

September 15, 1967

Revised December 6, 1967

Contract Ilr-1144
Second Amendatory

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Central Valley Project, California

2/14/68

SECOND AMENDED CONTRACT FOR EXCHANGE OF WATERS

Table of Contents

<u>Article No.</u>	<u>Title</u>	<u>Page No.</u>
	Preamble	1
	Explanatory Recitals	1- 4
1	Supersession	4
2	Operation of Project	4
3	Substitute Water Defined	4
4	Conditional Permanent Substitution of Water Supply	4- 5
	Temporary Interruption of Delivery	5
	Permanent Failure of Delivery	5- 6
	Notice to Third Parties	6
5	Delivery of Substitute Water	6
	Delta-Mendota Canal Operations	6- 7
	U. S. Responsible for Delivery Works	7
	Delivery Obligation and Interest	7- 8
	Delivery Points	8-10
6	Area of Use of Substitute Water	10-13
7	Critical Calendar Year	14-15
8	Quantity of Substitute Water	15-18
9	Quality of Substitute Water	19
	General	19
	Daily	19
	Monthly	20
	Annual	20
	Five Year	20
	How Determined	20-22
10	Measurement of Substitute Water Points	22 22
	U. S. Responsibility	23
	Contracting Entities Responsibility	23
	Standards and Access	23-24
11	Mendota Pool	24-26
12	Flushing Operation	26
13	Renegotiation	26-27
14	Agents of the United States and Contracting Entities	27-28
15	Protection of Water Rights	28-29

Table of Contents (Continued)

<u>Article No.</u>	<u>Title</u>	<u>Page No.</u>
16	Construction of Contract	29
17	Rights-of-Way	29-30
18	Effect of Waiver of Breach	30
19	Responsibility for Interruption	30-31
20	Easement in Favor of the United States	31
21	Successors and Assigns Bound	31
22	Contingent Upon Appropriations	31-32
23	Officials Not to Benefit	32
	Signature Page	33
Exhibit A	Map Showing the Service Areas	

FT - U.S.B.R.
September 15, 1967
Revised December 6, 1967

Contract Ilr-1144
Second Amendatory

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Central Valley Project, California

SECOND AMENDED CONTRACT FOR EXCHANGE OF WATERS

THIS CONTRACT, between THE UNITED STATES OF AMERICA,
acting through the Bureau of Reclamation, Department of the Interior,
hereinafter called United States, and CENTRAL CALIFORNIA IRRIGATION
DISTRICT, a successor in interest to The San Joaquin Canal Company,
formerly known as The San Joaquin & Kings River Canal & Irrigation
Company, Incorporated, COLUMBIA CANAL COMPANY, SAN LUIS CANAL
COMPANY, and FIREBAUGH CANAL COMPANY, hereinafter called Contracting
Entities;

W I T N E S S E T H

WHEREAS, or or about July 27, 1939, the above-mentioned
parties, either directly or through a predecessor in interest were
parties to two contracts, a "Contract for Purchase of Miller & Lux
Water Rights," hereinafter called "Purchase Contract," and a
"Contract for Exchange of Waters," hereinafter called "Exchange
Contract". On or about September 14, 1939, in pursuance of said
contracts, Miller & Lux Incorporated and Gravelly Ford Canal Company
executed and delivered to the United States a certain deed. Said
instruments were thereafter recorded in California in the counties,

on the dates, in the volumes and on the pages of the official records below tabulated -

Recording Data

<u>Instruments and Counties</u>	<u>Date of Recording</u>	<u>Official Records</u>	
		<u>Volume</u>	<u>Beginning Page</u>
<u>PURCHASE</u>			
Stanislaus	9/13/39	692	1
Fresno	9/13/39	1781	201
Merced	9/13/39	623	364
Madera	9/13/39	248	2
<u>EXCHANGE</u>			
Stanislaus	9/18/39	704	1
Fresno	9/18/39	1810	50
Merced	9/18/39	623	417
Madera	9/18/39	247	113
<u>DEED</u>			
Stanislaus	9/18/39	703	1
Fresno	9/18/39	1781	25
Merced	9/18/39	623	410
Madera	9/18/39	247	88

and

WHEREAS, said instruments constituted a single transaction which made possible, in part, the Central Valley Project of the United States, hereinafter called Project; and

WHEREAS, more specifically, under said Purchase Contract and Deed certain rights to the use of the waters of the San Joaquin River and its tributaries were conveyed to the United States; and

WHEREAS, it was however recognized in said Purchase Contract dated July 27, 1939, that the Contracting Entities were entitled to

use beneficially certain other waters of the San Joaquin River, as set forth in Schedule 1 thereof, for the irrigation of lands and for other purposes in Fresno, Madera, Merced and Stanislaus Counties, California. Said lands are downstream from Friant Dam which is on and in the aforementioned San Joaquin River and a part of the Project. Said waters identified in this article are herein referred to hereafter as "reserved waters," and

WHEREAS, under said Exchange Contract since approximately July 16, 1951, the United States has been and is storing and diverting said reserved waters of the San Joaquin River for use within and without the watershed of said river by others than the Contracting Entities, and has been and is supplying the Contracting Entities in lieu of such waters with substitute water from the Sacramento River, the Sacramento-San Joaquin Delta and other sources through the Delta-Mendota Canal of said Project and by other means; and

WHEREAS, as a result of the experience gained during this period and other factors as well, the above mentioned parties, on or about March 17, 1956, entered into a contract entitled "Amended Contract for Exchange of Waters" (Contract Ilr-1144-Amendatory); and

WHEREAS, on July 19, 1963, the above mentioned parties entered into a contract entitled "Amendment of Amended Contract for Exchange of Waters" (Contract Ilr-1144-Amendatory); and

WHEREAS, the above mentioned parties now desire to make further changes in the contract provisions as deemed mutually desirable,

and to incorporate into one instrument the entire agreement between the parties as to exchange of waters.

NOW, THEREFORE, in consideration of the foregoing premises and the provisions hereinafter contained, the parties hereto agree as follows:

Article 1.

Supersession. This contract supersedes and replaces the aforementioned Exchange Contract, the Amended Exchange Contract, and the Amendment to the Amended Exchange Contract. Moreover, in the event of conflict between this contract and the aforementioned Purchase Contract and Deed, this contract prevails.

Article 2.

Operation of Project. The United States shall operate the Project in accordance with the priorities of purposes as specified in the Act of Congress approved August 26, 1937 (50 Stats. 844) and acts amendatory thereof and supplementary thereto.

Article 3.

Substitute Water Defined. The term "substitute water" as used herein means all water delivered hereunder at the points of delivery hereinafter specified to the Contracting Entities, regardless of source.

Article 4.

a. Conditional Permanent Substitution of Water Supply.

The United States may hereafter, either in whole or in part, store,

divert, dispose of and otherwise use, within and without the watershed of the aforementioned San Joaquin River, the aforesaid reserved waters of said river for beneficial use by others than the Contracting Entities so long as, and only so long as, the United States does deliver to the Contracting Entities by means of the Project or otherwise substitute water in conformity with this contract.

b. Temporary Interruption of Delivery. Whenever the United States is temporarily unable for any reason or for any cause to deliver to the Contracting Entities substitute water from the Delta-Mendota Canal or other sources, water will be delivered from the San Joaquin River as follows:

(1) During this period, for the first 7 consecutive days, in the quantities and rates as specified in Article 8 of this contract.

(2) For the balance of this period, in quantities and rates as reserved in the Purchase Contract, except that the United States further agrees that if the resulting delivery of water would be less than seventy-two per centum (72%) of Schedule One in said Purchase Contract then the United States shall make up such quantities by releases of available storage from Millerton Lake, provided, however, that the United States shall in no event be required to draw the storage in Millerton Lake below Elevation 464.00 U.S.G.S. datum or to retain water in storage in Millerton Lake in anticipation of the possible future need for such releases.

c. Permanent Failure of Delivery. Whenever the United States is permanently unable for any reason or for any cause to

deliver to the Contracting Entities substitute water in conformity with this contract, the Contracting Entities shall receive the said reserved waters of the San Joaquin River as specified in said Purchase Contract and the United States hereby agrees to release at all such times said reserved waters at Friant Dam.

d. Notice to Third Parties. The United States further promises and agrees that with respect to any contract between it and third parties for the use of water of the San Joaquin River it either will notify said parties in writing, prior to the execution of such contract, of the rights reserved to the Contracting Entities in this article, or will specifically provide for the recognition n of such rights in such contract.

Article 5.

Delivery of Substitute Water.

a. Delta-Mendota Canal Operations. It is anticipated that most if not all of the substitute water provided the Contracting Entities hereunder will be delivered to them via the aforementioned Delta-Mendota Canal. The Contracting Entities shall have no responsibility for the operation of said Canal and appurtenant works or for the diversion of water therethrough and said Entities shall not be responsible for claims arising therefrom, or obligated to defend any actions in law or equity arising out of or based upon said operation or diversion. Furthermore, the United States may utilize said Canal and/or other works or sources

of water supply, used for the delivery of substitute water hereunder to the Contracting Entities, for the delivery of water to others.

b. U. S. Responsible for Delivery Works. The United States, at its sole cost and expense, shall construct, operate, and maintain all works necessary for the delivery of water hereunder to the Contracting Entities, including works necessary to effect delivery without injury to the canals of the Contracting Entities, and, except as herein provided, shall install reliable measuring stations to record the quantities being delivered at each point of such delivery, and including such works as may be necessary to permit operation of any canal when receiving substitute water at any point in said canal other than through existing intake or intakes; except that the United States shall not be required either to operate or maintain any works now or in the future owned by the Contracting Entities.

c. Delivery Obligation and Interest. The responsibility for the division of the substitute water delivered hereunder to the Contracting Entities rests wholly on them and the condition precedent to the delivery of any such water by the United States at any time shall be compliance by the Contracting Entities with the requirements of Article 8. When the United States has delivered substitute water to the Contracting Entities at the delivery points specified in the subarticle immediately hereafter, the United States

shall have no further legal interest therein, except as herein otherwise expressly specified, and no obligation further to distribute said water to the lands entitled thereto.

d. Delivery Points.

(1) Delivery of substitute water for use by Columbia Canal Company shall be made in Lone Willow Slough above the head of the Columbia Canal, or at the option of the United States either there or in part there, and the balance at points along said Canal, for use on lands within its service area north and east of the San Joaquin River; and in the Mowry Canal at the east boundary of said area for lands south of the San Joaquin River.

(2) Delivery of substitute water for use by Firebaugh Canal Company shall be made directly into the pool back of Mendota Dam or at the option of the United States into the Main Intake Canal of said Company.

(3) Delivery of substitute water for use by the Central California Irrigation District shall be made directly into the pool back of Mendota Dam, or at the option of the United States either into the canals of said District or in part into said pool and the balance at points along the existing canals of said District between Firebaugh and Newman.

(4) Delivery of substitute water for use by San Luis Canal Company shall be made into the pool back of Mendota Dam, or at the option of the United States either in the San Joaquin

River at the head of Temple Slough (sometimes called Arroyo Canal) or at some point above the first takeout therefrom.

(5) Additional points of delivery have been provided to the Contracting Entities by constructing turnouts from the Delta-Mendota Canal in accordance with letter agreements executed by the United States, the Contracting Entities and others as follows:

1 - Mile 58.2 left

between United States, Contracting Entities, and Central California Irrigation District, dated December 29, 1965.

2 - Mile 60.65 left

between United States, Contracting Entities, Central California Irrigation District, and Grassland Water District, dated July 19, 1963.

3 - Mile 76.05 left

between United States, Contracting Entities, Central California Irrigation District, and Grassland Water District, dated July 19, 1963.

4 - Mile 107.86 left

between United States, Contracting Entities, and Firebaugh Canal Company, dated June 3, 1966.

5 - Mile 109.45 right

between United States, Contracting Entities, and Firebaugh Canal Company, dated June 3, 1966.

As to these turnouts and turnouts which may be constructed in the future if the Contracting Entities request additional turnouts and the United States approves such request, it is agreed:

(a) The entire cost of the turnouts shall be borne by the Contracting Entities (or one of them);

(b) The entire cost of operation, maintenance and replacement of the turnouts shall be borne by the Contracting Entities (or one of them);

(c) The turnouts are not works necessary for the delivery of substitute water as provided in Article 5(b) entitled "U. S. Responsible for Delivery Works."

(d) In determining the quality of substitute water delivered to the Contracting Entities as provided in Article 9(f), the United States may, at its option, base it on the weighted average water quality at all the various delivery points, including the above turnouts.

(e) Whenever sufficient water is available from the San Joaquin River and/or Fresno Slough to meet the needs of the Contracting Entities at Mendota Pool, the Bureau of Reclamation reserves the right to make all deliveries to the Contracting Entities at that point, and to terminate deliveries through the turnouts.

Article 6.

Area of Use of Substitute Water. Attached hereto marked Exhibit A is a map with a legend. This map and legend are incorporated

herein by this reference. This map depicts the respective present service areas of the Contracting Entities and a certain California State Game Refuge. The legend states the approximate gross acreages contained in each of the said service areas and the game refuge, together with an acreage breakdown of the two portions of the service area of the Central California Irrigation District. These various gross acreages, so depicted and so stated, total approximately 244,620 acres. The legal descriptions of the service areas are recorded as shown in the following tabulation:

<u>Instruments and Counties</u>	<u>Dates of Recording</u>	<u>Volume</u>	<u>Official Records Beginning Page</u>
CENTRAL CALIFORNIA IRRIGATION DISTRICT			
<u>Original Boundaries</u>			
Fresno	November 2, 1951	3084	441
Stanislaus	October 31, 1951	1054	309
Merced	November 1, 1951	1038	51
<u>Exclusion Orders</u>			
Fresno	June 27, 1952	3182	150
Stanislaus	June 27, 1952	1094	349
Merced	June 24, 1952	1060	99
Fresno	August 3, 1953	3335	629
Stanislaus	August 4, 1953	1166	89
Merced	August 10, 1953	1116	125
Fresno	December 1, 1953	3375	199
Stanislaus	December 1, 1953	1184	643
Merced	November 30, 1953	1142	85
Fresno	April 27, 1954	3438	137
Stanislaus	April 27, 1954	1214	256
Merced	April 27, 1954	1153	153
Stanislaus	July 30, 1954	1231	610
Merced	July 30, 1954	1165	457
Merced	November 16, 1956	1289	324
Stanislaus	November 16, 1956	1395	28
Fresno	November 16, 1956	3845	410
Merced	April 21, 1958	1363	359
Stanislaus	April 21, 1958	1479	362
Fresno	April 21, 1958	4056	586
Merced	May 27, 1960	1479	182
Stanislaus	May 27, 1960	1615	502
Fresno	May 27, 1960	4393	472

<u>Instruments and Counties</u>	<u>Dates of Recording</u>	<u>Volume</u>	<u>Official Records Beginning Page</u>
CENTRAL CALIFORNIA IRRIGATION DISTRICT			
<u>Exclusion Orders (Continued)</u>			
Merced	October 23, 1961	1547	570
Stanislaus	October 12, 1961	1713	542
Fresno	October 27, 1961	4629	182
Merced	August 13, 1965	1695	841
Stanislaus	August 13, 1965	2049	647
Merced	October 4, 1967	1753	882
Stanislaus	October 4, 1967	2187	407
Fresno	October 4, 1967	5486	606
Merced	October 12, 1967	1754	391
Stanislaus	October 12, 1967	2189	159
Fresno	October 16, 1967	5490	392
<u>Inclusion Orders</u>			
Fresno	December 1, 1953	3375	195
Merced	November 30, 1953	1142	23
Fresno	April 27, 1954	3438	141
Madera	April 27, 1954	608	53
Fresno	July 30, 1954	3478	228
Stanislaus	July 30, 1954	1231	606
Merced	July 30, 1954	1165	460
Merced	November 16, 1956	1289	329
Stanislaus	November 16, 1956	1395	17
Merced	April 21, 1958	1363	363
Stanislaus	April 21, 1958	1479	366
Fresno	April 21, 1958	4056	582
Merced	May 27, 1960	1479	186
Stanislaus	May 27, 1960	1615	506
Fresno	May 27, 1960	4393	468
Merced	October 23, 1961	1547	566
Stanislaus	October 12, 1961	1713	539
Fresno	October 27, 1961	4629	178
Merced	August 13, 1965	1695	844
Fresno	August 13, 1965	5204	311
Merced	October 4, 1967	1753	881
Merced	October 12, 1967	1754	389
Stanislaus	October 12, 1967	2189	159
Fresno	October 16, 1967	5490	392
SAN LUIS CANAL COMPANY			
Merced	June 28, 1955	1214	114
Fresno	June 29, 1955	3626	56
Merced	November 24, 1959	1449	8
Merced	January 4, 1967	1733	435
FIREBAUGH CANAL COMPANY			
Fresno	May 25, 1955	3610	415

<u>Instruments and Counties</u>	<u>Dates of Recording</u>	<u>Volume</u>	<u>Official Records Beginning Page</u>
COLUMBIA CANAL COMPANY			
Madera	June 28, 1955	644	392
Fresno	June 30, 1955	3626	662
CALIFORNIA STATE GAME REFUGE			
Merced	September 30, 1929	267	82

It is understood that the substitute water supplied hereunder to the Contracting Entities by the United States may be used only on the said service areas and refuge except that

(1) Each of the Contracting Entities may substitute acreage in that vicinity but outside of its present service area for acreage now located within said service area so long as such substitution does not increase the present gross acreage of said service area, and

(2) The Central California Irrigation District may, by substitution or otherwise, increase its present service area to 159,100 acres. Substitute water may be used on such substituted or increased service areas of the Contracting Entities. The Contracting Entities shall notify the United States of each change of acreage made under this Article and shall furnish the United States with a description or map of such change.

(3) The United States may, without the written consent of the Contracting Entities, deliver water to lands within their service areas only to the extent of contract obligations incurred prior to notice of inclusion of lands affected by said contracts in said service areas.

Article 7.

Critical Calendar Year. For purposes of this contract, a critical calendar year exists in either of the two immediately following eventualities:

(1) The forecasted full natural inflow to Shasta Lake for the current water year (October 1 of the preceding calendar year through September 30 of the current calendar year), as such forecast is made by the United States, on or before February 15, and reviewed as frequently thereafter as conditions and information warrant, is equal to or less than 3,200,000 acre-feet, or

(2) The total accumulated actual deficiencies below 4,000,000 acre-feet in the immediately prior water year or series of successive prior water years, each of which had inflows of less than 4,000,000 acre-feet, together with the forecasted deficiency for the current water year exceeds 800,000 acre-feet.

For the purpose of determining a critical calendar year, the computed inflow to Shasta Lake under present upstream development above Shasta Lake shall be used as the full natural inflow to Shasta Lake.

In the event that major construction completed above Shasta Lake after September 1, 1963, materially alters the present regimen of the stream systems contributing to Shasta Lake, the computed inflow to Shasta Lake used to define a critical year will be adjusted to eliminate the effect of such material alterations.

After consultation with the State, the Weather Bureau, and other recognized forecasting agencies, the United States will select the forecast to be used and will make the details of it available to the Contracting Entities. The same forecast used by the United States for the operation of the Project shall be used to make the forecasts hereunder.

An example of the determination of critical and noncritical years is shown below for a recurrence of the historical period 1921-22 through 1934-35, an unusually dry period.

<u>Year</u>	<u>Inflow to Shasta L. Acre-feet</u>	<u>Deficiencies below 4,000,000 Acre-feet</u>	<u>Accumulated Deficiencies Acre-feet</u>	<u>Cal. Year</u>	<u>Type of Year</u>	<u>Deliveries during Cal. Year Acre-feet</u>
1921-22	4,620,000	0	0	1922	noncritical	840,000
1922-23	3,650,000	350,000	350,000	1923	noncritical	840,000
1923-24	2,480,000	1,520,000	1,870,000	1924	critical	650,000
1924-25	5,060,000	0	0	1925	noncritical	840,000
1925-26	3,730,000	270,000	270,000	1926	noncritical	840,000
1926-27	6,990,000	0	0	1927	noncritical	840,000
1927-28	5,120,000	0	0	1928	noncritical	840,000
1928-29	3,210,000	790,000	790,000	1929	noncritical	840,000
1929-30	4,190,000	0	0	1930	noncritical	840,000
1930-31	2,540,000	1,460,000	1,460,000	1931	critical	650,000
1931-32	3,690,000	310,000	1,770,000	1932	critical	650,000
1932-33	3,470,000	530,000	2,300,000	1933	critical	650,000
1933-34	3,320,000	680,000	2,980,000	1934	critical	650,000
1934-35	4,920,000	0	0	1935	noncritical	840,000

Article 8.

Quantity of Substitute Water. During all calendar years, other than those defined as critical, the United States shall deliver to the Contracting Entities for use hereunder an annual substitute water supply of not to exceed 840,000 acre-feet in accordance with the following maximum monthly entitlements:

January	15,000	acre-feet
February	30,000	" "
March	85,000	" "
April	112,000	" "
May	125,000	" "
June	136,000	" "
July	142,000	" "
August	138,000	" "
September	81,000	" "
October	38,000	" "
November	25,000	" "
December	15,000	" "

provided that the total for the calendar year shall not exceed 840,000 acre-feet, and the total for (1) the 5 months January, February, March, November and December shall not exceed 121,000 acre-feet, and (2) the total for the period April through the following October shall not exceed 719,000 acre-feet.

During all calendar years defined as critical, the United States shall deliver for such use an annual substitute water supply of not to exceed 650,000 acre-feet in accordance with the following maximum monthly entitlements:

January	15,000	acre-feet
February	30,000	" "
March	85,000	" "
April	81,000	" "
May	99,000	" "
June	102,000	" "
July	107,000	" "
August	97,000	" "
September	55,000	" "
October	29,000	" "
November	25,000	" "
December	15,000	" "

provided that the total for (1) the 5 months January, February, March, November and December shall not exceed 121,000 acre-feet,

and (2) the total for the period April through the following October shall not exceed 529,000 acre-feet.

The United States shall in no event be required to deliver substitute water at rates in excess of the following:

<u>Month</u>	<u>Maximum Rate-CFS</u>
January	1,700
February	1,700
March	2,000
April	2,316
May	2,316
June	2,316
July	2,316
August	2,316
September	2,316
October	1,700
November	1,700
December	1,700

However, upon request of the Contracting Entities, the United States, at its sole option, may allow deliveries in excess of these rates if it can be done without detriment to the United States or its other obligations.

The United States, at its sole option, may suspend deliveries to the Contracting Entities for the period December 15 through January 15, or by mutual agreement, for a longer or different period sometime between November 1 and February 15.

The Contracting Entities shall furnish estimates of their aggregate monthly delivery requirements and their daily delivery schedules for each weekly period, which shall be submitted to the United States at least 48 hours prior to the beginning of the

delivery period. Changes during each weekly period may be made on 48 hours' notice by the Contracting Entities.

The responsibility for the accuracy of said schedules shall rest wholly with the Contracting Entities, and any spills or waste which may result from said schedules being in excess of requirements are to be considered therefore as a part of the substitute water provided under this contract.

In order to assist the Contracting Entities in programming their requirements under the above paragraphs the United States will inform the Contracting Entities of its forecasts as to the type of year (critical or non-critical). This shall be done on or before February 15 and reviewed as frequently thereafter as conditions and information warrant. The United States will, as soon as the necessary facts become known to it, immediately inform the Contracting Entities of any significant change in its forecasts.

In the event the forecasted type of year changes after April 1 from critical to non-critical or from non-critical to critical, the monthly quantities of substitute water applicable, after date of forecast, shall be delivered during the balance of the year. Prior deliveries of substitute water made on the basis of prior forecasts shall not affect delivery of substitute water applicable under the latest forecast.

Article 9.

Quality of Substitute Water.

(a) General.

The quality of water furnished under this contract shall be the best that the United States, following its established operating procedures, can deliver by means of the Delta-Mendota Canal and shall be at all times suitable irrigation water for use upon the lands served by the Contracting Entities. The fact that the requirements of such water quality are herein stated only in terms of parts per million of total dissolved solids should not be construed as meaning that this particular measurement of water quality is the sole indication of requisite water quality. The best data presently available on the character of the possible sources of water supplying the Delta-Mendota Canal indicate that as concentration changes there will be no significant change in the character of the water with respect to the proportions of the various constituents. However, if such water meets the specific quality requirements set forth immediately below herein, it shall be deemed conclusively to be suitable irrigation water hereunder.

(b) Daily.

The quality of water shall not exceed a mean daily value of 800 parts per million of total dissolved solids. The mean daily values are to be computed by weighting the instantaneous values on the basis of time of occurrence during each day.

(c) Monthly.

The quality of water shall not exceed a mean monthly value of 600 parts per million of total dissolved solids. The mean monthly value is to be computed by weighting each mean daily value of total dissolved solids on the basis of the quantity of water delivered each day of the month to the Contracting Entities.

(d) Annual.

The quality of water shall not exceed a mean annual value during the calendar year of 450 parts per million of total dissolved solids. The mean annual value is to be computed by weighting each mean daily value of total dissolved solids on the basis of the quantity of water delivered to the Contracting Entities each day of the calendar year.

(e) Five Year.

The average quality of water for any five consecutive years shall not exceed a mean value of 400 parts per million of total dissolved solids. The five-year average shall be computed by weighting each mean daily value of total dissolved solids on the basis of the quantity of water delivered to the Contracting Entities each day of the five consecutive calendar years ending with the current calendar year.

(f) How Determined.

The quality of water delivered from the San Joaquin River shall be determined at the present location of the Whitehouse

gaging station on San Joaquin River from bottle samples taken monthly from which total dissolved solids will be determined by chemical analysis. When water is being delivered from the San Joaquin River and Fresno Slough the quality of the water being delivered from Fresno Slough shall be deemed to be the same as that of the San Joaquin River as determined at the Whitehouse gaging station. When water is being delivered from Fresno Slough and no water is being delivered from the San Joaquin River, the quality of the water being delivered from Fresno Slough shall be deemed to be that of water having 50 parts per million of total dissolved solids. The quality of water delivered from the Delta-Mendota Canal through Mendota Pool shall be measured by a salinity recorder as presently installed in the Delta-Mendota Canal just below the Firebaugh Wasteway. At the option of the United States, the quality of water delivered to the Contracting Entities from the Delta-Mendota Canal through existing turnouts at miles 58.2 left, 60.65 left, 76.05 left, 107.86 left and 109.45 right and/or any other such turnouts constructed at the request of the Contracting Entities as provided in Article 5(d) may be determined by means of additional salinity recorders at or near such turnouts. The resultant quality of all water delivered to the Contracting Entities through Mendota Pool and/or the aforementioned turnouts, may, at the option of the United States, be determined by computing the weighted average quality of water so delivered at the aforementioned points based upon the amounts of water being delivered at each location.

When 90 percent or more of the total water being delivered to the Contracting Entities is coming from the San Joaquin River and/or Fresno Slough, then the quality of San Joaquin River water at Whitehouse shall be used as the basis for quality computations. When less than 90 percent of the total water being delivered to the Contracting Entities is coming from the San Joaquin River and/or Fresno Slough, then the quality of water in Delta-Mendota Canal at Firebaugh Wasteway shall be used as the basis for quality computations, except as otherwise provided in this Article. Should water be delivered from sources other than as specified above, the quality of water computations shall be determined by the representatives of the parties hereto as designated in Article 14 hereof.

Article 10.

Measurement of Substitute Water.

(a) Points.

The flows measured at Lone Willow Slough, Outside Canal, Main Canal, Helm Ditch, Temple Slough, and Firebaugh Intake, spills below Temple Slough which are caused by the operation of the Contracting Entities (measured at the gaging station in the San Joaquin River near Dos Palos), and the discharge of the Columbia and Mowry Pumps and the discharge through any and all turnouts constructed under the provisions of Article 5, adjusted for any Project water transported in the canals of the Contracting Entities, shall constitute the measure of substitute water delivered as provided in Article 5 above.

(b) U. S. Responsibility.

Except as provided in the next subarticle the United States agrees to install, operate and maintain such equipment, and make such computations as may be necessary to establish and maintain records of the discharge and of the total dissolved solids in the Delta-Mendota Canal above Mendota Pool, including records of the discharges of the Columbia and Mowry Pumps, and the turnouts constructed under provisions of Article 5, except that the measuring devices at such turnouts shall be installed, operated and maintained at the expense of the Contracting Entities.

(c) Contracting Entities Responsibility.

The Contracting Entities agree to maintain, or to arrange with others to do so, present measuring stations at or near the heads of Lone Willow Slough, Outside Canal, Main Canal, Helm Ditch, Temple Slough and at or near Whitehouse in the San Joaquin River, in satisfactory working condition and to make, or arrange for, computations necessary to maintain a record of discharge at each of the above stations and at the Firebaugh Pump House.

(d) Standards and Access.

The equipment and methods used in securing such records shall be mutually satisfactory to the parties to this agreement and in accordance with sound engineering practices. Authorized representatives of the parties shall have access to the recorder stations of the other parties at all reasonable times, and during

office hours to records and computations pertaining thereto, and upon request shall be furnished copies of records and computations.

The parties to this contract are in complete agreement with the necessity for, and desirability of, improved water measuring facilities at certain of the aforementioned delivery points. This is particularly true with respect to diversions from Mendota Pool through the Outside and Main Canals and the Firebaugh Pumping Plant. The parties agree to cooperate in seeking suitable ways and means of accomplishing this objective satisfactorily and economically for all concerned.

Article 11.

Mendota Pool. The parties recognize the necessity for close mutual cooperation in the operation of Mendota Pool and associated diversion works, and the desirability of maintaining the minimum practical degree of fluctuation in the Pool level. Central California Irrigation District shall operate and maintain Mendota Dam at its own expense in a manner to prevent leakage that would result in waste below Temple Slough. During times when water is being delivered to Mendota Pool from the San Joaquin River and/or Fresno Slough under this contract the water surface in the Pool will be maintained, in so far as practicable, between elevations 160.0 and 161.0 feet, U. S. Geological Survey datum, which is equivalent to heights of 13.0 feet and 14.0 feet on the gage at Mendota Dam. When delivery is being made from Delta-Mendota Canal, the corresponding elevations will be 160.0 and 161.5,

corresponding to gage heights of 13.0 and 14.5 feet. Deviations above or below these elevations shall occur only by mutual agreement of the Secretary of the Interior or his authorized representative and the Contracting Entities in so far as such deviations can be controlled by the parties to this contract. In order to assist the Central California Irrigation District in operating Mendota Pool as above, the Bureau agrees to deliver the quantities of water specified in this contract at as nearly uniform rates of flow as practicable, in accordance with delivery schedules provided by the Contracting Entities at least 48 hours in advance. In the event said District shall fail or refuse so to operate and maintain said dam, the United States shall be entitled, and is hereby given the right, power and privilege, to enter upon the premises upon which said dam is located, using all necessary force so to do, and take full charge of the operation and maintenance of said dam, and any and all cost and expense of such maintenance and operation shall be a valid charge against said District, and shall be paid forthwith to the United States upon rendition of statement or statements, therefor; provided, however, that any construction by the United States, beyond repairs and replacements in kind, shall be at the sole cost and expense of the United States. It is expressly understood in connection with the obligations imposed upon said District by this article that the United States shall do nothing hereafter which will increase materially the burden of such obligations.

The parties recognize that the United States under the aforementioned Purchase Contract acquired all rights of the Contracting Entities and each of them in and to the use of Kings River water flowing in Fresno Slough and has obligations to deliver water at points on said Fresno Slough under, or in lieu of, water rights recognized in Schedule 2 of the Purchase Contract, and that the United States has incurred and might hereafter incur obligations to provide project water at diversion points within the area of said Fresno Slough. The Contracting Entities will, subject to the provisions of this contract, cooperate with the United States in facilitating such deliveries.

Article 12.

Flushing Operation. The United States and the Contracting Entities recognize the necessity of close mutual cooperation to flush effectively the Delta-Mendota Canal prior to initial deliveries at the beginning of each irrigation season or, if necessary, because of suspension of deliveries after initial deliveries have begun. During such flushing operations, which the United States will at all times expedite, Article 9 of this contract, "Quality of Substitute Water," shall not apply.

Article 13.

Renegotiation. This contract may be opened for renegotiation and possible revision to take effect on the fifth anniversary date hereof or any subsequent fifth anniversary date

thereafter. Such renegotiation and possible revision may extend to all provisions of this contract.

Renegotiation under this article shall be commenced by a written request to that effect from either the United States or the Contracting Entities. Such request shall be made not more than 180 days and not less than 120 days prior to the then next succeeding aforementioned possible revision date. Negotiations pursuant to such request shall then be had forthwith.

Article 14.

Agents of the United States and Contracting Entities.

Where the provisions of this contract refer to representatives of the parties hereto, and operations resulting from the contract necessitate such representation, the authorized representative for the United States shall be the Regional Director of Region 2 of the Bureau of Reclamation, unless the Secretary of the Interior shall otherwise designate, and for the Contracting Entities shall be their Chief Engineer, unless they shall otherwise designate, and said representatives may in turn designate representatives. In the event of inability of said representatives to agree, they may refer matters in dispute to the Secretary of the Interior for review, and in such event his findings shall be final and binding on the parties hereto. In the event of failure of any party to this contract, after reasonable notice by another, to provide for

representation in activities prescribed by or arising from operations under this contract, or in the event of such representatives after designation failing to exercise diligence in pursuing such matters to a conclusion, the party or parties failing to secure action may refer the same to the Secretary of the Interior for decision, and his findings thereon, when announced, shall become binding on the parties in interest.

Where the terms of this contract provide for action to be based upon the opinion or determination of any party to this contract, whether or not stated to be conclusive, said terms shall not be construed as permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or determinations.

Article 15.

Protection of Water Rights. The Contracting Entities, and each of them, upon receiving notice from the United States so to do, at their sole cost and expense, shall take and use all lawful means at their disposal, including the commencement, prosecution or defense, as the case may be, of all actions or suits at law or in equity necessary or proper for the prevention of hostile, adverse, excessive or unreasonable diversions or appropriations of water of said San Joaquin River below Friant Dam and above said Mendota Dam, also from Fresno Slough, so far

as the waters of said Fresno Slough are supplied by the flows of the San Joaquin River, whether said waters shall have originated above said Friant Dam or shall be substitute waters therefor delivered under the terms of this contract.

Article 16.

Construction of Contract. This contract shall never be construed as a conveyance, abandonment or waiver of any water right, or right to the use of water of the Contracting Entities, or as conferring any right whatsoever upon any person, firm or corporation not a party to this contract, or to affect or interfere in any manner with any right of the Contracting Entities to the use of the waters of the San Joaquin River, its channels, sloughs and tributaries, except to and in favor of the United States to the extent herein specifically provided. The article and subarticle headings of this contract are merely summary indications of their subject matter and are placed herein for ease of reference only. They are not to be regarded as part of this contract for purposes of the construction thereof.

Article 17.

Rights-of-Way. The Contracting Entities, upon request of the United States, shall furnish, free of cost to the United States, easements, not now owned or possessed by the United States,

for any and all rights-of-way upon, along and across any real property owned by the Contracting Entities, for the construction, operation and maintenance of said Delta-Mendota Canal or any part thereof, and related facilities used by the United States for the delivery of water to the Contracting Entities from Mendota Pool to the extent required by the United States for the purposes of said Project; but said easements so granted to the United States shall be subject to the right of said Contracting Entities to continue to operate and maintain canals and other works on said rights-of-way for the purpose of delivering waters to their service areas.

Article 18.

Effect of Waiver of Breach. The waiver of a breach of any provision of this contract shall not be deemed to be a waiver of a subsequent breach of any provision of this contract.

Article 19.

Responsibility for Interruption. In the event the performance, in whole or in part, of the obligations of the respective parties under this contract is hindered, interrupted or prevented by war, strikes, lockouts, fires, acts of God, or by other similar or different acts of civil or military authorities, or by any cause beyond the control of the respective parties hereto, whether similar to the causes herein specified or not, such obligations of the respective parties under this contract shall be suspended to the extent and for the time that performance thereof is prevented or affected by such hindrance, interruption

or prevention, but due diligence shall be observed by the respective parties hereto, so far as lies in their power, in performing their respective obligations under this contract.

Article 20.

Easements in Favor of the United States. The rights hereby conferred by the Contracting Entities on the United States to substitute water from the Delta and elsewhere for water from the San Joaquin River, and the right to impound or divert said San Joaquin River water, as provided herein, shall constitute easements and covenants running with and against the lands, water rights and canals of the Contracting Entities, and the lands (within the aforementioned service areas) of the stockholders and of the landowners of said Entities assenting to this contract served with said substitute water, and such easements and covenants shall be in favor of the United States, its properties and works herein described or referred to.

Article 21.

Successors and Assigns Bound. This contract shall be perpetually binding upon and inure to the benefit of the parties hereto, their successors and assigns.

Article 22.

Contingent Upon Appropriations. The expenditure of any money or the performance of any work by the United States herein provided for which may require appropriation of money by the

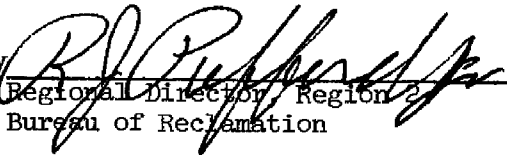
Congress or the allotment of funds, shall be contingent upon such appropriation or allotments being made, and no liability shall accrue to the United States in case such funds are not appropriated or allotted.

Article 23.

Officials Not to Benefit. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract, or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

Executed in one original and four duplicate originals as
of February 14, 1968.

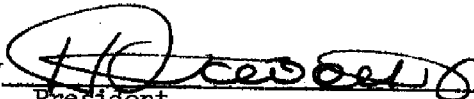
THE UNITED STATES OF AMERICA

By 
Regional Director, Region 2
Bureau of Reclamation


Attest:


Secretary

CENTRAL CALIFORNIA IRRIGATION DISTRICT

By 
President


Attest:


Secretary

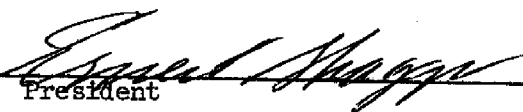
COLUMBIA CANAL COMPANY

By 
President


Attest:


Secretary

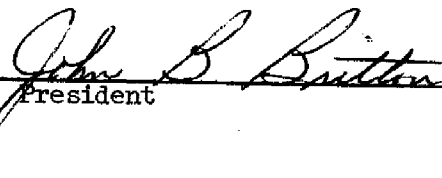
SAN LUIS CANAL COMPANY

By 
President

Attest:


Secretary

FIREBAUGH CANAL COMPANY

By 
President