs
Mar 22 –Mar 27	650 cfs
Mar 28 – Apr 3	600 cfs
Apr 4 – Apr 11	700 cfs
Apr 12 – Apr 30	1,060 cfs
May 1 – May 1	900 cfs
May 2 – May 2	700 cfs
May 3 – May 3	500 cfs
May 4 – May 4	350 cfs
May 5 –May 8	275 cfs
May 9 – May 28	215 cfs
May 29 – Jun 30	215 cfs
Jul 1 – Aug 31	255 cfs
Sep 1 –Sep 30	260 cfs
Oct 1 – Oct 31	160 cfs
Nov 1 – Nov 6	400 cfs
Nov 7 – Dec 31	120 cfs
Jan 1 – Feb 28	110 cfs

Source: May 1 Reclamation Allocation and Default Flow Schedule

RA Flow Schedule Recommendation: April 30, 2013 through February 28, 2014

My updated and revised Interim Flow recommendations are set forth in Table 2 (RA Recommended Flow Schedule) and Figure 1 (RA Recommended Spring 2013 Interim Flow Release Recommendations for a Critical High Year) and Figure 2 (RA Recommended 2013 Interim Flow Hydrograph (May 9, 2013 through February 28, 2014). I recommend the following flow schedule flow schedule steps, starting today and continuing through February 28, 2014:

- Commencing today, May 9, 2013, and continuing through May 16, maintain the current releases from Friant Dam at 275 cfs;
- Commencing May 16 reduce Interim Flow releases from Friant Dam to 215 cfs and continue at 215 cfs until July 1;
- Commencing July 1 increase flow releases from Friant Dam to 255 cfs and continue at 255 cfs until September1;

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- Commencing September 1 decrease flow releases from Friant Dam to 245 cfs and continue the 245 cfs flow releases until October 1;
- Commencing October 1 reduce flow releases from Friant Dam to 160 cfs and continue the 160 flow releases at 160 cfs until November 1;
- Commencing November 1 increase flow releases from Friant Dam to 400 cfs and continue at 400 cfs until November 7;
- Commencing November 7 reduce flow releases from Friant Dam to 120 cfs and continue at 120 cfs until January 1, 2014;
- Commencing January 1, 2014, reduce flow releases from Friant Dam to 110 cfs and continue at 110 cfs until March 1, 2014.

My recommended Interim Flow Schedule would result in an annual Interim Flow use consistent with the allocation for a Critical High water year beginning May 9. My flow schedule recommendation assumes that Reclamation will be using the next weekly DWR forecast (expected by May 14) to determine whether another updated Allocation and Default Flow Schedule is needed. My recommended flow schedule (Table 2) would result in the need to borrow about 833 acre-feet from the default hydrograph baseflows during September to sustain the 275 cfs flow releases between now and May 16, giving Reclamation time to review the next expected DWR weekly update.

In order to avoid borrowing water from the September baseflows, I would need to end the 275 cfs releases from Friant Dam on May 14, probably a day or two before Reclamation could review and act on the next DWR weekly update. Given the limited amount of water that would need to be borrowed from the summer baseflows and the likelihood that the updated DWR information will support a return to a Dry Water Year forecast, the prudent course would be to maintain the 275 cfs flow releases for the two extra days until the next DWR weekly forecast, expected by May 16. Extending the 275 cfs flows also would avoid the potential need to prematurely change the flow releases from Friant Dam, and extend the benefits (although marginal) to fishery monitoring activities that are being wrapped up following release of fall run Chinook salmon in Reach 1 during April.

Thank you for your consideration of my recommended Flow Schedule.

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Table 2—RA Recommended Flow Schedule

Begin Date	End Date	Recommended Friant Dam Release (cfs)	Exhibit B Riparian Release (cfs)	Gravelly Ford Flow Target (cfs)	Gravelly Ford Flow Allocation (cfs)	Estimated Flows Entering Mendota Pool (cfs)
3/1/13	3/22/13	350	130	225	220	145
3/22/13	3/28/13	650	130	525	520	425
3/28/13	4/1/13	600	130	475	470	375
4/1/13	4/4/13	600	150	455	450	355
4/4/13	4/12/13	700	150	555	550	455
4/12/13	5/1/13	1,060	150	915	910	806
5/1/13	5/2/13	900	190	715	710	615
5/2/13	5/3/13	700	190	515	510	415
5/3/13	5/4/13	500	190	315	310	225
5/4/13	5/5/13	350	190	165	160	85
5/5/13	5/16/13	275	190	90	85	10
5/16/13	5/29/13	215	190	30	25	0
5/29/13	7/1/13	215	190	30	25	0
7/1/13	9/1/13	255	230	30	25	0
9/1/13	10/1/13	245	210	40	35	0
10/1/13	11/1/13	160	160	5	0	0
11/1/13	11/7/13	400	130	275	270	195
11/7/13	1/1/14	120	120	5	0	0
1/1/14	3/1/14	110	100	15	10	0
Totals (TAF):		**198.674**	**116.866**	**85.428**	**81.808**	**58.985**

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Figure – R Recommended Spring 2013 Interim Flow Release Recommendations for a Critical-High Year

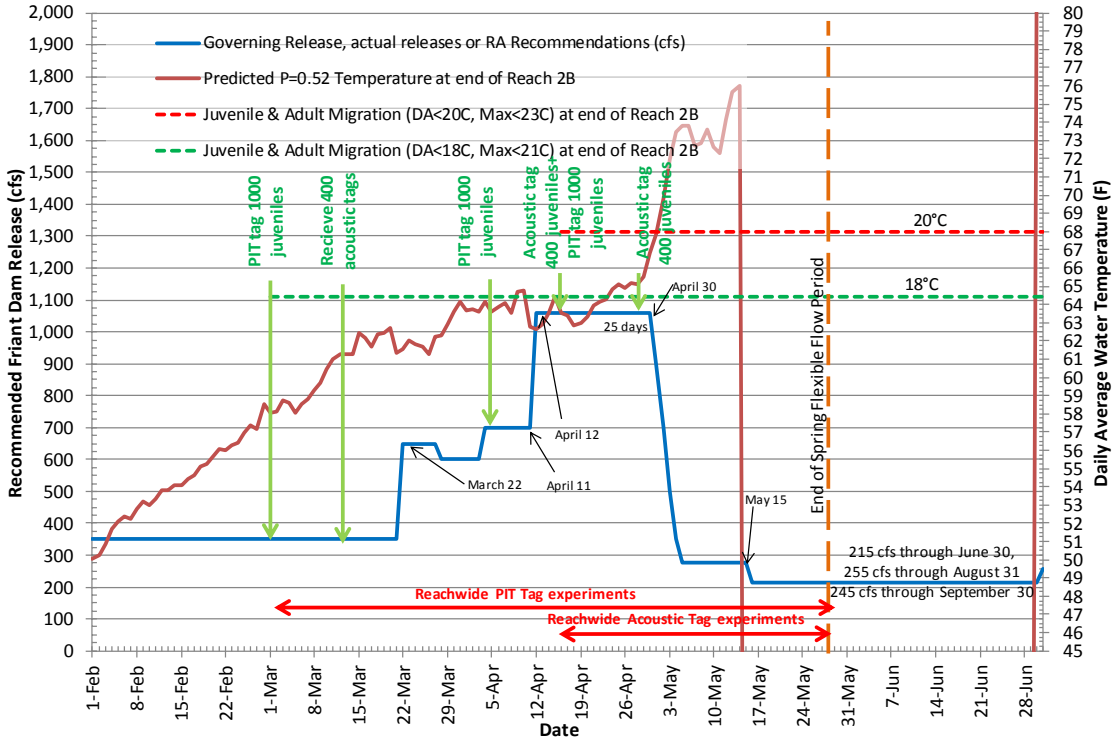
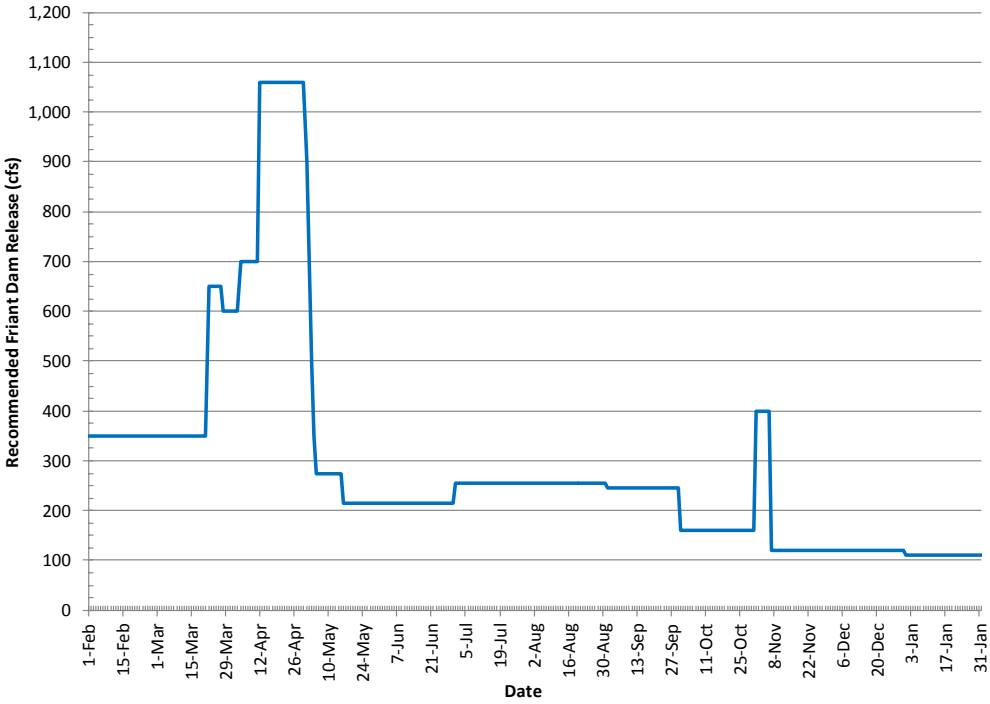


Figure – R Recommended 2013 Interim Flow Hydrograph (May 9, 2013 through February 28, 2014)



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