

M e m o r a n d u m

Date : June 26, 2001

To : Management Agencies

Project Agencies

From : Department of Water Resources

Subject:

Fish Action #6: February 27-28; March 1-5; March 7-9; and March 10-11, 2001Description of Action

The daily loss of winter-run length chinook salmon exceeded the yellow Light limit on February 25 by 796 for a cumulative total of 4,498. Winter-run densities increased to 43.2 fish/TAF and 47 fish/TAF at the SWP and CVP, respectively. Fish densities were the highest reported at the facilities in the last eight years. At the current rate of loss, the red light level would be reached by March 12. On March 5, the red light level (7,404) was exceeded with a combined loss of 7,718 and the Bureau of Reclamation reinitiated consultation on behalf of itself and the Department of Water Resources. Daily loss continued to increase at an unprecedented rate despite export curtailments at the SWP facilities during the first two weeks of March. Winter-run density at the SWP reached a record high of 143.5 fish/TAF on March 9, and the daily loss peaked at 1,521 on March 12. After March 12, daily loss significantly declined as the density dropped to less than 10 fish/TAF the following week. Genetic characterization of fish in the winter-run length range indicated that a majority were winter-run chinook. The cumulative total for winter-run length chinook through April 1 was 19,848.

Steelhead salvage was relatively high as well, with a combined salvage of unmarked steelhead ranging from 12 to 100 fish per day between February 22 and February 25 (an average of 36 per day). The total salvage for unmarked steelhead in February was 1,263. Steelhead salvage continued to range between 12 and 84 fish per day at each facility, with a record number of 213 fish per day reported at the SWP on March 11. The total salvage for unmarked steelhead in March was 2,046. The cumulative seasonal total for unmarked steelhead between December 1, 2000 and March 31, 2001 is 3,560.

Delta smelt salvage remained relatively low during this period, ranging up to 230 fish per day on March 4. The 14-day running average was 197, and the cumulative salvage for February was 3,373. The Delta smelt salvage remained under 200 fish per day, generally less than 100 fish per day, with a combined March salvage through March 11 of 1,816.

The Management Agencies requested export reductions for winter-run starting on February 27, from 8,500 cfs to 4,000 cfs for two days and then 5,000 cfs for the next two days. The DAT biologists recommended that this action be taken at the SWP, since most of the chinook loss and a majority of the steelhead and delta smelt losses were occurring there. This export curtailment continued until March 5. Due to the red light level being exceeded on March 5, the NMFS recommended continuing with a curtailment to a combined 5,000 cfs until March 9. At this time, three operational alternatives were recommended to the WOMT by the DAT biologists after the loss of winter-run chinook exceeded the authorized take level. The three alternatives were: 1) the use of JPOD, since the CVP had surplus capacity and most of the losses were occurring on the SWP side; 2) the CVP using its excess capacity to pump water for the EWA; and 3) reoperation of the CVP's encroached storage into SWP's side of SLR. After a special meeting of the Management Agencies on March 9, it was decided to continue export curtailments through the weekend (March 10 – March 11), even though the March placeholder of 50 TAF for the EWA had been reached. The Management Agencies decided not to use any more EWA water after this point in order to save some assets for Delta smelt later in the year and not to recommend the use of Tier 3 water in this first year of the EWA.

Estimated Cost Of Action

The Department of Water Resources has estimated that these actions could reduce State Water Project exports by approximately 83 TAF. The estimate assumes SWP exports would continue at a level approximately between 7,000 and 8,600 cfs in the base operation. The breakdown is as follows:

February 27 and 28	18 TAF
March 1 through 5	27 TAF
March 7 through 9	26 TAF
March 10 and 11	12 TAF

The actual amount could be either more or less dependent upon the actual operations required to meet Delta Standards. DWR has not performed a cost analysis of the change in operations.

Method Of Accounting For Costs

DWR will provide to the Management Agencies an accounting of the actual water, energy, storage and conveyance costs. The water cost analysis will be provided within thirty days of completing the action and will include a comparison between the actual operation (with the fish action) and a base operation (based upon planned exports). All other costs will be submitted thirty days upon completion of the recovery

actions. Disagreements regarding the analysis are to be discussed within the B2/EWA Interagency Team. Disputes will be reviewed by the Ops Group and, if necessary, elevated to the Water Operations Management Team for final resolution.

B(2)/EWA Assets

The three operational options described above that could have further reduced chinook losses during this period could not be implemented for the following reasons:

Option No. 1: SWRCB did not approve the JPOD request because the request was not consistent with the approved October 6, 2000 Response Plan for Joint Point of Diversion. Six factors had to be in place in order for the JPOD to occur:

<u>Factors</u>	<u>Status</u>
1. The barrier at the Head of Old River could not be in operation.	1. The barrier at the Head of Old River has not yet been installed; therefore it is not in operation.
2. The three temporary south Delta barriers at Middle River, Old River near Tracy and Grant Line Canal are in full operation during the period.	2. The three temporary barriers in the south Delta have not yet been installed; therefore, they are not in operation.
3. The use of joint point will not impair the capability of any and all of the south Delta channels upstream of the barriers to fully fill during flood tides.	3. The capability of any and all of the south Delta channels upstream of the barriers to fully fill would not be impaired by the use of joint point.
4. The total SWP Delta export over the proposed period of use of the JPOD will not be increased.	4. The total SWP Delta export remains constant; therefore an increase did not occur.
5. Measured water levels in the south Delta are deemed adequate.	5. The agricultural diversions in the south Delta are not currently experiencing water level problems
6. Forecasted water levels within the SDWA service area are deemed to be adequate.	6. The computer modeling forecasts adequate water levels for one week and updated weekly forecasts would be performed.

Option No. 2: This alternative is functionally equivalent to Option No. 1 and would require the same issues that remained unresolved related to the use of JPOD be addressed. Consequently, this alternative could not be implemented for the same reasons as Option No. 1.

Option No. 3: The reoperation of the CVP water already in San Luis Reservoir is considered to be the same as a JPOD and the SWRCB would not have approved it.

The Management Agencies have concluded that this may be an EWA action. Therefore, EWA assets may be applied to the export reductions of the SWP. The proposed fish action is not to impact the baseline delivery capability of the SWP. Therefore, DWR is to make operations and water allocation decisions based upon the base operations plan, absent the fish action.

Use of EWA assets to reduce fish impacts in February and March exceeded the EWA placeholders. However, there are adequate EWA assets available to cover both February and March fish actions. The amount of water and the time it becomes available will be determined when DWR submits the final water cost analysis to the Management Agencies.



Carl A. Torgersen, Chief
SWP Operations Control Office
Division of Operations and Maintenance



Chester Bowling, Operations Manager
Central Valley Operations
Bureau of Reclamation

Management Agency Authorization provided by:

Department of Fish and Game – Perry Herrgesell
U.S. Fish and Wildlife Services – Michael Thabault
National Marine Fisheries Services – Michael Aceituno