

(since this copy of the COA I received from Reclamation by email is not pdf "text", I've placed this page in front of it with some relevant extracts).

No. 7-07-20-W0551

AGREEMENT BETWEEN THE UNITED STATES OF AMERICA

AND

THE DEPARTMENT OF WATER RESOURCES OF THE STATE OF CALIFORNIA
FOR

COORDINATED OPERATION

OF THE

CENTRAL VALLEY PROJECT

AND THE

STATE WATER PROJECT

(This coordination agreement suspends the agreement of May 16, 1960, between the United States and the State of California.)

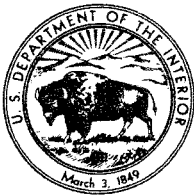
from p. 5:

1. THIS AGREEMENT, made the 24th day of November, 1986 . . .

(two sets of pages were out of order so I re-ordered them with Acrobat; and yes, there are typos in the agreement)

AGREEMENT
BETWEEN
THE UNITED STATES OF AMERICA
AND
THE STATE OF CALIFORNIA
FOR
COORDINATED OPERATION
OF THE
CENTRAL VALLEY PROJECT
AND THE
STATE WATER PROJECT

(THIS COORDINATION AGREEMENT SUSPENDS THE AGREEMENT OF
MAY 16, 1960, BETWEEN THE UNITED STATES AND THE STATE OF CALIFORNIA.)



UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL VALLEY PROJECT CALIFORNIA



STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
STATE WATER PROJECT

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(This coordination agreement suspends the agreement of May 16, 1960, between the United States and the State of California.)

United States of America
Department of the Interior
Bureau of Reclamation
Central Valley Project
California

State of California
The Resources Agency
Department of Water
Resources
State Water Project

AGREEMENT BETWEEN
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AND
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FOR COORDINATED OPERATION OF THE
CENTRAL VALLEY PROJECT AND THE STATE WATER PROJECT

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Exhibits

A	Standards for the Sacramento-San Joaquin Delta
B-1	Central Valley Project and State Water Project Annual Supplies
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C	Monitoring Locations
D	Exchange Procedure to Provide D-1485 Condition 3 Replacement Water (Article 10b of COA)
E	Water Shortage and Apportionment

AGREEMENT BETWEEN
THE UNITED STATES OF AMERICA
AND
THE DEPARTMENT OF WATER RESOURCES OF
THE STATE OF CALIFORNIA
FOR COORDINATED OPERATION OF THE
CENTRAL VALLEY PROJECT AND THE STATE WATER PROJECT

1. THIS AGREEMENT, made the 24th
day of November, 1986, pursuant to the Act of
Congress approved October 27, 1986, P.L. 99-546, and pursuant
to the California Central Valley Project Act, which is Part 3,
Division 6 (commencing at Section 11100) of the California
Water Code, and the California Water Resources Development
Bond Act, Chapter 8, Part 6, Division 6 (commencing at
Section 12930) of the California Water Code, between THE
UNITED STATES OF AMERICA, herein called the United States,
acting through the Bureau of Reclamation, Department of the
Interior, represented by the Contracting Officer executing
this agreement, and THE DEPARTMENT OF WATER RESOURCES OF THE
STATE OF CALIFORNIA, herein called the State, represented by
the Director of Water Resources.

EXPLANATORY RECITALS

2. The United States has under construction and
is operating the Central Valley Project, California, for the

development, conservation, control, and utilization of water resources in California.

The State has under construction and is operating initial facilities of the State Water Resources Development System, herein called the State Water Project, for the development, conservation, control, and utilization of water resources in California.

The United States and the State entered into an agreement on May 16, 1960, Article 16 of which recognizes the need for criteria for the coordinated operation of the Central Valley Project and the State Water Project.

Certain basic assumptions of that agreement require modification in light of subsequent developments and changes in the two projects.

The United States and the State had prepared a May 13, 1971, Draft Agreement which would have supplemented the Agreement of May 16, 1960.

The United States and the State have in the past been operating under annual letter agreements implementing the May 13, 1971, Draft Agreement.

The United States and the State by entering into this agreement will suspend the Agreement of May 16, 1960; but it is recognized that the legal positions of the parties regarding any interpretation of the terms of said agreement are preserved.

The United States and the State will observe reservoir operational criteria prescribed by the United States Corps of Engineers to minimize flood hazards.

The United States and the State each plans to meet all requirements and objectives of its project and to coordinate the operation of their projects so as not to adversely affect the rights of other parties and to conserve water.

The State and the United States intend to build additional water storage and transportation facilities.

Both the United States and the State have, pursuant to applications filed with the State Water Resources Control Board (formerly State Water Rights Board), received permits for appropriation of unappropriated water in furtherance of their respective projects.

It is in the best interest of the United States and the State to agree on the use of water rights as set forth in this agreement rather than litigate such uses as between the two projects and potentially all other water users in the Central Valley of California.

Both the State and the United States are dedicated to utilizing their existing and future water conservation

facilities so as to provide the maximum benefits to the people of California and the Nation and believe that through the coordinated and cooperative operation of State and Federal facilities, these benefits can be maximized.

NOW, THEREFORE, it is agreed:

DEFINITIONS

3. When used in this agreement, the following shall have the meanings hereinafter set forth:

(a) "Sacramento Valley inbasin uses" are legal uses of water in the Sacramento Basin including the water required under the provisions of Exhibit A.

(b) "Balanced water conditions" are periods when it is agreed that releases from upstream reservoirs plus unregulated flow approximately equal the water supply needed to meet Sacramento Valley inbasin uses, plus exports.

(c) "Excess water conditions" are periods when it is agreed that releases from upstream reservoirs plus unregulated flow exceed Sacramento Valley inbasin uses, plus exports.

(d) "United States storage withdrawal" is the sum of "Whiskeytown storage withdrawal" which is the positive daily mean flow computed by subtracting the daily mean local inflow to Whiskeytown Lake (total inflow excluding the flow through the Judge Francis Carr Powerplant) from the sum of the daily mean diversions from (i) Whiskeytown Lake to Spring Creek Powerplant, (ii) the Whiskeytown Dam releases to Clear

Creek, and (iii) measured water deliveries from Whiskeytown Lake; and the positive sum of:

(1) "Shasta storage withdrawal" which is the daily mean flow computed by subtracting the sum of (i) the daily mean inflow into Shasta Lake and (ii) the daily mean discharge from Spring Creek Powerplant from the sum of (i) the Keswick Dam releases to the Sacramento River and (ii) measured water deliveries from Shasta and Keswick Lakes; and

(2) "Folsom storage withdrawal" which is the daily mean flow computed by subtracting the daily mean inflow into Folsom Lake from the sum of (i) Nimbus Dam releases to the American River, (ii) Nimbus Dam diversions to Folsom South Canal, and (iii) measured water deliveries from Folsom Lake and Nimbus Lake.

(e) "State storage withdrawal" is the value calculated in 3(e)(1) except when specifically declared by the State that Upper Feather storage withdrawals are being made in which case "State storage withdrawal" is the sum of 3(e)(1) and (2).

(1) "Oroville Complex storage withdrawal" is the positive daily mean flow computed by subtracting the sum of the daily mean inflow into Lake Oroville and the daily mean discharge from Kelly Ridge Powerplant from the sum of the daily mean diversions at or into the following facilities:

Palermo Canal, Thermalito Diversion Dam to Feather River, Thermalito Diversion Dam to Hatchery, Diversion Structures for Butte County, Thermalito Irrigation District Diversion Structure, Richvale Canal, Western Canal, Pacific Gas and Electric Company's Lateral, Sutter Butte Canal, and the Thermalito Afterbay Outlet to Feather River.

(2) "Upper Feather River storage withdrawal" is the positive daily mean flow computed by subtracting the sum of the daily mean flow into Lake Davis and Antelope Reservoir from the sum of the daily mean releases from these reservoirs.

(f) "Export" means diversions by the United States and the State through export facilities specified in subarticle 5(b).

(g) "United States stored water" is the net increase in daily storage in Shasta Lake and Folsom Lake.

(h) "State stored water" is the net increase in daily storage in Lake Oroville and, when declared by the State, the net increase in daily storage in the Upper Feather River reservoirs.

(i) "Delta" means the Sacramento-San Joaquin Delta as described in California Water Code §12220 (Stats. 1959, C. 1766, p. 4249, § 1).

(j) "New Delta standards" are any Delta standards different from those set forth in Exhibit A.

TERM OF AGREEMENT

4. This agreement shall remain in full force and effect until terminated either by the mutual consent of the parties or as provided in subarticles 10(h), or 14(b).

FACILITIES

5. This agreement recognizes the following facilities as presently existing:

(a) Reservoirs:

<u>United States</u>	<u>State</u>
Shasta Lake	Lake Oroville
Keswick Reservoir	Thermalito Forebay
Clair Engle Lake	Thermalito Afterbay
Lewiston Lake	Thermalito Diversion Dam Reservoir
Whiskeytown Lake	San Luis Reservoir (Joint)
Folsom Lake	O'Neill Forebay (Joint)
Lake Natoma	Lake Davis
San Luis Reservoir (Joint)	Antelope Lake
O'Neill Forebay (Joint)	Lake Del Valle Pyramid Lake Castaic Lake Silverwood Lake Lake Perris
Millerton Lake	
New Melones	

(b) Export facilities:

<u>United States</u>	<u>State</u>
Contra Costa Pumping Plant #1	Harvey O. Banks Delta Pumping Plant, including Clifton Court Forebay
Tracy Pumping Plant	

COORDINATION OF OPERATIONS

6. (a) This agreement was negotiated on the basis of annual supplies reflected in Exhibit B. It is agreed that:

(1) The computations described in this article shall be the basis upon which the United States and the State shall coordinate the operations of the Central Valley Project and the State Water Project facilities specified in Article 5 in order to meet Sacramento Valley inbasin uses and maintain the respective annual water supplies specified in Exhibit B-1, or as that exhibit is revised in accordance with subarticle 6(a)(3);

(2) Nothing in this agreement shall constrain either party from moving toward full utilization of its facilities at any time;

(3) As either party proceeds toward the full utilization of its project, any changes in the underlying assumptions with respect to the development of the two projects and the demands for water from each project will be reflected by recomputing the annual water supplies specified

in Exhibits B-1 and B-2 in accordance with the provisions of subarticle 14(a). The methodology described in the document entitled "Technical Report on Determination of Annual Water Supplies for Central Valley Project and State Water Project," dated March 1984 will be used to recompute the annual water supplies and to revise, if necessary, the factors and procedures contained in this article.

(b) Determination of Sacramento Valley Inbasin

Use of Storage Withdrawals and Unstored Water for Export:

During period of balanced water conditions, daily computation shall be made to determine the difference between (i) the sum of the United States and State storage withdrawals adjusted for time of travel to the export facilities specified in subarticle 5(b), and (ii) the sum of the United States and State exports. If total storage withdrawals exceed total exports, the difference represents Sacramento Valley inbasin use of storage withdrawals. If total exports exceed storage withdrawals, the difference represents unstored water for export.

(c) Sharing of Responsibility for Meeting Sacramento

Valley Inbasin use With Storage Withdrawals During Balanced

Water Conditions: Each party's responsibility for making available storage withdrawals to meet Sacramento Valley

inbasin use of storage withdrawals shall be determined by multiplying the total Sacramento Valley inbasin use of storage withdrawals by the following percentages:

United States

75

State

25

(d) Sharing of Responsibility During Balanced

Water Conditions When Unstored Water for Export is Available:

Each party's responsibility to meet Sacramento Valley inbasin use and exports shall be determined by:

(1) Allocating the sum of United States stored water, State stored water and the unstored water for export by the following percentages:

United States

55

State

45

(2) If the daily sum of United States stored water and unstored water for export is greater than the United States share as allocated in 6(d)(1), then the United States is obligated, except when either subarticle 6(h) or 6(i) is in effect, to provide water to the extent that its daily sum is greater than its allocated share.

(3) If the daily sum of United States stored water and the unstored water for export is less than its share as allocated in 6(d)(1) then the State is obligated, except when either subarticle 6(h) or 6(i) is in effect, to

provide water to the extent that the State's daily sum of State stored water and unstored water used for export is greater than its allocated share.

(e) Accounting of Accumulated Responsibilities:

During balanced conditions, except when either sub-article 6(h) or 6(i) is in effect, the daily obligation as defined in subarticle 6(c) or 6(d) shall be accumulated. The accumulation in effect when balanced conditions end shall remain in force and resume when balanced conditions are again declared. At the request of either party, the accumulation will be reduced or eliminated within a reasonable time. Otherwise, the accumulation shall continue until the agency that has the positive accumulation (has released more water than its defined responsibility) goes into a flood control operation. A flood control operation occurs when the actual storage exceeds the defined flood control permissible storage at Oroville Reservoir for the State or Shasta Reservoir for the United States. The flood control operation at Folsom Reservoir will not affect this provision because of its limited conservation storage.

(f) Changes in Sacramento Valley Inbasin Use

During Balanced Conditions: If the Sacramento Valley inbasin use changes, upstream reservoir releases and/or exports will be modified based on the current accumulation identified in subarticle 6(e) and/or the daily share of responsibility computed in subarticles 6(c) and 6(d).

(g) Responsibilities During Excess Water

Conditions: During excess water conditions each party has the responsibility to export and store as much water as possible within its physical and contractual limits.

(h) Availability of Storage Withdrawals to the

Other Party: Unless otherwise agreed, whenever a party's storage withdrawal available for export is greater than its export capability, the difference shall be available for export by the other party without affecting either party's future responsibility for providing storage withdrawals to meet Sacramento Valley inbasin use.

(i) Availability of Unstored Water for Export

to the Other Party: Unless otherwise agreed, whenever a party's share of unstored water for export exceeds its exports, the unusable portion is available for export by the other party without affecting either party's daily sum of stored water.

FORECASTING

7. Upon request, each party shall prepare and furnish to the other a forecast of its proposed operation related to the facilities specified in Article 5. The forecast shall indicate the flow available for export, storage withdrawals, and Sacramento Valley inbasin use. The forecasts shall be prepared and exchanged so as to allow sufficient time for the preparation of consolidated forecasts

WATER MEASUREMENT RESPONSIBILITIES

8. The United States and the State, each at its own expense, shall install and maintain measuring and recording devices at its facilities specified in Article 5.

(a) Each party shall measure or compute and record daily, or at such other intervals as may be agreed upon, and provide to the other party the rates and quantities of water that will show the (1) estimated inflow to its reservoirs, (2) net releases from its reservoirs, (3) stage and change in storage of its reservoirs, (4) net amount of evaporation at its reservoirs, (5) diversions through its export facilities, and (6) its storage withdrawals.

(b) The measuring and recording devices shall be examined, tested, and serviced regularly to assure their accuracy. At any reasonable time either party may inspect the measuring and recording devices of the other party. Immediate action shall be taken to correct any deficiencies noted in such inspections. Accuracy in measurements of export diversions and releases from reservoirs shall be within commonly accepted engineering standards. All computations and correlations shall be calculated in a manner acceptable to both parties.

REDUCTION IN UNITED STATES AND STATE EXPORTS

9. If any forecast indicates that either the United States or the State, or both, will be unable to meet the anticipated demands of its water users during the balance of

the calendar year, representatives of the United States and the State shall confer on possible procedures for making joint operational changes to minimize the shortage. If agreement cannot be reached on a joint procedure for minimizing the threatened shortage, the United States and the State each shall be entitled to export the amount of water available to it according to calculations made pursuant to Article 6, and each party shall assess against its users such reductions as it deems necessary or appropriate.

EXCHANGES, CONVEYANCE, AND PURCHASES OF WATER SUPPLY

10. (a) Either party may make use of its facilities available to the other party for pumping and conveyance of water by written agreement.

(b) To the extent that operational constraints are imposed on the Central Valley Project by Exhibit A to minimize diversions of young striped bass from the Delta during May and June, which reduce Central Valley Project exports, the State will transport up to 195,000 acre-feet of Central Valley Project water through the California Aqueduct Reaches 1, 2A, and 2B no later than April 30 of the following year by direct diversion or by rediversion of stored Central Valley Project water at times that diversions do not reduce State Water Project yield.

The State agrees to transport this water subject to the following:

(1) The United States will supply power according to Exhibit D;

(2) During critical water supply years, as defined by D-1485, the State shall pump the water during Central Valley Project off-peak hours (10:01 p.m. to 6:59 a.m. Monday through Saturday and all day Sunday and national holidays);

(3) In all other water supply years, to the extent possible as determined by the State, pumping of this water shall be provided during Central Valley Project off-peak hours;

(4) The United States shall reimburse the State for incremental costs for pumping Central Valley Project water through the facilities specified in this subarticle. Incremental costs are those costs which if not reimbursed by the United States would otherwise cause increased charges to State Water Project water contractors over what they would have been charged if the State had not conveyed Central Valley Project water pursuant to this agreement, provided that the United States shall not be responsible for payment for any additional power demand charges that may result from pumping Central Valley Project water pursuant to subarticle 10(b). At present, the only incremental costs identified by the State are the replacement portions of the minimum and variable components of both the Delta Water Charge and Transportation Charge, as defined in

the November 4, 1960, State Water Supply Contract with The Metropolitan Water District of Southern California, as it now exists and may hereafter be amended. Incremental costs in 1985 amounted to \$0.21 per acre-foot of water conveyed.

(c) The State agrees to give priority to the United States to convey Central Valley Project water for scheduled or unscheduled maintenance and unforeseen outages of the Central Valley Project, from the Delta to O'Neill Forebay, not covered in subarticles 10(b) and 10(d), through the California Aqueduct Reaches 1, 2A, and 2B facilities at times that such conveyance does not reduce use of the State's facilities for the benefit of the State's long-term water supply contractors subject to the following:

(1) The United States will supply the power required to pump Central Valley Project water through the Harvey O. Banks Delta Pumping Plant;

(2) The State will be reimbursed for each of the following charges expressed as a unit rate and applied to each acre-foot of water conveyed. These charges will equal the sum of the components of the water charges for California Aqueduct Reaches 1, 2A, and 2B as defined in the State Water Supply Contract with the Metropolitan Water District of Southern California, dated November 4, 1960, as it now exists and may hereafter be amended.

(i) The capital component of the transportation charge.

(ii) The minimum component of the transportation charge.

(iii) The replacement portion of the variable component of the transportation charge.

(iv) The capital component of the Delta water charge.

(v) The minimum component of the Delta water charge.

These charges for 1985 total \$8.44 per acre-foot of water conveyed.

(d) In consideration for the conveyance of State Water Project water for scheduled or unscheduled maintenance and unforeseen outages from the Delta to O'Neill Forebay through Central Valley Project facilities, the State will convey for the United States an equal quantity of Central Valley Project water measured in acre-feet through its facilities at no charge; Provided, That such conveyance of Central Valley Project water shall be accomplished, if possible, within 12 months from the date conveyance of State Water Project water was completed. Each agency shall be responsible for supplying the power required to pump its water

(e) The State, in an annual letter to the United States, will transmit the charges referred to in subarticles 10(b)(2) and 10(c)(2) above based upon the cost components listed therein.

(f) The State will submit invoices to the United States on or before June 30 of the year following the year in which the wheeling occurs. The United States will make payment within 30 days after receipt of such invoice.

(g) Prior to December 31 of the fifth full year following the execution of this agreement, the parties will agree upon the amount and value of the services each project has provided to the other project prior to the execution of this agreement and will agree upon the manner in which any imbalance is to be resolved. This subarticle shall not apply to services provided under a separate written agreement.

(h) (1) The parties shall promptly commence negotiating a contract for the conveyance and purchase of Central Valley Project water to assist each party in making more efficient use of the water project facilities and water supplies contemplated in this agreement. The terms and conditions of said contract shall be no less favorable to either party than the terms and conditions either party would make available to their respective long-term contractors, except as specified by this subarticle.

(2) The contract referred to in subarticle 10(h)(1) shall provide for, among other things, the sale of Central Valley Project water to the State for use by State Water Project contractors on the following conditions:

(i) When the Central Valley Project water sold to the State is needed by existing or new long-term Central Valley Project contractors, it shall be recalled by the United States for such contractors;

(ii) The United States shall impose deficiencies on water purchased by the State in a manner consistent with Exhibit E.

(3) The contract referred to in subarticle 10(h)(1) shall further provide for, among other things, the United States purchase of State Water Project conveyance services for transport of Central Valley Project water to Central Valley Project contractors on the following conditions:

(i) The State shall transport Central Valley Project water for the United States up to the amount of Central Valley Project water made available to the State for purchase each year on the same priority as water transported for State Water Project long-term contractors;

(ii) In addition, the United States shall have the first right to purchase all conveyance services that are in excess of the services being used to transport water

developed or purchased by the State or the State Water Project contractors. The conveyance of Central Valley Project water shall not diminish deliveries or increase costs of water supplies developed or purchased by the State or the State Water Project contractors.

(4) The parties recognize that to fully implement this agreement, the parties may be required to seek amendments to existing water rights permits or additional water rights permits for, (i) an additional point of diversion and rediversion at the State's Harvey O. Banks Delta Pumping Plant and the United States Tracy Pumping Plant; and (ii) consolidation and expansion of place of use. The State shall support the petition of the United States.

(5) At any time after December 31, 1988, if either party shall not have received all of the amendments or permits described in subarticle 10(h)(4) and which contain conditions satisfactory to that party, then that party may terminate this agreement on 180 days written notice, or utilize the provisions of subarticle 14(b)(2) to seek a resolution of its concerns.

DELTA STANDARDS

11. (a) The Central Valley Project and the State Water Project will be operated in conformity with the Delta standards in Exhibit A. Should the State Water Resources

Control Board establish new Delta standards, and the United States determines that operation of the Central Valley Project in conformity with the new Delta standards is not inconsistent with Congressional directives the parties shall amend Exhibit A to conform with the new Delta standards and amend this agreement to the extent necessary to provide for continued operation of both projects to accomplish the purposes of this agreement.

(b) Should the United States determine that the new Delta standards are inconsistent with Congressional directives then the United States shall promptly request the Department of Justice to bring an action for the purpose of determining the applicability of the new Delta standards to the Central Valley Project.

(c) The United States reserves the right to seek, at any time, the enactment of legislation regarding the operation of the Central Valley Project, including compliance with new Delta standards, which may supersede any final court decisions addressed in subarticle 11(b).

(d) The parties do not intend by this agreement to confer any additional authority upon either the Secretary of the Interior or the State Water Resources Control Board beyond that derived from applicable statutory and decisional law.

MONITORING

12. (a) The United States and the State recognize that certain monitoring activities must be done to ensure compliance with the Delta standards specified in Exhibit A. The necessary monitoring activities are specified in Exhibit C. The United States and the State agree to share equally the cost of those monitoring activities, including the analysis of the collected data.

(b) Exhibit C will be amended, if necessary, to ensure compliance with any Delta standards different from those set forth in Exhibit A which are applicable to the United States pursuant to Article 11.

(c) The parties agree that additional data must be collected and processed to determine the effects of the projects on the Delta and San Francisco Bay. Monitoring in addition to that specified in Exhibit C and the performance of Delta water quality studies will be covered by separate agreements.

RECORDS

13. Subject to applicable laws and regulations, the United States and the State shall have full access at all reasonable times to the books and records of the other party insofar as they pertain to this agreement, with the right to make copies thereof.

PERIODIC REVIEW

14. (a) Prior to December 31 of the fifth full year following execution of this agreement, and before December 31 of each fifth year thereafter, or more frequently if so requested by either party, the United States and the State jointly shall review the operations of both projects. The parties shall (1) compare the relative success which each party has had in meeting its objectives, (2) review operation studies supporting this agreement, including, but not limited to, the assumptions contained therein, and (3) assess the influence of the factors and procedures of Article 6 in meeting each party's future objectives. The parties shall agree upon revisions, if any, of the factors and procedures in Article 6, Exhibits B and D, and the Operation Study used to develop Exhibit B.

(b) (1) If the parties fail to enter into the contract referred to in subarticle 10(h)(1) by December 31, 1988, either party may give written Notice of Negotiation to the other party. Within 30 days of such notice, each party shall designate one member of an Advisory Board to which that problem shall be referred. The members designated by the parties shall choose a third member who shall act as chairperson. The Board shall report its unanimous recommendation to both parties with respect to all terms and conditions to be

included in said contract at a date not later than 12 months from the date of the Notice of Negotiation. The parties shall immediately implement that recommendation. If the Board fails to make a unanimous recommendation within the 12-month period, either party may unilaterally terminate this agreement.

(2) If the parties are unable to agree on changes to this agreement, or either party fails to receive all of the amendments or permits described in subarticle 10(h)(4), either party may give written Notice of Negotiation. If agreement satisfactory to both parties has not been reached within 12 months of such Notice, each party shall designate within 30 days one member of an Advisory Board to which the problem shall be referred. The members designated by the parties shall choose a third member who shall act as chairperson. The Board shall report its unanimous recommendations to both parties at a date not later than 24 months from the date of the Notice of Negotiation and the parties shall amend this agreement and immediately begin to operate in accordance with said recommendations. If the Board fails to make unanimous recommendations within the 24-month period, either party may unilaterally terminate this agreement.

RELATION TO AGREEMENT OF MAY 16, 1960

15. This agreement suspends the Agreement of May 16, 1960, and said Agreement of May 16, 1960, shall be of no force and effect whatsoever so long as this agreement remains in force. Should this agreement be terminated for any purpose, the Agreement of May 16, 1960, shall automatically become effective with both parties reserving their respective rights regarding the interpretation of the provisions thereof.

NEW FACILITIES

16. Any yield created by the construction of a new facility (not presently existing) by either party shall be attributed to the party constructing the new facility, and will require a review as provided for in Article 14. To the extent that water is exported outside the drainage of the Sacramento, Mokelumne, and Calaveras Rivers, the facilities used to convey such water shall be considered as export facilities for the purposes of Article 5.

PROJECT SERVICE AREAS

17. The State and the United States agree that they will respect each others project service areas as defined by long-term contracts of either agency for the furnishing of water.

THIRD PARTY RIGHTS UNAFFECTED

18. Nothing in this agreement is intended to define, determine, limit, or affect the rights of third parties.

EFFECT OF WAIVER OF BREACH

19. The waiver of a breach of any of the provisions of this agreement shall not be deemed to be a waiver of any other provisions hereof or of a subsequent breach of such provisions.

EQUAL EMPLOYMENT OPPORTUNITIES

20. During the performance of this agreement, the State agrees as follows:

(a) It will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. It will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment,

upgrading, demotion, or transfer; recruiting or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. It agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity clause.

(b) The State will, in all solicitations or advertisements for employees placed by or on its behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) The State will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice, to be provided by the agency Contracting Officer, advising the labor union or workers' representative of the State's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The State will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The State will furnish all information and reports required by said Executive Order, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Bureau of Reclamation and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of the State's noncompliance with the Equal Opportunity clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and it may be declared ineligible for further Government contracts in accordance with procedures authorized in said Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The State will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246, so that such provisions will be binding upon each subcontractor or vendor. It will take such actions with respect to any subcontract or purchase order as the Contracting

Officer may direct as a means of enforcing such provisions, including sanctions for noncompliance; Provided, however, That in the event the State becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Contracting Officer it may request the United States to enter into such litigation to protect the interests of the United States.

CONTINGENT PROVISIONS

21. Performance by the State and the United States shall be contingent on: (1) the availability of Federal funds therefor; and (2) the availability of State funds therefor.


OFFICIALS NOT TO BENEFIT

22. (a) No member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise herefrom. This restriction shall not be construed to extend to this agreement if made with a corporation for its general benefit.

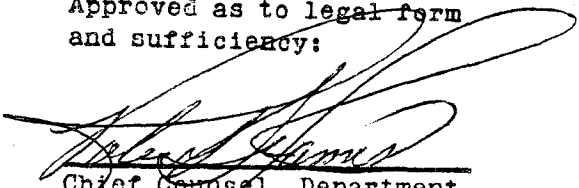
(b) No official of the State shall receive any benefit that may arise by reason of this agreement other than as a landowner within the Project and in the same manner as other landowners within the Project.

IN WITNESS WHEREOF, the parties hereto, by their
respective officers thereunto duly authorized, have duly
executed this supplement on the day and year first herein-
above written.

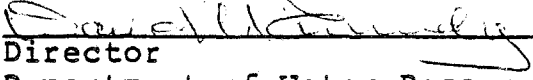
THE UNITED STATES OF AMERICA

By 
Regional Director, Mid-Pacific Region
Bureau of Reclamation

Approved as to legal form
and sufficiency:


Chief Counsel, Department
of Water Resources

DEPARTMENT OF WATER RESOURCES OF
THE STATE OF CALIFORNIA

By 
Director
Department of Water Resources

STANDARDS
FOR THE SACRAMENTO-SAN JOAQUIN DELTA 1/

BENEFICIAL USES PROTECTED AND LOCATION	PARAMETER	DESCRIPTION	YEAR TYPE	VALUES
<u>MUNICIPAL AND INDUSTRIAL</u>				
Contra Costa Canal Intake at Pumping Plant No. 1	Chloride	Maximum Mean Daily Cl ⁻ in mg/l	All	250
Contra Costa Canal Intake At Pumping Plant No. 1 or Antioch Water Works Intake on San Joaquin River	Chloride	Maximum Mean Daily 150 mg/l Chloride for at least the number of days shown during the Calendar Year. Must be provided in intervals of not less than two weeks duration (% of Year shown in parenthesis)	Wet Ab. Normal Bl. Normal Dry Critical	Number of Days Each Calendar Year Less than 150 mg/l Chloride 240 (66%) 190 (52%) 175 (48%) 165 (45%) 155 (42%)
City of Vallejo Intake at Cache Slough	Chloride	Maximum Mean Daily Cl ⁻ in mg/l	All	250
Clifton Court Forebay Intake at West Canal	Chloride	Maximum Mean Daily Cl ⁻ in mg/l	All	250
Delta Mendota Canal at Tracy Pumping Plant	Chloride	Maximum Mean Daily Cl ⁻ in mg/l	All	250
<u>AGRICULTURE</u>				
EASTERN DELTA			0.45 EC April 1 to Date Shown	EC from Date Shown 2/ to Aug. 15
Emmerton on the Sacramento River	Electrical Conductivity	Maximum 14-day Running Average of Mean Daily EC in mmhos	Wet Ab. Normal Bl. Normal Dry Critical	Aug. 15 July 1 June 20 June 15 ---
				-- 0.63 1.14 1.67 2.78

**BENEFICIAL USES PROTECTED
AND LOCATION**

PARAMETER

DESCRIPTION

YEAR TYPE

VALUES

AGRICULTURE

WESTERN DELTA

				0.45 EC April 1 to Date Shown	EC from Date Shown 2/ to Aug. 15
Jersey Point on the San Joaquin River	Electrical Conductivity	Maximum 14-day Running Average of Mean Daily EC in mmhos	Wet	Aug. 15	--
			Ab. Normal	Aug. 15	--
			Bl. Normal	June 20	0.74
			Dry	June 15	1.35
			Critical	--	2.20

INTERIOR DELTA

Terminus on the Mokelumne River	Electrical Conductivity	Maximum 14-day Running Average of Mean Daily EC in mmhos	Wet	Aug. 15	--
			Ab. Normal	Aug. 15	--
			Bl. Normal	Aug. 15	--
			Dry	Aug. 15	--
			Critical	--	0.54
San Andreas Landing on the San Joaquin River	Electrical Conductivity	Maximum 14-day Running Average of Mean Daily EC in mmhos	Wet	Aug. 15	--
			Ab. Normal	Aug. 15	--
			Bl. Normal	Aug. 15	--
			Dry	June 25	0.58
			Critical	--	0.87

FISH AND WILDLIFE

STRIPED BASS SPAWNING

Prisoners Point on the San Joaquin River	Electrical Conductivity	Average of mean daily EC for the period not to exceed	All	April 1 to May 5 0.55 mmhos
Chippis Island	Delta Outflow Index in cfs	Average of the daily Delta outflow index for the period, not less than	All	April 1 to April 14 6700 cfs
Antioch Waterworks Intake on the San Joaquin River	Electrical Conductivity	Average of mean daily EC for the period, not more than	All	April 15 to May 5 1.5 mmhos

BENEFICIAL USES PROTECTED
AND LOCATION

PARAMETER

DESCRIPTION

YEAR TYPE

VALUES

FISH AND WILDLIFE

STRIPED BASS SPAWNING

Antioch Water Works
Intake (continued)

Electical
Conductivity
(Relaxation
Provision -
replaces the
above Antioch
and Chipps
Island Stan-
dard whenever
the projects
Impose defi-
ciencies in
firm supplies 3/

Average of mean Daily EC
for the period, not more
than the values correspond-
ing to the deficiencies
taken (linear interpola-
tion to be used to deter-
mine values between those
shown)

All -
whenever
the pro-
jects im-
pose defi-
ciencies
in firm
supplies 3/

Total Annual
Imposed Defi-
ciency MAF

0
0.5
1.0
1.5
2.0
3.0
4.0 or more

Apr. 1 to May 5
EC in mmhos

1.5
1.9
2.5
3.4
4.4
10.3
25.2

STRIPED BASS SURVIVAL

Chipps Island

Delta Outflow
Index in cfs

Average of the daily Delta
outflow index for each
period shown not less than

Wet
Ab. Normal
Bl. Normal
Subnormal
Snowmelt
Dry 4/
Dry 5/ or
Critical

May 6-31	June	July
14,000	14,000	10,000
14,000	10,700	7,700
11,400	9,500	6,500
6,500	5,400	3,600
4,300	3,600	3,200
3,300	3,100	2,900

SALMON MIGRATIONS

Rio Vista on the
Sacramento River

Computed net
stream flow
in cfs

Minimum 30-day running
average of mean daily
net flow

Wet
Ab. Normal
Bl. Normal
Dry or
Critical

Jan.	Feb. 1- Mar. 15	Mar. 16- June 30
2,500	3,000	5,000
2,500	2,000	3,000
2,500	2,000	3,000
1,500	1,000	2,000

**BENEFICIAL USES PROTECTED
AND LOCATION**

PARAMETER

DESCRIPTION

YEAR TYPE

VALUES

FISH AND WILDLIFE

SALMON MIGRATIONS

Rio Vista on the
Sacramento River
(continued)

	<u>July</u>	<u>Aug.</u>	<u>Sept. 1 Dec. 31</u>
Wet	3,000	1,000	5,000
Ab. Normal	2,000	1,000	2,500
Bl. Normal	2,000	1,000	2,500
Dry or Critical	1,000	1,000	1,500

SUISUN MARSH

Chippis Island at
O&A Ferry Landing

Electrical
Conductivity

Maximum 28-day running
average of mean daily EC

	<u>Jan.-May</u>	<u>Oct.-Dec.</u>
Wet	12.5 mmhos	12.5 mmhos
Ab. Normal	12.5 mmhos	12.5 mmhos
Bl. Normal	12.5 mmhos	12.5 mmhos
Dry or Critical	12.5 mmhos	15.6 mmhos

(The 15.6 mmhos EC Standard applies only
when project water users are taking
deficiencies in scheduled water supplies 6/
otherwise the 12.5 mmhos EC remains in
effect.)

Chippis Island

Delta Outflow
Index in cfs

Average of the daily
Delta outflow index for
each month, not less
than values shown

Wet	<u>February-May 10,000 cfs</u>
Subnormal Snowmelt	<u>February-April 10,000 cfs</u>

Minimum daily Delta
outflow index for 60
consecutive days in
the period

Ab. Norm and Bl. Norm.	<u>January-April 12,000 cfs</u>
---------------------------	-------------------------------------

**BENEFICIAL USES PROTECTED
AND LOCATION**

PARAMETER

DESCRIPTION

YEAR TYPE

VALUES

FISH AND WILDLIFE

SUTSON MARSH

Chipp's Island
(continued)

Delta Outflow
Index in cfs

Average of the daily
Delta outflow index for
each month, not less
than values shown

All (if greater
flow not required
by above standard)
- whenever storage
is at or above the
minimum level in
the flood control
reservation en-
velope at two out
of three of the
following: Shasta
Reservoir, Oroville
Reservoir, and CVP
storage on the
American River

Jan.-May
6,600 cfs

OPERATIONAL CONSTRAINTS *

Minimize diversion of
young striped bass
from the Delta

Diversions
in cfs

The mean monthly diver- All
sions from the Delta by
the State Water Project (SWP)
(Department) not to
exceed the values shown.

May June July
3,000 3,000 4,600

The mean monthly diver- All
sions from the Delta by
the Central Valley Project (CVP)
(Bureau), not to exceed
the values shown.

May June
3,000 3,000

Minimize diversion of
young striped bass into
Central Delta

Closure of Delta cross
channel gates for up to
20 days but no more than
two out of four consecu-
tive days at the dis-
cretion of the Department
of Fish and Game upon 12
hours notice.

All - whenever
the daily Delta
outflow index
is greater than
12,000 cfs

April 16-May 31

**BENEFICIAL USES PROTECTED
AND LOCATION**

PARAMETER

DESCRIPTION

YEAR TYPE

VALUES

FISH AND WILDLIFE

OPERATIONAL CONSTRAINTS *

Minimize cross Delta move-
ment of Salmon

Closure of Delta Cross Channel
gates (whenever the daily Delta
outflow index is greater than
12,000 cfs)

All

Jan. 1-April 15

*To the extent that operational constraints on the Central Valley Project to minimize diversion of young striped bass from the Delta during May and June reduce Central Valley Project exports, the State will, through coordinated operations, transport for the United States an amount equal to such reductions during the year by direct diversion or by redirection of stored Central Valley Project water through State Water Project facilities at such times that diversions don't reduce State Water Project yield.

FOOTNOTES

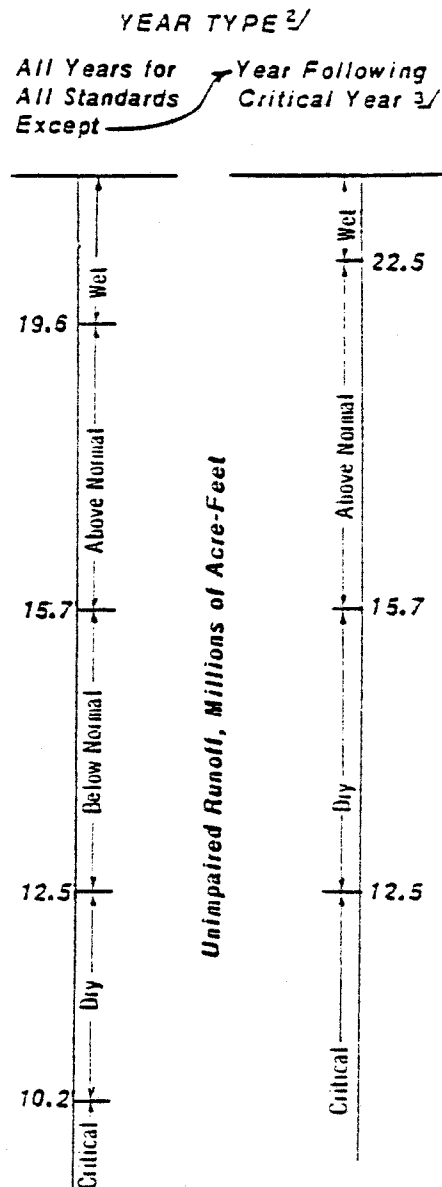
- 1/ Except for flow, all values are for surface zone measurements. Except for flow, all mean daily values are based on at least hourly measurements. All dates are inclusive.
- 2/ When no date is shown in the adjacent column, EC limit in this column begins on April 1.
- 3/ For the purpose of this provision firm supplies of the Bureau shall be any water the Bureau is legally obligated to deliver under any CVP contract of 10 years or more duration, excluding the Friant Division of the CVP, subject only to dry and critical year deficiencies. Firm supplies of the Department shall be any water the Department would have delivered under Table A entitlements of water supply contracts and under prior right settlements had deficiencies not been imposed in that dry or critical year.
- 4/ Dry year following a wet, above normal or below normal year.
- 5/ Dry year following a dry or critical year.
- 6/ Scheduled water supplies shall be firm supplies for USBR and DWR plus additional water ordered from DWR by a contractor the previous September, and which does not exceed the ultimate annual entitlement for said contractor.

NOTE: EC values are mmhos/cm at 25⁰C.

YEAR CLASSIFICATION

Year classification shall be determined by the forecast of 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 for 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.

YEAR TYPE	RUNOFF, MILLIONS OF ACRE-FEET
Wet ^{1/}	equal to or greater than 19.6 (except equal to or greater than 22.5 in a year following a critical year). ^{2/}
Above Normal ^{1/}	greater than 15.7 and less than 19.6 (except greater than 15.7 and less than 22.5 in a year following a critical year). ^{3/}
Below Normal ^{1/}	equal to or less than 15.7 and greater than 12.5 (except in a year following a critical year). ^{3/}
Dry	equal to or less than 12.5 and greater than 10.2 (except equal to or less than 15.7 and greater than 12.5 in a year following a critical year). ^{3/}
Critical	equal to or less than 10.2 (except equal to or less than 12.5 in a year following a critical year). ^{3/}



- ^{1/} Any otherwise wet, above normal, or below normal year may be designated a subnormal snowmelt year whenever the forecast of April through July unimpaired runoff reported in the May issue of Bulletin 120 is less than 5.9 million acre-feet.
- ^{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.
- ^{3/} "Year following critical year" classification does not apply to Agricultural, Municipal and Industrial standards.

CENTRAL VALLEY PROJECT AND STATE WATER PROJECT ANNUAL SUPPLIES
(all figures are in thousands of acre-feet)

Central Valley ProjectState Water ProjectTotalSACRAMENTO BASIN USE

Sacramento River below Shasta	2,954	Feather River below Oroville	993	
American River Basin	<u>200</u>		<u> </u>	
Subtotal	3,154		993	4,147

EXPORT

Tracy Pumping Plant	3,113	Delta Pumping Plant	2,674	
Contra Costa Pumping Plant	90			
Cross Valley Canal	128			
Incremental Supply	432			
	<u> </u>		<u> </u>	
Subtotal	3,762		2,674	6,436

DELTA AREA AND OUTFLOW (JOINT RESPONSIBILITY)				<u>4,986</u>
---	--	--	--	--------------

TOTAL

15,569

- Notes: (1) Annual supplies are based on operation study USCAL-2-82.
(1928-1934 critical period)
- (2) Annual supplies in some cases include both water right entitlements and project supplemental water.
- (3) The listing of annual supplies by service areas is not intended to restrict the place of use of either party.
- (4) Cross Valley Canal supply relies on transport through State Water Project facilities.
- (5) Incremental supply is developed from remaining storage in Central Valley Project reservoirs at the end of the 1928-1931 critical period and could be made available in the Delta on a firm basis with allowable (25%) deficiencies in critical years. It would require transport through State Water Project facilities.

CENTRAL VALLEY PROJECT AND STATE WATER PROJECT FULL DEVELOPMENT ANNUAL SUPPLIES
(all figures are in thousands of acre-feet)

<u>Central Valley Project</u>		<u>State Water Project</u>		<u>Total</u>
<u>SACRAMENTO BASIN USE</u>				
Sacramento River below Shasta	3,381	Feather River below Oroville	1,031	
American River Basin	<u>1,132</u>			
Subtotal	4,513		1,031	5,544
<u>EXPORT</u>				
Tracy Pumping Plant	3,264	Delta Pumping Plant	2,059	
Contra Costa Pumping Plant	195			
Cross Valley Canal	128			
Incremental Supply	154			
	<u> </u>		<u> </u>	
Subtotal	3,741		2,059	5,800
DELTA AREA AND OUTFLOW (JOINT RESPONSIBILITY)				<u>4,918</u>
TOTAL				16,262

- Notes: (1) Figures are illustrative of annual supplies obtainable under the assumptions of operation study USCAL-3-82. (1928-1934 critical period) which assumes full development with existing facilities.
- (2) Annual supplies in some cases include both water right entitlements and project supplemental water.
- (3) The listing of annual supplies by service areas is not intended to restrict the place of use of either party.
- (4) Cross Valley Canal supply relies on transport through State Water Project facilities.
- (5) Incremental supply is developed from remaining storage in Central Valley Project reservoirs at the end of the 1928-1934 critical period and could be made available in the Delta on a firm basis with allowable (25%) deficiencies in critical years. It would require transport through State Water Project facilities.
- (6) American River Basin Supply includes 120 thousand acre-feet for Placer County Water Agency water rights. It is assumed delivered above Folsom.

EXHIBIT C

MONITORING LOCATIONS

<u>No.</u>	<u>*Station Identifier Code</u>	<u>State Location</u>
1	RSAN032	San Joaquin River at San Andreas Landing
2	CHCCC06	Contra Costa Canal at P.P. #1
3	CHWST0	West Canal at mouth/intake to CCFB
4	RSMKL08	Mokelumne River at Terminous
5	SLCCH16	Cache Slough at City of Vallejo intake
6	RSAC075	Sacramento River at Chipps Island (Mallard Slough)
7	RSAN007	San Joaquin River at Antioch
8	RSAN018	San Joaquin River at Jersey Point
9	RSAC092	Sacramento River at Emmaton
10	CHDMC006	Delta Mendota Canal
11	RSAC101	Sacramento River at Rio Vista
12	RSAC139	Sacramento River at Greens Landing
13	ROLD14	Old River at Holland Tract
14	RSAC081	Sacramento River at Collinsville
15	RSAN112	San Joaquin River at Vernalis
16	B9D801.9 143.2	San Joaquin River at Blind Point
17	**D29	San Joaquin River at Prisoners Point
18	B9D802.0 137.2	Piper Slough at Bethel Island

Unless otherwise agreed, a continuous electrical conductivity (EC) recorder shall be maintained at all of the sites listed above except for the San Joaquin River at Prisoners Point (D29) where only a weekly EC measurement is required between April 1 and May 5 of each year.

*Station Identifier Code used in the Environmental Protection Agency STORET data base.

**Bureau of Reclamation station identifier code. STORET code not available.

Exhibit D
Exchange Procedure to Provide D-1485 Condition 3
Replacement Water (Article 10b of COA)

The California State Water Resources Control Board (SWRCB) Decision 1485 (D-1485) restricts exports from the Delta by the Central Valley Project (CVP) and the State Water Project (SWP) during May and June of each year by limiting each project to a mean monthly export of 3,000 ft³/s. However, Condition 3 of D-1485¹ allows the CVP to make up any deficiency caused by the limitation by exporting at SWP facilities (Condition 3 water). In an effort to minimize the impact of the limitation on CVP and SWP power operations and unless otherwise agreed, this exchange procedure will be followed.

During May and June of each year the CVP shall have the option to provide and the SWP will accept an amount of energy on a mutually agreed upon schedule sufficient to pump some or all Condition 3 water at H. O. Banks Delta Pumping Plant (Banks). Operation under this procedure shall not cause export from the Delta in excess of that shown in Exhibit A. Any energy supplied by the CVP under this procedure will be used for pumping of SWP water at Banks and/or any joint CVP-SWP pumping facility during May and June. Such energy shall be converted to dollars at the then current value of SWP energy and credited to a CVP exchange account (account). During months other than May and June, the SWP shall pump Condition 3 water for the CVP¹ utilizing the account to cover

1

To the extent that operational constraints on the Central Valley Project to minimize diversion of young striped bass from the Delta during May and June reduce project exports, permittee, the United States Bureau of Reclamation, shall be allowed through coordinated operations to make up such deficiencies during later period of the year by direct diversion or by redirection of releases of stored water through State Water Project facilities.

the cost of associated pumping energy at Banks at the then current value of energy to the SWP. For accounting purposes all Condition 3 water shall be deemed to have been pumped at Banks at a rate of 297 KWH/AF. This rate is based on the rated efficiency of the pumping plant. Any change in the rated efficiency of the pumping plant will result in a correlative change in this KWH/AF rate at Banks.

The CVP shall have the option to convey all Condition 3 water through SWP facilities during July and August. However, it is recognized that the value of energy is time dependent. Therefore, it is likely that the value of energy to pump an amount of water in May and June will be different than the value for pumping an equal amount of water at other times of the year. Prior to April 1 of each year operators of the SWP shall estimate the value of off-peak and on-peak energy for each week of the following twelve months. Prior to April 20 the CVP operators in coordination with the SWP operators shall determine how much CVP energy can be provided for SWP pumping during the May-June period. In the event that the account balance is insufficient to purchase the necessary energy for pumping all Condition 3 water, the CVP may provide and SWP will accept additional energy needed to effect full recovery of Condition 3 water. In the event that the entire quantity of Condition 3 water is received by the CVP prior to the depletion of the account, the SWP shall credit the CVP with energy for additional pumping at Banks Pumping Plant or any joint CVP-SWP pumping facility until the account reaches a zero balance each year.

EXHIBIT E

WATER SHORTAGE AND APPORTIONMENT

1. (a) In its operation of the Central Valley Project (CVP), the United States will use all reasonable means to guard against a condition of shortage in the quantity of water available to the State pursuant to this contract. Nevertheless, if a shortage does occur during any year because of drought, or other causes which, in the opinion of the Contracting Officer, are beyond the control of the United States, no liability shall accrue against the United States or any of its officers, agents, or employees for any damage, direct or indirect, arising therefrom.

(b) In any year that the Contracting Officer determines there is a shortage in the quantity of water available to customers of the United States from the CVP, the Contracting Officer will apportion available water among the water users capable of receiving water from the same CVP facilities by reducing deliveries to all such water users by the same percentage, unless he is prohibited by existing contracts, CVP authorizations, or he determines that some other method of apportionment is required to prevent undue hardship. In the event reduced deliveries are necessary, the water supplies for both municipal and industrial use, and agricultural use shall be reduced by the same percentage for each contractor.

(c) If operation of the CVP to meet legally required Delta water quality control standards, including Federally adopted water quality standards, causes a shortage in water supply and requires a reduction in deliveries of water to the State under this agreement, such reductions will be made in accordance with subdivision (b) of this exhibit and shall not be deemed a breach hereof.