

**Memorandum**

Date : January 19, 2001

To : Management Agencies

From : Project Agencies  
Department of Water ResourcesSubject: **Fish Action Proposal**Description of Action

Per CALFED Operations Juvenile Salmon Protection Plan, exports may be reduced to approximately 6,000 cfs combined for a five-day period when the Knights Landing or Sacramento Catch Index reaches a value of 10. On Monday, January 15, the Sacramento Index exceeded 10. As a result, the Management Agencies requested a five-day reduction in exports. Also, per the Juvenile Salmon Protection Plan, the Delta Cross Channel gates were closed on Sunday, January 14 because the Sacramento Catch Index was greater than 5 on Saturday. The export reduction to 6,000 cfs is to begin on Wednesday, January 17 and end on Sunday, January 21. This five-day curtailment will be concurrent with a three-day curtailment for a CVPIA experiment described below. Depending on the status of fish movement, as inferred from monitoring results, additional actions may be recommended after January 21.

In addition to requesting the five-day export reduction to 6,000 cfs, U.S. Fish and Wildlife Service is requesting an additional reduction to 3,000 cfs for three of the five days to accommodate the fourth trial of a special fishery study. Radio tagged juvenile salmon (12 to 15 tagged salmon per trial with each fish having a separate radio frequency) will be released in lower Old River and their movements tracked by mobile receivers on jet boats during daylight hours for two to three days following each release. A stationary radio receiver will be mounted at the entrance to Clifton Court Forebay. The study is being conducted under both high and low exports in order to determine the potential effect of net reverse flows in Lower Old River. Two trials were conducted in December with high exports. This week's release will be the second trial carried out under low exports. The first low export trial was completed last week. Instantaneous flow direction, velocity measurements and exact channel locations of individual fish will be made during the tracking. The 3,000 cfs export period is planned to begin in the morning of January 18 and end late afternoon (after 3 p.m.) January 20. If the radio tagged salmon leave the trackable vicinity before three days elapse,

SURNAME

OWR 155 (Rev. 2/85)

*OC Neal* 1/19/01  
F. Titus

*OC Neal* 1/19/01

effectively ending the experiment, the curtailment to 3,000 cfs may end early and exports may return to 6,000 cfs.

Taken together, these two planned actions will result in exports of 3,000 cfs for three days and 6,000 cfs for two days.

#### Estimated Cost Of Action

The Department of Water Resources has estimated that these actions could reduce combined Central Valley Project and State Water Project exports by approximately 48 TAF (about 28 TAF for CVP and 20 TAF for SWP). The estimate assumes exports would continue at a combined level approximately between 8,200 and 10,200 cfs in the base operation. The actual amount could be more if the anticipated weather system, which may move through Northern California early next week, provides sufficient precipitation to the Sacramento Valley, or if the inflows to the Delta do not recede as quickly as anticipated. However, if it does not, then water quality conditions in the Delta may degrade requiring the projects to reduce exports. Or, the actual amount could be less if hydrologic conditions remain dry and higher pumping is achieved following the period of reduction. DWR and the Bureau of Reclamation have not performed a cost analysis of the change in operations.

#### Method Of Accounting For Costs

DWR and Reclamation 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 on 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 elevated to the Water Operations Management Team for final resolution.

#### B(2)/EWA Assets

The Management Agencies have concluded that this may be a joint b(2)/EWA action. Therefore, both b(2) and EWA assets may be applied to the

Management Agencies  
January 19, 2001  
Page 3

export reductions of the CVP and SWP. The proposed fish action is not to impact the baseline delivery capability of the CVP and SWP. Therefore, DWR and Reclamation are to make operations and water allocation decisions based upon the base operations plan, absent the fish action.

Currently, the EWA has 72 TAF of water being held in San Luis Reservoir by Reclamation and 13 TAF being held by DWR. The water held by DWR will be used first to meet the SWP needs. If additional water is needed, Reclamation will make a portion of the 72 TAF it is holding available to the SWP in O'Neill Forebay. The amount of water and the time it becomes available will be determined when DWR/Reclamation submit the final water cost analysis to the Management Agencies.



Carl Torgersen, Chief  
Operations Control Office  
Division of Operations  
And Maintenance



for  
Chester Bowling, Operations Manager  
Central Valley Operations  
Bureau of Reclamation

**M e m o r a n d u m**

Date : January 31, 2001

To : Management Agencies

From : Project Agencies  
Department of Water ResourcesSubject: **Fish Action: January 27 through January 31, 2001**Description of Action

Per the CALFED Operations Juvenile Salmon Protection Plan, exports may be reduced to approximately 6,000 cfs combined for a five-day period when the Knights Landing or Sacramento Catch Index reaches a value of 10. Continued curtailment could be based upon continuous high index values or daily losses greater than 25 of chinook salmon at the CVP/SWP diversions in the south Delta. A multi-purpose five-day reduction in exports took place from January 17 to January 21 based upon the Sacramento Catch Index exceeding 10. Exports were increased on January 21 and again on January 22 and, since then, on at least three days, daily chinook salmon losses greater than 25 have occurred. The schematic for the Juvenile Salmon Protection Plan indicates use of salmon loss levels greater than 25 at the CVP/SWP to trigger the continuation of an export curtailment even if the Sacramento or Knights Landing Catch Index drops below 10 which has been the case during the past week. The Sacramento Catch Index was 6.7 on January 25 and 9.7 on January 26.

Based upon the loss level of juvenile chinook salmon in recent days, the Management Agencies requested a five-day reduction in combined exports to 6,000 cfs beginning January 27 and ending January 31. The majority of the export reductions would occur at the SWP since that is mainly where the losses occurred. The purpose of the action is to reduce the loss of juvenile chinook salmon and steelhead at the CVP/SWP Delta diversions and to otherwise improve the survival of juvenile salmon and steelhead in the Delta.

On January 26, a Data Assessment Team (DAT) conference call was made with representatives from the Management and Project Agencies in which the above actions were discussed. Mutual concurrence at the staff level to implement the proposed action was received. The notes from the DAT meeting are included.

Monitoring results and salmon and steelhead salvage/losses were re-evaluated on January 29 during a DAT conference call. After discussing the status of fish movement and losses over the weekend, the Management Agencies decided to continue the curtailment through January 31.

SURNAME

DWR 155 (Rev. 2/86)

T. Petri 2/1/01

C. Carl 2/2/01

Per the CALFED Operations Juvenile Salmon Protection Plan, the Delta Cross Channel gates will be closed for four days beginning January 26 based upon the Sacramento Catch Index being greater than 5. It is unlikely the gates would be opened on January 30 for two reasons: the gates are closed for the high Sacramento River flows at Freeport which peaked at about 29,000 cfs on January 28 and the gates must be closed on February 1 per D-1641.

#### Estimated Cost Of Action

The Department of Water Resources has estimated that these actions could reduce combined Central Valley Project and State Water Project exports by approximately 56 TAF (about 12 TAF for CVP and 44 TAF for SWP). The estimate assumes exports would continue at a combined level approximately between 11,600 and 11,900 cfs in the base operation. The actual amount could be either more or less dependent upon the flow in the San Joaquin River at Vernalis. However, if the export curtailment were reduced by two days, the estimate would be lower. DWR and the Bureau of Reclamation have not performed a cost analysis of the change in operations.

#### Method Of Accounting For Costs

DWR and Reclamation 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 on 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 elevated to the Water Operations Management Team for final resolution.

#### B(2)/EWA Assets

The Management Agencies have concluded that this may be a joint CVPIA/EWA action. Therefore, both b(2) and EWA assets may be applied to the export reductions of the CVP and SWP. The proposed fish action is not to impact the baseline delivery capability of the SWP. Whether the action would impact the CVP delivery capability depends upon the amount of b(2) water used. Therefore, DWR is

Management Agencies

January 31, 2001

Page 3

to make operations and water allocation decisions based upon the base operations plan, absent the fish action, whereas, Reclamation is to make operations and water allocation decisions based upon the b(2) operations plan.

There are adequate CVPIA and EWA assets available to cover both January Delta fish actions. The amount of water and the time it becomes available will be determined when DWR/Reclamation submit the final water cost analysis to the Management Agencies.

Carl Torgersen, Chief  
Operations Control Office  
Division of Operations and Maintenance

  
Chester Bowling, Operations Manager  
Central Valley Operations  
Bureau of Reclamation

Date  \_\_\_\_\_

Date 2/5/01 \_\_\_\_\_

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