



United States Department of the Interior

BUREAU OF RECLAMATION
Central Valley Operations Office
3310 El Camino Avenue, Suite 300
Sacramento, California 95821

IN REPLY
REFER TO:

CVO-400
WTR-4.10

JUN 24 2004

Ms. Celeste Cantú
Executive Director
State Water Resources Control Board
P.O. Box 2000
Sacramento, California 95812-2000

Subject: Water Level Response Plan Pursuant to D-1641

Dear Ms. Cantú:

Enclosed for your approval is the Response Plan for Water Level Concerns in the South Delta Under Water Rights Decision 1641 (D-1641). We seek a new approval of this plan that was in effect until February 29, 2004.

The Department of Water Resources (Department) and the Bureau of Reclamation (Reclamation) developed this plan in coordination with Mr. John Herrick and Mr. Alex Hildebrand of the South Delta Water Agency (SDWA) as well as with representatives from the California Department of Fish and Game, U.S. Fish and Wildlife Service, and National Marine Fisheries Service. SDWA submitted comments to us after a review of a draft version of this plan. We have enclosed a copy of their comments with our responses.

The Water Level Response Plan addresses water level impacts due to the incremental effects of Stage 1 and Stage 2 Joint Point of Diversion (JPOD) operations and water transfers. It includes provisions for forecasting water levels, mitigating incremental effects on water levels, developing preventative measures for problematic agricultural diversions, and maintaining regular communication between the Department, Reclamation, and SDWA.

The Department and Reclamation propose to utilize the hydrodynamic component of the Department's Delta simulation Model 2 (DSM2) to model the water levels in the South Delta. We are uncertain how the Delta water levels will react to project operations after the recent levee break at Upper Jones Tract. The Department is currently modifying the DSM2 model to simulate the Delta conditions to represent the new hydraulics and water levels will be closely monitored. Currently, it is estimated that the levee breach will be closed to flow on and off the island by the end of July, 2004 and the Delta should be back under normal conditions.

Subject: Water Level Response Plan Pursuant to D-1641

2

Portable pumps have been used effectively for two summers (2002 and 2003) to assist diverters who were experiencing water level problems downstream of the Temporary Barriers. In 2002, the pumps were installed after the diverters experienced problems, but in 2003, the pumps were installed early before the diverters needed them. Last summer portable pumps were also installed to assist diverters on Tom Paine Slough. This April, 2004 the pumps were installed in these areas and they will remain in place until no longer needed at the end of the irrigation season.

The portable pumps program has been effective in responding to forecasted and actual water level problems. However, because of the difficulty of predicting water levels of concern due to the numerous factors influencing the water levels in the South Delta, the Department and Reclamation pledge to suspend the JPOD/transfer upon the request of SDWA if diverters within the South Delta experience water levels of concern.

Last summer the Department also experimented with alternative intake operations at Clifton Court Forebay, which seemed to improve the effectiveness of the temporary barrier operations and the general filling of South Delta channels.

In June 2002, the Department applied for a programmatic, localized dredging permit from the Army Corps of Engineers. A Public Notice for the permit was issued on May 28, 2004 with comments due by June 17, 2004. The permit will allow localized dredging within a 200-ft radius of a point of diversion. After coordination with South Delta Water Agency, two sites along the Old River bank on Union Island were identified for dredging this summer. Sediment sampling has been completed at the sites and the sediment analysis report has been finalized and submitted to the Regional Water Quality Control Board (RWQCB) in order to meet their requirements for a 401 Water Quality permit and a Waste Discharge permit. Final approval is expected by July, 2004. The Department anticipates that all necessary approvals will be in place in time for the next dredging window to begin in August, 2004. Should other locations for dredging be proposed in the future, then additional sampling and analysis will have to be performed. At both locations slated for dredging this summer portable pumps have been installed so that diverters will be protected before dredging can begin.


The Department and Reclamation will operate JPOD/transfers in accordance with the water quality standards contained in D-1641. We do not anticipate significant incremental impacts to water quality in the South Delta as a result of JPOD/transfer operations under current export capacities. A Water Quality Response Plan is being prepared by the Department and Reclamation to address effects of JPOD/transfers in the Southern and Central Delta.

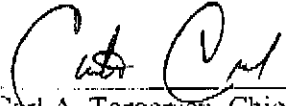
The Department and Reclamation request your approval of this plan as required by D-1641.

Subject: Water Level Response Plan Pursuant to D-1641

3

If you need any additional information regarding this plan, please contact Paul Fujitani, Bureau of Reclamation, at 916- 979-2197 or Curtis Creel, Department of Water Resources, at 916-574-2722.


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


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

Enclosure 2

cc: Mr. Alex Hildebrand
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Mr. John Herrick
South Delta Water Agency
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Stockton, California 95267

Response Plan for Water Level Concerns in the South Delta Under Water Rights Decision 1641

Staff from the Department of Water Resources (DWR) and the United States Bureau of Reclamation (Reclamation) have developed this Water Level Response Plan per the conditions set forth in the State Water Resources Control Board's (SWRCB) Water Rights Decision 1641 regarding joint points of diversion for the State Water Project (SWP) and the Central Valley Project (CVP). This Plan sets conditions for the operations of the SWP and the CVP as they pertain to the use of Joint Point of Diversion (JPOD) and additional pumping in the Delta to accommodate water transfers.

Reclamation and DWR will manage water transfers of their own and those of third parties consistent with this Plan. Third parties will be given the opportunity to participate financially in the actions called for in the Plan to mitigate for the incremental effects of their water transfer on water levels or have their water transfer rescheduled, if possible, to a time period when these effects do not occur.

Actions Covered by this Plan

This Plan establishes a process to address water levels of concern when such concern results from the incremental effects of JPOD or additional pumping to accommodate water transfers on water levels in the South Delta. An incremental effect on water levels is defined as a reduction in water surface elevation at low tide from what would occur absent the action. Water levels of concern shall be the levels at which ongoing or scheduled diversions in the southern Delta are impaired to the injury of water users in the southern Delta.

Reclamation, DWR, and the South Delta Water Agency (SDWA) shall strive to maintain diligent communication regarding the planning and execution of any action referencing this Plan and expected diversions throughout the southern Delta. This Plan assumes the continued existence of CVP/SWP facilities within the existing permitted export capabilities as of spring of 2004. If facilities, Clifton Court Forebay operations, or export restrictions change, then the DWR, the USBR, and SDWA will consult with the Executive Director of the SWRCB to determine whether the Plan requires changes and further approval.

Actions covered by this plan shall be contingent on forecasted or actual water levels in the southern Delta. For Condition II below, these forecasts must indicate the action will not cause or aggravate water levels of concern.

Condition I. The following conditions provide a general description under which an action is presumed not to cause or aggravate water levels of concern.

- 1) A shift of pumping from CVP facilities at the Tracy Pumping Plant to SWP facilities at the Banks Pumping Plant and
 - a) total exports during the period do not increase over that which would have occurred

absent the JPOD or transfer, and

- b) operation of the SWP's Clifton Court facility does not change from the priorities of intake operation specified in the 1990 Draft Settlement Contract between SDWA and DWR or from another operational regime agreed to by SDWA.

or

- 2) An increase of total exports by using available capacity at the SWP's Banks Pumping Plant and
 - a) the three tidal barriers in Middle River, Old River, and Grant Line Canal are installed and fully operated,
 - b) the Head of Old River Barrier is not installed or operated to materially affect the flow of the San Joaquin River from entering Old River, and
 - c) Clifton Court Forebay is operated consistent with the priorities specified in the 1990 Draft Settlement Contract between SDWA and DWR or with another operational regime agreed to by SDWA.

Condition II. If an action covered by this Plan is proposed that does not meet the conditions described above, the action may still occur if at least one of the following conditions is met:

- a) Forecasts show the action will not cause or aggravate water levels of concern; or
- b) Adequate measures exist and are used to offset the incremental effects of the action to water levels of concern. Reclamation and DWR propose to implement operational adjustments or install equipment (such as portable pumps) on a temporary basis to offset the incremental effects, or
- c) Reclamation and DWR determine that no diversions will occur at a location and during a period when the action will have an incremental effect on water levels. Reclamation and DWR will contact the potentially affected parties prior to the action to ensure that the diverters have no plans for diversions during the period the action will occur.

Forecast Procedure

To provide a methodology by which minimum (low tide) water levels within the SDWA service area can be forecasted under a proposed action covered by this Plan, DWR shall utilize the hydrodynamic component of its Delta Simulation Model 2 (DSM2). Model inputs will include projected tidal conditions at Benicia, projections of Delta inflows from the Sacramento River, Eastside streams and the San Joaquin River, high channel depletion needs for the month per the 1990 Draft Settlement Contract between SDWA and DWR, and projections of Delta exports by Contra Costa Water District, the State Water Project and the Central Valley Project at Clifton Court and Tracy Pumping Plant which reflect the proposed action. Under such conditions, the low water levels at Middle River near the Howard Road Bridge, Old River near Tracy Road

Attachment 1

Bridge, Doughty Cut above Grant Line Canal Barrier, and east of Coney Island (DSM2 Channel 218) shall be determined by running DSM2.

Water levels are considered adequate if they are forecasted to be 0.0 feet MSL or greater at Old River near Tracy Road Bridge, and Doughty Cut above Grant Line Canal Barrier, and 0.3 feet MSL or greater at Middle River near the Howard Road Bridge.

The parties recognize that the Coney Island/Channel 218 location is downstream of the temporary barriers and may at times have water levels below that which is necessary for local diversions. DWR has installed a permanent stage recorder here. Data from this station and an accurate record of the irrigation conditions (based on portable pump usage) will be used to develop the baseline water level of concern beyond which incremental effects of JPOD or transfers will warrant mitigation per this plan. A long-term solution for water levels of concern downstream of the barriers is to be developed within the CalFed South Delta Improvement Plan. Until such Plan is implemented, JPOD or transfer operations are contingent upon DWR and/or Reclamation providing adequate mitigation for incremental effects to water levels of concern for these diverters. Such mitigation may include diversion modifications, temporary pumps, or other measures. DWR, Reclamation, and SDWA will work together, and with the Management Agencies¹, to resolve issues related to such mitigation.

Notice and Modeling Requirements

No later than seven (7) days prior to any JPOD or transfer operations, DWR and/or Reclamation shall give SDWA notice thereof. If an emergency arises, DWR and Reclamation shall give SDWA as much notice as possible prior to any such action. An emergency does not include operational changes due to ESA limitations or requirements. Such notice shall include modeling forecasts for the time frame during which the JPOD or transfer is scheduled to occur. During any such JPOD or transfer operation, DWR or Reclamation shall update the modeling no less than every week and more often if conditions vary from those modeled in a manner that could be adverse to water levels.

Actual Water Level Problems

Reclamation and DWR will suspend the action upon request by SDWA if diverters within the South Delta experience water levels of concern. Reclamation and DWR will update the forecasts and propose appropriate mitigation, if applicable. At the time of the request, the SDWA will provide to DWR and Reclamation the time, location, and owner's name and contact information for the diversion experiencing the problem. The parties expect suspension of the action will normally occur within twelve hours after notification by SDWA and must occur no later than 24 hours after that notification. DWR and Reclamation will perform additional analyses of water level conditions within the SDWA. The analyses will include, but not be limited to, updated hydrodynamic modeling. If DWR and Reclamation can support a determination of no incremental impact using observed data in conjunction with model output, the action may continue. If the analyses show that an incremental impact does occur, mitigation

¹ The Management Agencies include the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the California Department of Fish and Game.

will be offered. SDWA will then have 5 days to respond to the proposed mitigation. If SDWA does not respond within 5 days, the pumping will resume. If SDWA declines the proposed mitigation, DWR and Reclamation may appeal to the SWRCB, Chief, Division of Water Rights to deem the mitigation offer acceptable or not. DWR and Reclamation will continue the action until the SWRCB has judged the action unacceptable.

The contacts for DWR and Reclamation are the Chief of the Project Operations Planning Branch, State Water Project Operations Control Office (Curtis Creel), and the Chief of the Water Operations Division, Central Valley Operations Office (Paul Fujitani), respectively, or their designees. Reclamation and DWR will also provide SDWA with contacts for after-hours notification.

Updated Modeling

During the existence of this Plan, DWR, Reclamation and SDWA shall work together to improve the reliability of the modeling used to predict the effects of export pumping on South Delta water levels. The parties shall also work together to refine the definition of water levels in the South Delta below which local diversions become impaired. If additional or replacement definitions of said water levels are identified through this Plan, they shall be incorporated into this Plan.

Preventive Measures.

The parties shall work together to identify diversions which are most susceptible to impairment due to low water levels and attempt to develop more permanent actions which may mitigate any such low water levels at said diversions; perhaps lowering the water levels of concern. Any lowering of these concern levels shall only occur if all diversions within a particular area are identified and measures acceptable to the diverters have been implemented.

Portable pumps will be installed before an actual problem develops in those areas that have experienced low water levels in previous summers. These pumps were used effectively in the summers of 2002 and 2003 for diverters on Union Island and Tom Paine Slough.

DWR and Reclamation are implementing a site-specific dredging program in the South Delta for the benefit of agricultural diversions. Dredging is anticipated to begin in August 2004. The dredging permit will allow localized dredging within a 200-ft radius of a point of diversion.

DWR and Reclamation recognize that a comprehensive, long-term dredging program is desired by SDWA. However, such a program is viewed by both DWR and Reclamation to be beyond the scope of this Water Level Response Plan.

The parties agree that any actions or measures taken hereunder to assist local diverters shall not be considered a final resolution of the water level, circulation, or quality problems in the South Delta associated with the operation of the CVP and SWP export pumps, although such actions might be a portion of a long-term solution.

The diverters and water suppliers within the South Delta, excepting those diverters and water suppliers who export water for use outside of the Delta, are the beneficiaries of this Response Plan.

Names, phone numbers, and FAX numbers of representatives:

Primary Contact

Alternate Contact

Reclamation

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SDWA

Primary Contact:

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Response to John Herrick's Comments on Draft 2004 Water Level Response Plan

Dear Paul and Curtis:

I apologize for my delay in commenting on the draft Water Level Response Plan. This comment letter will be separated into two parts, the first being comments/changes to the language used and the second being SDWA's position regarding approval of JPOD under the proposed Plan.

With regard to the language:

1. Page 1, third paragraph. Please remove the words "at low tide." As we have discussed in the past, problems may result from a decrease in high tide levels. For example, although DWR tries to avoid certain tidal conditions when filing Clifton Court, increased SWP diversions do result in a lowered high tide. This can result in insufficient water being trapped behind the tidal barriers, and diversions can deplete that water before the next tidal cycle can refill.

The basis of our modeling analysis is the incremental impact of JPOD on the water levels at low tide. We are continuing to investigate and working to protect SDWA when JPOD impacts on diversions are observed at times other than low tide.

2. Page 1, fourth paragraph. Please add SDWA for consultation should the current facilities change.

Okay

3. Page 1, fifth paragraph. After the word "forecasted" add the words "or actual" to better describe the terms of the Plan.

Okay

4. Page 1, Condition I paragraph. Remove the word "will" and replace with "is presumed to." As explained below, we do not have a basis for declaring any particular conditions will not cause harm.

Okay

5. Page 2, paragraph numbered 2). Add a new subparagraph as follows "d) Adequate mitigation (as described below) is provided for diverters downstream of the tidal barriers as necessary." This clarifies that the problem

Attachment 2

downstream of the barriers exists but is being addressed.

This section describes conditions that do not cause or aggravate water levels of concern. The adequate mitigation measures statement is included under Condition II.

6. Page 2, paragraph Condition II b). After the word "exist" add the words "and are used." This clarifies that "exists" includes actual implementation.

Okay

7. Page 2, paragraph Condition II c). As per prior discussions, this condition seems impractical. I know of no data base which would allow DWR or USBR to contact all of the local diverters. Since the diversions are of differing elevations, I don't believe we can assume some diverters are representative of all others.

Reclamation and DWR will make their best effort to contact the potentially affected parties.

8. Page 3, second full paragraph. Typo? Need "in the" before "Spring."

Okay

9. Page 3, fourth full paragraph (Actual Water Level Problems). Remove "when and where no such levels were forecasted." The language seems to confuse the condition. If water level problems arise, regardless of forecasting, the action should cease.

Okay

10. Page 4, first (partial) paragraph. The words "with nearby observed data" are confusing. I'm not sure what is meant by this. Does it mean that if observation confirms no incremental impact the JPOD can continue? How would one confirm a tenth of an inch impact visually? Please rewrite.

Okay

11. Page 4, fifth full paragraph. As before, this paragraph is unacceptable. Once a problem arises, there is no quick way for a diverter (or SDWA) to gather and present evidence "proving" a water right or that there is available water. Riparian rights are not "proven" or quantified except through a court proceeding. It is the CDWA and SDWA position that such proof is not necessary, and already determined under the law. Absent project operations, the channels of the Delta always have water in them due to their elevation relative to sea level. Various Water Code statutes and the permits of the projects

require DWR and USBR to maintain Delta outflow and water quality without any reimbursement by local diverters. Hence, the local diverters always have water available with the burden of maintaining quality on the projects. Under these conditions, I see no real scenario under which a local diverter would not be entitled to adequate depth or quality.

Paragraph Deleted

12. Page 4, last paragraph. This provision is unacceptable. Prior Plans required a dredging project in response to SWRCB and DWR/USBR assertions that if certain channels were dredged there would not be any water level problems (in those areas). Last year's Plan was suspended and JPOD revoked because DWR and USBR had not implemented the required dredging program in violation of the Plan. To propose now that JPOD should be allowed while the dredging requirement be further delayed (assuming it will be approved, assuming within the time frame promised this time) is a reversal of the SWRCB decision to revoke the last Plan. Nothing has changed since the prior Plan was revoked and there is no basis or justification for ignoring that previous violation of Plan conditions.

This paragraph only gives the status of dredging. It does not propose that JPOD be allowed before dredging takes place.

13. We recommend a new paragraph which requires that any adverse quality impacts resulting from JPOD be mitigated or the action cease. Lowered water levels both with and without barriers can result in increased salinity concentrations. The Plan should be required to mitigate any such impact.

beyond the scope of this plan. That is

The second portion of this comment letter sets forth SDWA's continued opposition to the Response Plan in general. As DWR, USBR and SWRCB know, the SDWA continues to experience water level and quality problems. Just as important, the exact causes of some of these problems remains unknown. The inability to forecast some of these problems negates the underlying basis of the Response Plan. If we can't predict the effects of "normal" export pumping, we can't predict the effects of the JPOD and therefore we can't distinguish between the effects of JPOD and those of non-JPOD pumping nor can we prepare a method by which we can avoid the adverse impacts.

This year, Tom Paine Slough again experienced drastic low levels, but fully two months earlier than in prior years. The forecasted water levels, tides, inflow, etc. did not indicate any problem would exist, and so the temporary pumps used last year were not readily available, and not installed quick enough to prevent harm. Over the past three irrigation

seasons much speculation has been considered by DWR and SDWA as to the direct causes of the Tom Paine Slough problems (there is no doubt as to the effects export pumping has on water levels in general). Siltation in three different areas has been postulated, but no such connection has been shown. This year, the problem still existed even after three temporary pumps were operational and only was "cured" after water levels on the Sugar Cut side of the Slough appeared to recover on their own. None of the forecasting explained this recovery.

Similarly, in 2002, the problem disappeared within one day after no readily discernable changes had occurred. If this problem cannot be predicted or explained, there is no way to differentiate between JPOD effects and the effects of regular pumping.

Further, another diverter downstream of the tidal barriers has complained of problems. Although DWR is acting to determine what might be done, this too highlights the problem with JPOD. Until adequate measures exist to protect the area from the effects of exports, the temporary fixes appear to be simply reallocating the problem to new places or times. Such a situation does not support the approval of increased export rates at any times, and certainly not during the main irrigation season.

Please feel free to contact me if you have any questions, and let me know when you submit the Plan to the SWRCB. JOHN HERRICK

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