

Memorandum

Date: June 12, 2014

To: Ms. Barbara Evoy, Deputy Director
Division of Water Rights
State Water Resources Control Board
P.O Box 2000
Sacramento, CA 95812-200

From: **NEIL MANJI**, Regional Manager 
Region 1 – Northern

Subject: **Justification for a June Pulse Flow to Aid Adult Spring-run Chinook Salmon Migration, and Reduction of Base Flow Below Stanford Vina Irrigation Company Dam on June 14, 2014, at 12:00 pm**

Combined irrigation diversions by Deer Creek Irrigation Company and Stanford Vina Irrigation Company (SVRIC) are resulting in insufficient flows in the lower five miles of Deer Creek between SVRIC Dam and the confluence of the Sacramento River, to attract Central Valley spring-run Chinook salmon (spring-run), and transport them past critical riffles and diversion structures. The Deer Creek pulse flow scheduled to begin June 12, 2014, at 5:00 pm and end on June 14, 2014, at 12:00 pm (June pulse flow), will remedy this situation.

A pulse flow will mimic the sudden increase in base flows following a snow-melt or rain event. This will attract adult spring-run potentially holding in lower Deer Creek and/or the Sacramento River near the confluence, allow them to transit shallow riffles and diversion structures, and help move juvenile salmonids downstream. In addition, the June pulse flow will help reduce high water temperatures downstream of SVRIC Dam in Deer Creek, which present an impediment to anadromous fish migration. The California Department of Fish and Wildlife (Department) has a history of coordinating voluntary pulse flow events with the Los Molinos Mutual Water Company on Mill Creek during critically low flow periods. These pulse flow events have been successful in attracting adult spring-run into upper Mill Creek. The Department expects similar results from the June pulse flow event in Deer Creek. The Department will monitor adult spring-run passage using video equipment installed at the exits of the north and south fish ladders at SVRIC Dam.

The Department is supportive of reducing the minimum base flow requirement below SVRIC Dam from 50 cfs to 20 cfs following termination of the pulse flow. Drought conditions in 2014 have resulted in uncharacteristically low pre-diversion flows and high water temperatures in Deer Creek. These conditions may no longer support

Ms. Barbara Evoy

June 12, 2014

Page 2

adult spring-run migration following the June pulse flow. Juvenile salmonids require a lower volume of water to pass shallow riffles and diversion structures, therefore the 20 cfs base flow is supportive and should be maintained through June 30, 2014, or until it is determined by the Department that juveniles are no longer present in the lower reaches of Deer Creek.

Thank you for your time. If you have any questions, please contact Northern Region Fisheries Program Manager Curtis Milliron at (530) 225-2280.

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