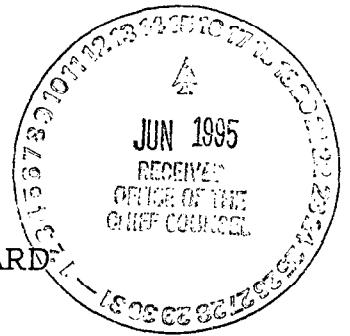




STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Petition for
Changes in the Water Rights
Authorizing Diversion and Use
of Waters in the Watershed of
the Sacramento-San Joaquin
Delta, held by

ORDER: WR 95-6

CALIFORNIA DEPARTMENT OF WATER
RESOURCES and

UNITED STATES BUREAU OF
RECLAMATION

ORDER REGARDING PETITION FOR CHANGES IN
WATER RIGHTS THAT AUTHORIZE DIVERSION
AND USE OF WATERS AFFECTING THE
SAN FRANCISCO BAY/SACRAMENTO-SAN JOAQUIN DELTA ESTUARY

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BY THE BOARD:

1.0 INTRODUCTION

On February 28, 1995, the California Department of Water Resources (DWR) and the United States Bureau of Reclamation (USBR) filed a joint petition requesting changes in the water right permits listed in Attachment A. On March 3, 1995, the State Water Resources Control Board (SWRCB) gave notice of the petition and of a public hearing to commence on April 18, 1995 to consider the issues raised by the petition. On March 30, 1995 the SWRCB issued a supplement to the notice which pointed out that the environmental documentation to be used in reviewing the petition is the environmental report appended to the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. On April 18, 19, and 20, 1995 the SWRCB held the public hearing and received evidence from the interested parties on the key issues listed in the notice. The record was held open to receive specified documents and written closing statements of the parties. These documents and statements were to be submitted by mail and postmarked by April 28, 1995. The

SWRCB has considered all of the evidence and arguments in the hearing record. The SWRCB finds as follows:

2.0 BACKGROUND

The Bay-Delta Estuary includes the Sacramento-San Joaquin Delta, Suisun Marsh and the embayments upstream of the Golden Gate. The Delta and Suisun Marsh are located where California's two major river systems, the Sacramento and San Joaquin rivers, converge to flow westward through San Francisco Bay. The watershed of the Bay-Delta Estuary is a source of water supplies for much of the state. The water is used for municipal, industrial, agricultural, and aquatic environment purposes. The watershed is a source of drinking water for two-thirds of the state's population. The State Water Project (SWP) operated by the DWR and the Central Valley Project (CVP) operated by the USBR release previously-stored water into the Delta where they redivert the stored water and also divert natural flow. The water diverted by the two projects in the Delta is exported to areas south and west of the Delta through a system of water conveyance facilities.

2.1 Existing Water Rights

DWR and the USBR have permits and licenses to appropriate water. The SWRCB issued the USBR permits for much of the CVP pursuant to Water Right Decision 990 (D-990), adopted in February, 1961. The USBR has rights to divert water from the Trinity River under Permit Order 124. The SWRCB issued the DWR permits for the SWP pursuant to Water Right Decision 1275 (D-1275), which was revised in Water Right Decision 1291 (D-1291). In August 1978, the SWRCB adopted the Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh (1978 Plan), which established revised water quality objectives for flow and salinity in the Delta and Suisun Marsh. In Water Right Decision 1485 (D-1485), also adopted in August 1978, the SWRCB required the DWR and the USBR to operate the CVP and the SWP to meet all the 1978 Plan objectives except some of the salinity objectives in the southern

Delta. In 1991, the SWRCB adopted a water quality control plan (1991 Plan) which superseded parts of the 1978 Plan, but the SWRCB has not revised the water rights of the DWR and the USBR to reflect the changes in water quality objectives.

2.2 Events Leading to the Petition

In March 1994, the SWRCB commenced a proceeding to revise the water quality objectives for the Bay-Delta Estuary. Between April 1994 and the end of October 1994, the SWRCB held six public workshops and the SWRCB's staff held three public workshops to receive input from interested parties. During the workshops the SWRCB urged the interested parties to negotiate with other parties and develop alternatives for revising the previous water quality objectives for the Bay-Delta Estuary. The Department of Fish and Game, Bay Institute of San Francisco, Delta Wetlands and United States Environmental Protection Agency and a coalition of some of the major water users developed proposals for the SWRCB to consider. The SWRCB evaluated these alternatives in its environmental review for the development of a draft Bay-Delta plan. After negotiations, a number of parties reached an agreed-upon recommendation to the SWRCB for changes in the Bay-Delta water quality objectives. This agreement is called the Principles for Agreement on Bay-Delta Standards Between the State of California and the Federal Government (Principles for Agreement). The Principles for Agreement was signed on behalf of numerous urban, agricultural and environmental interest groups and governmental agencies on December 15, 1994. The SWRCB used several elements of this agreement (with some modifications) and the other recommendations from interested parties in preparing the draft plan. The DWR and the USBR agreed shortly after December 15, 1994 to meet immediately the standards in the Principles for Agreement and in the draft 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1995 Bay-Delta Plan). (SEWD 11, p. 3.)

The draft 1995 Bay-Delta Plan was released on December 15, 1994. On May 22, 1995, after holding a hearing and receiving comments, the SWRCB adopted the 1995 Bay-Delta Plan. The 1995 Bay-Delta Plan supersedes both the 1978 Plan and the 1991 Plan. The SWRCB will commence a water right proceeding during 1995 to determine the responsibilities of water right holders within the watersheds of the Bay-Delta Estuary to meet the objectives in the 1995 Bay-Delta Plan. This proceeding is expected to be completed within three years, and will include numerous water right holders in addition to the DWR and the USBR. Meanwhile, the water rights of the DWR and the USBR remain subject to the water right terms and conditions in D-1485, which implements the 1978 Plan.

2.3 Changes Requested in the Petition

The DWR and the USBR in their joint petition requested changes in some of the permit terms and conditions imposed by D-1485 and D-1422 so that they conform those terms and conditions with the new fish and wildlife standards for the Bay-Delta Estuary that are set forth in the Principles for Agreement. These conditions also are required by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (ESA). To obtain no-jeopardy findings for the DWR and the USBR operations that affect Delta smelt and winter-run Chinook salmon, the DWR and the USBR committed themselves to meet the new standards. In making this commitment, they substituted the new standards for the D-1485 standards as their operating criteria. The biological opinions, therefore, are conditioned upon the DWR and the USBR meeting the new standards. In this proceeding, the SWRCB is considering whether to conform the water right permits of the DWR and the USBR with the 1995 Bay-Delta Plan.

The key issues for the hearing were as follows:

- a. Issue 1: Should the SWRCB adopt the changes in the fish and wildlife standards required by D-1485, Table II which are set forth in Attachment B of the hearing notice?

The proposed changes would amend the standards in D-1485 applicable to the western Suisun Marsh, limits on export rates, closure of the Delta Cross Channel Gates and salinity levels required in the San Joaquin River during April and May for striped bass spawning.

- b. Issue 2: Should the SWRCB adopt the following condition?

Terms and conditions of this permit other than water quality standards or flow requirements shall be interpreted and implemented to avoid conflict with the Principles for Agreement on Bay-Delta Standards Between the State of California and the Federal Government executed on December 15, 1994, a copy of which is attached to this permit and incorporated herein.

- c. Issue 3: Should the SWRCB amend the conditions in Water Right Permits 16597, 16598, 16599 and 16600 issued pursuant to Water Right Decision 1422 (D-1422), Condition 5, as follows:

Releases of conserved water from New Melones Reservoir for water quality control purposes shall be scheduled so as to maintain a maximum 30-day running average of mean daily electrical conductivity (mmhos/cm) ~~mean monthly total dissolved solids concentration~~ in the San Joaquin River at Vernalis of 0.7 during April through August and 1.0 during September through March ~~500 parts per million or less as specified in the Water Quality Control Plan for the San~~

Francisco Bay/Sacramento-San Joaquin Delta Estuary and a dissolved oxygen concentration in the Stanislaus River as specified in the Water Quality Control Plan ~~(Interim)~~, San Joaquin River Basin 5C, ~~State Water Resources Control Board,~~ June 1971.

In the event that either ~~the~~ Water Quality Control Plan ~~(Interim)~~ is amended or superseded, the foregoing water quality objectives shall be modified to conform to then current criteria.

- d. Issue 4: Should the SWRCB adopt the following conditions in each of the permits listed in Attachment A?

- (a) For the DWR permits:

In addition to all other points of diversion or redirection authorized by this permit, permittee may divert water at the Clifton Court Forebay, located within the NW¼ of the SE¼ of Projected Section 20, T1S, R4E, MDB&M, and (with the approval of the USBR) at the Tracy Pumping Plant, located within the SW¼ of the SW¼ of Projected Section 31, T1S, R4E, MDB&M, provided that permittee shall not divert water at a rate higher than 10,350 cubic feet per second as a combined diversion rate from the Tracy Pumping Plant and the Harvey O. Banks Pumping Plant except when needed to make up for export constraints that reduce the amount permittee can export to less than the maximum percent of inflow authorized in Table II [see Attachment B of the notice]. Any increase in permittee's total export diversion rate above 10,350 cfs shall be subject to a finding by the Chief of the Division of Water Rights that the increased export rate will not have unreasonable effects on fish and wildlife.

(b) For the USBR permits:

In addition to all other points of diversion or rediversion authorized by this permit, permittee may divert water (with the approval of the DWR) at the Clifton Court Forebay located within the NW¼ of the SE¼ of Projected Section 20, T1S, R4E, MDB&M, and at Italian Slough, located within the NW¼ of the NE¼ of Projected Section 24, T1S, R3E, MDB&M, provided that permittee shall not divert water at a rate higher than 4,600 cubic feet per second as a combined diversion rate from the Tracy Pumping Plant and the Harvey O. Banks Pumping Plant, except when needed to make up for export constraints that reduce the amount permittee can export to less than the maximum percent of inflow authorized in Table II [See Attachment B of the notice]. Any increase in permittee's total export diversion rate above 4,600 cfs shall be subject to a finding by the Chief of the Division of Water Rights that the increased export rate will not have unreasonable effects on fish and wildlife.

- e. Issue 5: Terms 7 and 8 of D-1485 are no longer needed and should be deleted. If the terms in Key Issue 4 are added, Term 3 of D-1485 will no longer be needed. Should Terms 3, 7 and 8 be deleted?

3.0 PARTIES

3.1 Positions of Parties Presenting Only Policy Statements

Six parties presented only policy statements. Perry Herrgesell, representing the Department of Fish and Game, supported retaining the standards for stations S-35 and S-97 in the western Suisun Marsh and delaying their implementation until October, 1997. Mr. Herrgesell also recommended (1) a change in footnote 4 to Attachment B of the hearing notice, (2) some minor changes in the Suisun Marsh standards, (3) adoption of the striped bass spawning

standard of 0.44 EC (mmhos/cm) with the clarification that this standard must be met at both Jersey Point and Prisoners Point, and (4) the inclusion of language that would provide operational flexibility to make up for export constraints that reduce exports to less than the maximum percent of inflow.

Gary Bobker, representing the Bay Institute of San Francisco, supported the proposed changes in D-1485 under Issue 1 as modified by the operations group, with the addition of the narrative objective in the 1995 Bay-Delta Plan for protection of the Suisun Bay brackish tidal marshes. He opposed the changes in Issues 2 and 4.

Robert Helwick, representing East Bay Municipal Utility District, expressed the concern that if the joint points of diversion are approved project operations in the fall to make up for export constraints could adversely affect salmon migration to the Mokelumne River.

David Guy, representing the California Farm Bureau Federation, while expressing the need to protect existing water rights, supported approval of the joint points of diversion in the Delta.

Jim Easton, representing Delta Wetlands, asked that the SWRCB limit the approval of the joint points of diversion so that neither the DWR nor the USBR can increase their maximum rate of diversion or the total quantity that they are entitled to divert under their existing rights.

David Fullerton, representing the Natural Heritage Institute, opposed adoption of the term set forth under issue 2 and supported the approval of the joint points of diversion if the approval is properly constrained to avoid additional average annual exports.

3.2 Positions of Parties Presenting Evidence

The DWR and the USBR made a joint presentation. In opening, the DWR and USBR requested that in addition to the matters requested in the petition, that the SWRCB replace the striped bass survival standards in D-1485, for May 6 through July, with the outflow standards in the Principles for Agreement for May through July. The notice of hearing did not include this change. The DWR and USBR also asked that the Chipps Island standards be deleted as part of the change in the Suisun Marsh standards, but said they were not pressing this point. They did not favor deleting the D-1485 conditions listed in issue 5. For the short term, the DWR and the USBR asked for only partial approval of the requested joint point of diversion, limited to approval to the amounts of water that either the DWR or the USBR could export within the maximum diversion rates set forth in their permits. They asked that the SWRCB continue the matter of considering approval of using the joint points of diversion to divert water in excess of their current maximum diversion rates until they had worked with other parties to develop an acceptable approach. They noted that Contra Costa Water District had approached them regarding the inclusion of a condition on the use of the joint points of diversion relative to the Los Vaqueros project, but that they had not yet reached agreement.

The agencies that compose the Joint California Water Users group (JCWU) made a joint presentation. These agencies include Westlands Water District, the San Luis and Delta-Mendota Water Authority, Kern County Water Agency, the State Water Contractors, and the California Urban Water Agencies. The attorney for Kern County Water Agency conducted the direct examination. The JCWU generally supported the petition. They presented alternative language for issue 4, and they recommended that the SWRCB not act on changes to the Suisun Marsh standards in D-1485 at this time.

The California Sportfishing Protection Alliance (CSPA) generally opposed the petition. CSPA questioned the validity of the SWRCB's noticing the petition and setting it for hearing at one time, and also asserted that the SWRCB could not use the Environmental Report for the 1995 Bay-Delta Plan as environmental documentation for approval of the petition. CSPA also questioned the validity of projected water costs predicted by the DWR/USBR models. (CSPA Y, p. 2.) According to CSPA, the water supply impacts were over-estimated due to inflated base water demand estimates. CSPA argues these inflated demand estimates produced base exports that are greater than historical exports. (CSPA CC, p. II-2.) Also, CSPA questioned the use of the 1995 Bay-Delta Plan's environmental checklist and argued that the SWRCB should obtain an independent group to conduct an unbiased review of the modeling assumptions, such as export demand and water costs. (CSPA Y, p. 2.)

The water users in Area I of Westlands Water District (Area I) supported approval of the joint points of diversion but opposed approval of the changes proposed under issues 1,2, and 5 unless an expiration date is included and the SWRCB waives the statute of limitations on its action approving the petition.

The San Joaquin Tributaries Agencies (SJTA) supported approval of the joint points of diversion, but expressed concerns regarding the lack of an Old River barrier to protect out-migrating San Joaquin River Chinook salmon smolts. The San Joaquin Tributaries Agencies also alleged that implementing the plan will require them to contribute water for export pumping.

Stockton East Water District (SEWD), the City of Stockton (Stockton), Central Delta Water Agency, Reclamation District No. 2072, and R.C. Farms, Inc. (CDWA), South Delta Water Agency (SDWA), Central San Joaquin Water Conservation District (CSJWCD), and San Joaquin County coordinated their presentations.

Generally they opposed approval of the petition. They particularly objected to the proposed change in the Vernalis salinity standards, the change in export limits in May through July, the proposed term set forth in issue 2, and the joint point of diversion. Their contentions included arguments that approval of the petition would violate (1) the California Environmental Quality Act (CEQA), (2) the permits held by the USBR for the New Melones project, (3) prior orders issued by the SWRCB, (4) the federal authorization for the New Melones Project, (5) the area of origin laws at Water Code sections 11460 and 10505 et seq., (6) the Delta Protection Act at Water code section 12200 et seq., (7) the San Joaquin River Protection Act at Water Code section 12232, and (8) Water Code section 1702 which protects legal users of the water from injury if a change petition is approved. Stockton points out that the amount and timing of exports and the existence of low flows or reverse flows in the San Joaquin River affects Stockton's ability to meet the dissolved oxygen objective near Stockton's discharge location, as required by its National Pollutant Discharge Elimination System (NPDES) permit. Also, Stockton opposes the use of water exclusively from New Melones to meet the southern Delta standards during the period before the SWRCB adopts a comprehensive water right decision. CDWA questions the qualifications of the SWRCB members and staff to participate in this matter due to alleged conflicts of interest. CDWA alleges the existence of significant adverse effects under CEQA of the proposed action that have not been considered, including impacts on water levels and water quality in the central and southern Delta and in the San Joaquin River, impacts on ground water levels and quality, and impacts on the economy of the areas of origin.

Contra Costa Water District (CCWD) generally supported the petition but asked for the inclusion of a term in connection with the proposed change in export limits in May and June that would avoid an adverse effect on CCWD's ability to divert water to Los

Vaqueros Reservoir. CCWD noted that increases in export pumping by the DWR and the USBR during this period could make water unavailable to CCWD under a limit in CCWD's permits.

3.3 Legal Contentions of the Parties

As listed above, parties opposing approval of the petition made numerous legal arguments. These arguments fall generally into the areas of CEQA compliance, the requirement set forth at Water Code section 1702, statutes that protect areas of origin, the San Joaquin River and the Delta, a procedural issue regarding the processing of the petition, and conflict of interest. The issue of CEQA compliance is discussed in section 5.1 below. The other issues are discussed in this section and in connection with each of the proposed changes.

3.3.1 Compliance with Water Code Section 1702

The provisions of Water Code sections 1700 through 1707 govern changes in rights to divert and use water appropriated under the Water Code. These sections require the permission of the SWRCB before a change may be made. Section 1702 provides that "[b]efore permission to make such a change is granted the petitioner shall establish, to the satisfaction of the board, and it shall find, that the change will not operate to the injury of any legal user of the water involved." This section places a burden on the DWR and the USBR to prove that the proposed changes will not operate to the injury of other legal users of the water.

Several parties have claimed that they will be injured by one or more of the proposed changes. The factual issue of injury is discussed in connection with each of the proposed changes for which the allegation has been made. A legal user of water who could be injured would include any party who has an existing legally protectible right to use the water, where the proposed action would adversely affect the legal user's ability to use the water. This could include other water right holders who would

appropriate the water if the DWR or the USBR did not take it or abandoned it.

Some contract holders who buy water from the USBR also claim injury, but their rights to use water are dependent on the USBR's right to divert and use the water. Where the USBR has obligations either under its permits or under other laws to limit the amount of water it diverts and the times when it diverts the water, the contract holders' entitlements in the same water are, likewise limited. Additionally, the USBR's water right permits and licenses, while they authorize the USBR to divert water for beneficial uses, do not require the USBR to do so. The permits and licenses set the maximum amounts that the USBR can appropriate, but the USBR can appropriate less than its permits allow. Where the USBR decides to take less water than it is allowed and supplies less water to a contract holder than the contract holder claims as an entitlement, the contract holder's dispute is with the USBR.

3.3.2 Statutes Providing Special Protection

The parties in the San Joaquin County area have invoked the protection of several statutes that apply to exports of water by the DWR and the USBR and to actions affecting the Delta and the San Joaquin River. These include the county of origin statutes at Water Code sections 10505 and 10505.5, the watershed of origin statute at Water Code section 11460 et seq., the Delta protections at Water Code section 12200 et seq., and the San Joaquin River protections at Water Code section 12300 et seq.

The county of origin statutes provide in substance that no water right application filed by the state under Water Code section 10500 for the development or completion of a plan for the state's water resources can be used to provide water for use outside the county of origin if the water is necessary for the development of the county. The watershed of origin statute, together with

Water Code section 11128, prohibits the DWR and the USBR from depriving the watershed or area of origin or an area immediately adjacent to it, of the prior right to all of the water reasonably required to adequately supply the beneficial needs of the watershed or area, or its inhabitants and property owners. These two statutes prohibit delivery of water for uses outside the protected areas to the extent that water needs within the protected areas meet the statutory tests. To obtain the benefit of these statutes, a water user in a protected area could file a water right application and receive a permit with seniority over the rights of the DWR or the USBR to export water from the area. Alternatively, the water user could seek to contract for water supplies from the DWR or the USBR.

The Delta protections are at Water Code section 12200 et seq. Section 12202 provides that the DWR and the USBR shall provide salinity control and an adequate water supply for the users of water in the Delta. Section 12203 provides that it is state policy that no person, corporation or public or private agency or the state or the United States should divert water from the channels of the Delta to which the users within the Delta are entitled. Section 12204 provides that no water shall be exported from the Delta which is necessary to meet the requirements of sections 12202 and 12203.

The San Joaquin River protections are at Water Code section 12230 et seq. Section 12230 declares that a serious water quality problem exists in the San Joaquin River between the Merced River and Middle River. Section 12232 forbids state agencies, including the SWRCB and the DWR, from taking any action to cause further significant degradation of water quality in the protected reach. Section 12233, however, provides that this law shall not affect any vested right to the use of water for which an application to appropriate water was filed with the SWRCB prior to June 17, 1961. The applications of the USBR to appropriate

water at New Melones Reservoir on the Stanislaus River were filed on March 11, 1960 and on June 16, 1952. Since these applications preceded the enactment of Water Code sections 12230 et seq., the permits for New Melones Reservoir are not subject to these sections. Nevertheless, the SWRCB is mindful of the importance of improving salinity levels in the protected reach, and will consider including within the scope of its forthcoming comprehensive water right proceeding actions recommended by the parties to remedy the salinity problems in that area. The current proceeding on a petition for changes is not broad enough to accomplish the improvements in salinity which some of the parties are seeking.

3.3.3 Procedures for Processing the Petition

CSPA claims that the SWRCB deprived it of due process by giving notice of both the petition and the hearing in a single notice. CSPA suggests that the SWRCB should instead have published notice of the petition in its monthly notice of petitions. However, the monthly notice is used for changes where controversy is not expected or where the need for a hearing is not a foregone conclusion. Notice of larger or more controversial applications and change petitions is given individually.

CSPA's objection to the procedure used is tantamount to a claim that CSPA has a right to delay a project. Where it is clear that a hearing cannot be avoided, and the project is ready for a decision, a hearing may be noticed immediately, as in this case. Notice of a petition and a hearing simultaneously is not unprecedented, and it avoids delays. If the SWRCB had noticed the petition and the hearing sequentially, the result would have been considerable delay in the proceeding.

In this case CSPA actually received both an opportunity to protest the petition and a hearing. This is more process than is required. First, Water Code section 1703 gives the SWRCB

discretion whether or not to give any notice of a petition. Second, the SWRCB's regulations do not preclude the procedure used in this case. Third, CSPA was given a full opportunity to oppose the petition by this procedure. Indeed, CSPA was given an early opportunity to air its opposition to the petition before the SWRCB rather than spending time with paperwork to establish the validity of its protest. The combined notice and hearing satisfied the purpose of giving notice of an application or petition, which is to give any party who may have an interest an opportunity to make a case against the proposed action.

There was reason to move more quickly in this case than would be possible if extra time were provided for filing protests and answers. Under the current biological opinion for Delta smelt issued March 6, 1995, the DWR and the USBR are bound by requirements under the ESA that differ from their permit conditions in D-1485. Additionally, the DWR and the USBR agreed, subsequent to the signing of the Principles for Agreement, that they would meet flow requirements that would reduce their diversions of water. An early response to the change petition by the SWRCB will allow a change in operations this year.

3.3.4 Conflict of Interest Allegations

One party, CDWA questioned whether the SWRCB and its staff had maintained their impartiality with respect to the petition. CDWA expressed concern that the SWRCB may be bound to act consistently with the Principles for Agreement. In particular, CDWA expressed concern that the SWRCB may have negotiated and agreed to the Principles for Agreement, to the detriment of parties who did not participate in the negotiations. The SWRCB has responded to CDWA's inquiry. As explained in the response, the SWRCB is not bound by the Principles for Agreement, and the members of the SWRCB have taken great care to ensure their impartiality. None of the Board members attended any meetings in which the Principles for Agreement was negotiated. While some staff

members attended some of the meetings, they were present only for the purpose of observing and providing information. They did not participate in the negotiations and they did not advocate any position that was the subject of the Principles for Agreement. Nor did they serve as a communications link between the negotiators and the Board members. Under these circumstances there is no reason for any Board member or staff member to be disqualified from participating in this proceeding.

4.0 CONSIDERATION OF HEARING ISSUES

The petitioners have requested that the SWRCB take two actions. The first is to make changes in their water right permits that will make the terms and conditions of their permits consistent with the package of changes that are being required in their operations under new regulatory requirements. These changes are set forth in the 1995 Bay-Delta Plan. They also are in the Principles for Agreement, to which the DWR and the USBR agreed to operate, and in biological opinions for operation of the two projects. Without changes in their water right permits for operations in the Bay-Delta Estuary, the DWR and the USBR will have a greater reduction in water supply yield than they would have under either their D-1485 permits or under the new package of Bay-Delta protections. The new protections require export restrictions during parts of the year when they previously were unrestricted, while allowing more exports or fewer constraints than D-1485 during periods of some year types. The DWR and the USBR seek to conform their water right permits with the revised operational regime. In effect the DWR and the USBR are asking that the SWRCB give them authorization to operate to the entire new set of protections at this time and to relieve them from meeting those water quality objectives that have been replaced in the 1995 Bay-Delta Plan. When the DWR and the USBR agreed immediately to meet the new Bay-Delta protections as set forth in the Principles for Agreement and in their biological opinions (SEWD 11, p.2-3), they did so with the expectation that they

would not be required to meet the conflicting, seventeen year-old requirements in D-1485.

The second requested action is to allow the petitioners to have interchangeable points of diversion in the southern Delta. The conditions under which this latter request would be exercised was the subject of considerable discussion during the April 18, 1995 hearing. The petitioners originally sought an unrestricted use of each other's export facilities, but at the hearing they asked that the SWRCB consider the requested joint point of diversion in two phases: First, they request an immediate approval of the limited use of the joint point of diversion at the maximum rates of diversion that is currently authorized without the joint point of diversion. Second, they request that the SWRCB continue its consideration of an expanded use of the joint point of diversion until a later time.

4.1 Standard for Striped Bass Spawning

The petitioners requested that the D-1485 striped bass spawning standard in their permits be updated to reflect the standard in the Principles for Agreement. The 1995 Bay-Delta Plan contains a similar but different objective. During the hearing on this petition, several parties recommended a permit condition which they also had recommended for inclusion as an objective in the 1995 Bay-Delta Plan. (RT Vol.II, p. 17.) The parties generally concurred in this recommendation, and the objective has been included in the 1995 Bay-Delta Plan.

The striped bass spawning objective in the 1995 Bay-Delta Plan differs from the D-1485 standard in three respects. First, the numerical objectives have changed. Second, the compliance locations have changed, and third, the method for relaxing this standard in water short years is changed. Instead of setting a standard and then relaxing it during critically dry years, the current standard does not apply during critically dry years.

While several parties expressed general concerns with implementing the 1995 Bay-Delta Plan outside a more comprehensive water right hearing, no parties expressed specific concerns with the appropriateness of implementing the striped bass spawning objective at this time. In the absence of serious concerns about immediately implementing this objective, the SWRCB finds that it is reasonable to adopt a permit condition that requires compliance with this objective as set forth in the 1995 Bay-Delta Plan.

In addition to requesting the above change in the striped bass spawning standard, the DWR at the April 1995 hearing (RT Vol. I page 42) and in its closing statement requested that the SWRCB also consider replacing the D-1485 striped bass survival standards in May through July (these are outflow standards to be achieved at Chipps Island) with the Delta outflow objective which is contained in the 1995 Bay-Delta Plan. D-1485 requires higher flows than the new objectives only in wetter years like 1995. However, 1995 is so wet that meeting the D-1485 striped bass survival standards is not likely to cause the two projects to forego water deliveries or affect water storage levels.

This request was not set forth in the petition and was not included in the notice of hearing. As a result, the interested parties were not provided a full opportunity to respond to this request. Therefore, it would be not be fair to the other parties for the SWRCB to act on this request at this time. The SWRCB will consider implementing this objective when it conducts the comprehensive water right proceeding which will commence this year. The SWRCB does not expect that continuing to meet the striped bass survival standards will pose a significant operational burden to the USBR and DWR. However, if hydrologic conditions exist that would cost yield, the USBR and DWR could petition the SWRCB to consider this matter at that time.

4.2 Suisun Marsh Standards

The DWR and USBR petitioned the SWRCB to revise the Suisun Marsh standards to be consistent with the Principles for Agreement. The Principles for Agreement recommend that the SWRCB adopt the provisions of the Suisun Marsh Preservation Agreement (SMPA). The DWR, DFG, SRCD and USBR signed the SMPA in 1987. It differs from the current D-1485 standards¹ in two significant respects. These are (1) it would relax the standards in short water supply years, and (2) it would provide for renegotiation if it becomes difficult to meet the standards.

The 1995 Bay-Delta Plan includes several changes in the Suisun Marsh objectives, which are discussed in the Environmental Report to the 1995 Bay-Delta Plan. (SWRCB Exhibit 3b, Appendix I, page VIII-48, et seq.) The 1995 Bay-Delta Plan objectives include relaxations in water short years for the western marsh consistent with the SMPA, but do not include relaxations for the eastern marsh. Even with relaxations in water short years, the western Suisun Marsh will, when the objectives are implemented, have better water quality under the revised objectives than it has had in the recent past. The revised objectives will provide reasonable protection to this area. No relaxations for the eastern Suisun Marsh are needed since the Delta outflow objective in the 1995 Bay-Delta Plan together with the normal operation of the Suisun Marsh Salinity Control Gates are sufficient to meet the unrelaxed standards even in water short years. Overall, the Suisun Marsh standards will when implemented provide a gradient of water quality from the western Suisun Marsh to the eastern Suisun Marsh in water short years. Based on the Environmental

¹ In an order issued on December 5, 1985, the SWRCB changed the compliance dates for some D-1485 standards for Suisun Marsh. The SMPA includes compliance dates and locations similar to the revised D-1485 standards. As revised, D-1485 requires compliance with stations in the eastern Suisun Marsh by 1988 but authorizes phased implementation of the stations in the western Suisun Marsh, with objectives at all stations to be met by 1997.

Report in the 1995 Bay-Delta Plan this will be beneficial to the ecosystem.

During the hearing, some of the parties argued that the compliance date for DWR and the USBR to meet the objectives at stations S-35 and S-97 in the western Suisun Marsh should differ from the 1997 date in the 1995 Bay-Delta Plan². In accordance with a recommendation in the program of implementation for the 1995 Bay-Delta Plan, the parties to the SMPA and other parties intend to review the Suisun Marsh standards using new information on the relationships between channel salinity, soil salinity and Marsh plant production. As a result of the review, they may develop new recommendations for standards before the 1997 compliance date. The DWR asked the SWRCB to delete the implementation dates currently required in D-1485 and replace it with a "target" date of 1997. The JCWU recommended that the SWRCB not modify the D-1485 Suisun Marsh standards at this time, to help reserve a negotiating position with other parties. (RT Vol. II page 44.) The DFG recommended that the SWRCB incorporate the provisions of the 1995 Bay-Delta Plan in the water right permits (including the 1997 implementation dates for the western Suisun Marsh). (RT Vol. I page 16.)

In D-1485 and in the 1978 Plan the SWRCB found that the CVP and SWP have a mitigation responsibility to protect Suisun Marsh. (See figure VI-1 page VI-10 of the 1978 Plan.) In this proceeding the SWRCB has received no new information affecting the SWRCB's previous finding. In fact, the relaxation of the standards in water short years as set forth in the SMPA and the

² The western Suisun Marsh stations are S-21, S-42, S-97 and S-35. The 1995 Bay-Delta Plan changed the 1993 and 1991 compliance dates for S-97 and S-35 respectively to 1997. These changes reflect recent information that shows that additional facilities or augmented overland water supplies are likely needed to meet the standards at S-35 and S-97. The compliance dates for stations S-35 and S-97 have been changed to 1997 to allow more time to plan and implement programs to meet the standards at these stations.

1995 Bay-Delta Plan for the western Marsh make it even more likely that these relaxed conditions could have been met absent the CVP and SWP. Therefore, it is appropriate to maintain the 1997 implementation date for the western Suisun Marsh stations (specifically S-42, S-35 and S-97) together with the relaxation provision contained in the SMPA and the 1995 Bay-Delta Plan in the water right permits of the CVP and SWP. However, other local water projects also can affect water quality in Suisun Marsh, and there is a need to review the appropriateness of Suisun Marsh salinity standards. This review is described in the implementation plan of the 1995 Bay/Delta Plan. Based on this review the SWRCB should evaluate by August 1997 the Suisun Marsh objectives, the implementation dates and the responsibility of other agencies to help meet these standards.

4.3 Standards for Operational Constraints

The USBR and DWR request that the SWRCB replace the May through July export limits in D-1485 with the new full-year export limits in the 1995 Bay-Delta Plan and replace the Delta Cross channel closures in D-1485 with the gate closures in the 1995 Bay-Delta Plan.

The Delta Cross Channel, Delta diversions and entrainment of fish in the Delta diversions are described in Chapter V of the Plan's Environmental Report. (SWRCB 3b, p. V-8 through V-10 and V-13 through V-21 of Appendix I.) The objectives for export limits are set as a combined inflow rate for Clifton Court forebay (minus actual Byron-Bethany Irrigation District diversion from Clifton Court Forebay) and the Tracy pumping plant divided by the total inflow to the Delta. (SWRCB 3b, Appendix I, p. II-10.)

4.3.1 Export Limits

The 1995 Bay-Delta Plan includes objectives for export limits to protect the habitat of anadromous and estuarine-dependent species. These limits reduce entrainment and mortality of young

fish, eggs, and larval life stages by the major export pumps in the southern Delta. The export limits are intended to be used with intensive real-time monitoring designed to detect the presence of fish in areas adjacent to the pumps. (SWRCB 3b, Appendix I, p. VIII-29.)

The new export limits are a percentage of inflow. The 1995 Delta Plan limits export pumping to 35 percent of Delta inflow from February through June. Export pumping during this period can be increased to 45 percent in February if the best available estimate of the January Eight River Index is less than or equal to 1.0 MAF. The 1995 Bay-Delta Plan provides that when the best available estimate of the Eight River Index is between 1.0 MAF and 1.5 MAF, the export limit for February will be set by the operations group established under the Framework Agreement, and that it will be within the range of 35 percent to 45 percent. (SWRCB 3b, p. VIII-29 of Appendix I.)

The concept of limiting exports rates to a percentage of inflow is founded on two basic principles. First, exports may increase during periods when higher volumes of fresh water are flowing through the Delta without increasing the risk of adverse biological effects. Correspondingly, exports should decrease during those years when freshwater inflow to the Delta is decreased and a larger percentage of fish and other aquatic organisms are geographically distributed further upstream where their susceptibility to export losses is increased. Second, the percentage of water diverted in recent years, particularly during the spring, has increased substantially above diversion levels (expressed as a ratio of exports to inflow) during earlier years when aquatic resources inhabiting the Bay-Delta system were at higher population levels. (SWRCB 3b, Appendix I, p. VIII-29.)

Relatively low export/inflow ratios are specified during February through June (≤ 35 percent) when fish, eggs, and larvae are

especially vulnerable to entrainment at the pumps. The export limits during the remainder of the year allow exports to 65 percent because fish are less vulnerable at those times to diversion losses. This helps balance fish protection with water supply needs. (SWRCB 3b, Appendix I, p. VIII-29.)

In the interim before the SWRCB adopts a comprehensive water right decision to allocate responsibility for the Bay-Delta objectives, the SWRCB will authorize the DWR and the USBR to change from the D-1485 export limits to the export limits in the 1995 Bay-Delta Plan. This authorization will expire upon adoption of a comprehensive water right decision that allocates final responsibilities for meeting the 1995 Bay-Delta objectives or on December 31, 1998, whichever comes first.

In connection with the proposed changes, CCWD requested a special term to protect its right to divert water to Los Vaqueros Reservoir. CCWD's right to divert to storage is premised upon avoidance of adverse effects on CVP and SWP operations "under permits and licenses for the Projects in effect on the date of this Order." Thus, a crucial portion of the foundation for CCWD's Los Vaqueros right to divert to storage is the water rights of the CVP and the SWP in effect as of the date of Water Right Decision 1629 (D-1629). (CCWD 1, p. 2-3.)

In recognition of Water Code section 1700 et seq., this order protects CCWD's water diversions from injury resulting from the petitioned changes in points of diversion which will allow joint use of the Banks Pumping Plant and the Tracy Pumping Plant by the DWR and the USBR. This order protects CCWD's right by precluding the DWR's and the USBR's use of each others' diversion points if the shift in diversion points would adversely affect any legal user of water. (See section 4.6 below.) If a shift in point of diversion would prolong balanced conditions in the Delta it could

adversely affect CCWD rights issued pursuant to D-1629. Such operations should be avoided.

The change from the 3000 cfs per project limit on export pumping in May and June to the proposed standard could result in circumstances in which CCWD's ability to divert to storage under D-1629 would be reduced. However, this change is not a change in point of diversion, place of use, or purpose of use. Water Code section 1700 et seq. recognizes that changes in these three matters are changes in the water right and could result in injury to other legal users of water. The CVP and the SWP have water rights that are senior to CCWD's Los Vaqueros water rights. This change shifts the timing of constraints on operations of the CVP and the SWP. Consequently, the new standard will, during some times of the year, allow DWR and USBR to capture flows under their existing rights that they could not capture under the old standard, but it will prevent them at other times from capturing flows that they could capture before. This is a shift in the regulatory constraints on exercise of the two projects' water rights, not a change in their water rights.

Representatives of Area I opposed the changes in operational constraints to the extent that these changes might cause reductions in irrigation water deliveries by the USBR. They stated that the 1995 Bay-Delta Plan does not sufficiently consider the economic impacts of the potential reductions in water supply. The USBR already has reduced its deliveries south of the Delta, however, in response to its obligation under the federal ESA. The SWRCB is under no obligation to analyze the impacts of the USBR's compliance with the federal ESA. (SWRCB 3b, Appendix II, p. 100.) The changes in the USBR's water right permits to authorize the new operational constraints will not result in further reductions in water supply beyond those set forth in the ESA biological opinions. Instead, these changes may allow an increase in water supply in some years above the current

limits because the existing water right constraints on exports during May, June and July will change. During wet years this may allow more exports during these months. A complete analysis of water supply and economic impacts of shifting from the D-1485 standards to the new objectives in the 1995 Bay-Delta Plan is presented in Appendix I of the 1995 Bay-Delta Plan.

4.3.2 Cross Channel Gate Closures

The 1995 Bay-Delta Plan includes an objective for closure of the Delta Cross Channel gates. The objective requires the Delta Cross Channel gates to be closed 45 days during November through January, closed completely from February 1 through May 20, and closed for 14 days from May 21 through June 15. The purpose of this objective is to reduce the transport of emigrating salmon smolts, and eggs and larvae of other fish, into the central Delta where they are more vulnerable to entrainment by the major export pumps and local agricultural diversions. (SWRCB 3b, p. 13; Appendix I, p. VIII-27.)

The February through June period includes the peaks of both the migration season for winter and fall-run chinook salmon smolts, and the spawning season for species such as Delta smelt, longfin smelt, Sacramento splittail, and striped bass on the Sacramento River. The diversion of smolts, eggs, and larvae out of the mainstem of the Sacramento River through the Delta Cross Channel and into the central Delta exposes them to numerous hazards, including entrainment in agricultural diversions and the export pumps, increased temperature, reduced food supply, and longer migration routes. Closing the Delta Cross Channel gates reduces diversions of aquatic organisms into the central Delta, concentrates more flow in the mainstem Sacramento River, and helps transport eggs, larvae, and smolts into Suisun Bay. (SWRCB 3b, Appendix I, p. VIII-27.)

In the interim before the SWRCB adopts a comprehensive water right decision to allocate responsibility for the Bay-Delta objectives, the SWRCB will amend the permits of the DWR and the USBR to change from the D-1485 Delta Cross Channel gate closure requirements to the gate closures for the Delta Cross Channel as set forth in the 1995 Bay-Delta Plan.

4.4 Requested Interpretation of D-1485

The DWR and the USBR request that the SWRCB adopt a new condition in the permits affected by D-1485 which provides, in effect, that all other conditions, including monitoring requirements, imposed by D-1485 are to be interpreted and implemented to avoid conflict with the provisions of the Principles for Agreement. The petition cites monitoring requirements imposed by D-1485 as an example of conditions that are to be interpreted to avoid conflict with the Principles for Agreement. The suggested condition is set forth in section 2.3 above.

A number of parties expressed concerns with this proposal. They contended that it is unclear who would decide, and under what circumstances, whether a particular condition should be reinterpreted. They were concerned that a permit term could be reinterpreted by the water right holder, or could receive an interpretation that differs substantially from the plain meaning of the term. Because this term is unclear and has no prior usage in water right permits and licenses, it can be read as providing an opening for substantially changing a permit or license term without notice. In consideration of the substantial concerns of the parties, the requested condition will not be adopted.

4.5 Vernalis Salinity Standard

The USBR has requested that the SWRCB take notice of Condition 5 of D-1422 and conform the water quality objectives specified in the CVP water right permits issued pursuant to D-1422 with the current water quality objectives for Vernalis of 1.0 and 0.7

mmhos/cm EC for the specified periods of the year. Recently some confusion has existed as to whether the USBR must meet the 500 mg/l standard in D-1422 or the 1.0 and 0.7 mmhos/cm EC objective in the water quality control plan. While the 1.0/0.7 mmhos/cm objective has been in the water quality control plan since 1978, it has not been implemented through a change in the USBR's water right permits for New Melones. Approval of the proposed change will clarify that the USBR must meet the latter objective at Vernalis. The text of the proposed amendment to Condition 5 is set forth in section 2.3 above.

The petition requested immediate implementation of the new salinity objective only at Vernalis. The USBR's current obligation in D-1422 is to meet the 500 mg/l TDS standard at Vernalis only. The SWRCB will consider in its comprehensive water right proceeding the allocation of responsibility for meeting this objective at the other stations in the southern Delta where the plan specifies that this salinity is required. At this time it cannot be determined whether the USBR or another party should be responsible for this objective at the other stations.

The 1.0/0.7 mmhos/cm EC objective requires approximately the same amount of water each year as the 500 mg/l TDS objective. (RT Vol. I, p. 199-200.) Therefore, it will be approximately equivalent to the current requirement at Vernalis in terms of water supply cost.

The 1978 and 1991 Plans established agricultural objectives in the southern Delta based on the salt-sensitivity of beans and alfalfa, the two most widely grown salt-sensitive crops in the southern Delta. Meeting the objectives for these crops also protects other, less salt-sensitive, crops. (SWRCB 3b, p. VIII-61 of new ER; SWRCB 1, p. 5-12 of 1991 WQCP.) An objective of 0.7 mmhos/cm EC in the southern Delta protects beans during the

summer irrigation season (April 1 through August 31) and an objective of 1.0 mmhos/cm EC protects alfalfa during the winter irrigation season (September 1 through March 31). The objectives in the 1995 Bay-Delta Plan are the same as the objectives set forth in the 1991 Plan except that the compliance date for the Old River objectives is extended by two years. (SWRCB 3b, p. VIII-61 of Appendix I.)

Some of the parties argued that summer crops are irrigated through October, and that this objective will, if implemented, provide worse salinity during September and October than currently is required. While the irrigation water during these months may be more saline, however, the important factor is the salinity of the soil. Because this objective provides lower salinity levels than the old objective starting in April, the soil salinity can be expected to be lower in September and October than it would be if it had been irrigated all summer with water having a salinity of 500 mg/l TDS. During September and October, summer crops including beans are less salt-sensitive than they are earlier in the summer.

This order requires the USBR to meet the new salinity objective at Vernalis. The SWRCB will consider requiring implementation of this objective at the other stations specified in the objectives when it adopts a comprehensive water right decision as a result of the forthcoming water right proceeding.

4.6 Changes in Points of Diversion and Rediversion

The petitioners requested that the SWRCB add points of diversion and rediversion to the D-1485 permits of the DWR and the USBR listed in Attachment A adding authorizations for the DWR to divert or redivert water at the Tracy Pumping Plant and at Clifton Court Forebay and for the USBR to divert or redivert water at the Clifton Court Forebay and at Italian Slough. (SWRCB 4.)

The proposed change could be used to decrease the impacts of export diversions on Delta fisheries. The two diversions are at different locations and can entrain fish species at different rates. A combined point of diversion would allow pumping to shift between diversion points based on the density of fish near the diversion points. (SWRCB 3, p. X-10 of Appendix I.) With the ability to shift between diversion points, the DWR and the USBR could help protect the fisheries while maintaining their water supply yield.

A number of parties expressed concern with this request, because it has the potential to allow an increase in the net amount of water exported from the Delta by the two projects. This concern is well-founded. The CVP has an excess water supply north of the Delta, but it doesn't have sufficient conveyance capacity to transport the water to its ultimate place of use south of the Delta. The SWP on the other hand has surplus capacity in its conveyance facilities but an insufficient upstream water supply. Therefore, the excess capacity in the SWP facilities could be used to transport more CVP water for use in its service area. The CVP has limited rights under its water rights permits to use the SWP diversion facilities in the Delta. D-1485 authorizes the CVP to use SWP facilities to make up deficiencies incurred in May and June because of the D-1485 export restrictions. The SWP water rights do not identify the CVP export facilities as an authorized point of diversion or rediversion. (SWRCB 3b, Appendix I, p. X-10.)

An increase in exports could affect the availability of water to other water right holders in the Delta and has the potential to cause significant environmental effects that have not been analyzed. To avoid adverse effects of this change to either water right holders or the environment, the SWRCB will limit its approval of this change. Under the approval, there will be no increase in net water exported because of this change, the use of

the alternative diversion points will be allowed only when it will benefit fish resources in the Estuary, and the use of the alternative diversion points will be allowed only if there is no adverse effect on legal users of water and no significant adverse environmental effect. This change will expire upon adoption of a comprehensive water right decision that allocates final responsibilities for meeting the 1995 Bay-Delta objectives or on December 31, 1998, whichever comes first.

If the SWP and the CVP request additional authority to use each other's points of diversion and provide adequate environmental documentation to support their request, the SWRCB will consider further changes in the amount of water that can be diverted and the circumstances under which diversions can be made at each others' diversion points.

4.7 The Need for Terms 3, 7, and 8 of D-1485

The hearing notice asked whether terms 3, 7, and 8 of D-1485 should be deleted. Term 3 authorizes limited use of the SWP diversion facilities by the CVP. Term 7 requires actions for the protection of Suisun Marsh which generally have been completed. Term 8 addresses salinity protections for southern Delta agriculture which were required in 1980. A number of the parties objected to the deletion of these terms. Accordingly, these terms will not be deleted. Term 3, however, is based on the export limits that would be in force under the unamended provisions of D-1485. During the effective period of this order, those export limits will be supplanted by the export limits in the 1995 Bay-Delta Plan. Therefore, Term 3 will be suspended until this order expires.

5.0 ENVIRONMENTAL CONSIDERATIONS

5.1 The Use of the 1995 Bay-Delta Plan Environmental Report

Under CEQA the SWRCB is the lead agency for preparation of environmental documentation on this action. While the DWR could

be the lead agency for this action, it has not assumed that role. It is appropriate for the SWRCB to act as lead agency in this situation.

The SWRCB has prepared environmental documentation (Environmental Report, or ER) in connection with the 1995 Bay-Delta Plan which analyzes the environmental effects of implementing the 1995 Bay-Delta Plan. The 1995 Bay-Delta Plan was prepared in accordance with a program certified under Public Resources Code section 21080.5. Documents that are prepared under programs that have been certified under section 21080.5 are exempt from the requirements for preparing environmental impact reports, negative declarations, and initial studies. Such a document is used as a substitute for an EIR or negative declaration, and regulatory review under a certified program is deemed to be functionally equivalent to the environmental analysis that is otherwise required by CEQA.

The March 30, 1995 supplement to the March 3, 1995 hearing notice for this proceeding states the SWRCB's intent to use the environmental analysis contained in the ER for the 1995 Bay/Delta Plan as the environmental documentation for the current proceeding.

The Environmental Report is a programmatic document which meets the requirements for a Programmatic EIR. (See 14 Cal. Code Regs. § 15168.) Interim implementation of the 1995 Bay-Delta Plan under the SWRCB's water right authority is the next logical action in a chain of contemplated actions. The CEQA regulations direct an agency to prepare a single program EIR where a phased project is to be undertaken and where the total undertaking comprises a project. The SWRCB believes that a programmatic analysis under a certified program may be used as a basis for subsequent implementing actions without having to prepare additional environmental documents. In response to a request by

the SWRCB for an opinion on this issue, the Deputy Secretary and General Counsel of the California Resources Agency responded in a letter dated April 4, 1995 that an environmental analysis prepared under a certified regulatory program can be relied upon for subsequent discretionary actions when the environmental analysis has programmatically disclosed and analyzed the effects of the subsequent action.

Further, the CEQA regulations, at Title 14, California Code of Regulations section 15253, authorize the use of an EIR substitute by a responsible agency, but overlooks the possibility that the agency preparing the substitute document could have a subsequent approval of the same project. If the SWRCB's action under its separate water right authority were carried out by a separate agency, there is no question that the substitute document could serve as an EIR for the water right action, because all of the conditions in section 15253(b) would be met: (1) the SWRCB is the first agency to grant approval, (2) the SWRCB certainly can be deemed to have engaged in consultation between its water quality and water rights authorities, (3) the Environmental Report identifies the significant environmental effects of the action within the water right authority and identifies alternatives and mitigation measures, (4) the SWRCB under its water right authority was fully informed of the substitute document, and (5) the SWRCB under its water quality authority exercised the powers of a lead agency by considering all the significant effects of the project and making findings under section 15091 for each significant effect.

The environmental impacts of the SWRCB's action on this petition falls within the analysis of impacts recently considered by the SWRCB in the ER for the 1995 Bay-Delta Plan. (SWRCB Exhibit 3b.) The ER is a programmatic document that discloses the specific and cumulative effects of implementing the 1995 Bay-Delta Plan. The various regulatory actions in the Bay-Delta Estuary will provide

better protection to the fish and wildlife resources. The implementing regulatory actions include the Biological Opinions for Delta smelt and winter run Chinook salmon, water right changes which are the subject of this proceeding, and future changes to the water rights of water right holders in the watershed of the Estuary.

The ER discusses the water right measures to implement the 1995 Bay-Delta Plan. The analysis of impacts contained in Chapters VII, VIII, XII, and XIII presents the water quality, flow, operational, biological, economic and other impacts related to implementing the 1995 Bay-Delta Plan. The analysis contained in the ER assumes that the objectives in the 1995 Bay-Delta Plan and their implementation are the only regulatory measures that control Delta operations. It assumes that any conflicts between D-1485 and the new objectives in the 1995 Bay-Delta Plan will be removed through SWRCB action. This proceeding removes the remaining impediments to implementation of the 1995 Bay-Delta Plan, which already has largely been implemented through the combined actions of several agencies. Removal of these impediments is necessary to achieve the transition to the new objectives contained in the 1995 Bay-Delta Plan. Therefore, it is proper to use the ER as the environmental document under CEQA for consideration of the petitions before the SWRCB in this proceeding.

The ER for the 1995 Bay-Delta Plan discloses the environmental impacts of the actions set forth in this order together with the impacts of implementing the other aspects of the 1995 Bay-Delta Plan. Due to the interrelationship of the standards it is not feasible to isolate the impacts of this step in implementation from implementation of the other standards in the 1995 Bay-Delta Plan. To do so would show only minimal effects of this action, but would ignore the larger cumulative impacts of the recent

actions of other regulatory agencies to better protect fish and wildlife resources in the Bay-Delta Estuary.

The SWRCB intends to take additional water right actions beyond this proceeding to consider allocating responsibility for meeting Bay-Delta objectives to other water users in the watershed in addition to the CVP and SWP. While the additional water right actions are discussed programmatically in the ER, the SWRCB anticipates that further environmental documentation will be necessary to support that action.

5.2 Significant Environmental Impacts of this Action

Below is a discussion of the impacts that this action will have together with the cumulative impacts of the actions of other agencies to provide better protection to fish and wildlife resources in the Bay-Delta Estuary. A detailed discussion of these impacts is contained in the ER at Chapters VII (Water Supply Impacts, Chapter VIII (Environmental Impacts), Chapter XII (Economic Impacts) and Chapter XIII (Effects of Preferred Alternative on Special Status Species).

5.2.1 General Biological and Water Supply Impacts

The effect of revising the objectives and implementing them is to provide an essential component of the comprehensive regulatory package that will protect the Estuary's beneficial uses. The overall package includes better salinity protection (from saltwater intrusion and agricultural drainage) and improved protections from water project operations that affect flow and entrain fish. (SWRCB 3b, p. 3.) The effect of this order, together with the other regulatory actions, will be to put into effect full implementation of the new objectives on an interim basis.

Within three years, the SWRCB expects to adopt a water right decision that provides long-term protection for the Estuary's

beneficial uses and determines the responsibility for meeting these objectives among water right holders within the watersheds of the Estuary. The ER shows that the objectives, when implemented, will improve the protection for fish species, especially in dry years compared with the provisions of D-1485. These additional protections are necessary because the Estuary's fishery resources have been declining precipitously during the past several years.

This order will remain in effect only until the comprehensive water right proceeding is completed. The limited term of this order avoids any long-term significant environmental effects of this order. During the effective period of this order, improved protections for the Estuary's fisheries will come from increased outflow requirements imposed under the ESA and decreased exports in dry years. This will cause a decrease in water available for out of stream uses. This loss of water supply could result in temporary environmental effects in the areas of water use during the next three years. Any such effects will be short-term effects since this order will remain in effect for no more than three years and this order minimizes the effects through terms and conditions. The benefits of providing protection for fish and wildlife uses in the Estuary during the next three years outweigh any short-term significant environmental effect that could occur due to temporarily implementing the 1995 Bay-Delta Plan.

In wet years the revised requirements actually may provide increased water supplies to areas outside the Estuary compared with exports available under D-1485. There may be some corresponding decrease in environmental protection for estuarine uses in wet years. While the increase in water supply in wet years will help to offset the water supply impacts in dry years, it does not entirely offset these impacts. Overall, however, the new standards are expected to provide better protection to fish

and wildlife resources in the Bay-Delta Estuary at the expense of developed water supply.

Some parties have expressed concern that approval of this order will have the effect of allowing the CVP and the SWP to export more water during May, June, and July in wetter periods than they could under the current ESA requirements (which require compliance with the bulk of the objectives in the Plan) plus D-1485. Increased exports potentially could occur, but during the wetter periods the incremental increases in exports are unlikely to have a significant effect on the environment since there will be more water available for all beneficial uses and the Delta fisheries have generally better protections. During drier periods, less water likely will be exported than under D-1485, providing a benefit to the Estuary's environment. To export larger amounts during drier periods, the inflow would have to increase above historical levels in these periods.

As explained elsewhere in this order, the ER compares the impacts of implementing the 1995 Bay-Delta Plan with D-1485. It does not compare these specific changes with actions taken earlier this year under the ESA. The approach taken in the ER is appropriate, since the ESA actions and this order are consistent and are part of a coordinated state-federal approach to protection of the beneficial uses of the Bay-Delta Estuary. Because the effect of this order is to complete the short-term implementation of the 1995 Bay-Delta Plan, the effects of this individual order should be compared with D-1485, not D-1485 plus the ESA requirements.

If the old export limits in D-1485 remained in place along with the new ones, the CVP and the SWP could incur substantial water costs in wetter years beyond their expectations when they agreed to meet the new limits. It is important to maintain the water supply in the export areas as well as in the Delta, and the need to protect that water supply makes it infeasible to retain the

existing export limitations in D-1485 while putting the new export limits into effect.

Finally, the use of a different CEQA base for comparison that includes both the new ESA requirements which include the export limits plus the D-1485 export limits would be purely theoretical. This physical situation never has existed. Since CEQA requires a comparison with existing conditions, this base would not be appropriate. Further, this theoretical base would not disclose some of the water supply impacts of the new objectives. The ESA requirements have substantial water supply impacts compared with D-1485, especially on users of water from the Stanislaus River. Use of the theoretical base would show very small water supply impacts to these users. The base for comparison used in the ER discloses these impacts.

5.2.2 *San Joaquin River Salinity and Water Supply*

Numerous parties in the hearing argued that the proposed changes could have effects on San Joaquin River water quality in the Delta and water supplies upstream of the Delta. The ER on pages VIII-10 to VIII-24 discusses the environmental effects on water quality and water levels of implementing the new objectives in the San Joaquin River, the central Delta and the southern Delta. The ER on Pages VII-9 to VII-11 discusses the effects on water supply in the San Joaquin River Basin of these standards.

The actions that have the largest effect on flow, water level and water supply along the San Joaquin are the flow requirements of the USBR under the biological opinion issued by the USFWS for Delta smelt. (SEWD 11, p. 17.) This action which already has been taken by the USFWS to protect this endangered species has a profound effect on the San Joaquin River both in terms of providing better protection to fish and in terms of affecting water supplies upstream that will now be used to meet these higher instream flows. The San Joaquin interests who expressed

concerns with the effects of expected new water right conditions for the San Joaquin River Basin were in fact addressing the effects of the biological opinion. (RT Vol. I, pp. 185-189.) Until responsibility for these flows is distributed to additional water users in the San Joaquin watershed these fishery flows may not always be met by the USBR because of the limited water supply capacity of New Melones Reservoir. In this interim period the SWRCB expects that the USBR will continue to honor its water right permit terms to protect prior rights, fisheries and water quality in the Stanislaus River Basin downstream to Vernalis.

This order updates the salinity standard at Vernalis (a monitoring station on the San Joaquin River where it enters the Estuary). The San Joaquin area parties apparently are opposing this updated standard because they cannot, in this proceeding, oppose the flow requirements imposed by the USFWS. The existing salinity standard is contained in the USBR's water right permits for New Melones Reservoir and is intended to protect Delta agriculture. The new standard would provide better protection (lower salinity) to agriculture in the spring and early summer when good water quality is most important and provide slightly worse water quality (higher salinity) in the late summer, fall and winter when water quality is less critical. The water supply impact of this new standard is the same as the 500 mg/l TDS requirement in D-1422 (RT Vol. I page 199-200). The SWRCB believes that implementing this initial standard at Vernalis will generally improve protections for beneficial uses of water from the San Joaquin River in the Vernalis area.

Neither the plan itself nor the petition requires the USBR to meet the flow objectives during the interim period before the water rights phase is completed. Absent a showing of waste or unreasonable use or impairment of public trust uses, the SWRCB cannot prevent the USBR from varying its operation within the constraints of its water right permits. Although the place of

use for consumptive uses of water from New Melones in the USBR's permits is limited to the four county area, the use of water in the Delta for flow and water quality purposes at Vernalis is permitted. The limitation of consumptive uses to the four county area prevents the USBR from selling New Melones water for consumptive uses outside these counties, but it does not preclude the USBR from releasing the water for fish flow and water quality purposes downstream at Vernalis. Nothing in the USBR's water right permits requires the USBR to contract with a particular water user within these counties beyond that needed to protect prior water rights. (SWRCB 3b, Appendix II, p. 30.)

The DWRSIM operation study for the 1995 Bay-Delta Plan objectives assumes that only 70 TAF will be released from New Melones Reservoir to control salinity at Vernalis (SWRCB 3b, Appendix I, p. VIII-61) even though D-1422 requires the USBR to release sufficient water to achieve the salinity objectives at Vernalis. The assumption is reasonable because salinity control over the long term is unlikely to be achieved exclusively through releases of high quality water from upstream reservoirs. (SWRCB 3b, Appendix II, p. 71.) In the long term, the SWRCB intends to implement the Vernalis salinity objective through a combination of agricultural drainage control and freshwater releases. (SWRCB 3b, Appendix I, p. VIII-61.) Additional measures, including control of saline discharges and discharge of saline water to a salt sink, must also be considered. The SWRCB will consider the issue of salinity control at Vernalis during the comprehensive water right phase of the proceedings. (SWRCB 3b, Appendix II, p. 71.)

A comparison of the modeled salinity at Vernalis between the base case of D-1485 and D-1422 standards and the objectives in the 1995 Bay-Delta Plan over the period 1987 to 1992 is provided in the ER at pages VIII-23 to 24. (SWRCB 3b, Appendix I, p. VIII-23-24.) This analysis assumed that there would be water

available on the San Joaquin River to meet all of the flow requirements, as required by the biological opinion for Delta smelt, and that only 70 TAF would be used for salinity control under the base case and the 1995 Bay-Delta Plan. The models indicate that November, December, and January salinity under the 1995 Bay-Delta Plan can rise up to seven percent over the base case and average monthly salinity under the 1995 Bay-Delta Plan will be reduced from the base case by 9 percent in February, 10 percent in April, 14 percent in May, 16 percent in June, 3 percent in July, and 10 percent in October. There is very little difference in the modeled salinities in March, August, and September.

SDWA commented that full compliance with the southern Delta agricultural standards through freshwater releases from upstream projects in addition to New Melones Reservoir should be evaluated before implementing the Vernalis objective. (SDWA 10, p. 3; SWRCB 3b, Appendix II, p. 71.) Such an evaluation is unnecessary for this order since other southern Delta salinity objectives are not now being implemented and the Vernalis objective is equivalent to the D-1422 standard. This order is limited to making the water right permits of the DWR and the USBR consistent with the 1995 Bay-Delta Plan. At this time, such an evaluation would be speculative since the alternative methods to implement these standards in the long term are not yet determined. The SWRCB is not required to speculate about the effects of its future action. (See 14 Cal. Code Regs. § 15145.) The SWRCB will consider the reasonableness of implementing the other southern Delta salinity standards during the water rights phase. (SWRCB 3b, Appendix II, p. 71.)

Objectives to protect the beneficial uses in the southern Delta previously have been implemented largely through releases of fresh water from New Melones Reservoir. The fresh water releases help compensate for diversions of fresh water that have left

mainly salty return flows in the San Joaquin River. While fresh water releases from New Melones Reservoir should continue, they do not prevent salts from entering the river. Return flows and drainage from agricultural operations add salts to the San Joaquin River. Also, there has not been enough fresh water available in every year to meet the water quality objectives. Therefore, future actions will be needed to reduce the amounts of salts in the San Joaquin River during periods when higher levels of salt would violate the objectives. (SWRCB 3b, Appendix I, p. IX-2.) Such actions already have been initiated.

In the 1991 Bay-Delta Plan, the SWRCB directed the Central Valley RWQCB to reduce salt loads to the San Joaquin River by ten percent. The RWQCB responded by requiring drainage operation plans from the areas on the westside of the San Joaquin River with the worst drainage problems. The drainage operation plans focus on water conservation to reduce salt and trace metal loading to the river. (SWRCB 3b, Appendix II, p. 72.)

5.2.3 Water Levels

The parties also expressed concerns regarding water levels in the southern and central Delta. The ER describes these impacts on page VIII-24 based on modeling results that use the same assumptions described above for the salinity analysis. Generally, water levels will improve compared with D-1485.

"According to DWRDSM modeling results (DWR 1995), significant increases in water levels are expected at Vernalis in October and April through June, as a result of the Vernalis flow requirements. On average over the 1987 through 1992 period, the average monthly Vernalis water level increases under the preferred alternative by 0.44 feet in October, by 0.71 feet in April, by 0.93 feet in May, and by 0.86 feet in June. Small decreases in water levels at Vernalis, ranging from 0.15 to 0.21 feet, are seen in November through January. Water levels also increase in February through April on the Old River near Middle River and at Tracy, and on the San Joaquin River at Brandt Bridge. DWRDSM results also show decreases in average monthly water level on

the Old River near Tracy in May through October. The greatest average decrease in monthly water levels is 0.41 feet in July over the 1987 through 1992 period." (SWRCB 3b, Appendix I, p. VIII-24.)

Although the changes in water levels are generally positive, there may be some times when decreases in water levels will be significant. The ER identifies construction of southern Delta facilities that are being planned by DWR as a possible mitigation measure, but also recognizes that some significant environmental effects could occur.

5.2.4 Central Delta Salinity

Central Delta salinity is affected by implementation of a combination of the new objectives. The greatest effect will be caused by the new Delta Cross Channel gate closures to better protect migrating fish species. The effects of implementing the new objectives on central Delta salinity is presented in the ER on pages VIII-17 to VIII-23. In general the new objectives will result in better (lower) salinities in the central Delta than under D-1485 in March through September, and the salinity will comply with the agricultural objectives. In the November through January period salinity increases above those that occur under D-1485 will be due principally to Delta Cross Channel gate closures in these months. These months do not include the primary irrigation season of April 1 through August 15. The increases in salinity in the winter months are offset by the decreases in the spring and summer months. The exception is at Terminous, where salinity will remain generally high in the spring despite higher flows under the new standards. This suggests that the closure of the Cross Channel has a relatively greater effect there.

Under the new objectives, salinity at central Delta stations (Jersey Point, San Andrea, and Prisoners Point) will increase significantly in November through January at times when the Delta

ship channel; the enlarged turning basin at the Port of Stockton; and low river flows in the fall. Feasible measures to implement the dissolved oxygen objective in the plan include:

(1) regulating the effluent discharged from the Stockton Wastewater Treatment plant and other upstream discharges that contribute to the BOD load; (2) providing adequate flows in the San Joaquin River; and (3) installing barriers at locations to increase flows in the river past Stockton. (SWRCB 3b, Appendix I, p. IX-1.)

The 1995 Bay-Delta Plan's objectives for flows in the San Joaquin River at Vernalis, which currently are required under the biological opinion for Delta smelt, are expected to contribute to achieving the dissolved oxygen objective. The SWRCB will consider additional flow-related measures during the comprehensive water right proceeding. (SWRCB 3b, Appendix I, p. IX-1.)

5.3 Environmental Documentation for Joint Points of Diversion

Significant opportunities exist for the CVP and SWP operations to be modified to provide better protection to fish through the types of coordinated operations allowed under the term proposed in this order. The biological opinions call for the monitoring of fish catches at the export facilities in the southern Delta and the initiation of voluntary actions to reduce take before take limits are exceeded. They rely on the operations group under the CAL/FED process set forth in the Delta smelt Biological Opinion to identify and resolve these issues. (See the Delta smelt Biological Opinion in SEWD Exhibit 11, page 14 and 15.) This proactive and real-time reaction to changing conditions can help provide better protection to fishery resources and forestall the need for more drastic action under the ESA. Without flexibility the CVP and SWP would not willingly provide increased protections to fish, due to the water costs involved. Further, a reduction in water supply to the projects below their current

authorization could cause significant environmental effects in the areas that receive water that is exported from the Delta. Therefore, this order allows flexibility in project operations to allow the CVP and SWP to decrease exports in some months and then, through coordinated operations, make up for this decrease in other months.

During the hearing concerns were expressed that allowing the joint points of diversion even for the limited purpose of additional fishery protection would in effect result in increased exports from the southern Delta using water that originated in the Stanislaus River. It was argued that such a proposed term would allow the CVP and SWP to make up water that they would otherwise be required to forgo because of regulatory actions under the flow requirements of the ESA. The parties argued that this would then result in the USBR failing to meet salinity standards later in the year at Vernalis. These arguments assume that the USBR will purposely violate its water right terms and conditions by delivering water for consumptive uses which it is obligated under its permits to use for salinity control. If the USBR released more water than it is required to release for fish flows, exported it from the Delta, and as a result violated its salinity control obligation, it would open itself to enforcement action. The SWRCB does not presume that the USBR will do this.

The ER does not specifically address the change to joint points of diversion. It does, however, analyze the effects of the two export operations together, rather than individually. Use of a joint point of diversion without limitations would have significant environmental effects. Therefore, this order constrains the use of the joint points of diversion so that (1) this authorization can be used only when coordinated operations using joint points of diversion will benefit fish resources in the Estuary, (2) no water can be exported in excess of that which would have been exported absent this term, and

(3) there is no adverse effect on prior rights, water quality or other beneficial uses. These constraints are similar to those recommended by the JCWU. (WWD & SL&PMWA 1; JCWU closing statement, p. 7 and 8.) Constrained in this manner any environmental effects of the interchangeable points of diversion term will be insignificant. (See RT Vol. II, p. 153.) The concerns expressed during the hearing by the parties opposing the interchangeable points of diversion are addressed by the conditions of this order. The DWR and the USBR specifically stated that they would limit their operations to assure that there would be no net gain in exports. With the conditions in this order incorporated into the approval of the joint points of diversion, no new environmental effects will occur and no mitigation measures are necessary. Therefore, approval of the joint points of diversion is within the scope of the ER, and no new environmental document is required before the SWRCB approves this change.

5.4 Findings Under Public Resources Code Section 21081 and Under Title 14, California Code of Regulations Section 15091

The effect of this order together with the biological opinions issued by the USFWS and the NMFS for Delta smelt and for winter-run Chinook salmon, respectively, is to temporarily implement the 1995 Bay-Delta Plan. As explained in the ER, implementation of the 1995 Bay-Delta Plan could have significant environmental effects. While the measures that are likely to have the greatest effects are not required by this order, the SWRCB recognizes that they have been required by other agencies. The ER, in Chapter X, lists mitigation measures that could mitigate the effects of implementing the 1995 Bay-Delta Plan. These mitigation measures include:

- (a) Urban water conservation, including the 16 Best Management Practices for urban water conservation established in the

Memorandum of Understanding Regarding Urban Water
Conservation in California.

- (b) Agricultural water conservation, including water conservation measures formulated under the Efficient Water Management Practices Act of 1990 and conservation goals established by the San Joaquin Valley Drainage Program.
- (c) Ground water management, including conjunctive use programs.
- (d) Water transfers.
- (e) Reclamation, including reclaimed water use for irrigation of agricultural crops, parks, greenbelts, golf courses, and landscape.
- (f) Mitigation fund, including a mitigation credits program.
- (g) Combined use of CVP and SWP points of diversion in the Delta.
- (h) Offstream storage projects, including Los Banos Grandes Reservoir, Demenigoni Valley Reservoir, Los Vaqueros Reservoir, Delta Wetlands, and Mandeville Island.
- (i) The South Delta Program being undertaken by the DWR.
- (j) Purchase of Delta islands where land subsidence is a problem.
- (k) The long-term Delta solution that is the subject of an ongoing federal-state effort.
- (l) Construction of a boat lock at the Delta Cross Channel.

With the exception of the combined use of the CVP and SWP points of diversion in the Delta (g), which is approved in this order as part of the petition of the DWR and the USBR, it is not feasible for the SWRCB to require these measures in this order. The reasons are stated below.

The responsibility and jurisdiction of water purveyors and managers covers most of these mitigation measures. Some are primarily within the responsibility of the DWR and the USBR. The SWRCB could require implementation of the water conservation measures in (a) and (b) as part of an enforcement proceeding such as the forthcoming comprehensive water right proceeding, but these measures should be permanent, and this order is temporary. Further, the scope of this proceeding on the change petition is too narrow to address these measures now. Finally, the DWR already has statutory responsibilities with respect to these measures which it can and should carry out. The ground water management programs mentioned in (c) are likewise beyond the scope of this proceeding and are within the responsibility of local agencies. Absent an enforcement action or a ground water adjudication, the SWRCB lacks authority to require ground water management. While the SWRCB must approve many of the water transfers in (d), water right holders must initiate them. Consideration of new reclamation programs in (e) must be initiated by the reclaimer, although the SWRCB may take action in specific cases to prevent waste or unreasonable use of water. Establishment of the proposed mitigation fund at (f) likely would require legislative approval before the SWRCB could implement it, and would have to include any other water users who will have responsibilities for meeting objectives in the 1995 Bay-Delta Plan. Construction of the offstream storage projects in (h) require the approval of the SWRCB, but the SWRCB does not have authority to initiate these projects. The DWR already is conducting the South Delta Program in (i), and the measures in this program are outside the authority of the SWRCB except to the

extent that an element of the program may require approval of the SWRCB. The DWR and several other state agencies could purchase Delta islands with subsidence problems (j), but the SWRCB cannot order DWR or other agencies specifically to make such a purchase. The long-term Delta solution in (k) is being developed by agencies with responsibility for physical facilities and is not within the authority of the SWRCB except to the extent that a proposed measure may require the approval of the SWRCB. The possibility of a boat lock at the Delta Cross Channel (l) is a long-term measure that the SWRCB could require as mitigation in a long-term action, but this would not be appropriate in this short-term action.

6.0 CONCLUSIONS

Based on the foregoing, the SWRCB concludes as follows:

1. The base for environmental analysis of this order is D-1485.
2. The water quality standards for fish and wildlife set forth in D-1485 for striped bass spawning, Suisun Marsh and the operational constraints (export limits and Delta Cross Channel gate closures) can be replaced with the standards set forth in Attachment B without having significant environmental or water supply effects beyond those identified in the 1995 Bay-Delta Plan, Appendix I.
3. Many of the significant environmental and water supply effects of implementing the 1995 Bay-Delta Plan were caused by the actions taken under the ESA. This order does not add to the environmental and water supply effects caused by other agencies.
4. The proposed change in the salinity standard in D-1422 for the Vernalis station will improve conditions for agriculture in the southern Delta.

5. As approved in this order, the use of joint points of diversion by the DWR and the USBR will have no significant environmental effect and will provide benefits to the Delta fisheries.
6. To ensure that any environmental effects of this order are temporary, this order will remain in effect only until December 31, 1998 and may expire earlier if it is replaced by a new water right decision.
7. A review of the Suisun Marsh water quality standards should be conducted by the interested parties to make recommendations to the SWRCB before the completion of the comprehensive water right proceeding, and before the compliance dates, for any changes and implementation measures needed to ensure protection of beneficial uses in the Suisun Marsh.

ORDER

IT IS HEREBY ORDERED THAT:

1. This order is an interim order. In the absence of a further order of the SWRCB, the amendments herein to the terms and conditions in the affected permits shall expire upon adoption of a comprehensive water right decision that allocates final responsibilities for meeting the 1995 Bay-Delta objectives or on December 31, 1998, whichever comes first.
2. The water quality standards for fish and wildlife set forth in Water Right Decision 1485 (D-1485), Table II, for striped bass spawning, Suisun Marsh, and operational constraints (export rates and Delta Cross Channel gate operations) are replaced with those contained in Attachment B below. All other provisions of D-1485 except as specified below remain in full force and effect.

3. Permittees shall work with other interested groups and agencies to review the Suisun Marsh water quality standards, implementation dates and other agencies' responsibilities to help meet these standards. They shall publicly notice all meetings at least ten days in advance and shall use the SWRCB's active party mailing list for the Bay-Delta proceedings for the first three meetings following adoption of this order. Thereafter, they shall use a mailing list that includes those parties who indicate an interest in participating. The review also shall address the issues raised in the program of implementation at pages 40-41 of the 1995 Bay/Delta Plan. Permittees shall report the results of this review to the SWRCB by August 1997.
4. Condition 5 of water right Decision 1422 (D-1422) is modified to read as follows:

Releases of conserved water from New Melones Reservoir for water quality control purposes shall be scheduled so as to maintain a maximum 30-day running average of mean daily electrical conductivity in the San Joaquin River at Vernalis of 0.7 mmhos/cm during April through August and 1.0 mmhos/cm during September through March as specified in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and a dissolved oxygen concentration in the Stanislaus River as specified in the Water Quality Plan, San Joaquin River Basin 5C.

In the event that either Water Quality Control Plan is amended or superseded, the foregoing water quality objectives shall be modified to conform to then current criteria.

- 5.a. Condition 3 of D-1485 is revised temporarily to provide, in the permits of the DWR:

In addition to all other points of diversion or rediversion authorized by this permit, permittee may divert water at the Clifton Court Forebay, located within the NW1/4 of the SE 1/4 of Projected Section 20, T1S, R4E, MDB&M, and (with the approval of the USBR) at the Tracy Pumping Plant, located within the SW 1/4 of the SW 1/4 of Projected Section 31, T1S, R4E, MDB&M.

Permittee may use the Tracy Pumping Plant only when, to improve fish protections, exports are reduced below the applicable export limits set forth in Attachment B. Under these circumstances, the permittee shall be allowed to make up such reductions during other periods of the year by direct diversion or rediversion of stored water through the CVP export facilities in the southern Delta, if the following conditions are met:

- (1) the coordinated operations shall not result in an increase in annual exports above that which would have been exported in the absence of the coordinated operations,
- (2) the other effective provisions of the permittee's water right permits all are met,
- (3) any increase in diversions by all DWR diversions at both the Banks and Tracy pumping plants above 10,350 cfs is offset by diversions below 10,350 cfs within a 6 month period,
- (4) the shift in exports does not adversely affect any legal user of water or cause significant environmental effects on fish and wildlife or water quality; and

- (5) the pumping at the Tracy pumping plant shall not at any time exceed 4,600 cfs and the pumping at the Banks pumping plant shall not at any time exceed 10,350 cfs.

This term allows the use of coordinated operations in anticipation of future reductions in exports. Before such changes are made the permittee shall consult with a committee composed of representatives of all parties who indicate an interest in participating, including but not limited to the Department of Fish and Game, the United States Fish and Wildlife Service, and the National Marine Fisheries Service. The CALFED Operations Group established under the Framework Agreement would satisfy this requirement. If the CALFED Operations Group is used, disputes within the operations group shall be given to the CALFED policy group for resolution. Permittee shall submit agreements on coordinated operations under this authorization to the Executive Director for approval and shall also submit complete documentation showing that no additional water will be exported through use of the Tracy Pumping Plant, including the method used to make this determination. Authority is hereby delegated to the Executive Director to act on the proposal provided the conditions set forth above are met.

- 5.b. Condition 3 of D-1485 is revised temporarily to provide, in the permits of the USBR:

In addition to all other points of diversion or rediversion authorized by this permit, permittee may divert water (with the approval of the DWR) at the Clifton Court Forebay, located within the NW1/4 of the SE 1/4 of Projected Section 20, T1S, R4E, MDB&M, and at Italian

Slough, located within the NW 1/4 of the NE 1/4 of Projected Section 24, T1S, R3E, MDB&M.

Permittee may use the Harvey O. Banks Pumping Plant only when, to improve fish protections, exports are reduced below the applicable export limits set forth in Attachment B. Under these circumstances, the permittee shall be allowed to make up such reductions during other periods of the year by direct diversion or rediversion of stored water through the SWP export facilities in the southern Delta, if the following conditions are met:

- (1) the coordinated operations shall not result in an increase in annual exports above that which would have been exported in the absence of the coordinated operations,
- (2) the other effective provisions of the permittee's water right permits all are met,
- (3) any increase in diversions by all USBR diversions at both the Banks and Tracy pumping plants above 4,600 cfs from the Delta and 4,200 cfs to storage in San Luis Reservoir is offset by diversions below these amounts within a six-month period,
- (4) the shift in exports does not adversely affect any legal user of water or cause significant environmental effects on fish and wildlife or water quality; and
- (5) the pumping at the Tracy pumping plant shall not at any time exceed 4,600 cfs and the pumping at the Banks pumping plant shall not at any time exceed 10,350 cfs.

This term allows the use of coordinated operations in anticipation of future reductions in exports. Before such changes are made the permittee shall consult with a committee composed of representatives of all parties who indicate an interest in participating, including but not limited to the Department of Fish and Game, the United States Fish and Wildlife Service, and the National Marine Fisheries Service. The CALFED Operations Group established under the Framework Agreement would satisfy this requirement. If the CALFED Operations Group is used, disputes within the operations group shall be given to the CALFED policy group for resolution. Permittee shall submit agreements on coordinated operations under this authorization to the Executive Director for approval and shall also submit complete documentation showing that no additional water will be exported through use of the Harvey O. Banks Pumping Plant, including the method used to make this determination. Authority is hereby delegated to the Executive Director to act on the proposal provided the conditions set forth above are met.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 8, 1995.

AYE: John P. Caffrey
Mary Jane Forster
James M. Stubchaer
John W. Brown

NO: None

ABSENT: Marc Del Piero

ABSTAIN: None



Maureen Marché
Administrative Assistant to the Board

ATTACHMENT A

D-1485 PERMITS OF DEPARTMENT OF WATER RESOURCES

<u>Application Number</u>	<u>Permit Number</u>
5629	16477
5630	16478
14443	16479
14444	16480
14445A	16481
17512	16482
17514A	16483

PERMITS OF UNITED STATES BUREAU OF RECLAMATION

D-1485 PERMITS

<u>Application Number</u>	<u>Permit Number</u>
5625	12720
5626	12721
5627	11966
5628	11967
9363	12722
9364	12723
9365	12724
9366	12725
9367	12726
9368	12727
13370	11315
13371	11316
13372	11317
14662	11318
15374	11968
15375	11969
15376	11970
15764	12860
16767	11971
16768	11972
17374	11973
18721	16209
18723	16210
21542	15149
21636	16211
21637	16212
22316	15735

D-1422 PERMITS

<u>Application Number</u>	<u>Permit Number</u>
14858A	16597
14859	16598
19303	16599
19304	16600

ATTACHMENT B

WATER QUALITY STANDARDS FOR THE SACRAMENTO-SAN JOAQUIN DELTA AND SUISUN MARSH

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER (RKI [1])	PARAMETER	DESCRIPTION (UNIT) [2]	WATER YEAR TYPE [3]	TIME PERIOD	VALUE
SAN JOAQUIN RIVER SALINITY						
San Joaquin River at and between Jersey Point and Prisoners Point [4]	D-15 (RSAN018) -and- D-29 (RSAN038)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)	W,AN,BN,D	Apr-May	0.44 [5]
EASTERN SUISUN MARSH SALINITY						
Sacramento River at Collinsville	C-2 (RSAC081)	Electrical Conductivity (EC)	Maximum monthly average of both daily high tide EC values (mmhos/cm), or demonstrate that equivalent or better protection will be provided at the location.	All	Oct Nov-Dec Jan Feb-Mar Apr-May	19.0 15.5 12.5 8.0 11.0
Montezuma Slough at National Steel	S-64 (SLMZU25)					
-and- Montezuma Slough near Beldon Landing	S-49 (SLMZU11)					
WESTERN SUISUN MARSH SALINITY						
Chadbourne Slough at Sunrise Duck Club	S-21 [6] (SLCBN1)	Electrical Conductivity (EC)	Maximum monthly average of both daily high tide EC values (mmhos/cm), or demonstrate that equivalent or better protection will be provided at the location.	All but deficiency period	Oct Nov Dec Jan Feb-Mar Apr-May	19.0 16.5 15.5 12.5 8.0 11.0
Suisun Slough, 300 feet south of Volanti Slough	S-42 [7] (SLSUS12)					
-and- Cordelia Slough at Ibis Club	S-97 [7] (SLCRD06)			Deficiency period [8]	Oct Nov Dec-Mar Apr May	19.0 16.5 15.6 14.0 12.5
-and- Goodyear Slough at Morrow Island Clubhouse	S-35 [7] (SLGYR03)					
-and- Water supply intakes for waterfowl management areas on Van Sickle and Chipps islands	No local limits specified					
EXPORT LIMITS						
		Combined export rate [9]	Maximum 3-day running average (cfs)	All	Apr 15- May 15 [10]	[11]
			Maximum percent of Delta inflow diverted [12] [13]	All	Feb-Jun Jul-Jan	35% Delta inflow [14] 65% Delta inflow
DELTA CROSS CHANNEL GATES CLOSURE						
Delta Cross Channel at Walnut Grove	-----	Closure of gates	Close gates	All	Nov-Jan Feb-May 20 May 21- Jun 15	[15] ----- [16]

Attachment B Footnotes

- [1] River Kilometer Index station number.
- [2] Determination of compliance with an objective expressed as a running average begins on the last day of the averaging period. If the objective is not met on the last day of the averaging period, all days in the averaging period are considered out of compliance.
- [3] The Sacramento Valley 40-30-30 Water Year Hydrologic Classification Index (see Footnote 3 for Attachment B) applies unless otherwise specified.
- [4] Compliance will be determined at Jersey Point (station D15) and Prisoners Point (station D29).
- [5] This standard does not apply in May when the best available May estimate of the Sacramento River Index for the water year is less than 8.1 MAF at the 90% exceedence level. [Note: The Sacramento River Index refers to the sum of the unimpaired runoff in the water year as published in the DWR Bulletin 120 for the following locations: Sacramento River above Bend Bridge, near Red Bluff; Feather River, total unimpaired inflow to Oroville Reservoir; Yuba River at Smartville; and American River, total unimpaired inflow to Folsom Reservoir.]
- [6] The effective date for objectives for this station is October 1, 1995.
- [7] The effective date for objectives for this station is October 1, 1997.
- [8] A deficiency period is: (1) the second consecutive dry water year following a critical year; (2) a dry water year following a year in which the Sacramento River Index (described in footnote 5) was less than 11.35; or (3) a critical water year following a dry or critical water year.
- [9] Combined export rate for this objective is defined as the Clifton Court Forebay inflow rate (minus actual Byron-Bethany Irrigation District diversions from Clifton Court Forebay) and the export rate of the Tracy pumping plant.
- [10] This time period may be varied based on real-time monitoring. The time period for this 31-day export limit will be determined by the operations group established under the Framework Agreement.
- [11] Maximum export rate is 1,500 cfs or 100% of 3-day running average of San Joaquin River flow at Vernalis, whichever is greater. This export restriction does not supersede the export restriction of 35% of Delta inflow. The more restrictive of these two objectives applies from April 15 to May 15. Variations to this maximum export rate are authorized if agreed to by the operations group established under the Framework Agreement. This flexibility is intended to result in no net water supply cost annually within the limits of the water quality and operational requirements of this plan. Variations may result from recommendations of agencies for protection of fish resources, including actions taken pursuant to the State and federal Endangered Species Acts. Disputes within the operations group will be resolved by the CALFED policy group. Any agreement on variations will be effective immediately and will be presented to the Executive Director of the SWRCB. If the Executive Director does not object to the variations within 10 days, the variations will remain in effect.
- [12] Percent of Delta inflow diverted is defined in Footnote 12 for Attachment B. For the calculation of maximum percent Delta inflow diverted, the export rate is a 3-day running average and the Delta inflow is a 14-day running average, except when the CVP or the SWP is making storage withdrawals for export, in which case both the export rate and the Delta inflow are 3-day running averages.

- [13] The percent Delta inflow diverted values can be varied either up or down. Variations are authorized subject to the process described in footnote 11.
- [14] If the best available estimate of the Eight River Index for January is less than or equal to 1.0 MAF, the export limit for February is 45% of Delta inflow. If the best available estimate of the Eight River Index for January is greater than 1.5 MAF, the February export limit is 35% of Delta inflow. If the best available estimate of the Eight River Index for January is between 1.0 MAF and 1.5 MAF, the export limit for February will be set by the operations group established under the Framework Agreement within the range of 35% to 45%. Disputes within the operations group will be resolved by the CALFED policy group. [Note: The Eight River Index refers to the sum of the unimpaired runoff as published in the DWR Bulletin 120 for the following locations: Sacramento River flow at Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River flow at Smartville; American River, total inflow to Folsom Reservoir; Stanislaus River, total inflow to New Melones Reservoir; Tuolumne River, total inflow to Don Pedro Reservoir; Merced River, total inflow to Exchequer Reservoir; and San Joaquin River, total inflow to Millerton Lake.]
- [15] For the November-January period, close Delta Cross Channel gates for up to a total of 45 days, as needed for the protection of fish. The timing of the gate closure will be determined by the operations group established under the Framework Agreement.
- [16] For the May 21-June 15 period, close Delta Cross Channel gates for a total of 14 days. The timing and duration of the gate closure will be determined by the operations group established under the Framework Agreement. Variations in the number of days of gate closure are authorized if agreed to by the operations group established under the Framework Agreement. Variations shall result from recommendations from agencies for the protection of fish resources, including actions taken pursuant to the State and federal Endangered Species Acts. The process for the approval of variations shall be similar to that described in footnote 11.

FOOTNOTE 12 FOR ATTACHMENT B

PERCENT INFLOW DIVERTED¹

The percent inflow diverted, as described in this footnote, shall be computed daily by the DWR and the USBR using the following formula (all flows are in cubic feet per second):

$$\text{PERCENT INFLOW DIVERTED} = (CCF + TPP) \div \text{DELTA INFLOW}$$

where

*CCF*² = Clifton Court Forebay inflow for the current day.

TPP = Tracy Pumping Plant pumping for the current day.

and where *DELTA INFLOW* = *SAC* + *SRTP* + *YOLO* + *EAST* + *MISC* + *SJR*

SAC = Sacramento River at Freeport mean daily flow for the previous day; the 25-hour tidal cycle measurements from 12:00 midnight to 1:00 a.m. may be used instead.

SRTP = Sacramento Regional Treatment Plant average daily discharge for the previous week.

YOLO = Yolo Bypass mean daily flow for the previous day, which is equal to the flows from the Sacramento Weir, Fremont Weir, Cache Creek at Rumsey, and the South Fork of Putah Creek.

EAST = Eastside Streams mean daily flow for the previous day from the Mokelumne River at Woodbridge, Cosumnes River at Michigan Bar, and Calaveras River at Bellota.

MISC = Combined mean daily flow for the previous day of Bear Creek, Dry Creek, Stockton Diverting Canal, French Camp Slough, Marsh Creek, and Morrison Creek.

SJR = San Joaquin River flow at Vernalis, mean daily flow for the previous day.

1 Not all of the Delta tributary streams are gaged and telemetered. When appropriate, other methods of estimating stream flows, such as correlations with precipitation or runoff from nearby streams, may be used instead.

2 Actual Byron-Bethany Irrigation District withdrawals from Clifton Court Forebay shall be subtracted from Clifton Court Forebay inflow.

FOOTNOTE 3 FOR ATTACHMENT B

Sacramento Valley Water Year Hydrologic Classification

Year classification shall be determined by computation of the following equation:

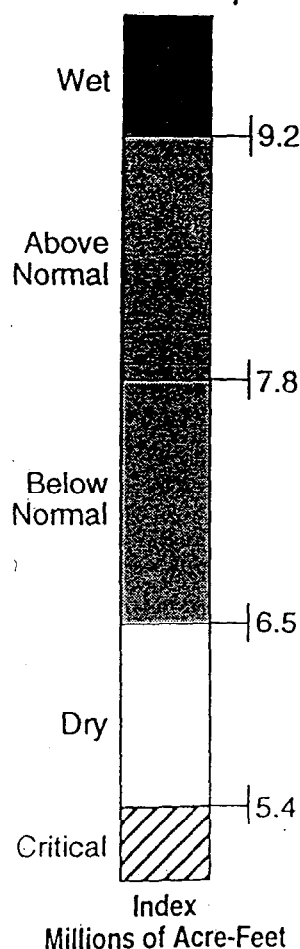
$$\text{INDEX} = 0.4 \cdot X + 0.3 \cdot Y + 0.3 \cdot Z$$

Where: X = Current year's April – July
Sacramento Valley unimpaired runoff
Y = Current October – March
Sacramento Valley unimpaired runoff
Z = Previous year's index ¹

The Sacramento Valley unimpaired runoff for the current water year (October 1 of the preceding calendar year through September 30 of the current calendar year), as published in California Department of Water Resources Bulletin 120, is a forecast of the sum of the following locations: Sacramento River above Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River at Smartville; American River, total inflow to Folsom Reservoir. Preliminary determinations of year classification shall be made in February, March, and April with final determination in May. These preliminary determinations shall be based on hydrologic conditions to date plus forecasts of future runoff assuming normal precipitation for the remainder of the water year.

Classification	Index Millions of Acre-Feet (MAF)
Wet.....	Equal to or greater than 9.2
Above Normal	Greater than 7.8 and less than 9.2
Below Normal.....	Equal to or less than 7.8 and greater than 6.5
Dry.....	Equal to or less than 6.5 and greater than 5.4
Critical	Equal to or less than 5.4

YEAR TYPE ²
All Years for All Objectives



¹ A cap of 10.0 MAF is put on the previous year's index (Z) to account for required flood control reservoir releases during wet years.

² The year type for the preceding water year will remain in effect until the initial forecast of unimpaired runoff for the current water year is available.

Cross Channel is closed. The increase persists into February when the Delta Cross Channel is closed continuously. The Terminous station shows similar increases but tends to lag by one month. Spring and summer salinity at Jersey Point, San Andrea, Prisoners Point, and Terminous is lower under the 1995 Bay-Delta Plan. The agricultural water quality standards are satisfied within the bounds of model accuracy for the central and northern Delta stations. (SWRCB 3b, Appendix II, p. 82.)

5.2.5 Dissolved Oxygen

An additional concern expressed by the City of Stockton was related to the effects of meeting the new objectives on dissolved oxygen in the vicinity of the City of Stockton. (RT Vol. II, p. 288 et seq.) Stockton presented an analysis of the effects on dissolved oxygen if there were no pumping by the CVP and SWP. (Stockton 8.) The incremental impact of the new objectives is much different than those Stockton presented. Water flows in the San Joaquin at Vernalis and water levels due to changes in exports are the two water project related factors that can affect dissolved oxygen levels. As stated previously, water flows in the San Joaquin River are expected to increase with the new objectives over those which would have occurred under D-1485 and D-1422. These conditions will tend to improve dissolved oxygen levels. There are some small but generally positive effects to water levels, especially near Stockton. This information indicates that dissolved oxygen levels will be affected little if at all by the new standards.

The dissolved oxygen objective was included in the 1995 Bay-Delta Plan to protect fall-run salmon migration in the lower San Joaquin River. (SWRCB 3b, p. 13.) Factors which contribute to low levels of dissolved oxygen in the lower San Joaquin river include: the Stockton Wastewater Treatment Plant; upstream sources of biochemical oxygen demand (BOD); the deepened Stockton ship channel; the commercial use of the dead-end portion of the