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Water Right Decision 1641

In the Matter of:

**Implementation of Water Quality Objectives for the
San Francisco Bay/Sacramento-San Joaquin Delta Estuary;**

**A Petition to Change Points of Diversion of the
Central Valley Project and the State Water Project in the
Southern Delta; and**

**A Petition to Change Places of Use and Purposes of Use of the
Central Valley Project**

Adopted December 29, 1999

**Revised March 15, 2000
in accordance with Order WR 2000-02**

**STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**

10. Condition 7 of D-1485 is amended to read:

For the protection of Suisun Marsh, Licensee/Permittee shall report to the Board by September 30 of each year on progress toward implementation of mitigation facilities and on water quality conditions in the Suisun Marsh during the previous salinity control season.

11. To ensure compliance with the water quality objectives, to identify meaningful changes in any significant water quality parameters potentially related to operation of the SWP or the CVP, and to reveal trends in ecological changes potentially related to project operations, Licensee/Permittee shall, independently or in cooperation with other agencies or individuals:
- a. Perform the Water Quality and Baseline Monitoring program described in Table 5 and in Figure 4 of this Order.
 - b. Conduct ongoing and future monitoring surveys as recommended by the DFG, the USFWS or the National Marine Fisheries Service (NMFS), and acceptable to the Executive Director of the SWRCB concerning food chain relationships, fisheries impacts, or impacts to brackish tidal marshes, as they are affected by operations of the SWP or the CVP in the Delta and Suisun Marsh.
 - c. Licensee/Permittee shall make available to the Board and others interested parties the results of the above monitoring as soon as practicable. Timely posting of this information on the Internet will satisfy this requirement. Licensee/Permittee shall submit to the Executive Director of the SWRCB, by December 1 of each year, annual reports summarizing the previous calendar year's findings and detailing future study plans.
 - d. If Licensee/Permittee anticipates violations of the water quality objectives or if such violations have occurred, Licensee/Permittee shall provide immediate written notification to the Executive Director of the SWRCB.
 - e. Licensee/Permittee shall evaluate the Water Quality Compliance and Baseline Monitoring once every three years to ensure that the goals of the monitoring program are attained. Licensee/Permittee shall report to the Executive Director of the SWRCB the conclusions based upon this evaluation. Licensee/Permittee may propose appropriate modifications of the program for concurrence of the Executive Director of the SWRCB.

IT IS FURTHER ORDERED that Permits 11315, 11316, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12727, and 12860 (Applications 13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9368, and 15764, respectively)* of the USBR (CVP except New Melones and Friant) shall be amended by adding the following terms and conditions:

I. In addition to all other points of diversion and rediversion authorized by this permit, Permittee may divert or redivert water up to 10,350 cfs at the Harvey O. Banks Pumping Plant (Banks Pumping Plant), located within the NW ¼ of the SE ¼ of Projected Section 20, T1S, R3E, MDB&M and at Italian Slough, located within NW ¼ of the NE ¼ of Projected Section 24, T1S, R3E, MDB&M, subject to the permission of the Department of Water Resources. This authorization has three stages corresponding to export rates and limitations on the purposes for which Permittee is authorized to divert or redivert water at the Banks Pumping Plant.

a. All stages of this authorization are subject to the following terms and conditions:

- (1) Diversion by the USBR at Banks Pumping Plant is not authorized when the Delta is in excess conditions⁷⁹ and such diversion causes the location of X2⁸⁰ to shift upstream so far that:
 - (a) It is east of Chipps Island (75 river kilometers upstream of the Golden Gate Bridge) during the months of February through May, or
 - (b) It is east of Collinsville (81 kilometers upstream of the Golden Gate Bridge) during the months of January, June, July, and August, or
 - (c) During December it is east of Collinsville and Delta smelt are present at Contra Costa Water District's point of diversion under Permits 20749 and 20750 (Application 20245).
- (2) Any diversion by Permittee at the Banks Pumping Plant that causes the Delta to change from excess to balanced conditions⁸¹ shall be junior in priority to Permits 20749 and 20750 of the Contra Costa Water District.
- (3) Permittee may divert or redivert water at Banks Pumping Plant only if a response plan to ensure that water levels in the southern Delta will not be lowered to the injury of water users in the southern Delta has been approved by the Executive Director of the SWRCB. Permittee shall prepare the response plan with input from the designated representative of the South Delta Water Agency.
- (4) All other provisions of the above permits are met.
- (5) Permittee shall develop a response plan to ensure that the water quality in the southern and central Delta will not be significantly degraded through

⁷⁹ Excess conditions exist when upstream reservoir releases plus unregulated natural flow exceed Sacramento Valley inbasin uses, plus exports.

⁸⁰ For the purposes of this term, X2 is the most downstream location of either the maximum daily average or the 14-day running average of the 2.64 mmhos/cm isohaline.

⁸¹ Balanced conditions exist when it is agreed by the SWP and the CVP that releases from upstream reservoirs plus unregulated flow approximately equal the water supply needed to meet Sacramento Valley inbasin uses, plus exports.

operations of the Joint Points of Diversion to the injury of water users in the southern and central Delta. Such a plan shall be prepared with input from the designated representative of the Contra Costa Water District and approved by the Chief, Division of Water Rights.

- b. In Stage 1, Permittee is authorized to divert or redivert water at the Banks Pumping Plant to serve the Cross Valley Canal contractors and Musco Olive, and to support a recirculation study.⁸²

Permittee also is authorized to divert or redivert water at the Banks Pumping Plant to recover export reductions taken to benefit fish, if exports by the Permittee at the Tracy Pumping Plant are reduced below the applicable export limits set forth in Table 3, attached.

- (1) The authorization to divert or redivert water for the recovery of export reductions at the Banks Pumping Plant under Stage 1 is subject to the following provisions:

- (a) Recovery of export reductions shall not cause an increase in annual exports above that which would have been exported without use of the Banks Pumping Plant.
- (b) Recovery of export reductions using the Banks Pumping Plant shall occur within twelve months of the time the exports are reduced.
- (c) Before Permittee diverts or rediverts water at Banks Pumping Plant, Permittee shall consult with DFG, USFWS, and NMFS. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy this requirement. Permittee shall submit agreements on coordinated operations under this authorization to the Executive Director of the SWRCB for approval and shall also submit complete documentation showing that no additional water will be exported because of the use of the Banks Pumping Plant, including the method used to make this determination. Authority is delegated to the Executive Director of the SWRCB to act on the proposal if the conditions set forth above are met.

- (2) The Executive Director of the SWRCB is authorized to grant short-term exemptions to the export limits in Stage 1, for the purpose of (a) conducting the recirculation study discussed below, or (b) other purposes as the Executive Director of the SWRCB deems appropriate, provided that such

⁸² The recirculation study is described in Term 2 below.

exemptions will not have a significant adverse effect on the environment and will not cause injury to other legal users of water.

- c. In Stage 2, Permittee will be authorized to divert or redivert water at the Banks Pumping Plant for any purpose authorized under the above permits, subject to the following.
- (1) Permittee shall develop in consultation with the DWR, the DFG, the USFWS and the NMFS an operations plan to protect fish and wildlife and other legal users of water. The operations plan shall be submitted to the Executive Director of the SWRCB for approval at least 30 days prior to use by the USBR of Banks Pumping Plant. The plan shall include, but not be limited to, the following elements:
 - (a) The plan shall include specific measures to avoid or minimize the effects of the export operations at Banks Pumping Plant on entrainment and through-Delta survival of chinook salmon. The plan shall include monitoring of environmental conditions and fish abundance at upstream locations, as appropriate, to determine vulnerability of chinook salmon to entrainment at Banks Pumping Plant. The plan shall include monitoring of entrainment at Banks Pumping Plant. The plan shall include the frequency and method of data collection.
 - (b) The plan shall include minimum survival levels for chinook salmon. The minimum survival levels shall be used to trigger consultation with fishery agencies regarding data evaluation and decision making to minimize or avoid the impact of pumping at Banks Pumping Plant. The plan shall identify the consultation process that will be used including identifying the parties who will consult, how they will be notified, and a time schedule for decision making.
 - (c) The plan shall include specific measures at Trinity, Shasta, or Folsom Reservoirs when Permittee is using Banks Pumping Plant, to avoid or minimize adverse effects to chinook salmon if upstream or Delta monitoring indicates that such impacts are occurring. Measures may include the reoperation of the Delta Cross Channel Gates, increasing Delta outflow, or reducing exports at Banks Pumping Plant.
 - (d) The plan shall include operating criteria to ensure that use of the JPOD does not significantly impact aquatic resources in upstream areas due to changes in flow, water temperature, and reservoir water levels.
 - (e) The plan shall include specific measures to protect other legal users of water.

- (f) The plan shall include specific measures to mitigate significant effects on recreational and cultural resources at affected reservoirs.
 - (2) Diversions or rediversions of water by the Permittee at Banks Pumping Plant shall not result in daily diversions into Clifton Court Forebay in excess of 13,870 acre-feet or three-day average diversion of 13,250 acre-feet/day, except during the period from mid-December to mid-March when San Joaquin River flow at Vernalis exceeds 1000 cubic feet per second (cfs), during which time diversions into Clifton Court Forebay may be increased by one-third of the San Joaquin River flow at Vernalis.
 - (3) The Executive Director of the SWRCB is authorized to grant short-term exemptions to the export limits in Stage 2, for the purpose of (a) conducting the recirculation study discussed below, or (b) other purposes as the Executive Director of the SWRCB deems appropriate, provided that such exemptions will not have a significant adverse effect on the environment and will not cause injury to other legal users of water.
- d. In Stage 3, Permittee will be authorized to divert or red divert water at the Banks Pumping Plant for any authorized purpose under the above permits, up to the physical capacity of the Banks Pumping Plant, subject to completion of the following measures.
- (1) Permittee shall prepare an operations plan acceptable to the Executive Director of the SWRCB, that will protect aquatic resources and their habitat and will protect other legal users of water. The operations plan shall include the same elements required for Stage 2. Permittee shall prepare the operations plan in consultation with the DWR, USFWS, NMFS, and DFG.
 - (2) Permittee shall protect water levels in the southern Delta through measures to maintain water levels at elevations adequate for diversion of water for agricultural uses. This requirement can be satisfied through construction and operation of three permanent tidal barriers in the southern Delta or through other measures that protect water quality in the southern and central Delta and protect water levels at elevations adequate to maintain agricultural diversions. If construction and operation of tidal barriers is used as a basis for Stage 3 operation, such construction and operation shall be subject to certification of a project-level Environmental Impact Report by the DWR that discloses the impacts of the tidal barriers.
2. Permittee shall prepare a Plan of Action (POA) for a recirculation analysis alternative to evaluate the feasibility and impacts of recirculating water from the Delta Mendota Canal through the Newman Wasteway. The POA shall be submitted for approval by the Executive Director of the SWRCB by October 1, 2000. The purpose of the POA will be to develop a thorough workplan for determining the feasibility of use of recirculation as a method for meeting and/or augmenting the Vernalis objectives and San Joaquin water quality objectives.

The POA shall include tasks for the evaluation of:

- a. Potential impacts of changes in water composition on Delta native fish and on imprinting of juvenile fall-run chinook salmon and steelhead in the San Joaquin basin;
- b. Potential effects of increased exports on in-Delta hydrodynamics and fish entrainment at the SWP and CVP export facilities;
- c. Potential effects of salt and contaminant loading in the San Joaquin basin due to recirculation of water through the Newman Wasteway;
- d. Impacts on water deliveries to exchange contractors and other contractors receiving water from the Delta Mendota Canal, the State Aqueduct, and San Luis Reservoir;
- e. The capacity of the physical facilities to implement recirculation. A description of any needed structural/channel modifications, a cost estimate, and a determination of potential conserved water over other alternatives to meet Delta flow and VAMP requirements shall be provided; and
- f. Potential for improvements in water quality in the San Joaquin River as a result of recirculation.

Permittee shall develop the POA in consultation with the DWR, SDWA, NMFS, USFWS, and DFG. It shall include a schedule for milestones and due dates for implementation, and identify a funding source(s) for the study. The POA study shall be completed within two years of approval of the POA. Permittee shall submit semi-annual reports to the Executive Director of the SWRCB on study progress and results. A final report summarizing analyses, results, and conclusions shall be submitted to the Executive Director of the SWRCB within six months after the recirculation analysis is completed.

3. Licensee/Permittee shall ensure that the San Joaquin River salinity; eastern Suisun Marsh salinity; western Suisun Marsh salinity at Chadbourne Slough, at Sunrise Duck Club (station S-21), and Suisun Slough near Volanti Slough (station S-42); export limits; and Delta Cross Channel Gates closure objectives for fish and wildlife beneficial uses as set forth in Table 3, attached, are met.

If any Suisun Marsh salinity objectives at the above locations are exceeded at a time when the Suisun Marsh Salinity Control Gates are being operated to the maximum extent, then such exceedances shall not be considered violations of this permit/license. A detailed operations report acceptable to the Executive Director of the SWRCB regarding Suisun Marsh Salinity Control Gate operation and a certification from the parties that the gates were operated to the extent possible must be submitted to receive the benefit of this exception.

4. Permittee is jointly responsible with the DWR for providing Delta flows that otherwise might be allocated to Mokelumne River water right holders.

San Luis

IT IS FURTHER ORDERED that **Permits** 16478, 16479, 16481, and 16482 (Applications 5630, 14443, 14445A, and 17512, respectively) of the DWR (SWP permits) are amended by adding the following terms and conditions:

1. In addition to all other points of diversion and rediversion authorized by this permit, Clifton Court Forebay, located within the NW ¼ of the SE ¼ of Projected Section 20, T1S, R4E, MDB&M is added as a point of diversion and point of rediversion.
2. In addition to all other points of diversion and rediversion authorized by this permit, Permittee may divert or redivert water up to 4,600 cfs at the Tracy Pumping Plant, located within the SW ¼ of the SW ¼ of Projected Section 31, T1S, R4E, MDB&M subject to the permission of the USBR. This authorization has three stages corresponding to export rates and limitations on the purposes for which Permittee is authorized to divert or redivert water at the Tracy Pumping Plant.
 - a. All stages of this authorization are subject to the following terms and conditions:
 - (1) Diversion by the DWR at Tracy Pumping Plant is not authorized when the Delta is in excess conditions⁸³ and such diversion causes the location of X2⁸⁴ to shift upstream so far that:
 - (a) It is east of Chippis Island (75 river kilometers upstream of the Golden Gate Bridge) during the months of February through May, or
 - (b) It is east of Collinsville (81 river kilometers upstream of the Golden Gate Bridge) during the months of January, June, July, and August, or
 - (c) During December it is east of Collinsville and Delta smelt are present at CCWD's point of diversion under Permits 20749 and 20750 (Application 20245).
 - (2) Any diversion by Permittee at the Tracy Pumping Plant that causes the Delta to change from excess to balanced conditions⁸⁵ shall be junior in priority to Permits 20749 and 20750 of the Contra Costa Water District.
 - (3) **Permittee may divert or redivert water at Tracy Pumping Plant only if a response plan to ensure that water levels in the southern Delta will not be**

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⁸⁴ For the purposes of this term, X2 is the most downstream location of either the maximum daily average or the 14-day running average of the 2.64 mmhos/cm isohaline.

⁸⁵ Balanced conditions exist when it is agreed by the SWP and the CVP that releases from upstream reservoirs plus unregulated flow approximately equal the water supply needed to meet Sacramento Valley inbasin uses, plus exports.

lowered to the injury of water users in the southern Delta has been approved by the Executive Director of the SWRCB. Permittee shall prepare the response plan with input from the designated representative of the SDWA.

(4) All other provisions of the above permits are met.

(5) Permittee shall develop a response plan to ensure that the water quality in the southern and central Delta will not be significantly degraded through operations of the Joint Points of Diversion to the injury of water users in the southern and central Delta. Such a plan shall be prepared with input from the designated representative of the Contra Costa Water District and approved by the Chief, Division of Water Rights.

b. In Stage 1, Permittee is authorized to divert or redivert water at the Tracy Pumping Plant to recover export reductions taken to benefit fish, if exports by the Permittee at the Banks Pumping Plant are reduced below the applicable export limits set forth in Table 3, attached.

(1) The authorization to divert or redivert water at the Tracy Pumping Plant under Stage 1 is subject to the following provisions:

(a) Recovery of export reductions shall not cause an increase in annual exports above that which would have been exported without use of the Tracy Pumping Plant.

(b) Recovery of export reductions using the Tracy Pumping Plant shall occur within twelve months of the time the exports are reduced.

(c) Before Permittee diverts or rediverts water at Tracy Pumping Plant, Permittee shall consult with DFG, USFWS, and NMFS. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy this requirement. Permittee shall submit agreements on coordinated operations under this authorization to the Executive Director of the SWRCB for approval and shall also submit complete documentation showing that no additional water will be exported because of the use of the Tracy Pumping Plant, including the method used to make this determination. Authority is delegated to the Executive Director of the SWRCB to act on the proposal if the conditions set forth above are met.

(2) The Executive Director of the SWRCB is authorized to grant short-term exemptions to the export limits in Stage 1, for purposes as the Executive Director of the SWRCB deems appropriate, provided that such exemptions will not have a significant adverse effect on the environment and will not cause injury to other legal users of water.