UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, California 95814-4700

MAY 1 2017

Ron Milligan
Operations Manager
U.S. Bureau of Reclamation
Central Valley Operations Office
3310 El Camino Avenue, Room 300
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Re: **Clarification of Flood Condition Offramp** in the San Joaquin River Inflow-to-Export Ratio (Reasonable and Prudent Alternative Action IV.2.1) of the National Marine Fisheries Service's 2009 Biological and Conference Opinion on the Long-term Operation of the Central Valley Project and State Water Project

Dear Mr. Milligan:

This letter clarifies the flood condition offramp for San Joaquin River inflow-to-export (I:E) ratio, Phase II, of reasonable and prudent alternative (RPA) Action IV.2.1 of NOAA's National Marine Fisheries Service's (NMFS) 2009 biological and conference opinion on the long-term operation of the Central Valley Project (CVP) and State Water Project (SWP, NMFS 2009 BiOp). Action IV.2.1 limits combined CVP/SWP exports to a level consistent with the San Joaquin River I:E ratio (based on the San Joaquin Valley Water Year Index), or to the minimum health and safety export level of 1,500 cfs, whichever is greater. Implementation of Phase II of RPA Action IV.2.1[1] includes a flood condition offramp, that is, when "Vernalis flow equal to or greater than 21,750 cfs," the associated action response is "Unrestricted exports until flood recedes below 21,750."

NMFS intends the flood condition offramp in Phase II implementation of Action IV.2.1 to be satisfied whenever the mean daily stage at Vernalis exceeds the flood monitor stage of 24.5 feet. The Vernalis flow associated with a stage of 24.5 feet is determined by the rating curve. The enclosure provides RPA Action IV.2.1, Phase II, with track changes identifying the above clarifications. Under the current rating curve[2] (last adjusted on April 18, 2017), the flow associated with the flood monitor stage[3] of 24.5 feet is 20,625 cfs.

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[1] The 2009 RPA with 2011 amendments is available online at: http://www.westcoast.fisheries.noaa.gov/central_valley/water_operations/ocap.html.
[2] https://waterdata.usgs.gov/nwisweb/get_ratings?site_no=11303500&file_type=exsa
[3] http://cdec.water.ca.gov/guidance_plots/VNS_gp.html

If you have any questions regarding this letter, please contact me at (916) 930-3623, or contact Garwin Yip at (916) 930-3611, or garwin.yip@noaa.gov.

Sincerely,

Maria Rea

Maria Rea
Assistant Regional Administrator

Enclosure

cc: California Central Valley Office
Division Chron File: ARN 151422-SWR2006-SA00268

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2) The rationale for the export curtailments is provided in the rationale for Phase II.

3) The SWRCB has initiated proceedings to establish minimum flows in the San Joaquin River basin. The proceedings are scheduled to conclude in 2011. Flow requirements for fish will be provided by this action in the interim.

Phase II: Beginning in 2012:

From April 1 through May 31:

1. Reclamation shall continue to implement the Goodwin flow schedule for the Stanislaus River prescribed in Action III.1.3 and Appendix 2-E.

2. Reclamation and DWR shall implement the Vernalis flow-to-combined export ratios in the following table, based on a 14-day running average.

San Joaquin Valley Classification	Vernalis flow (cfs):CVP/SWP combined export ratio[11]
Critically dry	1:1
Dry	2:1
Below normal	3:1
Above normal	4:1
Wet	4:1
Vernalis stage equal to or greater than the flood warning stage of 24.5 feet at Vernalis	Unrestricted exports[12]

Exception procedure for multiple dry years: If the previous 2 years plus current year of San Joaquin Valley "60-20-20" Water Year Hydrologic Classification and Indicator as defined in D-1641 and provided in following table, is 6 or less, AND the New Melones Index is less than 1 MAF, exports shall be limited to a 1:1 ratio with San Joaquin River inflow, as measured at Vernalis.

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[11] Minimum combined CVP and SWP exports is for health and safety.

[12] Exception to the ratio is provided for floods, where exports are not restricted until the flood recedes to below the flood warning stage (referred to as "monitor" stage on the CDEC river guidance plot: http://cdec.water.ca.gov/guidance_plots/VNS_gp.html) of 24.5 feet at Vernalis (measured at USGS gage 11303500). The Vernalis flow associated with a stage of 24.5 feet may change with updates to the rating curve. (https://waterdata.usgs.gov/nwisweb/get_ratings?site_no=11303500&file_type=exsa). For example, on April 19, 2017, the flow associated with the flood monitor stage of 24.5 feet was 20,625 cfs.