KINGS RIVER WATER ASSOCIATION

WATER MASTER REPORT

FOR YEAR

1954

Pine Flat Reservoir Operation

Schedule Administration

and

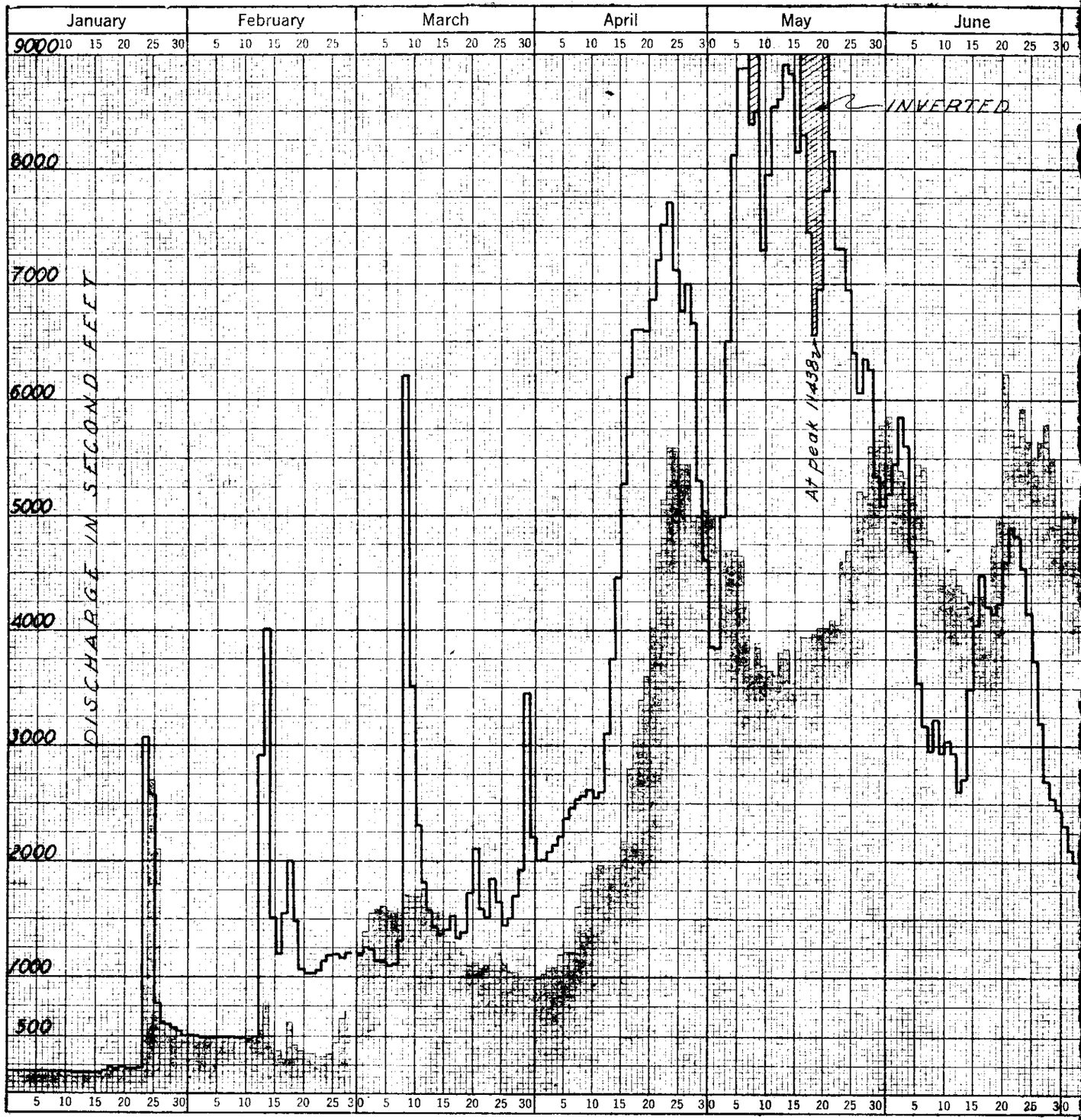
Canal Diversion

by

CHAS. L. KAUPKE
Water Master

FRESNO, CALIFORNIA

July, 1955



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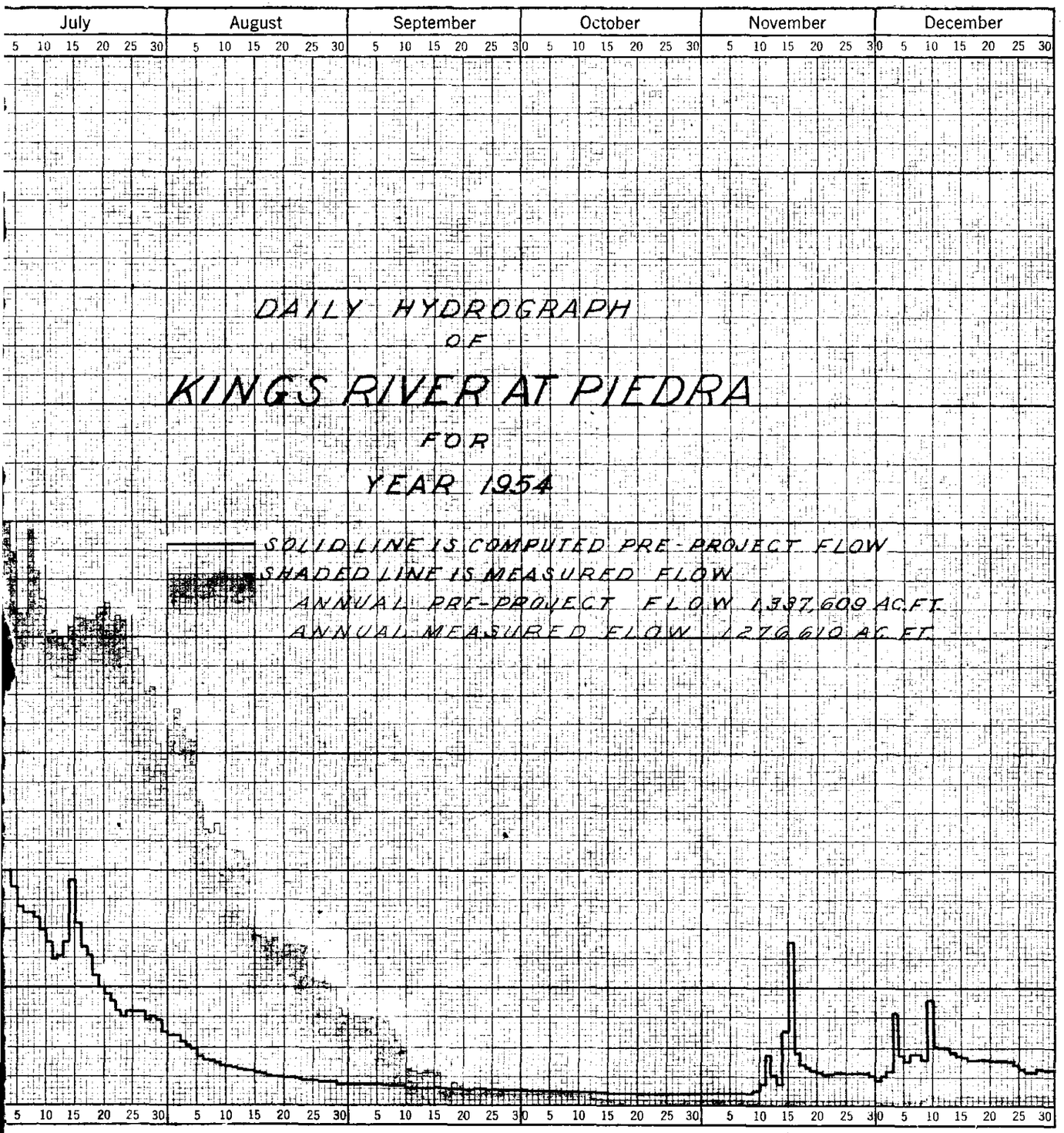
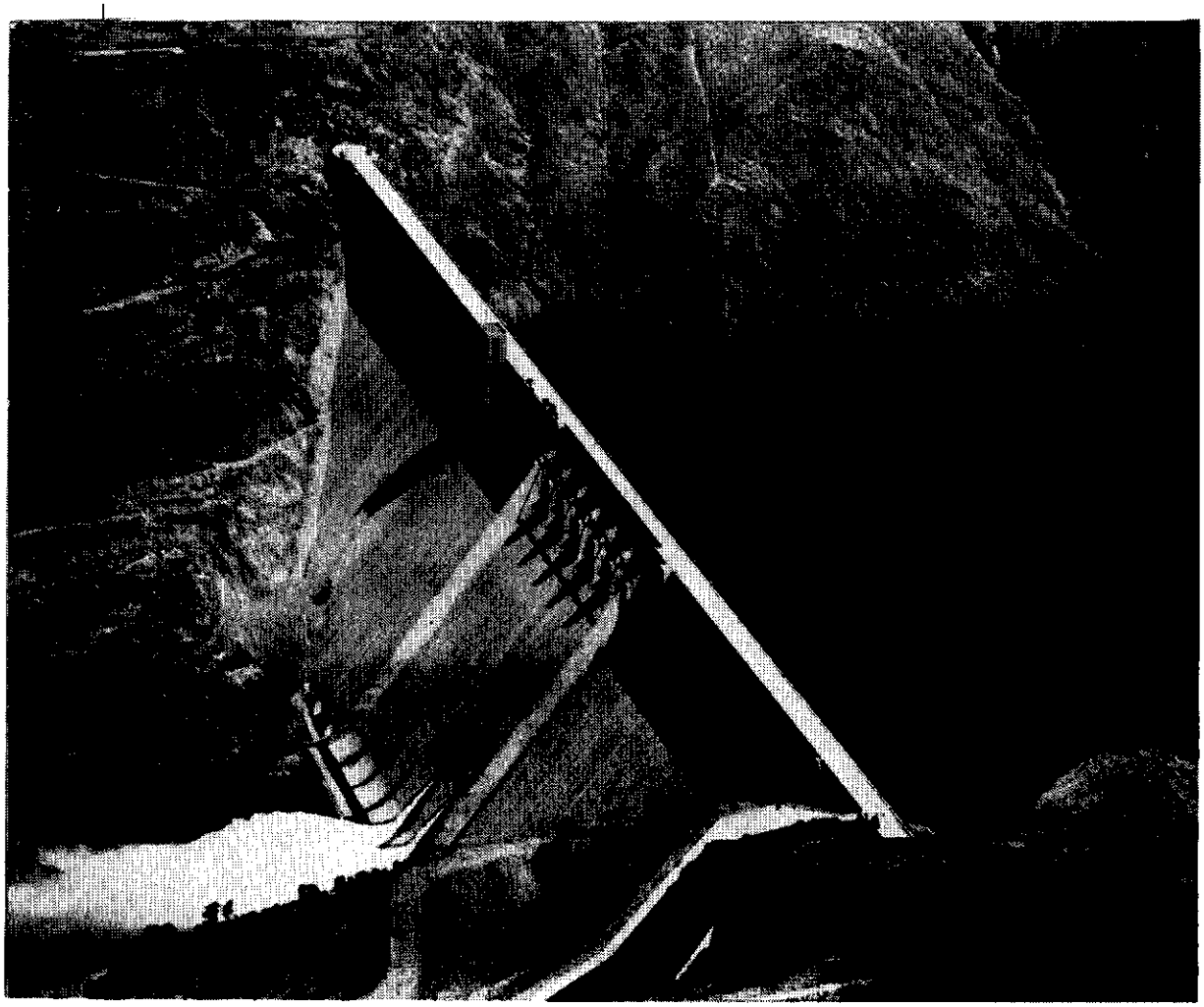

July
August
September
October
November
December
5 10 15 20 25 30
DAILY HYDROGRAPH
OF
KINGS RIVER AT PIEDRA
FOR
YEAR 1954
SOLID LINE IS COMPUTED PRE-PROJECT FLOW
SHADED LINE IS MEASURED FLOW
ANNUAL PRE-PROJECT FLOW 1,337,609 AC.FT.
ANNUAL MEASURED FLOW 1,270,610 AC.FT.



U. S. Corps of Engineers Photograph

PINE FLAT DAM AND RESERVOIR

COMMENCEMENT OF CONSTRUCTION	May 28, 1947
BEGAN STORING WATER FOR CONSERVATION	February 13, 1954
DEDICATED	May 22, 1954

THE DAM

MAXIMUM HEIGHT	440 FEET
TOTAL LENGTH OF DAM	1820 FEET
NUMBER OF CONDUITS	10
SIZE OF CONDUITS	5 FEET X 9 FEET

THE RESERVOIR

LENGTH	19 MILES
SHORELINE	67 MILES
AREA (Maximum))	6,300 ACRES
CAPACITY (Maximum)	1,110,000 ACRE FEET

E KINGS RIVER WATER ASSOCIATION CONSISTS OF IRRIGATION DISTRICTS AND CORPORATIONS EMBRACING AN AREA OF 1,100,000 ACRES. ITS PURPOSES ARE TO DISTRIBUTE THE WATER OF KINGS RIVER IN ACCORDANCE WITH A SCHEDULE MUTUALLY AGREED UPON AND TO SAVE AND PROTECT THE RIGHTS OF ITS MEMBERS.

OFFICERS
PHILIP A. GORDON
CHAIRMAN
R. E. SHORE
VICE-CHAIRMAN
CHAS. L. KAUPKE
SECRETARY AND TREASURER
»
CHAS. L. KAUPKE
CHIEF ENGINEER
AND WATER MASTER
»
ROWELL, LAMBERSON & THOMAS
ATTORNEYS

KINGS RIVER WATER ASSOCIATION

1302 SECURITY BANK BUILDING
PHONE 6-0767
FRESNO 21, CALIFORNIA

EXECUTIVE COMMITTEE
PHILIP A. GORDON
CHAIRMAN
KARL W. SHATTUCK
KERMAN
WM. P. BOONE
DINUBA
W. T. MARTIN
SELMA
TONY L. ROMEIRO
LEMOORE
A. J. SAMPLE
HELM
L. M. STONE
HANFORD

June 1, 1955

Board of Directors
Kings River Water Association
Fresno, California

Gentlemen:

There is submitted herewith a report entitled "Water Master Report for Year 1954" which has been prepared pursuant to the provisions of Section Three of the Administrative Agreement of the Kings River Water Association.

The Report also covers the operation of the Pine Flat Project for conservation storage which began on February 13, 1954, under an Interim Contract for the year 1954.

This is the thirty-seventh Annual Report since the commencement of the work in January, 1918, and the twenty-seventh Report since the organization of the Association in May, 1927.

I wish to commend my staff for loyal and faithful service.

Very truly yours,

Chas. L. Kaupke

Chas. L. Kaupke
Water Master

KINGS RIVER WATER ASSOCIATION

WATER MASTER'S REPORT

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KINGS RIVER WATER ASSOCIATION

ORGANIZATION

BOARD OF DIRECTORS

-OFFICERS-

Philip A. Gordon	Chairman
R. E. Shore	Vice-Chairman
Chas. L. Kaupke	Secretary-Treasurer

-MEMBERS-

MEMBERSHIP	DIRECTORS
Alta Irrigation District	Wm. P. Boone
Burrel Ranch	Burrel Hyde
Consolidated Irrigation District	W. T. Martin
Corcoran Irrigation District	W. F. Turner
Crescent Canal Company	J. Mouren
Fresno Irrigation District	Karl W. Shattuck
James Irrigation District	Robert L. Kent
Laguna Irrigation District	Andrew Jensen
Lemoore Canal & Irrigation Company	Tony L. Romeiro
Last Chance Water Ditch Company	R. E. Shore
Riverdale Irrigation District	Marion Roberts
Liberty Mill Race Company	A. J. Sample
Reed Ditch Company	Burrel Hyde
Liberty Canal Company	Harry Wilson
Peoples Ditch Company	J. G. McCain
Stinson Canal & Irrigation Company	Wm. H. Noble
Tranquillity Irrigation District	Keith Miller
John Heinlen Mutual Water Company	Vernon Chinn

GROUP (a) comprising:
Tulare Lake Basin Water Storage District:
J. G. Boswell Company
Crocket & Gambogy, Inc.
Gates-Jones Mutual Water Company
Liberty Farms Mutual Water Company
Salyer Land Company
Southeast Lake
Tulare Lake Water Company
- - L. M. Stone

GROUP (b) comprising:
Empire West Side Irrigation District
Stratford Irrigation District
- - Charlie Villi

GROUP (c) comprising:
Cohn Central Consolidated Reclamation District No.761
Tulare Lake Canal Company
- - J. F. Gibson

GROUP (d) comprising:
Reclamation District No. 2069
Upper San Jose
- - R. A. Rowan

EXECUTIVE COMMITTEE

-OFFICERS-

Philip A. Gordon - - - - - - - - - - - - - - Chairman
R. E. Shore - - - - - - - - - - - - - - - - Vice-Chairman
Chas. L. Kaupke- - - - - - - - - - - - - - - Secretary

-MEMBERS-

Karl W. Shattuck - - - - - - - - - - - - - - Fresno District
W. T. Martin - - - - - - - - - - - - - - - - Consolidated District
Wm. P. Boone - - - - - - - - - - - - - - - - Alta District
A. J. Sample - - - - - - - - - - - - - - - - North Fork
Tony L. Romeiro - - - - - - - - - - - - - - Kings County
L. M. Stone - - - - - - - - - - - - - - - - Tulare Lake Area

- - - - -

Rowell, Lamberson and Thomas - - - - - - - General Counsel
Chas. L. Kaupke - - - - - - - - - - - - - - Water Master
Clarence H. Smith - - - - - - - - - - - - - Assistant Water Master
William H. McGlasson - - - - - - - - - - - Hydrographer
Michael J. Gallagher - - - - - - - - - - - Hydrographer
Wendell M. Hubbart - - - - - - - - - - - - Hydrographer
Vivian D. Kester - - - - - - - - - - - - - - Office Secretary

REPORT OF THE
KINGS RIVER WATER MASTER
FOR THE YEAR 1954

This is a report to the Board of Directors of the Kings River Water Association which has been prepared pursuant to the provisions of Section Three of the Administrative Agreement which in part reads as follows:

> "Said Water Master shall keep at all times and during all seasons correct and accurate records of the flows or the waters of said River and of the amount or quantity of water turned to each and all of the parties hereto, and, as far as practicable, accurate records of all water diverted from said River by persons, districts and corporations not parties hereto and make accurate reports of all such matters to said Board of Directors."

It contains a daily record of all canal diversions, river flow at several points, division of water between the North Fork (Fresno Slough) and the South Fork of the lower river, losses and gains in the river channel and other pertinent data, obtained in the administration of the monthly diversion schedules of the Kings River Water Association.

The work of the water master was expanded to include the operation of the Pine Flat Dam and Reservoir for conservation storage. On February 4, 1954, the Kings River Conservation District entered into an Interim Contract with the United States providing for the operation of the Pine Flat Reservoir for conservation purposes during the year 1954. By the terms of this contract, stored water released solely at the request of the District shall be paid for at the rate of $1.50 per acre foot for all decreases in storage, measured as daily amounts at the Reservoir. The contract also required the District to make an advance payment of $25,000.00. The term of the contract expired on

December 31, 1954.

Twenty members of the Kings River Water Association, the Circle "L" Ranch, and the Kings River Water District contracted with the Kings River Conservation District for a total of 720,000 acre feet of reservoir space. On February 13, 1954, at noon the Water Master requested partial closing of the sluice gates and the Pine Flat Project began storing water for conservation purposes. Water released from storage amounted to 380,049 acre feet for which the contracting parties will pay $570,073.50. All water in the Reservoir on December 31, 1954, was not released as provided in the contract in accordance with flood control criteria of the United States Army, Corps of Engineers but was carried over into the year 1955.

On December 31, 1954, the United States entered into a contract with the Kings River Conservation District extending the term of the 1954 Interim Contract to December 31, 1955, or until a repayment contract is executed, whichever shall first occur. All of the parties to the 1954 contracts with the Kings River Conservation District have executed contracts for 1955. The volume of storage space contracted for is 967,000 acre feet. For a copy of the contract see Appendix "A" of this report.

KINGS RIVER

During the year 1954 the U.S.G.S. Gaging Station at Piedra did not at all times record the true natural flow of the river due to the fact that the Pine Flat Dam was in operation for storage purposes. The preproject or natural runoff was compiled as follows:

January 1 - February 12, incl. (Pre-project)	36,477 Ac.Ft.
Kings River at Piedra Feb. 13 - Dec. 31, incl.:	
Kings River Below North Fork U.S.G.S. Station	1,250,204 Ac.Ft.
Big Creek U.S.G.S. Station	21,318 " "

Sycamore Creek U.S.G.S. Station	6,500	Ac.Ft.
Ungaged area above the Dam $1\frac{1}{2}$ x Sycamore	9,740	" "
SUB-TOTAL	1,324,239	" "
Rainfall on Reservoir	1,729	" "
Mill Creek (between Pine Flat Dam and Piedra KRWA Station)	10,382	" "
Ungaged area (between Pine Flat Dam and Piedra 12.2% of Mill Creek)	1,259	" "
TOTAL RUNOFF FOR 1954	1,337,609	" "

This runoff of 1,337,609 ac. ft. is 80% of the average during the past 59 years. For the four-month period, April to July, the runoff was 1,060,550 acre feet which is 85% of the long-time average. A peak mean daily flow of 11,435 sec. feet was reached on May 19. A minimum flow of 122 sec. feet was recorded on October 10. There was no outflow from Kings River through Fresno Slough.

Water available for diversion and use in the Kings River area may be summarized as follows:

Kings River Below Pine Flat Dam	1,201,350	Ac.Ft.
Mill Creek	11,242	" "
Hughes Creek and Ungaged area	1,372	" "
Friant-Kern Canal (To replace water stored by the Pacific Gas and Electric Company in the Pine Flat Reservoir)	62,646	" "
TOTAL	1,276,610	" "

A detailed tabulation of these items appears on page 29 of this report.

RECAPITULATION:

Total Runoff for 1954	1,337,609	Ac.Ft.
Water Available for Distribution	1,276,610	" "
DIFFERENCE	60,999	" "

Water in storage on December 31, 1954 (From Corps of Engineers capacity curve)	103,801 Ac.Ft.
Power Storage	60,385 " "
Irrigation Storage	43,416 " "

The difference between 60,999 Ac. Ft. and 43,416 Ac. Ft. indicates a reservoir loss of 17,583 Ac. Ft. which is due to capacity curve adjustments, evaporation, and other losses.

P. G. & E. CONTRACT WITH THE UNITED STATES: A contract for temporary water service was entered into by the Pacific Gas and Electric Company with the United States. The contract is dated May 25, 1954, and runs through February 28, 1958. The United States agrees to furnish water from the Friant-Kern Canal into Kings River as requested in an annual schedule submitted by the company and satisfactory to the contracting officer and to the Kings River Water Association, but in no event to exceed a total amount of 130,000 acre feet.

The delivery of water from the Friant-Kern Canal to Kings River was accomplished by means of the Kings River Wastegate in the right bank of the canal near the upstream end of the Kings River Siphon. The total delivery of water which began on May 15 and ceased on June 8 was 62,646 acre feet. An equal amount of water was credited to the Power Company in the Pine Flat Reservoir. Evaporation and other losses have reduced this storage to approximately 60,000 acre feet as of the date of this report. The Power Company paid $3.50 per acre foot for this water and is now paying a storage charge of 12½ cents per acre foot per month.

P. G. & E. AGREEMENT WITH THE KINGS RIVER INTERESTS: An agreement for the use of the waters of Kings River for power purposes was entered into by the Pacific Gas and Electric Company with the Kings River interests. A copy of this contract appears as Appendix "B" in this report.

CONSOLIDATED CONTRACTS WITH UNITED STATES: The Consolidated Irrigation District contracted to purchase 30,000 acre feet of water to be delivered from the Friant-Kern Canal through the Kings River Wastegate into Kings River and thence into the Consolidated Canal. Under this contract 27,488 acre feet of water were delivered between June 8 and July 8.

WATER CONDITIONS IN CALIFORNIA: According to the State Report water conditions in California as of February 1, 1954, were considerably below normal in all parts of the State, except the North Coastal Area and the portion of the Central Valley above Shasta Dam where conditions were generally satisfactory. For the Kings River Area the report showed a snowpack with a 70% normal water content and precipitation for July 1 to February 1 of 80% of the seasonal normal.

Water conditions in California as of March 1, were generally the same as indicated on February 1. The data collected on March 1 indicated only slightly improved snowpack conditions from one month ago. This condition was reflected in the report for March 1 which showed the precipitation for July 1, 1953, to date as 80% and the snowpack as 75% of the seasonal normal.

A preliminary forecast of the snowmelt runoff during the months April through July for Kings River with the assumptions of

normal precipitation and no precipitation during the period March through June were 900,000 and 500,000 acre feet respectively.

The data available as of April 1 indicated considerable improvement in water conditions in California during the past month. Forecasts of the April to July runoff on Kings River were increased from 900,000 to 1,100,000 acre feet assuming normal precipitation for the remainder of the season. The water supply outlook for the Kings River Area on May 1 remained unchanged from that of one month ago. The measured runoff for the four-month period was 1,058,856 acre feet or 4% less than the respective forecasts for April 1 and May 1.

PINE FLAT OPERATION FOR FLOOD CONTROL: The Pine Flat Project has been operated two times for flood control.

(1) In 1952, from May 16 to July 15. Maximum storage 130,000 acre feet. (2) From April 26 to 29, 1953, to protect a county highway bridge under construction at Piedra. Storage was nominal.

There was no storage for flood control purposes in 1954.

NEW CONSTRUCTION OF GAGING FACILITIES: In March, 1954, a cable gaging station was constructed on Kings River in the Reedley Narrows at a point just below the confluence of all streams, channels and wasteways in the Centerville Bottoms. Low flows in the river permitted your hydrographers to make wading measurements in 1954 prior to the completion of the cable station. This has made it possible to compile a daily record of river flow at this point for the entire year.

CENTERVILLE BOTTOMS: The Kings River Water District embracing the major portion of the Centerville Bottoms

Area, is within the Kings River Conservation District, but not a member of the Kings River Water Association, executed a contract with Kings River Conservation District for 8,000 acre feet of storage space in the Pine Flat Reservoir in accordance with the terms and provisions of the 1954 Interim Contract. It was provided in the contract with Kings River Conservation District that the Proposed Schedule for Centerville Bottoms dated October 31, 1927, would be used in making the allocation of water. The Kings River Water District also agreed to comply with and conform to all reasonable regulations and administrative procedures of the Kings River Water Association. On April 12, 1954, another hydrographer was added to the Water Master's staff and assigned practically full time to measuring the ditches and supervising the diversion of water in the Centerville Bottoms in accordance with the Tentative Schedules.

The heads or intakes of the canals whose diversion records appear in this report are located as follows:

ALTA CANAL:	At a point 750 feet west and 1400 feet north of the southeast corner of Section 18, T 13 S, R 24 E, M.D.B. & M., being within the NE$\frac{1}{4}$ of the SE$\frac{1}{4}$ of said Section 18.
GOULD CANAL:	At a point 950 feet north and 950 feet east of the southwest corner of Section 24, T 13 S, R 23 E, M.D.B.& M., being within the SW$\frac{1}{4}$ of the SW$\frac{1}{4}$ of said Section 24.
FRESNO CANAL:	At a point 600 feet south and 1200 feet east of the northwest corner of Section 35, T 13 S, R 23 E, M.D.B. & M., being within the NW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 35.
CONSOLIDATED CANAL:	At a point 900 feet south and 1300 feet east of the northwest corner of Section 35, T 13 S, R 23 E, M.D.B. & M., being within the NW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 35.
LAKELANDS CANAL:	At a point 1000 feet south and 1700 feet west of the northeast corner of Section 1, T 17 S, R 22 E, M.D.B. & M., being within the NW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 1.
PEOPLES CANAL:	At a point 1000 feet south and 2500 feet west of the northeast corner of Section 1, T 17 S, R 22 E, M.D.B. & M., being within the NW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 1.

LAST CHANCE CANAL:	At a point 800 feet north and 1600 feet east of the southwest corner of Section 26, T 17 S, R 21 E, M.D.B.& M., being within the SE$\frac{1}{4}$ of the SW$\frac{1}{4}$ of said Section 26.
LEMOORE CANAL:	At a point 300 feet north and 1700 feet east of the southwest corner of Section 29, T 17 S, R 21 E, M.D.B.& M., being within the SE$\frac{1}{4}$ of the SW$\frac{1}{4}$ of said Section 29.
GRANT CANAL:	At a point 1500 feet north and 300 feet west of the southeast corner of Section 22, T 17 S, R 21 E, M.D.B.& M., being within the NE$\frac{1}{4}$ of the SE$\frac{1}{4}$ of said Section 22.
"A" CANAL:	At a point 1600 feet north and 400 feet west of the southeast corner of Section 22, T 17 S, R 21 E, M.D.B.& M., being within the NE$\frac{1}{4}$ of the SE$\frac{1}{4}$ of said Section 22.
LIBERTY CANAL:	At a point 400 feet east and 2400 feet south of the northwest corner of Section 23, T 17 S, R 21 E, M.D.B.& M., being within the SW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 23.
MURPHY SLOUGH:	At a point 1700 feet north and 400 feet west of the southeast corner of Section 22, T 17 S, R 21 E, M.D.B.& M., being within the NE$\frac{1}{4}$ of the SE$\frac{1}{4}$ of said Section 22.
ISLAND CANAL:	At a point 200 feet south and 2350 feet west of the northeast corner of Section 10, T 18 S, R 20 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 10.
TURNER-RIVERDALE CANAL:	At a point 1100 feet south and 1250 feet east of the north west corner of Section 16, T 17 S, R 20 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 16.
BIG MILL RACE CANAL:	At a point 1000 feet south and 800 feet east of the northwest corner of Section 16, T 17 S, R 20 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 16.
REED CANAL:	At a point 800 feet north and 400 feet west of the southeast corner of Section 9, T 17 S, R 19 E, M.D.B.& M., being within the SE$\frac{1}{4}$ of the SE$\frac{1}{4}$ of said Section 9.
SUMMIT LAKE RIPARIAN DITCH:	At a point 900 feet south and 1700 feet west of the northeast corner of Section 11, T 18 S, R 19 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 11.
CRESCENT CANAL:	At a point 800 feet south and 1700 feet west of the northeast corner of Section 11, T 18 S, R 19 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 11.
STINSON CANAL:	At a point 100 feet south of the northwest corner of Section 14, T 17 S, R 18 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 14.
CUTHBERT BURREL CANAL:	At a point 1100 feet south and 1100 feet west of the north east corner of Section 11, T 17 S, R 18 E, M.D.B.& M., being within the NE$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 11.

JAMES MAIN CANAL:	At a point 1150 feet north and 600 feet east of the southwest corner of Section 2, T 16 S, R 17 E, M.D.B.& M., being within the SW$\frac{1}{4}$ of the SW$\frac{1}{4}$ of said Section 2.
BETA MAIN CANAL:	At a point 600 feet south and 1200 feet east of the northwest corner of Section 7, T 16 S, R 17 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 7.
UPPER SAN JOSE PUMP:	At or near the southeast corner of the SE$\frac{1}{4}$ of the SW$\frac{1}{4}$ of Section 22, T 18 S, R 19 E, M.D.B.& M., being within the SE$\frac{1}{4}$ of the SW$\frac{1}{4}$ of said Section 22.
EMPIRE CANAL NO. 1:	At a point 50 feet south and 2500 feet west of the northeast corner of Section 36, T 19 S, R 19 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 36.
EMPIRE CANAL NO. 2:	At a point 700 feet south and 800 feet west of the northeast corner of Section 36, T 19 S, R 19 E, M.D.B.& M., being within the NE$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 36.
EMPIRE CANAL NO. 3 or BLAKELY CANAL:	At a point 800 feet south and 50 feet west of the northeast corner of Section 19, T 20 S, R 20 E, M.D.B.& M., being within the NE$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 19.
EMPIRE CANAL NO. 4 or TULARE LAKE CANAL:	At a point 1400 feet south and 2690 feet east of the northwest corner of Section 20, T 20 S, R 20 E, M.D.B. & M., being within the SW$\frac{1}{4}$ of the NE$\frac{1}{4}$ of said Section 20.
TULARE LAKE BASIN WATER STORAGE DISTRICT AND M. LOVELACE ESTATE	At a point 900 feet south of the northwest corner of Section 20, T 20 S, R 20 E, M.D.B.& M., being within the NW$\frac{1}{4}$ of the NW$\frac{1}{4}$ of said Section 20.

SUMMARY OF REPORT

A tabulated summary is presented on pages 21 to 26 of this report showing the monthly river flows at several stations, canal diversions, gains and losses in sections of the river channel between points of measurement. All quantities are in acre feet.

For convenience the columns are numbered from one to 58 and will be explained and discussed in that order.

Column (1) The calculated flow available for distribution is composed of the following items. (1) River flow Below Pine Flat Dam, (2) Mill Creek, (3) Hughes Creek, and (4) Water from the Friant-Kern Canal. For details see tabulated summary on page 29 of this report.

Columns (2) to (5) In these columns are tabulated all diversions by canals between Piedra and the Reedley Narrows including those in the Centerville Bottoms.

Column (6) This column is the sum of columns (2) to (5), both inclusive.

Column (7) The quantities in this column are obtained by subtracting column (6) from column (1) and show the calculated flow of water at Reedley Narrows.

Column (8) River flow at the Reedley Narrows gaging station.

Column (9) This column shows the gains in river flow between Piedra and the Reedley Narrows. It will be noted that the gain in the river flow is equal to the Centerville Bottoms diversions.

Column (10) This column shows the sum of the diversions by the Peoples and Lakelands Canals. For reasons of economy the Lakelands Canal obtained permission from the Water Master to divert

its water through the Peoples Canal. However, the amount of water allocated to each canal is shown on pages 43 and 48 of this report.

Column (11) This column is the sum of the diversions by the Fresno, Consolidated and Alta Canals, Centerville Bottoms, Peoples and Lakelands Canals.

Column (12) The flow of the river as measured below the Peoples Weir.

Column (13) The losses between Reedley Narrows and the Peoples Weir are obtained by subtracting columns (10) and (12) from column (8).

Column (14) The quantities in this column are obtained by adding columns (9) and (13).

Column (15) to (19) In these columns are tabulated all diversions by canals between the Peoples Weir and the Lemoore Weir.

Column (20) This column is the sum of columns (15) to (19), both inclusive.

Column (21) This column shows the diversions from the river between Piedra and the Lemoore Weir and may be calculated by adding columns (11) and (20).

Column (22) The flow of Kings River below Lemoore Weir as gaged at the cable station.

Column (23) The losses between Peoples Weir and the Lemoore Weir as calculated by subtracting columns (20) and (22) from column (12).

Column (24) The quantities in this column are obtained by adding columns (14) and (23).

Column (25) The diversions by the Island Canal.

Column (26) The flow of the South Fork of Kings River below the Army Weir as gaged at the cable station.

Column (27) The total diversions between Piedra and the Island Weir may be obtained by adding columns (21) and (25).

Column (28) The flow of the North Fork of Kings River below the Island Weir.

Column (29) The losses between the Lemoore Weir and the Island Weir may be obtained by subtracting columns (25), (26) and (28) from column (22).

Column (30) The losses between Piedra and the Island Weir as compiled by adding columns (24) and (29).

Column (31) Indicates the diversion by the Summit Lake Canal.

Column (32) Indicates the diversion by the Crescent Canal.

Column (33) The flow of the river at a cable gaging station below the Crescent Weir.

Column (34) The total diversion between Piedra and the Crescent Weir may be obtained by adding columns (27), (31) and (32).

Column (35) The total diversion between the Island Weir and the Crescent Weir is the sum of the diversions by the Summit Lake and Crescent Canals.

Column (36) The losses between the Island Weir and the Crescent Weir may be calculated by subtracting the sum of columns (33) and (35) from column (28).

Column (37) The losses between Piedra and the Crescent Weir may be obtained by adding columns (30) and (36).

Columns (38) to (40) Diversions by the Stinson, Lone Willow and James Main Canals.

Column (41) The sum of columns (38) to (40), both inclusive.

Column (42) The losses between Crescent Weir and the James Weir may be obtained by subtracting column (41) from column (33).

Column (43) The sum of the Diversions from Piedra to the James Weir may be obtained by adding columns (34) and (41).

Column (44) This column is the sum of columns (37) and (42).

Column (45) Same as column (26). Flow into the South Fork below the Army Weir.

Columns (46) to (53) These columns show all diversions from the Army Weir to and over Empire Weir No. 2.

Column (54) This column is the sum of columns (46) to (53).

Column (55) The losses between the Army Weir and Empire Weir No. 2 may be obtained by subtracting column (54) from column (45).

Column (56) The total of all diversions from the river including both the lower North and South Forks.

Column (57) River losses are obtained by subtracting the total diversions by all the canals from the water available for diversion at Piedra.

SUMMARY SHOWING MONTHLY RIVER FLOW, CANAL DIVERSIONS
AND GAINS AND LOSSES IN SEVERAL SECTIONS OF THE RIVER CHANNEL FOR THE YEAR 1954
ALL QUANTITIES ARE IN ACRE FEET

Month	Calculated Flow Available For Distribution (1)	Diversions Between Piedra and Reedley Narrows: Alta District (2)	Fresno District (3)	Consolidated District (4)	Centerville Bottoms (5)	Totals (2)+(3)+(4)+(5) (6)	Piedra Less Diversions Above Reedley Narrows (1)-(6) (7)	River at Reedley Narrows (8)	Gains Between Piedra & Reedley Narrows (8)-(7) (9)	Peoples and Lakelands Canals (10)
Jan.	24,934	269	8,257	1,049	1,266	10,841	14,093	17,937	3,844	3,546
Feb.	25,833		9,144		1,461	10,605	15,228	17,961	2,733	5,049
Mar.	82,184		49,134		3,689	52,823	29,361	34,953	5,592	11,971
Apr.	172,350	11,589	77,244	47,381	5,403	141,617	30,733	34,070	3,337	6,053
May	264,854	49,056	85,314	78,776	8,672	221,818	43,036	51,306	8,270	4,560
June	302,847	51,524	85,631	57,875	8,440	203,470	99,377	104,304	4,927	17,689
July	256,900	32,979	85,148	9,639	8,053	135,819	121,081	123,221	2,140	30,916
Aug.	113,200	5,485	18,226		5,152	28,863	84,337	92,327	7,990	31,134
Sept.	21,230		7,593		2,794	10,387	10,843	14,965	4,122	14,753
Oct.	4,950		477		2,656	3,133	1,817	3,681	1,864	4,421
Nov.	2,860				2,041	2,041	819	3,164	2,345	857
Dec.	4,468		2,748		753	3,501	967	4,075	3,108	
Totals	1,276,610	150,902	428,916	194,720	50,380	824,918	451,692	501,964	50,272	130,949

Month	Total Diversions Piedra to Peoples Weir (6)+(10) (11)	River Below Peoples Weir (12)	Losses Reedley Narrows to Peoples Weir (8)-(10+12) (13)	Gains Piedra to Peoples Weir (9)+(13) (14)	Diversions Between Peoples Weir and Lemoore Weir: Liberty Canal (15)	Grant & "A" Canal (16)	Murphy Slough (17)	Last Chance Canal (18)	Lemoore Canal (19)	Total (15) to (19) (20)
Jan.	14,387	13,432	959	2,885	188	1,635	1,598	1,305	5,962	10,688
Feb.	15,654	13,585	* 673	3,406		566	505	1,584	7,918	10,573
Mar.	64,794	23,631	* 649	6,241				9,874	8,868	18,742
Apr.	147,670	25,487	2,530	807	186	928	2,576	8,785	7,467	19,942
May	226,378	44,160	2,586	5,684	2,336	8,264	13,607	4,889	6,815	35,911
June	221,159	84,027	2,588	2,339	305	17,636	19,495	10,167	17,943	65,546
July	166,735	91,167	1,138	1,002		5,162	6,983	16,192	17,739	46,076
Aug.	59,997	64,271	* 3,078	11,068		141	1,719	6,134	9,524	17,518
Sept.	25,140	2,305	* 2,093	6,215						
Oct.	7,554	170	* 910	2,774						
Nov.	2,898	2,928	* 621	2,966						
Dec.	3,501	4,881	* 806	3,914						
Totals	955,867	370,044	971	49,301	3,015	34,332	46,483	58,930	82,236	224,996

* Indicates a gain

CONTINUATION OF SUMMARY SHOWING MONTHLY RIVER FLOW, CANAL DIVERSIONS
AND GAINS AND LOSSES IN SEVERAL SECTIONS OF THE RIVER CHANNEL FOR THE YEAR 1954
ALL QUANTITIES ARE IN ACRE FEET

Month	Diversions Piedra to Lemoore Weir (11)+(20) (21)	River Below Lemoore Weir (22)	Losses Between Peoples W. and Lemoore W. (12)-(20+22) (23)	Losses Piedra to Lemoore Weir (14)+(23) (24)	Island Canal (25)	River Below Army Weir (26)	Total Diversions Piedra to Island Weir (21)+(25) (27)	River Below Island Weir (North Fork) (28)	Losses Lemoore Weir to Island Weir (22)-(25+26+28) (29)	Losses Piedra to Island Weir (24)+(29) (30)
Jan.	25,075	768	1,976	* 909	48	253	25,123		467	* 442
Feb.	26,227	83	2,929	* 477			26,227		83	* 394
Mar.	83,536		4,889	*1,352			83,536			*1,352
Apr.	167,612		5,545	4,738			167,612			4,738
May	262,289	4,209	4,040	*1,644	2,089		264,378		2,120	476
June	286,705	13,131	5,350	3,011	3,039	4,291	289,744	4,316	1,485	4,496
July	212,811	38,707	6,384	5,382	2,087	17,232	214,898	17,329	2,059	7,441
Aug.	77,515	39,620	7,133	*3,935		17,093	77,515	19,454	3,073	* 862
Sept.	25,140	1,723	582	*5,633			25,140	2,004	* 281	*5,914
Oct.	7,554		170	*2,604			7,554			*2,604
Nov.	2,898	57	2,871	* 95			2,898		57	* 38
Dec.	3,501	1,166	3,715	* 199			3,501		1,166	967
Totals	1,180,863	99,464	45,584	*3,717	7,263	38,869	1,188,126	43,103	10,229	6,512

* Indicates a gain

Month	Summit Lake Canal (31)	Crescent Canal (32)	River Below Crescent Weir (33)	Total Diversion Piedra to Crescent Weir (27)+(31)+(32) (34)	Total Diversion Island W. to Crescent W. (31)+(32) (35)	Losses Between Island W. & Crescent Weir (28)-(33+35) (36)	Losses Piedra to Crescent Weir (30)+(36) (37)	Stinson Canal (38)	Lone Willow Slough (39)	James Main Canal (40)
Jan.				25,123			* 442			
Feb.				26,227			* 394			
Mar.				83,536			* 1,352			
Apr.				167,612			4,738			
May				264,378			476			
June			3,800	289,744		516	5,012	356		580
July	1,283		14,753	216,181	1,283	1,293	8,734	2,689	3,754	3,978
Aug.	602	8,407	11,244	86,524	9,009	* 799	* 1,661	2,443	1,360	4,845
Sept.	20	1,847	55	27,007	1,867	82	* 5,832	34		119
Oct.				7,554			* 2,604			
Nov.				2,898			* 38			
Dec.				3,501			967			
Totals:	1,905	10,254	29,852	1,200,285	12,159	1,092	7,604	5,522	5,114	9,522

* Indicates a gain

CONTINUATION OF SUMMARY SHOWING MONTHLY RIVER FLOW, CANAL DIVERSIONS
AND GAINS AND LOSSES IN SEVERAL SECTIONS OF THE RIVER CHANNEL FOR THE YEAR 1954
ALL QUANTITIES ARE IN ACRE FEET

Month	Total Diversions Below Crescent Weir (38)+(39)+(40) (41)	Losses Crescent Weir to James Weir (33)-41) (42)	Total Diversions Piedra to James Weir (34)+(41) (43)	Losses Between Piedra & James Weir (37)+(42) (44)	River Flow Below Army Weir Same as (26) (45)	South Fork Diversions: Clarks Fork Island Reclamation District (46)	Upper San Jose (47)	John Heinlen Mutual Water Company (48)	Empire West Side Irrigation District (49)	Stratford Irrigation District (50
Jan.			25,123	* 442	253					
Feb.			26,227	* 394						
Mar.			83,536	* 1,352						
Apr.			167,612	4,738						
May			264,378	476						
June	936	2,864	290,680	7,876	4,291	214	224	51	404	422
July	10,421	4,332	226,602	13,066	17,232	368	640	343	1,445	2,647
Aug.	8,648	2,596	95,172	935	17,093	525	1,857	647	3,405	1,350
Sept.	153	* 98	27,160	* 5,930						
Oct.			7,554	* 2,604						
Nov.			2,898	* 38						
Dec.			3,501	967						
Totals	20,158	9,694	1,220,443	17,298	38,869	1,107	2,721	1,041	5,254	4,419

* Indicates a gain

Month	Below Army Weir: Tulare Lake Canal (51)	Below Army Weir: Blakeley Canal (52)	Below Army Weir: River Below Empire No. 2 Weir (53)	Below Army Weir: Total South Fork Diversions (46)to(53) (54)	Losses Between Army W. & Empire Weir No.2 (45)-(54) (55)	Total Diversions Main River, North and South Forks (43)+(54) (56)	Total River Losses Main River, North and South Forks (1)-(56) (57)	Losses in Percentum of Water Available (58)
Jan.					253	25,123	* 189	* .76
Feb.						26,227	* 394	* 1.53
Mar.						83,536	* 1,352	* 1.65
Apr.						167,612	4,738	2.75
May						264,378	476	.18
June				1,315	2,976	291,995	10,852	3.58
July	3,400	4,231	867	13,941	3,291	240,543	16,357	6.37
Aug.	4,338	3,558	921	16,601	492	111,773	1,427	1.26
Sept.						27,160	* 5,930	* 27.93
Oct.						7,554	* 2,604	* 52.61
Nov.						2,898	* 38	* 1.33
Dec.						3,501	967	21.64
Totals	7,738	7,789	1,788	31,857	7,012	1,252,300	24,310	1.90

* Indicates a gain

KINGS RIVER WATER ASSOCIATION
MONTHLY SUMMARY OF DISCHARGE OF KINGS RIVER AT PIEDRA
FROM U.S.G.S. RECORDS

Unit - One Thousand Acre Feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	% Normal
1896	79.3	48.8	102.0	111.0	291.0	559.0	199.0	49.8	27.4	18.4	30.9	28.9	1545.5	93
1897	29.5	86.6	118.0	309.0	781.0	354.0	133.0	43.7	15.5	21.2	38.9	58.3	1988.7	120
1898	28.2	37.4	54.5	211.0	218.0	133.0	46.5	21.0	12.7	20.7	14.2	20.4	817.6	49
1899	34.6	39.9	145.0	277.0	233.0	370.0	89.2	24.0	10.2	21.6	37.6	61.5	1343.6	81
1900	106.0	41.6	108.0	130.0	366.0	316.0	79.3	23.1	16.1	16.8	82.1	46.2	1331.2	80
1901	236.0	184.0	184.0	266.0	627.0	762.0	382.0	141.0	28.9	30.0	39.4	38.7	2919.0	176
1902	23.6	34.5	87.9	237.0	395.0	467.0	101.0	36.1	14.4	12.4	23.7	27.4	1460.0	88
1903	56.1	50.6	91.0	197.0	554.0	459.0	121.0	33.6	14.0	12.4	13.9	13.1	1615.7	97
1904	12.5	37.4	134.0	212.0	590.0	431.0	123.0	65.2	42.7	119.0	37.7	22.6	1827.1	110
1905	28.1	50.8	116.0	165.0	366.0	386.0	116.0	28.3	12.6	11.2	12.1	16.3	1308.4	79
1906	146.0	68.3	330.0	287.0	682.0	1010.0	1000.0	270.0	67.2	31.4	23.4	43.0	3958.3	238
1907	87.9	101.0	248.0	403.0	563.0	625.0	454.0	121.0	32.5	26.7	21.7	30.7	2714.5	163
1908	36.3	45.3	99.0	182.0	209.0	154.0	91.6	67.0	33.7	25.5	18.9	20.2	982.5	59
1909	200.0	173.0	126.0	286.0	606.0	839.0	376.0	89.8	38.2	24.7	40.7	109.0	2908.4	175
1910	172.0	74.4	168.0	351.0	464.0	228.0	95.3	31.4	20.5	20.5	17.9	25.5	1668.5	100
1911	157.0	143.0	269.0	312.0	517.0	750.0	478.0	98.4	38.4	28.8	23.7	21.4	2836.7	171
1912	24.0	22.0	41.4	73.2	269.0	340.0	80.6	30.6	13.4	13.8	14.0	10.3	932.3	56
1913	14.3	21.1	38.9	116.0	294.0	204.0	105.0	68.0	42.2	14.4	20.3	23.2	961.6	58
1914	260.0	109.0	180.0	256.0	582.0	595.0	356.0	112.0	40.5	32.8	20.5	15.4	2559.2	154
1915	24.0	86.1	99.6	223.0	389.0	625.0	233.0	45.9	22.8	12.9	12.5	22.7	1796.5	108
1916	246.0	170.0	277.0	449.0	664.0	726.0	331.0	94.7	36.0	68.9	38.1	41.8	3142.5	189
1917	43.0	121.0	92.2	230.0	400.0	584.0	196.0	59.8	17.8	12.9	12.6	13.2	1782.5	107
1918	13.0	21.8	117.0	195.0	329.0	499.0	92.8	26.3	31.1	86.1	32.3	35.2	1478.6	89
1919	24.7	47.5	77.5	205.0	460.0	151.0	54.4	18.4	11.2	14.1	11.7	26.2	1101.7	66
1920	20.2	24.4	104.0	164.0	485.0	392.0	113.0	34.1	16.0	25.7	31.8	36.2	1446.4	87
1921	50.5	62.2	133.0	184.0	390.0	444.0	129.0	29.5	16.1	14.0	12.1	56.1	1520.5	92
1922	68.9	90.0	97.8	163.0	664.0	708.0	226.0	71.3	26.4	14.3	23.4	67.6	2220.7	134
1923	56.2	55.0	81.2	208.0	502.0	305.0	174.0	41.7	27.5	22.4	15.5	11.8	1500.3	90
1924	13.8	16.7	20.8	86.9	149.0	31.1	13.0	6.5	4.5	7.7	20.8	28.7	399.5	24
1925	27.7	61.6	85.5	192.0	397.0	293.0	119.0	44.3	12.9	17.9	14.2	17.9	1283.0	77

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	% Normal
1926	12.0	39.7	67.1	297.4	376.5	137.4	36.9	12.8	6.9	7.6	60.3	44.4	1099.0	66
1927	39.7	159.0	130.0	240.0	532.0	511.0	195.0	46.5	18.8	16.5	64.9	30.0	1983.4	119
1928	29.1	32.3	101.0	160.0	324.0	152.0	38.9	14.9	7.3	7.8	11.4	15.7	894.4	54
1929	15.2	21.0	57.4	98.8	331.0	199.0	62.7	18.9	11.1	7.2	6.7	8.2	837.2	50
1930	15.0	31.6	71.9	171.0	231.0	241.0	55.0	16.5	7.6	8.2	11.8	9.0	869.6	52
1931	12.6	17.5	30.9	98.2	184.0	58.7	14.3	10.1	10.1	6.7	8.5	62.1	513.7	31
1932	58.2	162.0	129.0	228.0	513.0	594.0	250.0	54.8	17.2	15.7	10.0	11.3	2043.2	123
1933	27.2	29.8	65.2	158.0	232.0	458.0	136.0	27.9	10.3	8.4	10.8	37.8	1201.4	72
1934	41.1	36.7	97.7	176.1	142.1	62.8	25.1	11.4	7.4	6.7	16.1	24.6	647.7	39
1935	47.8	62.0	82.9	297.8	453.1	467.9	116.6	31.8	13.9	13.5	14.1	13.7	1615.1	97
1936	27.5	180.5	135.2	346.9	570.6	362.2	149.1	48.3	14.9	14.3	14.8	40.7	1904.9	115
1937	39.3	265.3	180.4	274.4	746.1	529.7	180.0	40.4	15.6	12.1	12.6	182.6	2478.5	149
1938	54.8	170.4	373.7	352.3	701.9	860.1	401.8	118.0	43.0	42.6	34.5	28.3	3181.4	191
1939	32.5	44.6	93.4	241.6	241.4	126.4	47.0	28.2	13.7	25.7	12.7	11.6	919.0	55
1940	98.1	131.0	169.5	266.7	572.5	373.8	92.5	25.3	11.8	15.2	15.3	69.9	1841.5	111
1941	83.3	161.3	171.2	202.4	689.2	676.8	341.9	91.2	25.3	17.4	24.7	62.6	2547.3	153
1942	85.2	70.9	109.7	238.1	449.2	616.5	246.6	59.6	18.9	13.2	28.4	34.0	1970.3	119
1943	152.1	95.4	260.6	316.2	555.2	337.9	171.4	46.4	15.8	13.7	12.9	15.6	1993.2	120
1944	22.1	45.9	91.6	118.4	399.5	286.7	122.3	27.5	12.1	11.2	41.1	39.6	1218.0	73
1945	32.8	200.2	124.0	253.5	501.3	530.1	232.6	70.1	26.0	63.1	63.8	86.9	2184.4	131
1946	67.1	47.0	110.6	294.5	467.4	265.8	100.4	31.4	14.1	26.9	63.2	60.7	1569.1	94
1947	46.3	52.6	84.6	170.0	369.2	145.7	41.5	16.2	10.5	15.9	16.3	12.9	981.8	59
1948	11.9	14.3	30.7	137.7	374.2	285.1	61.6	16.7	8.1	7.9	7.8	10.4	976.4	59
1949	13.3	19.4	53.5	194.4	369.0	211.9	45.8	18.0	9.3	8.2	15.9	15.2	974.0	59
1950	32.5	74.1	75.5	279.6	389.9	279.3	79.5	18.6	12.6	14.0	224.8	221.2	1701.6	102
1951	82.6	72.6	99.1	191.3	318.3	255.2	88.9	22.5	10.3	10.7	14.9	77.7	1244.2	75
1952	153.4	88.4	172.3	317.6	746.9	684.8	449.2	107.2	32.9	19.4	18.6	37.5	2828.2	170
1953	67.5	43.5	60.6	172.6	215.0	326.2	150.4	30.7	12.7	10.5	13.5	15.3	1118.6	67
1954	25.4	58.9	111.0	272.2	477.4	230.7	80.2	20.0	9.5	8.1	17.7	26.4	1337.6	80
59 Year Mean	63.5	77.2	121.5	224.5	439.1	406.9	171.5	49.3	19.8	21.1	28.0	39.2	1661.6	100

KINGS RIVER WATER ASSOCIATION

WATER AVAILABLE FOR DIVERSION DURING THE YEAR 1954

IN ACRE FEET

Month	River Below Dam	Mill Creek	Hughes Creek	Friant-Kern Canal	Total
Jan.	24,090	752	92		24,934
Feb.	22,560	2,917	356		25,833
Mar.	77,110	4,522	552		82,184
Apr.	169,600	2,451	299		172,350
May	208,800	402	49	55,603	264,854
June	295,800	4		7,043	302,847
July	256,900				256,900
Aug.	113,200				113,200
Sept.	21,230				21,230
Oct.	4,950				4,950
Nov.	2,860				2,860
Dec.	4,250	194	24		4,468
Totals	1,201,350	11,242	1,372	62,646	1,276,610

KINGS RIVER WATER ASSOCIATION
MONTHLY SUMMARY OF DISCHARGE OF MILL CREEK
FROM WATER MASTER RECORDS
UNIT - ACRE FEET

Year	% Normal River	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	% of River Flow at Piedra
1938	190		NO RECORD									152	838		
1939	55	1,123	2,665	3,473	2,279	218								9,758	1.06
1940	110	24,898	21,344	10,797	7,136	1,414	103						5,588	71,280	3.87
1941	152	4,972	24,762	13,967	14,155	4,273	1,099	48					546	63,822	2.50
1942	118	4,786	3,958	5,384	4,507	2,891	832	20					660	23,038	1.17
1943	119	9,878	5,134	24,077	5,112	1,931	600	53						46,785	2.34
1944	73	901	5,689	7,065	1,800	1,081	341					768	638	18,283	1.50
1945	130	644	17,741	14,290	4,326	1,093	293					2	1,948	40,377	1.84
1946	94	921	994	4,441	3,289	214	59					1,651	2,772	14,341	.91
1947	59	742	1,103	1,176	669	99								3,789	.39
1948	58		152	1,230	3,443	574	109							5,508	.56
1949	58	226	941	4,128	1,117	348	16							6,776	.70
1950	101	812	2,574	2,073	2,382	428	6					5,100	3,907	17,282	1.01
1951	74	5,314	3,033	3,049	1,253	659	38						8,098	21,444	1.72
1952	169	25,641	13,751	28,205	9,540	5,025	2,538	442					2,376	87,518	3.10
1953	67	2,517	956	1,105	1,144	739	533							6,994	.63
1954	80	752	2,917	4,522	2,451	402	4						194	11,242	.84

KINGS RIVER WATER ASSOCIATION

"A" DITCH - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					10								
2					10								Gage Heights
3					10								by Water Stage
4					10	12							Recorder
5					10	12							
6					10	12							
7					10	12							
8					10	12							
9					5	12							
10						12							
11						9							
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28				6									
29				10									
30				10									
31													Year
Max.				10	10	12							
Min.				0	0	0							
Mean				.9	3	3							
Total) Ac.Ft)				51	168	184							403

KINGS RIVER WATER ASSOCIATION

ALTA CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					678	904	528	528					
2					693	812	536	550					Gage Heights
3					693	806	536	550					by Water Stage
4					693	940	536	550					Recorder
5					780	966	536	546					
6					806	966	532	46					
7					804	966	536						
8					801	960	541						
9					801	960	452						
10					796	949	487						
11					790	946	500						
12					790	943	505						
13					790	937	514						
14					790	915	514						
15					752	833	510						
16					785	817	510						
17					790	817	510						
18					790	838	510						
19					796	755	514						
20					796	844	523						
21				337	796	844	606						
22				397	796	838	610						
23				716	796	838	610						
24				785	796	838	610						
25	87			796	796	836	610						
26	37			801	881	844	629						
27	12			738	897	844	629						
28				340	892	844	456						
29				377	904	844	510						
30				566	904	578	528						
31					904		528						Year
Max.	87			801	904	966	629	550					
Min.	0			0	678	578	452	0					
Mean	4			195	799	867	537	89					
Total) Ac.Ft)	269			11589	49056	51524	32979	5485					150,902

KINGS RIVER WATER ASSOCIATION

*LONE WILLOW CHANNEL (BETA MAIN) - Daily Diversions in Second Feet from Kings River for the year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							5	61					
2							40	68					Gage Heights
3							62	75					by Water Stage
4							67	74					Recorder
5							68	76					
6							68	75					
7	*Total diversion for delivery to Tranquillity						68	77					
8	I.D.						68	80					
9							72	81					
10	James I.D. made carrying water contributions						76	20					
11	to this delivery to compensate for moving their						74						
12	point of diversion for their share of Beta Main						74						
13	schedule to James Canal headgate.						69						
14							67						
15							67						
16							61						
17							57						
18							60						
19							59						
20							59						
21							58						
22							58						
23							58						
24							60						
25							63						
26							61						
27							60						
28							62						
29							61						
30							60						
31							54						Year
Max.							76	81					
Min.							5	0					
Mean							61	22					
Total) Ac.Ft)							3754	1360					5,114

KINGS RIVER WATER ASSOCIATION

CONSOLIDATED CANAL - Daily Diversions in Second Feet from Kings River for the year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June Kings River	June Friant-Kern	July Kings River	July Friant-Kern	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					1312	1425		559	754						
2					1240	1425		559	754						Gage Heights
3					1238	1425		559	754						by Water Stage
4					1232	1416		559	754						Recorder
5					1226	1412		559	754						
6					1226	1421		119	754						*This does not
7					1226	1421		21	754						include the 27,488
8				327	1179	885	460	621	71						ac.ft. of Friant-
9				490	1242	680	500	665							Kern Canal water.
10				490	1265	658	500	597							
11				495	1254	656	502	50							
12				495	1212	658	500								
13				495	1201	656	502								
14				495	1190	656	502								
15				495	1179	656	502								
16				571	1168	656	502								
17				1024	1201	656	502								
18				1175	1212	838	314								
19				1266	1287	802	208								
20				1350	1311	958	200								
21				1361	1324	958	200								
22				1572	1324	958	200								
23				1591	1324	989	200								
24				1570	1324	1101	201								
25	240			1563	1400	1112	201								
26	245			1568	1413	1112	201								
27	45			1475	1413	1113	200								
28				1324	1400	1112	201								
29				1355	1413	835	478								
30				1383	1425	580	733								
31					1425										Year
Max.	245			1591	1425	1425		665							
Min.	0			0	1168	656		0							
Mean	17			798	1283	974		157							
Total) Ac.Ft)	1049			47381	78776	57875	16878	9639	10610						*194,720

KINGS RIVER WATER ASSOCIATION

CRESCENT CANAL - Daily Diversions in Second Feet from Kings River for the year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1									159				
2								33	137				Gage Heights
3								129	107				by Water Stage
4								161	92				Recorder
5								152	88				
6								128	86				
7								113	93				
8								94	66				
9								88	56				
10								144	38				
11								174	11				
12								124					
13								130					
14								138					
15								156					
16								151					
17								154					
18								155					
19								157					
20								156					
21								153					
22								155					
23								154					
24								156					
25								164					
26								161					
27								160					
28								150					
29								149					
30								152					
31								155					Year
Max.								174	159				
Min.								0	0				
Mean								137	31				
Total) Ac.Ft)								8407	1847				10,254

KINGS RIVER WATER ASSOCIATION

FRESNO IRRIGATION DISTRICT - Combined Diversions in Second Feet by Fresno and Gould Canals for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	105	185	486	903	1353	1451	1507	402	156	55			
2	105	170	534	917	1349	1456	1511	494	150	11			Gage Heights
3	105	163	572	964	1345	1458	1519	467	150	11			by Water Stage
4	102	162	629	1000	1336	1453	1519	446	154	11			Recorder
5	102	156	736	1028	1336	1449	1519	412	156	11			
6	100	143	784	1073	1349	1445	1516	382	154	11			
7	100	158	784	1092	1369	1445	1497	338	147	11			
8	100	157	784	1117	1374	1437	1492	335	141	11			
9	101	144	784	1169	1392	1433	1488	332	137	11		32	
10	103	135	784	1281	1393	1425	1489	332	135	11		39	
11	101	133	784	1303	1391	1448	1496	332	129	10		46	
12	95	127	846	1323	1384	1417	1501	314	125	10		46	
13	93	128	879	1336	1380	1413	1494	314	123	9		38	
14	97	126	898	1343	1380	1410	1489	320	123	9		35	
15	94	128	901	1350	1384	1413	1489	314	127	9		51	
16	93	128	904	1395	1371	1416	1459	317	137	9		55	
17	96	127	911	1455	1361	1421	1459	308	163	9		66	
18	100	157	918	1455	1368	1402	1463	287	100	9		70	
19	101	163	892	1488	1385	1245	1467	270	126	8		70	
20	101	125	783	1489	1393	1426	1459	250	128	5		70	
21	101	125	785	1498	1401	1419	1424	245	116			70	
22	101	125	841	1496	1405	1435	1419	238	98			70	
23	102	125	861	1508	1413	1440	1355	238	104			70	
24	138	125	862	1494	1421	1456	1347	240	102			70	
25	307	125	858	1479	1425	1487	1345	242	109			71	
26	307	215	862	1470	1438	1503	1342	188	111			71	
27	234	411	840	1464	1434	1519	1317	177	110			66	
28	199	452	828	1398	1432	1517	1256	174	111			70	
29	247		828	1369	1438	1507	1208	167	108			71	
30	237		800	1355	1442	1502	698	165	105			71	
31	203		857		1446		460	165				70	Year
Max.	307	452	918	1508	1446	1519	1519	494	156	55		71	
Min.	93	125	486	903	1336	1410	460	165	98	0		0	
Mean	135	165	800	1300	1390	1442	1387	297	128	8		45	
Total) Ac.Ft)	8257	9144	49134	77244	85314	85631	85148	18226	7593	477		2748	428,916

KINGS RIVER WATER ASSOCIATION

FRESNO CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	13	35	361	771	1042	1118	1150	402	156	22			
2	13	16	409	786	1038	1123	1154	494	150	11			Gage Heights
3	13	15	426	808	1034	1125	1162	467	150	11			by Water Stage
4	13	15	461	838	1025	1120	1162	446	154	11			Recorder
5	13	14	568	875	1025	1116	1162	412	156	11			
6	12	16	616	914	1038	1112	1159	382	154	11			
7	12	33	616	930	1058	1112	1151	338	147	11			
8	12	33	616	938	1037	1104	1146	335	141	11			
9	12	22	616	984	1057	1100	1145	332	137	11			
10	12	13	616	1054	1058	1090	1145	332	135	11			
11	12	11	616	1067	1058	1113	1152	332	129	10			
12	11	10	678	1085	1051	1106	1155	314	125	10			
13	10	10	711	1098	1047	1106	1150	314	123	9			
14	10	10	730	1107	1047	1103	1145	320	123	9			
15	10	10	733	1112	1051	1106	1147	314	121	9			
16	10	9	733	1132	1038	1107	1135	317	121	9			
17	10	8	737	1148	1028	1114	1135	308	147	9			
18	10	32	745	1148	1035	1102	1139	287	84	9			
19	10	38	726	1148	1052	943	1143	270	110	8			
20	10		641	1143	1060	1117	1135	250	112	5			
21	10		641	1152	1068	1112	1115	245	95				
22	10		688	1148	1072	1107	1110	238	76				
23	10		703	1146	1080	1105	1060	238	76				
24	36		718	1130	1088	1097	1052	240	72				
25	173		714	1115	1092	1130	1050	242	76				
26	171	90	718	1102	1105	1144	1047	188	78				
27	98	286	706	1102	1101	1160	1022	177	78				
28	63	327	697	1065	1099	1160	970	174	78				
29	110		697	1055	1105	1150	940	167	75				
30	100		669	1044	1109	1145	432	165	72				
31	66		726		1113		436	165					Year
Max.	173	327	745	1152	1113	1160	1162	494	156	22			
Min.	10	0	361	771	1025	943	432	165	72	0			
Mean	35	38	646	1038	1062	1112	1071	297	115	7			
Total) Ac.Ft)	2129	2085	39664	61677	65164	66027	65748	18226	6833	412			327,965

KINGS RIVER WATER ASSOCIATION

GOULD CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	92	150	125	132	311	333	357			33			
2	92	154	125	131	311	333	357						Gage Heights
3	92	148	146	156	311	333	357						by Water Stage
4	89	147	168	162	311	333	357						Recorder
5	89	142	168	153	311	333	357						
6	88	127	168	159	311	333	357						
7	88	125	168	162	311	333	346						
8	88	124	168	179	337	333	346						
9	89	122	168	185	335	333	343					32	
10	91	122	168	227	335	335	344					39	
11	89	122	168	236	333	335	344					46	
12	84	117	168	238	333	311	346					46	
13	83	118	168	238	333	307	344					38	
14	87	116	168	236	333	307	344					35	
15	84	118	168	238	333	307	342		6			51	
16	83	119	171	263	333	309	324		16			55	
17	86	119	174	307	333	307	324		16			66	
18	90	125	173	307	333	300	324		16			70	
19	91	125	166	340	333	302	324		16			70	
20	91	125	142	346	333	309	324		16			70	
21	91	125	144	346	333	307	309		21			70	
22	91	125	153	348	333	328	309		22			70	
23	92	125	158	362	333	335	295		28			70	
24	102	125	144	364	333	359	295		30			70	
25	134	125	144	364	333	357	295		33			71	
26	136	125	144	368	333	359	295		33			71	
27	136	125	134	357	333	359	295		32			66	
28	136	125	131	333	333	357	286		33			70	
29	137		131	314	333	357	268		33			71	
30	137		131	311	333	357	266		33			71	
31	137		131		333		24					70	Year
Max.	137	154	174	368	337	359	357		33	33		71	
Min.	83	116	125	131	311	300	24		0	0		0	
Mean	100	127	154	262	328	330	316		13	1		45	
Total) Ac.Ft)	6128	7059	9470	15567	20150	19604	19400		760	65		2748	100,951

KINGS RIVER WATER ASSOCIATION

GRANT CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	8	17			238	332	253	16					
2	8	17			237	305	249	21					Gage Heights
3	8	18			229	258	248	21					by Water Stage
4	13	18			213	242	246	13					Recorder
5	16	18			223	246	244						
6	17	18			211	265	242						
7	16	18			227	281	246						
8	15	17			227	329	250						
9	14	18			141	317	235						
10	14	18			39	313	123						
11	14	18				313	35						
12	14	17				323							
13	13	14			13	310							
14	13	29			61	309							
15	13	31			7	313							
16	14				37	315							
17	15				38	324							
18	15				33	326							
19	16				49	301	5						
20	15				58	305	24						
21	15				35	337	25						
22	14				32	335	23						
23	14				34	285	25						
24	15				34	225	27						
25	104				172	300	26						
26	146				183	275	15						
27	137				188	271	13						
28	51			76	214	258	12						
29	27			188	259	248	12						
30	16			179	322	253	13						
31	16				335		16						Year
Max.	146	31		188	335	337	253	21					
Min.	8	0		0	0	225	0	0					
Mean	27	10		15	132	294	84	2					
Total) Ac.Ft)	1635	566		877	8096	17452	5162	141					33,929

KINGS RIVER WATER ASSOCIATION

ISLAND CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							107						
2						7	103						Gage Heights
3						80	100						by Water Stage
4						52	100						Recorder
5						40	104						
6						23	107						
7						23	93						
8						45	93						
9						32	93						
10						57	79						
11						76	25						
12						71	25						
13						87	25						
14					16	87							
15					60								
16					96								
17					99								
18					132								
19					97								
20					97								
21					101								
22					91	17							
23					82	100							
24					76	104							
25					101	104							
26					7	110							
27	20					110							
28	4					106							
29						100							
30						104							
31													Year
Max.	20				132	110	107						
Min.	0				0	0	0						
Mean	1				34	51	34						
Total) Ac.Ft)	48				2089	3039	2087						7,263

KINGS RIVER WATER ASSOCIATION

JAMES MAIN CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							95	77	30				
2							76	84	20				Gage Heights
3							71	84	10				by Water Stage
4							86	69					Recorder
5							89	73					
6							79	66					
7							69	72					
8							117	84					
9							97	84					
10							95	73					
11							93	65					
12							78	58					
13							47	73					
14							55	79					
15							60	83					
16							43	73					
17							68	70					
18							63	107					
19							60	88					
20							54	87					
21							41	67					
22	*James I.D. purchased 777 ac. ft. of water						41	* 64					
23	in the reservoir from Stinson Canal Co.						44	* 82					
24	It was released from the reservoir on the						57	* 80					
25	dates indicated.						64	* 72					
26						10	50	* 69					
27						18	36	*104					
28						54	56	* 89					
29						94	46	* 90					
30						117	36	102					
31							43	79					Year
Max.						117	117	107	30				
Min.						0	36	58	0				
Mean						10	65	79	2				
Total) Ac.Ft)						580	3978	4845	119				9,522

KINGS RIVER WATER ASSOCIATION

LAGUNA IRRIGATION DISTRICT (Combined) - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	8	17			248	332	363	16					
2	8	17			247	312	373	21					Gage Heights
3	8	18			239	338	375	21					by Water Stage
4	13	18			223	306	372	13					Recorder
5	16	18			233	298	374						
6	17	18			221	300	381						
7	16	18			237	316	379						Combined Diver-
8	15	17			237	386	386						sions of Grant,
9	14	18			146	361	372						"A", Island and
10	14	18			39	382	248						Summit Lake
11	14	18				398	109						
12	14	17				394	66						
13	13	14			13	397	62						
14	13	29			77	396	41						
15	13	31			67	313	34						
16	14				133	315	34						
17	15				137	324	39						
18	15				165	326	39						
19	16				146	301	31						
20	15				155	305	24						
21	15				136	337	25						
22	14				123	352	23						
23	14				116	385	25						
24	15				110	329	27						
25	104				273	404	26						
26	146				190	385	15		*Does not include the 622 ac.ft.				
27	157				188	381	13		of water purchased by R. A.				
28	55			82	214	364	12		Rowan from Crescent Canal Co.				
29	27			198	259	348	12						
30	16			189	322	357	13						
31	16				335		16						Year
Max.	157	31		198	335	404	386	21					
Min.	8	0		0	0	298	12	0					
Mean	27	10		16	169	348	139	2					
Total) Ac.Ft)	1683	566		928	10353	20675	8532	141					*42,878

KINGS RIVER WATER ASSOCIATION

LAKELANDS - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						148		72					
2						146		76					Gage Heights
3						126		75					by Water Stage
4						152		74					Recorder
5						144		75					
6						124		75					
7						122		75					This water was
8						127		75					diverted from
9						128		75					the River through
10						125		75					the Peoples Canal
11						113		75					and then returned
12						115		83					to the Lakelands
13						120		75					Canal by a cross
14						124		76					channel
15						113		75					
16						113		75					
17						106		75					
18						92		74					
19								74					
20								75					
21								73					
22								76					
23								75					
24								75					
25								69					
26								71					
27								28					
28								21					
29													
30					36								
31					141		21						Year
Max.					141	152	21	83					
Min.					0	0	0	0					
Mean					5	75	7	64					
Total) Ac.Ft)					350	4431	42	3944					8,767

KINGS RIVER WATER ASSOCIATION

LAST CHANCE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		34		181	276	204	275	258					
2		35	125	151	230	192	271	270					Gage Heights
3		39	263	144	224	180	265	273					by Water Stage
4		39	305	117	218	163	264	222					Recorder
5		39	300	114	209	158	258	179					
6		39	298	106	211	150	255	186					
7		39	302	103	148	145	257	190					
8		39	292	81	102	152	257	181					
9		39	305	85	72	150	261	181					
10		39	319	83	74	166	268	187					
11		39	332	64	67	166	257	195					
12		50	319	62	66	167	268	196					
13		52	285	62	6	169	270	194					
14		51	243	54		168	270	196					
15		61	83	51		164	270	190					
16			46	35		165	270						
17			46	25		167	267						
18			46	46		167	268						
19		21	49	130		151	268						
20		33	56	157		148	267						
21		32	55	195		169	279						
22		32	54	213		166	276						
23		32	62	222		162	260						
24		16	67	224		160	263						
25	35		57	232		173	262						
26	213		126	268		169	261						
27	157		140	305		174	259						
28	89		109	310		153	257						
29	61		85	310	180	242	255						
30	58		75	307	184	275	252						
31	46		143		202		248						Year
Max.	213	61	332	310	276	275	279	273					
Min.	0	0	0	25	0	145	248	0					
Mean	21	29	161	148	80	171	264	100					
Total) Ac.Ft)	1305	1584	9874	8785	4889	10167	16192	6134					58,930

KINGS RIVER WATER ASSOCIATION

LEMOORE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	76	100	151	49	343	420	347	240					
2	77	95	141		276	473	346	274					Gage Heights
3	72	82	77		197	416	342	307					by Water Stage
4	71	86	86		155	345	342	307					Recorder
5	65	84	80		155	254	353	311					
6	64	75	69		88	214	250	331					
7	67	76	62		42	285	131	342					
8	68	88	54			268	128	373					
9	68	85	63			233	137	378					
10	70	81	66			228	177	397					
11	72	73	75			233	183	346					
12	69	64	78			246	210	308					
13	62	64	124			249	243	283					
14	58	64	173			270	270	269					
15	62	154	137			259	304	268					
16	60	284	196			249	303	76					
17	56	300	199			210	344						
18	58	239	286			209	390						
19	66	239	286	33		199	392						
20	79	226	256	220		143	392						
21	81	188	256	236		335	440						
22	74	175	285	265		412	470						
23	80	167	194	262		397	413						
24	82	159	154	281		355	378						
25	76	204	175	414	138	358	377						
26	245	188	162	486	294	376	265						
27	312	196	154	366	360	367	211						
28	216	163	144	426	373	360	205						
29	200		114	366	300	351	207						
30	174		114	367	322	348	204						
31	131		68		399		205						Year
Max.	312	300	286	486	399	473	470	397					
Min.	56	64	54	0	0	143	128	0					
Mean	97	143	144	126	111	302	289	155					
Total) Ac.Ft)	5962	7918	8868	7467	6815	17943	17739	9524					82,236

Note: This tabulation includes some water diverted through the Lemoore Canal for convenience of delivery by Heinlin, Clarks Fork Island and Stratford I.D.

KINGS RIVER WATER ASSOCIATION

LIBERTY CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					36	80							
2					37	70							Gage Heights
3					36	4							by Water Stage
4					35								Recorder
5					46								
6					42								
7					54								
8					47								
9					10								
10													
11													
12													
13													
14													
15													
16					21								
17					40								
18					44								
19					44								
20					47								
21					50								
22					51								
23					51								
24					51								
25	20				51								
26	57				55								
27	18				57								
28				6	60								
29				46	66								
30				42	70								
31					79								Year
Max.	57			46	79	80							
Min.	0			0	0	0							
Mean	3			3	38	5							
Total) Ac.Ft)	188			186	2336	305							3,015

KINGS RIVER WATER ASSOCIATION

MURPHY SLOUGH - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	16	14			244	357	215	50					
2	16	16			280	331	195	52					Gage Heights
3	16	16			266	393	191	47					by Water Stage
4	15	15			272	417	190	43					Recorder
5	14	15			297	437	190	50					
6	13	15			283	408	183	62					
7	13	15			287	428	178	62					
8	14	14			276	417	178	59					
9	16	16			176	437	181	52					
10	16	18			80	442	180	53					
11	15	18				439	167	55					
12	15	17				441	204	55					
13	15	17			103	449	106	55					
14	15	18			112	445	92	61					
15	15	31			36	403	78	64					
16	15				200	386	60	48					
17	15				214	371	68						
18	16				224	372	76						
19	16				239	360	76						
20	15				224	348	72						
21	15				220	371	76						
22	15				218	296	72						
23	15				219	52	66						
24	15				210	103	67						
25	54			123	281	212	69						
26	163			263	273	196	57						
27	158			226	277	106	48						
28	34			226	305	80	49						
29	13			231	333	163	45						
30	12			232	354	186	48						
31	12				369		50						Year
Max.	163	31		263	369	449	215	64					
Min.	12	0		0	0	52	45	0					
Mean	26	9		43	222	328	114	28					
Total) Ac.Ft)	1598	505		2576	13607	19495	6983	1719					46,483

Note: This tabulation includes some water purchased by Riverdale I.D. from Burrel Ranch and from Liberty Canal Co.

KINGS RIVER WATER ASSOCIATION

PEOPLES CANAL (Excluding Lakelands Water) - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		195			240	208	515	508	472	51	47		
2		186	318		201	204	512	533	469	56	49		Gage Heights
3		180	395		177	175	500	524	468	97	50		by Water Stage
4		176	405		178	151	495	516	466	116	50		Recorder
5		177	395		178	144	490	525	466	113	50		
6		183	400		162	123	500	525	440	110	50		
7		188	400		124	123	493	525	441	108	49		
8		186	402			127	494	525	450	111	48		
9		184	398			127	497	525	450	113	40		
10		184	402		20	97	495	525	434	110			
11		184	402		138		500	525	361	109			
12		160	400		137		525	501	259	109			
13		135	400				500	465	272	101			
14		142	389				500	407	258	93			
15		72	403				498	398	209	69			
16			392			9	506	398	173	61			
17			145			42	512	391	166	56			
18						79	508	370	173	53			
19	12	18				163	510	372	168	50			
20	34					330	515	375	114	47			
21	34					350	514	367	106	47			
22	25			71		386	512	378	92	45			
23	25			392		404	507	375	82	45			
24	25			411		434	506	375	77	45			
25	144			415		530	502	345	72	45			
26	383			400		513	502	353	70	45			
27	314			398	3	496	501	403	69	45			
28	207			400	121	496	499	415	65	45			
29	193			313	120	485	495	435	56	46			
30	200			257	129	500	495	432	53	46			
31	195				198		495	421		46			Year
Max.	383	195	405	415	240	530	525	533	472	116	50		
Min.	0	0	0	0	0	0	490	345	53	45	0		
Mean	58	91	195	102	69	223	503	443	248	72	14		
Total) Ac.Ft)	3546	5049	11971	6053	4210	13258	30874	27190	14753	4421	857		122,182

KINGS RIVER WATER ASSOCIATION

STINSON CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							50	43	17				
2							51	43					Gage Heights
3							51	42					by Water Stage
4							51	42					Recorder
5							51	41					
6							43	41					
7							43	39					
8							38	37					
9							38	34					
10							38	36					
11							38	38					
12							38	40					
13							45	42					
14							53	40					
15							51	36					
16							46	33					
17							46	35					
18							45	38					
19							43	40					
20							41	42					
21							41	42					
22							34	43					
23							37	43					
24						5	40	41					
25						15	42	38					
26						20	44	40					
27						25	44	42					
28						40	44	43					
29						35	44	44					
30						40	44	44					
31							44	32					Year
Max.						40	53	44	17				
Min.						0	34	32	0				
Mean						6	44	40	6				
Total) Ac.Ft)						356	2689	2443	34				5,522

KINGS RIVER WATER ASSOCIATION

SUMMIT LAKE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							3		10				
2							21						Gage Heights
3							27						by Water Stage
4							26						Recorder
5							26						
6							32						
7							40						
8							43						
9							44						
10							46						
11							49						
12							41						
13							37						
14							41						
15							34						
16							34						
17							39						
18							39						
19							26						
20								8					
21								22					
22	Note: Includes 622 ac.ft. of water							29					
23	purchased at headgate by R. A. Rowan							32					
24	from Crescent Canal Co. and diverted							25					
25	through the Summit Lake Canal during							28					
26	the period Aug. 20 - Sept. 1, incl.							28					
27								30					
28								31					
29								30					
30								10					
31								31					Year
Max.							49	31	10				
Min.							0	0	0				
Mean							21	10	.3				
Total) Ac.Ft)							1283	602	20				*1,905

KINGS RIVER WATER ASSOCIATION

BLAKELEY CANAL (Empire Canal No. 3) - Daily Diversions in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							37	43					
2							123	44					Gage Heights
3							152	46					by Water Stage
4							142	46					Recorder
5							130	42					
6							134	43					
7	Empire West Side (Newtons) diverted a total of						124	42					
8	1615 ac.ft. through the Blakeley Canal, but the						104	43					
9	figures shown here are exclusive of any Empire						84	42					
10	West Side diversions.						69	44					
11							62	44					
12							65	44					
13							58	43					
14							57	43					
15							36	44					
16							38	52					
17							41	56					
18							37	55					
19							38	56					
20							39	57					
21							38	62					
22							52	70					
23							61	86					
24							64	*120					
25							67	*116					
26							64	*135					
27							53	*103	*Includes 990 ac.ft. of water				
28							43	* 96	purchased from Crescent Canal				
29							41	* 68	Co.				
30							41	* 12					
31							43						Year
Max.							152	135					
Min.							36	0					
Mean							69	58					
Total) Ac.Ft)							4231	3558					*7,789

KINGS RIVER WATER ASSOCIATION

CLARKS FORK ISLAND - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							13	8					
2							10	21					
3							5	22					
4							1	20					
5								20					
6								14					
7								9					
8								8					
9								5					
10								13					
11								14					
12							1	10					
13							2	10					
14							17	11					
15							24	11					
16							10	11					
17								13					
18								16					
19								9					
20								9					
21							1	7					
22							6						
23							14	2					
24						1	13	2					
25						9	9						
26						13	6						
27						22	7						
28						27	9						
29						22	11						
30						14	13						
31							14						Year
Max.						27	24	22					
Min.						0	0	0					
Mean						4	6	9					
Total) Ac.Ft)						214	368	525					1,107

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE (Combined) - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1								46					
2	Combined daily diversions of the Main and Outside							51					Gage Heights
3	Canals with all other diversions shown as a lump sum.							52					by Water Stage
4								58					Recorder
5								56					
6								50					
7	Main and Outside Canals					3348 Ac.Ft.		53					
8	36" Pipe - #4 Outlet					77 "	(Aug.)	54					
9	60" Pipe - #3 Outlet					109 "	(July)	38					
10	Pumped from Empire #1 Forebay					105 "	(Aug.)	32					
11	Empire West Side delivered through							34					
12	Blakeley Canal to Newton					1615 "		38					
13								47					
14	Combined Total Empire West Side I.D.					5254 "		52					
15								57					
16								63					
17								52					
18	See attached map for location of other diversion							46					
19	points.							46					
20								25					
21							13	33					
22							25	31					
23							31	19					
24						8	35	17					
25						33	35	13					
26						44	38	13					
27						41	56	11					
28						33	57						
29							59						
30							48						
31							48						Year
Max.						44	59	58					
Min.						0	0	0					
Mean						5	14	35					
Total) Ac.Ft)						315	881	2152					5,254

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE MAIN CANAL - Daily Diversions in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1								46					
2								51					Gage Heights
3								52					by Water Stage
4								58					Recorder
5								56					
6								50					
7								53					
8								54					
9								38					
10								32					
11								34					
12								38					
13								47					
14								52					
15								57					
16								63					
17								52					
18								46					
19								46					
20								25					
21							13	33					
22							25	31					
23							31	19					
24						8	35	17					
25						33	35	13					
26						44	33	13					
27						41	45	11					
28						33	46						
29							48						
30							40						
31							48						Year
Max.						44	48	58					
Min.						0	0	0					
Mean						5	13	35					
Total) Ac.Ft)						315	790	2152					3,257

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE (Newton Delivered thru Blakeley Canal) - Daily Diversions in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							25	15					
2							16	15					
3							8	15					
4							8	15					
5							5	15					
6								15					
7	This is a tabulation of Empire West Side							15					
8	delivery to Newtons through outlets No. 10,							15					
9	11, 12 and 13.							15					
10								15					
11								15					
12	See attached map for location of outlets by							15					
13	numbers.							15					
14								15					
15							8	15					
16							9	15					
17								15					
18								15					
19							6	18					
20							8	30					
21							8	30					
22							8	30					
23							8	30					
24							8	30					
25							15	30					
26							15	30					
27							15	30					
28							15	13					
29						20	15						
30						25	15						
31							15						Year
Max.						25	25	30					
Min.						0	0	0					
Mean						2	7	17					
Total) Ac.Ft)						89	455	1071					1,615

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE OUTSIDE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1													
2													Gage Heights
3													by Water Stage
4													Recorder
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26							5						
27							11						
28							11						
29							11						
30							8						
31													Year
Max.							11						
Min.							0						
Mean							2						
Total) Ac.Ft)							91						91

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE - Other Diversions From Empire No. 1 Forebay for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1													
2													
3													
4													
5													
6													
7													
8													
9								*11					
10								21					
11								7					
12	* 36" Pipe, #4 total diversion					77 ac.ft.							
13	** 60" Pipe, #3 total diversion					109 "							
14	*** Pumping from Empire #1 Forebay					105 "							
15						291 "							
16													
17	See attached drawing for numbered points												
18	of diversion.							***8					
19								10					
20								10					
21							**8	10					
22							14	10					
23							14	5					
24							7						
25							3						
26							9						
27													
28													
29													
30													
31													Year
Max.							14	21					
Min.							0	0					
Mean							2	3					
Total) Ac.Ft)							109	182					291

KINGS RIVER WATER ASSOCIATION

HEINLEN *PUMPS - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							4	7					
2							4	17					
3							4	15					
4							4	12					
5							4	21					
6							4	20					
7	*Pumps operated by Mr. Geo. Clarke						4	22					
8	and Mr. L. Dorn						4	21					
9							4	21					
10							4	24					
11							4	15					
12							4	19					
13							4	24					
14							4	20					
15							4	20					
16							4	20					
17							4	19					
18							4	10					
19							4						
20							4						
21							4						
22							4						
23							2						
24						3	1						
25						3	4						
26						4	8						
27						4	13						
28						4	16						
29						4	15						
30						4	13						
31							13						Year
Max.						4	16	24					
Min.						0	1	0					
Mean						1	6	11					
Total) Ac.Ft)						51	343	647					1,041

KINGS RIVER WATER ASSOCIATION

*LOVELACE (CIRCLE "L" RANCH) - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1													
2													
3													
4													
5								14					
6								24					
7								22					
8								28					
9								20					
10													
11	*This tabulation includes water appearing on the												
12	K.R.W.A. schedules in the name of Lovelace and												
13	436 ac.ft. for Lovelace acquired through Inter-												
14	Lake Agreements.												
15							26	18					
16							32	22					
17	This water is included in the tabulation						34	26					
18	South Fork Below Empire Weir No. 2						26	18					
19								24					
20								22					
21													
22													
23													
24													
25								18					
26								26					
27								34					
28								24					
29													
30													
31													Year
Max.							34	34					
Min.							0	0					
Mean							4	11					
Total) Ac.Ft)							234	673					907

KINGS RIVER WATER ASSOCIATION

SOUTH FORK BELOW EMPIRE WEIR NO. 2 - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug..	Sept.	Oct.	Nov.	Dec.	Remarks
1								21					
2								23					Gage Heights
3								23					by Water Stage
4								22					Recorder
5								24					
6								45					
7								38					
8								23					
9								14					
10													
11	Note: This is a tabulation of all water passing												
12	over Empire Weir No. 2 and, therefore, includes												
13	water appearing on the K.R.W.A. schedules in the												
14	name of Lovelace as well as water acquired by						13						
15	Lovelace from Inter-Lake Agreements.						41	18					
16							51	22					
17							37	26					
18							31	18					
19							20	24					
20							19	22					
21							18						
22	South East Lake diverted 1,841 ac.ft. down						19						
23	the Tulare Lake Canal which is not included						15						
24	in this tabulation.						16						
25							20	18					
26							28	26					
27							23	34					
28							27	24					
29							22						
30							20						
31							18						Year
Max.							51	71					
Min.							0	0					
Mean							14	15					
Total) Ac.Ft)							867	921					1,788

KINGS RIVER WATER ASSOCIATION

STRATFORD IRRIGATION DISTRICT - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							32	30					
2	Only water diverted through main headgate is						48	25					Gage Heights
3	shown in daily diversions. Other diversions						47	22					by Water Stage
4	are added in an annual lump sum.						55	26					Recorder
5							52	26					
6							54	29					
7							50	13					
8	Outlets #5, 6, 7				521 ac.ft.		48						
9	Stratford Canal				3823 "		51						
10	Pumped from Empire #1 Forebay				75 "		52						
11							54						
12	Total Diversions				4419 "		44						
13							5						
14													
15													
16													
17	This tabulation does not include water for						15	29					
18	Stratford I.D. diverted through Lemoore Canal.						40	30					
19							54	32					
20							60	37					
21							60	41					
22	See attached map for location of outlets by						56	34					
23	number.						56	32					
24							61	34					
25							52	45					
26							43	38					
27							47	38					
28							47	42					
29							36	23					
30							36	13					
31							32	5					Year
Max.							61	45					
Min.							0	0					
Mean							42	21					
Total) Ac.Ft)							2548	1275					4,419

KINGS RIVER WATER ASSOCIATION

STRATFORD - OTHER DIVERSIONS FROM EMPIRE #1 FOREBAY - Daily diversions in Second Feet from Kings River for Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							25						
2							25						
3													
4													
5													
6													
7													
8													
9													
10													
11													
12	This is a tabulation of daily diversions from												
13	Outlets No. 5, 6 and 7 on to approximately												
14	500 acres farmed by Mr. Braley.												
15													
16													
17	See attached map for location of outlets by												
18	number.												
19													
20													
21													
22													
23													
24													
25													
26													
27						50							
28						55							
29						55							
30						53							
31													Year
Max.						55	25						
Min.						0	0						
Mean						7	2						
Total) Ac.Ft)						422	99						521

KINGS RIVER WATER ASSOCIATION

STRATFORD - PUMPED FROM EMPIRE #1 FOREBAY - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14								8					
15								15					
16								15					
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													Year
Max.								15					
Min.								0					
Mean								1					
Total) Ac.Ft)								75					75

KINGS RIVER WATER ASSOCIATION

TULARE LAKE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1								97					
2								99					Gage Heights
3								100					by Water Stage
4								100					Recorder
5								96					
6								98					
7								103					
8								106					
9								102					
10								107					
11								114					
12								112					
13	All diversions made after Aug. 13 and including							108					
14	81 cfs that day, for a total of 1841 ac.ft., is						47	102					
15	South East Lake water which was diverted						110	101					
16	through Tulare Lake Canal.						116	97					
17							98	88					
18							95	86					
19							97	85					
20							97	82					
21							97	85					
22							98	82					
23							95	41					
24							94						
25							92						
26							96						
27							96						
28							100						
29							97						
30							96						
31							96						Year
Max.							116	114					
Min.							0	0					
Mean							55	71					
Total) Ac.Ft)							3400	4338					7,738

KINGS RIVER WATER ASSOCIATION

UPPER SAN JOSE (PUMPS) - Daily Diversions in Second Feet from Kings River for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							9	38					
2								45					
3								45					
4								45					
5								45					
6								45					
7	Combined daily diversion totals of Dorn,							45					
8	Rowan, and Barnthouse pumps.							45					
9								45					
10								64					
11								56					
12								60					
13								45					
14								45					
15								45					
16								40					
17								24					
18								18					
19							9	33					
20							26	33					
21							26	23					
22							26	18					
23						13	26	18					
24						14	26	18					
25						18	26						
26						10	26						
27						11	26						
28						11	26						
29						18	26						
30						18	27						
31							27						Year
Max.						18	27	64					
Min.						0	0	0					
Mean						4	10	30					
Total) Ac.Ft)						224	640	1857					2,721

TENTATIVE
MONTHLY FLOW SCHEDULE
FOR CENTERVILLE BOTTOMS
OCTOBER 31, 1927

Kings River at Piedra	Centerville Bottoms Ditches
October 1st to March 31st	
Up to 200 second feet	50 second feet
10% of excess above 200 feet to 400 feet	
April and July	
Up to 100 second feet	50
200	70
300	100
400	110
450	110
500	120
600-1200	130
1300	135
1400	140 second feet maximum
May and June	
0-1400 second feet	Same as April and July
1900	150 second feet maximum
August	
Up to 280 second feet	50
300	70
400	90
450	100
500	110
600-1000	120
1100	125
1200	130
1400	140 second feet maximum
September	
Up to 300 second feet	50
400	90
450	100
500	110
600-1000	120
1100	125
1200	130
1400	140 second feet maximum

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

BYRD DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	1.4		10.3	18.4	18.1	22.7	22.9	19.4	10.4	6.3	6.9	6.0	
2	1.4		10.8	18.1	17.1	23.1	22.6	19.7	8.0	6.0	7.2	3.8	Gage Heights
3	1.4		11.4	18.0	17.1	22.7	22.6	19.7	8.0	5.2	7.4	3.6	by Water Stage
4	1.4		11.9	17.7	20.9	22.5	22.6	19.4	8.0	5.4	7.2	4.2	Recorder
5	1.3		11.8	17.5	22.1	23.1	22.6	19.4	8.0	5.2	7.2	3.8	
6	1.3		11.7	17.3	23.4	24.4	21.9	19.4	8.0	5.2	5.7	3.6	
7	1.3		11.7	17.0	23.5	25.2	21.5	17.2	7.7	5.2	5.7	3.4	
8	1.2		11.6	16.8	24.0	24.4	21.5	18.8	7.7	5.5	5.7	3.1	
9	1.2		11.6	16.1	23.2	24.4	22.4	18.4	6.7	5.2	5.7	3.7	
10	1.2		11.5	15.3	22.8	24.4	23.4	16.9	6.7	4.8	5.9	4.9	
11	1.2		11.4	14.6	24.4	22.3	23.0	15.5	5.5	4.8	6.0	5.2	
12	1.1		12.3	13.8	24.4	22.6	22.6	13.0	5.0	3.4	6.4	4.6	
13	1.1		13.2	13.1	25.2	22.2	22.3	10.6	6.2	1.9	6.4	4.2	
14	1.1		14.0	12.4	26.2	22.6	21.9	10.6	6.2	4.6	6.4	4.1	
15	1.1		14.9	11.6	24.0	23.0	22.3	10.4	3.6	3.9	6.4	4.0	
16	1.1		15.7	12.5	23.4	23.4	20.8	9.8	4.8	3.2	6.6	4.2	
17	1.1		16.6	13.4	24.0	23.8	20.8	9.8	3.7	5.2	6.0	4.6	
18	1.2		17.5	14.3	24.4	23.8	20.8	7.7	1.3	2.9	6.0	4.8	
19	1.2		17.5	15.2	24.9	21.1	20.8	6.4	5.4	3.1	6.2	4.8	
20	1.2		17.5	16.2	25.6	23.0	20.8	11.2	5.4	3.1	6.2	4.8	
21	1.2		17.6	17.3	26.2	18.4	20.8	15.1	3.8	3.1	6.4	4.8	
22	1.2		17.6	18.4	26.6	14.5	20.4	15.1	3.2	3.4	6.4	4.8	
23	1.2		17.6	18.1	26.6	17.8	20.4	15.1	5.2	5.2	6.6	4.7	
24	1.3		17.6	19.2	26.2	23.0	20.4	15.1	5.7	5.4	6.6	3.3	
25	1.3		17.7	19.6	23.2	22.2	20.0	15.1	3.8	5.8	6.6	2.9	
26	1.3		17.8	20.4	22.0	22.2	19.7	15.4	2.4	5.8	6.5	2.9	
27	1.3		17.9	22.1	24.0	22.2	19.7	15.0	3.8	6.0	6.4	3.2	
28			18.0	22.1	24.5	23.4	20.0	14.8	4.0	6.5	6.4	3.6	
29			18.1	20.4	24.5	24.0	20.0	14.8	4.0	6.4	6.4	2.9	
30			18.2	19.5	24.8	24.4	19.4	14.1	5.8	6.2	6.2	2.7	
31			18.3		23.6		19.4	13.2		6.5		2.8	Period
Max.	1.4		18.3	22.1	26.6	24.4	23.4	19.7	10.4	6.5	7.2	6.0	
Min.	0		10.3	11.6	17.1	14.5	19.4	7.7	1.3	1.9	6.0	2.7	
Mean	1.1		14.9	16.9	23.6	22.6	21.3	14.7	5.6	4.9	6.4	4.0	
Total) Ac.Ft)	65.9		913.4	1002.7	1447.2	1340.1	1307.4	903.1	332.6	297.8	379.6	245.5	8,235.3

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

CAMERON DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	2.0	3.0	2.5		2.9	11.5	7.1	4.3	6.4	2.7	3.4	2.6	
2	1.9	3.0	2.6		2.6	11.5	7.1	4.1	6.1	3.0	3.7	1.9	Gage Heights
3	1.9	2.9	3.5		2.2	9.2	7.0	4.0	6.2	3.4	4.0	1.0	by Daily Gage
4	1.8	2.9	4.4		1.9	5.4	7.0	4.2	6.2	3.7	4.1	1.1	Observations
5	1.8	2.8	4.4		1.6	5.8	6.6	4.2	6.2	4.1	2.8	1.1	
6	1.8	2.7	4.3		1.2	5.8	6.2	4.6	6.2	4.2	2.8	1.1	
7	1.7	2.7	4.2		1.4	6.5	6.1	4.8	6.0	4.3	2.8	1.1	
8	1.7	2.6	4.2		2.5	6.1	6.4	4.8	5.1	4.5	2.8	1.0	
9	1.6	2.5	4.1		3.6	5.7	6.3	4.8	2.7	4.4	3.2	1.1	
10	1.6	2.4	4.1		3.7	5.0	6.3	3.8	3.3	4.2	3.5	1.3	
11	1.6	2.3	4.0		5.8	5.2	6.3	2.7	3.9	3.9	3.5	1.8	
12	1.5	2.3	4.0		5.8	5.5	5.8	2.4	4.8	3.6	2.9	2.2	
13	1.5	2.2	3.9		7.1	5.5	5.7	1.5	5.0	3.6	2.9	2.6	
14	1.4	2.1	3.9		7.1	5.6	5.7	1.4	3.5	3.8	2.9	2.6	
15	1.4	2.1	3.8		7.1	5.8	5.6	1.8	2.2	2.8	2.8	2.7	
16	1.4	2.0			7.1	6.1	5.6	2.2	2.3	2.6	2.6	2.8	
17	1.4	1.9			7.1	6.2	5.7	2.6	2.8	2.5	2.5	2.9	
18	1.4	1.9			7.1	6.4	5.7	2.5	3.6	2.4	2.6	3.2	
19	1.4	1.9		1.2	7.2	6.5	6.0	2.5	2.9	2.4	2.8	1.6	
20	1.4	1.9		1.6	7.3	7.2	5.8	3.8	2.3	2.2	2.8	1.9	
21	1.6	2.0		1.8	7.2	8.6	5.7	4.3	2.0	2.2	2.9	2.0	
22	1.8	2.0		2.2	7.2	8.4	5.7	4.2	1.8	2.8	3.0	2.1	
23	2.0	2.0		2.3	7.2	8.2	5.7	4.4	1.8	2.9	3.3	.8	
24	2.3	2.0		2.4	9.3	7.8	5.5	4.3	1.5	3.0	3.7		
25	2.5	2.0		2.5	7.6	7.2	5.2	4.4	1.4	3.1	3.4		
26	2.7	2.2		2.6	7.6	7.2	5.2	4.7	1.6	3.2	2.9		
27	2.9	2.3		3.0	7.6	7.2	5.2	4.7	1.8	3.2	2.2		
28	3.1	2.4		3.3	7.6	7.2	5.1	4.4	2.1	3.7	1.7		
29	3.1			3.6	7.6	6.9	5.1	4.2	2.2	3.4	1.5		
30	3.1			3.3	7.8	6.9	4.6	3.9	2.3	3.2	2.1		
31	3.0				9.2		4.4	5.5		3.3			Period
Max.	3.1	3.0	4.4	3.6	9.3	11.5	7.1	4.8	6.4	4.5	4.1	3.2	
Min.	1.4	1.9	0	0	1.2	5.0	4.4	1.4	1.4	2.2	1.5	0	
Mean	1.9	2.3	1.9	1.0	5.7	6.9	5.9	3.7	3.5	3.3	2.9	1.4	
Total) Ac.Ft)	119.4	128.7	114.6	59.0	352.8	412.0	359.2	229.7	210.3	202.6	174.4	84.2	2,446.9

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

CARMELITA DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.7	1.1	.6		5.9	7.4	9.0	5.8	2.6	2.0	1.5		
2	.7	1.1	.7		5.6	5.6	9.0	5.9	2.3	2.0	1.5		Gage Heights
3	.7	1.0	.7		5.3	3.6	9.0	6.0	2.3	2.0	1.5		by Daily Gage
4	.8	1.0	.7		5.6	3.6	8.0	6.2	2.3	2.0	1.5		Observations
5	.8	1.0	.7		6.0	6.5	6.8	6.8	2.3	2.0	1.5		
6	.8	1.0	.7		6.3	6.6	6.8	6.3	2.3	2.1	1.5		
7	.8	.9	.8		6.2	6.6	6.7	5.7	2.2	2.1	1.6		
8	.8	.9	.8		6.1	6.6	6.2	5.6	2.2	2.1	1.6		
9	.8	.9	.8		6.0	6.4	6.2	5.0	2.2	2.1	1.6		
10	.8	.9	.8	.7	5.8	6.2	6.2	4.8	2.2	2.1	1.6		
11	.8	.9	.8	1.2	6.1	7.4	6.2	4.8	2.3	2.0	1.6		
12	.9	.9	.8	1.8	6.1	7.0	7.8	4.8	2.4	2.0	1.6		
13	.9	.9	.8	2.3	6.2	6.8	7.9	4.8	2.6	2.1	1.6		
14	.9	.9	.7	2.9	6.2	6.2	8.0	4.6	2.7	2.1	1.6		
15	.9	1.0	.7	3.4	6.2	6.8	8.0	4.5	2.4	1.5	1.6		
16	.9	1.0	.7	4.0	6.2	7.4	8.0	4.4	2.2	1.4	1.7		
17	.9	1.0	.7	4.5	6.2	7.8	8.0	4.2		1.4	1.7		
18	.9	1.0	.6	5.1	6.2	8.0	8.0	3.2		1.4	1.6		
19	.9	.9	.6	5.6	6.2	6.8	8.2	2.9		1.4	1.6		
20	.8	.9	.6	6.0	6.1	8.4	7.2	2.8	1.5	1.4	1.6		
21	.9	.7	.6	6.4	6.1	8.5	6.2	2.7	1.0	1.4	1.6		
22	.9	.6	.6	6.8	6.1	8.5	6.7	2.7		1.3			
23	1.0	.5	.6	6.7	6.1	8.5	7.0	2.6		1.4			
24	1.0	.4	.6	6.7	6.9	8.6	7.0	2.7		1.4			
25	1.1	.3	.6	6.6	6.8	8.8	7.1	3.0		1.4			
26	1.1	.4	.6	6.6	6.6	8.8	7.1	3.0		1.4			
27	1.2	.5	.6	6.6	7.4	8.9	7.1	3.0	1.9	1.5			
28	1.2	.5	.6	6.6	7.2	9.5	7.1	3.0	1.9	1.5			
29	1.2		.5	6.6	7.7	9.2	7.0	3.0	1.9	1.5			
30	1.2		.5	6.2	7.7	9.0	5.7	2.9	1.9	1.5			
31	1.1				7.7		5.8	2.9		1.5			Period
Max.	1.2	1.1	.8	6.7	7.7	9.5	9.0	6.8	2.7	2.1	1.7		
Min.	.7	.3	0	0	5.3	3.6	5.7	2.6	0	1.3	0		
Mean	.9	.8	.6	3.4	6.3	7.3	7.3	4.2	1.6	1.7	1.1		
Total) Ac.Ft)	56.2	45.7	39.8	204.5	389.7	435.6	445.5	258.6	94.2	104.9	65.7		2,140.4

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

CHINA SLOUGH DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	4.1	1.1	.6	4.4	12.3	14.2	14.6	14.2	6.9	6.5	2.3	.3	
2	4.0	1.0	.6	4.2	12.3	12.7	16.1	14.2	7.1	6.5	3.4	.3	Gage Heights
3	4.0	1.0	.6	4.0	12.2	14.2	16.1	14.2	7.1	6.3	4.8	.3	by Daily Gage
4	3.9	1.0	.6	3.8	12.4	13.6	15.2	13.8	7.1	6.2	5.0	.4	Observations
5	3.9	.9	2.4	3.7	12.5	14.2	14.6	13.4	7.0	6.2	5.4	.5	
6	3.8	.8	4.1	3.5	12.6	14.5	14.2	13.4	6.9	6.1	5.4	.6	
7	3.8	.8	5.9	3.3	11.7	14.9	15.2	13.2	6.7	6.1	5.4	.5	
8	3.7	.7	7.6	3.1	12.8	14.5	15.9	12.6	6.6	6.1	5.4	.4	
9	3.7	.7	9.4	4.2	13.0	14.2	15.8	10.7	6.5	6.0	5.4	1.2	
10	3.6	.6	11.2	5.4	13.7	14.0	15.4	7.6	6.4	5.8	5.4	3.4	
11	3.6	.6	12.9	6.5	14.5	13.8	15.2	7.6	5.9	5.7	5.4	2.7	
12	3.5	.6	12.4	7.7	13.3	14.2	12.6	7.6	5.7	5.6	5.3	1.2	
13	3.5	.6	12.9	8.8	12.1	15.2	12.6	6.2	5.4	5.2	5.3	.6	
14	3.4	.7	11.4	10.0	13.5	15.2	12.6	6.0	5.2	4.8	5.3	.6	
15	3.4	.7	10.9	11.1	13.3	14.2	11.6	3.0	5.2	5.2	5.1	.6	
16	3.4	.8	10.5	11.1	12.3	14.6	11.6	3.8	5.3	5.5	3.0	.4	
17	3.3	.8	10.0	11.2	11.6	15.9	10.7	8.8	5.5	6.3	1.6	.4	
18	3.3	.8	10.5	11.2	10.9	17.0	10.7	6.4	4.7	7.0	2.4	.4	
19	3.2	.8	8.8	11.3	10.9	17.0	10.7	6.2	3.9	7.1	4.6	.4	
20	3.2	.8	8.0	11.6	9.5	16.8	10.7	6.3	3.1	7.0	5.2	.4	
21	2.9	.7	7.3	12.0	10.6	16.6	10.7	6.3	4.3	6.9	5.2	.4	
22	2.7	.7	6.6	12.3	12.1	16.6	9.6	6.3	6.7	7.3	5.0	.5	
23	2.4	.6	5.8	12.2	12.6	16.3	10.6	6.3	9.6	7.2	3.0	.4	
24	2.2	.6	5.1	12.1	13.1	16.1	11.6	6.0	7.0	6.9	.8	.4	
25	1.9	.6	4.4	12.0	13.3	15.9	12.0	7.0	5.1	6.8	3.0	.4	
26	1.7	.6	4.4	11.8	13.5	15.6	12.0	8.0	4.5	6.7	4.6	.4	
27	1.4	.6	4.4	12.0	14.3	15.6	14.6	7.9	5.2	6.6	3.4	.3	
28	1.2	.6	4.4	12.2	14.2	15.5	14.6	7.4	4.2	6.7	1.2	.3	
29	1.2		4.4	12.3	14.2	14.8	14.6	7.0	4.3	3.6	.4	.2	
30	1.1		4.4	12.3	14.2	13.6	14.2	6.9	6.5	1.7	.4	.2	
31	1.1		4.4		14.2		14.2	6.8		1.8		.4	Period
Max.	4.1	1.1	12.9	12.3	14.5	17.0	16.1	14.2	7.1	7.3	5.4	3.4	
Min.	1.1	.6	.6	3.1	9.5	12.7	9.6	3.0	3.1	1.7	.4	.2	
Mean	3.0	.7	6.7	8.7	12.7	15.0	13.3	8.6	5.3	5.9	3.9	.6	
Total) Ac.Ft)	182.4	41.2	409.7	517.4	779.5	894.0	813.4	524.9	347.7	363.1	233.8	38.6	5,145.7

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

FARMS DITCH # 1 - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.2				5.1	7.6	6.3	3.8	2.5	1.0	1.6	.8	
2	.2				4.4	6.3	6.0	3.7	2.5	1.0	1.4	.7	Gage Heights
3	.2				3.8	5.7	5.8	3.6	2.4	1.0	1.2	.6	by Daily Gage
4	.2				3.6	5.7	5.6	3.4	2.4	1.0	1.2	.5	Observations
5	.2				3.4	5.6	5.2	3.3	2.4	1.0	1.5	.4	
6	.2				3.1	5.6	5.2	3.3	2.4	1.0	1.6	.2	
7	.2				3.2	5.4	5.0	3.1	2.3	1.0	1.6		
8	.2				3.0	5.4	5.2	3.0	2.3	1.0	1.5		
9	.2			3.7	2.8	5.4	4.8	2.9	2.3	1.0	1.5		
10	.2			3.5	2.8	5.4	4.8	2.8	2.3	1.0	1.5		
11	.2			3.3	2.8	5.4	4.6	2.7	2.3	.9	1.5		
12	.2			3.1	3.8	5.4	4.5	2.6	2.3	.8	1.2		
13	.2			2.9	4.4	5.3	4.4	2.6	2.3	.8	1.2		
14				2.7	4.4	5.3	4.4	2.4	2.3	1.0	1.2		
15				2.5	4.2	5.2	4.4	2.4	1.7	1.1	1.2		
16				2.9	4.1	5.2	4.4	2.2	1.6	1.2	1.4		
17			2.9	3.2	3.8	5.2	4.4	2.2	1.6	1.2	1.5		
18			2.9	3.6	3.8	5.2	4.4	2.2	1.5	1.3	1.4		
19			2.9	4.0	3.9	5.2	5.0	2.2	1.4	1.4	1.2		
20			2.9	4.3	4.0	5.2	4.4	2.0	1.2	1.6	1.2		
21			2.9	4.7	4.5	5.8	4.4	1.8	1.2	1.6	1.2		
22			2.9	5.0	4.5	5.6	4.4	1.8	1.3	1.3	1.3		
23				5.0	4.5	5.4	4.4	1.7	1.3	1.4	1.6		
24				4.9	5.4	5.6	4.3	1.7	1.2	1.5	1.9		
25				4.8	5.1	6.2	4.3	1.7	1.2	1.5	1.6		
26				4.8	5.2	6.3	4.3	1.6	1.1	1.5	.7		
27				5.3	6.0	6.3	4.2	2.1	1.0	1.5	.7		
28				5.8	5.9	6.3	4.2	2.0	1.1	1.1	.7		
29				6.3	5.9	6.3	4.2	2.0	1.0	1.4	.7		
30				5.7	7.6	6.3	4.0	2.0	1.0	1.6	.7		
31					7.6		3.9	2.3		1.6			Period
Max.	.2		2.9	6.3	7.6	7.6	6.3	3.8	2.5	1.6	1.9	.8	
Min.	0		0	0	2.8	5.2	3.9	1.6	1.0	.8	.7	0	
Mean	.1		.6	3.1	4.4	5.7	4.7	2.5	1.8	1.2	1.3	.1	
Total) Ac.Ft)	5.1		34.5	182.2	270.5	338.2	287.9	152.7	105.7	73.9	76.6	6.3	1,533.6

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

FARMS DITCH #3 - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.2	.4		.7	3.8	4.9	5.0	3.2	2.4	.8	1.2	.8	
2	.2	.4		1.0	3.4	3.8	5.0	3.1	2.6	.9	1.2	.4	Gage Heights
3	.2	.4		1.2	2.9	3.8	5.0	3.1	2.5	.9	1.1	.2	by Daily Gage
4	.2	.4		1.4	3.0	3.7	5.0	3.0	2.5	.9	1.1	.3	Observations
5	.2	.4		1.6	3.1	3.7	4.0	2.9	2.5	.9	1.1	.3	
6	.2	.4		1.8	3.1	3.6	4.0	2.0	2.4	1.0	1.1	.3	
7	.2	.4		2.1	2.6	3.7	4.0	2.0	2.3	1.0	1.1	.2	
8	.2	.4		2.3	2.2	3.6	4.9	2.0	2.0	.9	1.1	.1	
9	.2	.3		2.2	1.7	2.9	4.7	2.0	1.7	.8	1.1	.2	
10	.2	.3		2.2	3.4	2.4	4.6	2.0	1.7	.8	1.2	.3	
11	.2	.3		2.1	3.6	2.3	4.5	1.9	1.8	.7	1.2	.6	
12	.1	.3		2.1	4.1	2.3	4.3	2.0	2.0	.6	1.2	.6	
13	.1	.3		2.0	5.0	2.7	4.0	2.0	2.1	.8	1.2	.7	
14	.1	.2		2.0	4.1	3.2	3.4	2.0	1.6	1.0	1.2	.7	
15	.1	.2		1.9	4.1	4.0	3.4	2.0	1.2	.8	1.2	.7	
16	.1	.2		1.9	4.2	4.7	3.4	1.5	1.3	.8	1.2	.7	
17	.1	.2		1.9	4.2	5.1	3.4		1.0	.8	1.3	.8	
18	.1	.2		1.9	4.2	4.8	3.4		1.2	.8	1.2	.8	
19	.1	.1		2.0	4.2	4.8	3.7	1.5	1.4	.8	1.2	.7	
20	.1	.1		2.4	4.2	4.8	3.4	3.4	1.6	.8	1.2	.7	
21	.2	.1		2.8	4.2	5.3	3.4	3.5	1.4	.8	1.2	.8	
22	.2	.1		3.2	4.2	3.8	3.4	3.6	1.4	1.0	1.2	.8	
23	.2	.1		3.3	4.2	4.5	3.5	3.6	1.6	1.0	1.4	.7	
24	.3			3.3	4.1	4.5	3.8	3.6	.9	1.0	1.5	.7	
25	.3			3.4	2.1	4.9	4.0	3.5	.9	1.0	1.4	.6	
26	.4			3.5	2.8	4.9	4.2	3.4	.8	1.1	.9	.6	
27	.4			3.9	5.1	4.8	4.2	2.3	.8	1.2	.6	.6	
28	.5			4.3	3.7	4.8	4.3	2.2	.8	1.2	.3	.6	
29	.5		.1	3.8	3.7	4.4	4.3	2.0	.8	1.2	.2	.5	
30	.5		.3	3.4	4.9	5.0	3.8	2.0	.7	1.2	.4	.6	
31	.4		.5		4.9		3.4	2.4		1.2		.6	Period
Max.	.5	.4	.5	4.3	5.1	5.1	5.0	3.6	2.6	1.2	1.5	.8	
Min.	.1	0	0	.7	1.7	2.3	3.4	0	.7	.6	.2	.1	
Mean	.2	.2	0	2.4	3.7	4.1	4.0	2.4	1.6	.9	1.1	.6	
Total) Ac.Ft)	13.9	12.3	1.8	141.8	227.7	241.0	248.3	145.9	94.8	56.8	64.4	34.1	1,282.8

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

FINK DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	3.1	8.9	9.8	12.2	25.3	27.9	23.8	25.0	8.6	6.1	9.4		
2	3.3	8.7	10.2	13.6	24.5	26.4	23.0	23.7	6.6	6.2	9.8		Gage Heights
3	3.5	8.4	13.8	14.9	23.8	27.6	22.7	21.4	6.9	5.9	9.8		by Water Stage
4	3.7	8.1	17.4	16.2	25.2	25.5	23.2	21.1	6.9	5.8	9.8		Recorder
5	3.9	7.8	17.4	17.5	26.7	25.2	23.0	21.1	6.9	5.6	9.6		
6	4.1	8.3	17.4	18.8	28.2	24.7	21.7	15.4	6.9	5.6	9.6		
7	4.3	8.7	17.5	20.1	27.0	24.7	22.4	16.2	6.9	5.6	9.4		
8	4.5	9.1	17.5	21.4	27.6	22.4	24.4	22.0	7.0	5.6	9.2		
9	4.7	9.5	17.6	21.3	27.6	21.8	23.9	20.4	7.0	5.4	9.2		
10	4.9	9.9	17.6	21.2	28.2	22.1	23.3	17.0	7.2	5.4	9.2		
11	5.1	10.4	17.6	21.0	28.5	23.0	22.4	13.3	7.6	6.1	9.6		
12	5.3	10.1	16.9	20.8	28.5	23.8	22.2	12.2	8.0	5.7	11.8		
13	5.5	9.8	16.1	20.7	29.6	23.8	22.2	11.4	9.3	6.3	10.6		
14	5.7	9.5	15.4	20.5	29.9	23.6	22.2	12.9	10.2	8.6	10.6		
15	6.4	9.2	14.6	20.4	28.7	24.2	22.7	12.5	6.9	7.9	6.4		
16	7.0	8.9	13.8	21.6	27.9	24.2	23.1	12.9	4.4	7.9			
17	7.7	8.6	13.1	22.7	27.3	24.5	22.4	13.3	5.5	7.9			
18	8.4	8.3	12.3	23.9	27.3	25.3	22.2	11.4	7.2	7.9			
19	9.1	8.3	12.2	25.1	27.6	22.2	22.2	9.5	7.8	7.9			
20	9.8	8.3	12.0	25.2	27.6	23.7	22.0	7.8	7.8	8.1			
21	9.8	8.3	11.9	25.3	27.6	25.2	19.7	8.3	8.2	7.5			
22	9.8	8.3	11.8	25.4	27.6	23.7	20.4	8.3	8.7	7.1			
23	9.8	8.4	11.6	24.4	27.6	23.5	21.2	8.1	11.4	8.6			
24	9.8	8.4	11.4	25.0	26.4	24.4	22.0	8.3	7.9	8.6			
25	9.9	8.4	11.3	25.2	22.4	25.0	21.3	8.4	6.2	9.2			
26	9.9	8.8	11.4	25.2	22.2	24.0	20.4	8.3	5.8	9.2			
27	9.9	9.1	11.6	24.2	23.2	24.0	21.7	8.1	5.6	9.4			
28	10.0	9.5	11.7	26.8	24.7	24.3	24.3	8.3	5.6	9.8			
29	9.7		11.8	26.7	25.0	23.2	24.3	8.4	5.4	10.2			
30	9.4		12.0	26.0	28.5	24.6	24.5	8.8	5.0	9.2			
31	9.2		12.1		27.9		24.0	8.8		9.2			Period
Max.	10.0	10.4	17.6	26.8	29.9	27.9	24.5	25.0	10.2	10.2	11.8		
Min.	3.1	7.8	9.8	12.2	22.2	21.8	19.7	7.8	4.4	5.4	6.4		
Mean	7.0	8.9	13.8	21.8	26.8	24.3	22.6	13.3	7.2	7.4	4.8		
Total) Ac.Ft)	430.1	491.0	849.0	1293.6	1643.6	1442.4	1383.6	816.9	426.5	454.4	285.1		9,516.2

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

HANKE DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	4.2	5.8	10.6	15.7	21.3	23.6	20.3	19.5	10.9	8.7	6.8	7.0	
2	4.2	7.3	10.9	16.1	21.3	22.8	21.1	17.8	10.9	8.7	6.8	7.0	Gage Heights
3	4.2	8.8	13.1	16.5	21.3	23.6	21.1	16.4	10.9	8.7	6.8	7.3	by Water Stage
4	4.2	10.2	15.4	16.9	21.3	20.8	21.1	16.4	10.9	8.6	6.8	7.6	Recorder
5	4.2	11.1	15.4	17.4	21.8	20.8	21.1	16.4	10.9	8.6	6.8	7.2	
6	4.2	10.0	15.5	17.8	23.5	21.2	21.1	16.7	10.9	8.6	6.8	7.2	
7	4.2	9.9	15.6	18.2	23.6	22.0	21.1	16.7	9.4	8.6	6.8	7.2	
8	4.2	9.8	15.7	18.6	18.8	22.0	21.1	16.4	7.8	8.7	6.8	1.8	
9	4.2	9.6	15.8	17.9	13.0	22.4	19.6	16.4	7.8	8.4	6.8		
10		9.5	15.9	17.2	21.2	22.4	19.6	15.6	7.8	8.4	6.8		
11		9.4	16.0	16.6	24.5	21.2	20.0	13.9	7.7	8.4	6.6		
12		9.5	15.5	15.9	28.4	21.2	20.4	10.9	7.6	8.4	6.9		
13		9.5	15.0	15.2	30.2	21.2	20.8	9.4	7.6	8.0	6.6		
14		9.6	14.4	14.5	27.9	21.2	20.8	9.4	7.6	7.4	6.6		
15		9.6	13.9	13.8	28.8	21.2	21.3	9.4	7.6	7.2	7.0		
16		9.7	13.4	14.2	29.1	20.8	21.1	9.4	7.6	7.2	7.4		
17		9.8	12.8	14.6	29.5	20.8	18.5	9.4	7.5	7.2	6.8		
18		9.8	12.3	15.0	26.4	20.8	18.5	8.5	7.2	7.0	6.8		
19		9.8	12.3	15.4	26.7	22.8	19.3	7.6	11.2	6.8	6.9		
20		9.7	12.4	17.3	26.7	23.2	19.8	9.4	11.7	6.6	7.0		
21		9.6	12.4	19.2	26.7	21.4	19.5	11.4	8.6	6.8	7.0		
22		9.6	12.4	21.1	26.7	20.0	19.8	11.6	7.1	6.8	7.0		
23		9.5	12.5	20.9	26.7	19.6	18.8	11.6	7.1	6.6	7.0		
24		9.5	12.5	21.3	25.4	20.0	18.9	11.6	7.8	6.8	7.0		
25		9.4	12.6	20.9	23.3	20.0	19.1	11.1	7.7	6.8	7.0		
26		9.7	13.0	20.9	23.3	20.0	23.8	11.1	7.6	6.8	7.0		
27		10.0	13.4	21.3	23.6	20.0	23.8	11.2	7.4	6.8	7.2		
28		10.3	13.9	20.5	22.2	20.0	19.1	11.2	7.2	6.8	7.2		
29	1.5		14.4	20.9	22.8	20.0	19.1	11.0	7.2	6.8	7.0		
30	2.9		14.8	21.3	23.6	20.3	19.1	11.0	7.2	6.8	7.2		
31	4.4		15.2		23.6		19.1	10.9		7.0			Period
Max.	4.4	11.1	16.0	21.3	29.5	23.6	23.8	19.5	11.7	8.7	7.4	7.6	
Min.	0	5.8	10.6	14.2	13.0	19.6	18.5	7.6	7.1	6.6	6.6	0	
Mean	1.5	9.5	13.8	17.8	24.3	21.2	20.3	12.6	8.6	7.6	6.9	1.7	
Total) Ac.Ft)	92.3	526.7	849.4	1055.5	1491.3	1261.9	1243.0	770.8	507.7	465.3	410.3	103.6	8,777.8

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

HARRIS SLOUGH DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	2.2	.9		2.2	8.6	7.3	10.2	7.7	4.0	3.1	2.1	2.2	
2	2.2	.8		2.1	8.4	7.2	10.2	7.4	4.0	3.4	2.0	2.2	Gage Heights
3	2.2	.8	4.6	1.9	8.2	7.0	10.2	7.2	4.0	3.5	2.0	2.2	by Water Stage
4	2.2	.7	4.7	1.7	8.8	7.0	10.2	7.4	3.8	3.5	2.0	2.3	Recorder
5	2.2	.6	4.7	1.5	9.2	7.0	8.6	7.6	3.8	3.5	2.0	2.4	
6	2.2	.4	4.8	1.3	9.0	7.2	9.0	6.7	3.8	3.5	1.9	2.3	
7	2.2	.3	4.8	1.1	8.7	7.2	9.0	6.8	3.8	3.5	2.0	2.3	
8	2.2	.1	4.8	.9	6.6	8.0	9.0	6.7	3.6	3.3	2.0	2.4	
9	2.2		4.9	1.6	6.8	8.4	8.4	6.7	3.5	3.3	2.0	2.4	
10	2.1		4.9	2.3	7.2	8.3	8.4	6.6	3.2	3.3	2.0	1.8	
11	2.1		5.0	3.1	7.2	7.3	9.0	6.0	3.2	3.3	2.0	1.9	
12	2.1		4.4	3.8	8.0	7.6	9.1	6.0	3.0	3.3	2.1	1.8	
13	2.1		3.8	4.5	8.5	7.4	9.2	7.3	3.0	3.2	2.1	1.7	
14	2.1		3.1	5.2	8.3	7.2	9.2	7.4	2.8	2.9	2.2	1.7	
15	2.1		2.5	5.9	8.5	7.4	9.2	7.0	3.0	2.5	2.2	1.7	
16	2.1		1.9	6.2	8.6	8.1	8.6	6.7	3.2	2.5	2.4	1.7	
17	2.2		1.2	5.6	8.5	8.5	8.7	6.6	2.3	2.6	2.3	1.6	
18	2.2		.6	6.9	8.5	8.8	8.7	6.5	.9	2.5	2.2	1.6	
19	2.2		1.3	7.2	8.4	9.0	8.8	6.8	1.3	2.5	2.2	1.4	
20	2.3		2.0	5.8	8.5	10.5	9.0	6.9	1.6	2.3	2.2	1.0	
21	2.1		2.8	6.2	8.5	8.8	9.2	7.0	1.4	2.4	2.2	1.0	
22	2.0		3.5	6.6	8.5	8.0	9.2	7.0	1.1	2.4	2.2	.9	
23	1.9		4.2	7.5	8.5	9.0	8.6	7.0	1.6	2.4	2.2	.9	
24	1.8		4.9	7.5	7.8	10.5	8.0	6.4	3.4	2.3	2.2	.8	
25	1.6		5.6	7.5	7.2	10.3	7.5	5.6	3.7	2.3	2.2	.8	
26	1.5		5.2	8.0	7.3	9.2	8.0	5.6	3.7	2.3	2.2	.7	
27	1.4		4.7	9.6	7.4	9.2	7.5	5.6	3.7	2.3	2.2	.7	
28	1.2		4.2	9.2	7.6	9.8	7.0	5.6	3.7	2.3	2.2	.7	
29	1.2		3.7	8.9	7.7	10.2	6.7	5.6	3.6	1.9	2.2	.7	
30	1.1		3.2	8.7	7.7	10.2	6.9	5.1	3.6	2.0	2.2	.6	
31	1.0		2.7		7.4		7.4	4.5		2.0		.6	Period
Max.	2.2	.9	5.6	9.6	9.2	10.5	10.2	7.7	4.0	3.5	2.4	2.4	
Min.	1.0	0	0	.9	6.6	7.0	6.7	4.5	.9	1.9	1.9	.6	
Mean	1.9	.2	3.5	5.0	8.1	8.4	8.7	6.5	3.0	2.8	2.1	1.5	
Total) Ac.Ft)	119.2	9.1	215.2	298.0	495.2	498.2	532.0	401.9	180.8	170.5	126.5	93.1	3,139.7

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

JACK DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.1			2.2	4.6	4.5	4.8	2.6	1.2	.2	.8	.9	
2	.1			2.1	4.4	4.5	4.8	2.6	1.1	.2	.8	.8	Gage Heights
3	.1			2.0	4.1	4.1	4.8	2.4	1.2	.3	.8	.7	by Daily Gage
4	.1			1.9	3.7	2.4	4.6	2.2	1.2	.3	.8	.7	Observations
5	.1			1.8	3.3	2.4	4.6	2.2	1.2	.4	.9	.7	
6	.1			1.7	2.9	2.4	4.6	2.1	1.2	.4	.9	.7	
7	.1			1.6	2.5	2.4	4.6	2.0	1.2	.5	1.0	.7	
8	.1			1.4	3.2	2.6	4.8	2.0	1.2	.4	1.0	.7	
9	.1			1.2	2.7	3.0	3.7	2.0	1.2	.4	1.0	.8	
10	.1			1.0	2.4	3.2	3.6	1.8	1.2	.4	1.1	.5	
11	.1			.8	2.5	3.2	3.5	1.7	1.2	.3	1.1		
12	.1			.6	4.6	3.2	3.5	1.5	1.2	.3	1.2		
13	.1			.4	4.6	3.2	3.7	1.2	1.3	.3	1.2		
14	.1			.2	4.6	3.6	3.9	1.2	1.2	.2	1.3		
15					6.0	3.9	3.9	1.2	.7	.2	1.3		
16				.6	6.0	3.9	3.9	1.2	.2	.2	1.2		
17				1.1	6.1	4.0	3.9	1.0		.1	1.2		
18				1.7	6.2	4.0	3.9	.8		.1	1.2		
19			.1	2.3	6.2	4.0	3.9	.8			1.2		
20			.3	2.8	6.5	4.2	3.9	1.2			1.2		
21			.4	3.3	6.6	5.8	3.6	1.2			1.2		
22			.6	3.8	6.6	5.5	2.9	1.2		.5	1.2		
23			.8	3.9	6.6	5.0	2.7	1.2		.6	1.3		
24			.9	4.1	6.7	4.5	2.7	1.2		.6	1.4		
25			1.1	4.3	7.2	4.5	2.7	1.4		.7	1.3		
26			1.2	4.4	5.4	4.5	2.8	1.4		.7	1.0		
27			1.4	4.7	5.2	4.4	2.8	1.4		.7	.9		
28			1.5	5.0	3.1	4.4	2.9	1.4		.8	.9		
29			1.7	5.2	3.1	4.3	2.7	1.3	.1	.8	.8		
30			1.9	4.9	3.1	4.3	2.6	1.4	.1	.8	.9		
31			2.0		4.1		2.6	1.6		.8			Period
Max.	.1		2.0	5.2	7.2	5.8	4.8	2.6	1.3	.8	1.4	.9	
Min.	0		0	0	2.4	2.4	2.6	.8	0	0	.8	0	
Mean	0		.4	2.4	4.7	3.9	3.7	1.6	.6	.4	1.1	.2	
Total) Ac.Ft)	2.8		27.5	140.6	286.7	229.5	225.5	95.8	35.4	24.2	63.6	14.3	1,145.9

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

JACOBI DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					3.0	3.0	2.8	2.3	.6	2.3			
2					3.0	2.6	2.6	2.4	.6	2.3			Gage Heights
3					3.0	2.6	2.6	2.4	.6	2.2			by Daily Gage
4					3.1	2.6	2.6	2.5	.5	2.2			Observations
5					3.3	2.5	2.5	2.5	.5	2.2			
6					3.4	2.5	2.3	2.6	.5	2.2			
7					3.2	2.2	2.3	2.5	.5	2.2			
8					3.1	2.2	2.3	2.5	.4	2.2			
9					1.8	2.2	2.3	2.4	.4	2.2			
10					.8	2.2	2.2	2.3	.4	2.2			
11					.6	1.9	2.2	2.3	.4	2.1			
12					.6	1.9	2.1	2.3	.4	2.1			
13				3.4	2.0	1.9	2.1	2.4		2.0			
14				3.2	2.0	1.9	2.1	2.3		2.0			
15				2.9	2.0	1.8	2.3	2.0		2.0			
16				2.7	2.0	1.7	2.3	1.6		2.0			
17				2.5	2.0	1.7	2.3	1.5		2.0			
18				2.2	2.0	1.7	2.3	1.4		1.9			
19				2.0	2.0	1.7	2.5	.8		1.9			
20				2.3	2.0	1.7	2.5	1.4	2.0	1.9			
21				2.6	2.2	3.4	2.5	1.4	1.8	1.9			
22				3.0	2.2	2.8	2.5	1.4	1.7	1.9			
23				3.0	2.2	2.8	2.5	1.4	1.5	1.9			
24				3.0	3.0	2.8	2.4	1.3	2.0	1.9			
25				3.0	3.0	2.5	2.3	1.3	1.9	1.9			
26				3.0	3.0	1.7	2.2	1.3	1.9	.9			
27				3.0	3.1	1.7	2.2	1.2	1.9				
28				3.0	3.1	2.8	2.2	1.1	1.8				
29				3.0	3.1	2.8	2.2	1.0	1.8				
30				3.0	3.0	2.8	2.3	.8	1.8				
31					3.0		2.3	.7					Period
Max.				3.4	3.4	3.4	2.8	2.6	2.0	2.3			
Min.				0	.6	1.7	2.1	.7	0	0			
Mean				1.7	2.4	2.3	2.3	1.8	.9	1.7			
Total) Ac.Ft)				100.6	150.1	135.8	144.1	109.5	51.3	104.0			795.4

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

MC LAUGHLIN DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.8	.5	.8		3.8	6.5	5.4	3.3	3.6	.5	1.2	1.0	
2	.8	.5	.8		3.7	6.0	5.4	2.4	3.6	1.2	1.2	1.1	Gage Heights
3	.8	.4	1.0		3.6	6.0	5.0	2.0	3.6	1.8	1.0	1.2	by Daily Gage
4	.8	.4	1.2		4.0	6.0	4.4	2.7	3.6	1.8	1.0	1.2	Observations
5	.8	.4	1.2		4.5	6.0	4.1	3.3	3.6	1.9	1.0	1.0	
6	.8	.4	1.1	.9	4.9	6.0	3.7	3.6	3.6	2.2	.7	.9	
7	.8	.5	1.1	.9	5.5	6.0	3.1	3.3	3.6	2.2	.2	.4	
8	.8	.5	1.0	.9	4.8	6.0	3.1	3.1	3.6	2.2	.1	.1	
9	.8	.5	1.0	.9	4.3	6.0	2.8	2.4	3.6	2.3	.2	.2	
10	.8	.6	1.0	.9	4.1	6.2	2.8	1.4	3.6	2.8	.4	.8	
11	.8	.6	.9	.9	4.1	5.4	2.9	1.3	3.4	3.2	.5	1.5	
12	.8	.6	.9	.9	4.8	5.4	2.9	1.3	3.0	3.2	.7	2.0	
13	.8	.7	.9		5.7	5.4	2.9	2.2	2.9	2.8	2.0	2.1	
14	.8	.8	.8		5.5	5.2	2.8	2.2	2.7	2.2	2.1	2.2	
15	.8	.8	.8		5.5	5.2	2.8	2.0	2.6	2.3	2.0	2.3	
16	.8	.8	.8	.9	5.4	5.2	2.8	1.9	2.6	2.4	2.6	2.2	
17	.8	.9	.8	.9	5.4	5.2	2.7	1.9	1.2	2.3	3.0	1.7	
18	.7	1.0	.8	.9	5.4	5.0	2.7	1.6	.3	2.1	2.5	1.7	
19	.7	.9	.7		5.2	5.0	2.6	1.2	1.0	1.9	2.4	1.7	
20	.7	.9	.7	.6	5.2	5.5	2.6	1.2	2.8	1.7	2.3	1.6	
21	.7	.8	.6	1.1	5.2	6.0	2.0	1.6	1.9	1.6	2.3	1.5	
22	.7	.8	.6	1.6	5.2	5.4	1.8	1.8	1.3	1.1	2.3	1.5	
23	.7	.8	.5	2.2	5.2	5.2	2.2	1.9	1.2	1.1	2.6	1.6	
24	.7	.7	.5	2.7	6.2	5.0	2.2	1.8	.6	1.2	2.8	1.6	
25	.7	.7	.4	3.2	6.2	5.0	2.4	1.6	.6	1.2	2.6	1.6	
26	.7	.7	.4	3.8	6.2	5.0	2.4	1.4	.5	1.4	1.2	1.7	
27	.7	.8	.3	3.8	5.5	5.0	2.4	1.6	.4	1.0	1.2	1.7	
28	.7	.8	.3	3.8	5.6	5.0	2.4	1.8	.4	.6	1.2	1.6	
29	.6			3.9	5.8	5.0	2.4	1.8	.4	1.2	1.1	1.6	
30	.6			3.8	6.5	5.0	3.1	1.8	.4	1.4	1.1	1.6	
31	.6				6.5		3.1	2.0		1.4		1.7	Period
Max.	.8	1.0	1.2	3.9	6.5	6.5	5.4	3.6	3.6	3.2	3.0	2.3	
Min.	.6	.4	0	0	3.6	5.0	1.8	1.4	.3	.5	.1	.1	
Mean	.7	.7	.7	1.3	5.1	5.5	3.0	2.0	2.2	1.8	1.5	1.4	
Total) Ac.Ft)	45.7	37.2	43.4	78.2	315.8	326.3	185.9	125.5	131.1	111.3	90.1	88.3	1,578.8

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

PHILLIPS DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.5	.9	1.0		2.6	4.4	1.8	3.4	2.6	2.2	.8	.3	
2	.5	.9	1.1		2.5	4.2	2.1	3.4	2.6	2.3	.8	.4	Gage Heights
3	.5	1.0	1.6		2.3	4.1	2.0	3.4	2.6	2.3	.8	.6	by Daily Gage
4	.5	1.0	2.1		2.3	4.1	2.0	3.4	2.6	2.2	.8	.6	Observations
5	.5	.9	2.2		2.3	4.0	2.0	3.5	2.6	2.2	.8	.7	
6	.5	.9	2.3		2.3	3.8	2.0	3.5	2.6	2.2	.8	.7	
7	.5	.8	2.4		2.0	3.8	2.0	3.5	2.6	2.2	.8	.6	
8	.5	.8	2.5		1.4	3.8	2.0	3.5	2.6	2.2	.8	.6	
9	.5	.8	2.6		.9	3.6	2.0	3.5	2.6	2.1	.8	.7	
10	.5	.7	2.7		1.2	2.5	2.0	3.4	2.4	2.1	.7	.9	
11	.5	.7	2.8		1.2	2.5	2.0	3.4	2.4	2.0	.7	.8	
12	.5	.7	2.6		1.2	2.5	1.8	3.4	2.2	2.0	.7	.7	
13	.5	.8	2.4		2.8	2.5	1.7	3.4	2.0	1.6	.7	.6	
14	.5	.8	2.2		2.8	2.5	1.6	3.4	1.6	1.2	.7	.4	
15	.6	.9	1.9		2.8	2.4	1.6	3.2	1.5	1.3	.7	.2	
16	.6	1.0	1.6		3.0	2.4	1.7	3.2	1.5	1.4	.6	.3	
17	.6	1.0	1.5	3.4	3.0	2.2	1.7	3.2		1.3	.6	.3	
18	.6	1.1	1.2	3.6	3.0	2.5	1.7	3.2		1.2	.7	.3	
19	.6	1.0	1.0	3.7	3.2	2.6	3.3	3.2		1.0	.7	.4	
20	.7	.9	.8	3.8	3.2	4.1	3.4	3.0	.9	1.0	.7	.4	
21	.7	.8	.6	3.9	3.2	4.4	3.5	3.0	.7	1.0	.7	.3	
22	.7	.7	.3	4.0	3.2	4.0	3.5	3.0	.7	1.0	.7	.3	
23	.8	.6	.1	4.1	3.2	3.6	3.5	3.0	.8	1.0	.5	.4	
24	.8	.5		4.2	3.2	3.8	3.5	3.0	1.0	.9	.4	.4	
25	.8	.4		4.3	3.5	3.6	3.5	2.9	1.2	.8	.5	.4	
26	.9	.6		4.5	3.5	3.5	3.5	2.9	1.2	.8	.8	.4	
27	.9	.7		4.0	3.8	2.5	3.5	2.9	1.1	.8	.8	.4	
28	.9	.8		3.5	4.0	2.0	3.5	2.8	1.0	.8	.7	.3	
29	.9			3.0	4.0	1.8	3.5	2.8	.9	.8	.6	.2	
30	.9			2.8	4.0	1.8	3.4	2.7	.9	.8	.4	.4	
31	.9				4.2		3.4	2.6		.8		.4	Period
Max.	.9	1.1	2.8	4.5	4.2	4.4	3.5	3.5	2.6	2.3	.8	.8	
Min.	.5	.4	0	0	.9	1.8	1.6	2.6	0	.8	.4	.2	
Mean	.6	.8	1.3	1.8	2.8	3.2	2.5	3.2	1.6	1.5	.7	.5	
Total) Ac.Ft)	39.4	44.9	78.2	104.5	169.9	189.1	155.8	195.4	93.9	90.1	41.2	28.5	1,230.9

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

RICE DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.4	.5	.6		1.9	2.4	1.7	2.2	.9	.3		.2	
2	.4	.5	.8		1.8	2.2	2.2	2.3	.9	.3		.2	Gage Heights
3	.4	.5	.4		1.9	2.0	2.0	2.3	.9	.4		.3	by Water Stage
4	.4	.4	.1		1.9	1.3	2.0	2.3	.9	.3		.3	Recorder
5	.4	.4			1.8	1.3	1.9	2.3	.9	.2		.3	
6	.4	.4			1.8	1.3	2.1	2.2	.9	.2		.3	
7	.4	.4			1.4	1.4	2.2	2.0	.9	.2		.3	
8	.4	.4			.3	1.4	1.9	1.7	.9	.2		.3	
9	.4	.4		1.1	.7	1.4	1.8	1.7	.8	.2		.3	
10	.4	.4		1.0	.6	1.4	1.7	1.6	.8	.2		.4	
11	.4	.4		1.0	.6	1.4	2.0	1.5	.6	.2		.4	
12	.4	.5		.9	.7	1.4	2.0	1.5	.5	.2		.3	
13	.4	.5		.8	1.0	1.4	2.0	1.5	.5	.1		.3	
14	.4	.5		.8	.9	1.3	2.0	1.5	.5	.1	.1	.3	
15	.4	.6		.7	1.0	1.3	2.0	1.3	.5	.1	.2	.3	
16	.4	.6		.7	1.1	1.3	2.0	1.2	.5		.3	.3	
17	.4	.6		.6	1.2	1.3	2.0	1.1			.2	.2	
18	.4	.7		.6	1.2	1.0	2.0	1.0			.2		
19	.4	.6		.5	1.2	1.1	2.0	1.2	.4		.1		
20	.4	.6		.4	1.2	1.5	2.1	1.2	.3				
21	.4	.5		.4	1.2	2.0	2.1	1.2					
22	.4	.4		.3	1.2	1.9	2.0	1.2					
23	.5	.4		1.3	1.3	1.7	2.1	1.2					
24	.5	.3		1.8	1.7	1.8	2.0	1.2					
25	.5	.3		1.8	1.8	1.6	1.9	1.2					
26	.6	.4		1.8	1.9	1.6	1.9	1.2			.2		
27	.6	.4		1.8	2.0	1.6	1.9	1.1			.2		
28	.6	.6		1.8	2.0	1.7	1.8	1.1			.2		
29	.6			1.8	2.2	1.8	1.8	1.1			.2		
30	.6			1.8	2.4	1.7	2.0	1.0			.2		
31	.6				2.4		2.1	.9					Period
Max.	.6	.7	.8	1.8	2.4	2.4	2.2	2.3	.9	.4	.3	.4	
Min.	.4	.3	0	0	.3	1.0	1.7	.9	0	0	0	0	
Mean	.4	.5	.1	.8	1.4	1.6	2.0	1.5	.4	.1	.1	.2	
Total) Ac.Ft)	27.5	26.1	3.8	46.9	87.7	92.1	121.2	91.1	24.9	6.3	4.2	9.9	541.7

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

SHORT DITCH #1 - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.9	1.5	2.1	.4		2.1	3.2	1.4	1.7	1.7	.5	.3	
2	.9	1.5	2.2	.4		2.0	3.1	2.6	1.7	2.0	.6	.4	Gage Heights
3	.9	1.5	2.4	.5	2.5	2.0	3.0	2.5	1.5	2.1	.6	.2	by Daily Gage
4	.9	1.6	2.5	.5	2.4	2.0	3.0	2.3	1.4	1.9	.6	.2	Observations
5	.9	1.6	2.5	.6	2.2	2.0	3.2		1.5	1.9	.6	.3	
6	.9	1.6	2.5	.6	2.1	2.0	3.2		1.7	2.1	.5	.3	
7	.9	1.6	2.5	.7	2.1	2.1	3.2		1.9	2.1	.5	.3	
8	.9	1.6	2.6	.7	1.3	2.0	3.1		1.8	1.5	.5	.3	
9	.9	1.6	2.6	.7	.9	2.0	3.1	1.7	1.8	1.4	.6	.3	
10	.9	1.6	2.6	.7	1.0	2.0	3.0	1.7	1.7	1.5	.6	.3	
11	.9	1.7	2.7	.7	1.0	2.0	3.0		1.6	1.5	.6	.2	
12	1.0	1.7	2.5	.7	1.0	2.0	2.5		1.4	1.5	.3	.1	
13	1.0	1.8	2.4	.7	1.8	2.0	2.4		1.3	1.2	.3		
14	1.0	1.9	2.2	.6	1.9	2.0	2.3		1.1		.3		
15	1.0	2.0	2.1	.6	2.0	2.0	2.3		1.0	1.1	.3		
16	1.0	2.0	2.0	.8	2.0	2.0	2.0		1.0	.9	.4		
17	1.1	2.1	1.8	.9	2.1	2.0	2.1			.8	.4		
18	1.1	2.2	1.6	1.1	2.1	2.0	2.2			.6	.4		
19	1.2	2.1	1.6	1.2	2.1	2.0	2.3			.6	.3		
20	1.2	2.0	1.5	1.4	2.2	2.0	2.4	1.8	1.9	.6	.3		
21	1.2	1.9	1.4		2.2	3.3	2.5	1.8	1.6	.6	.3		
22	1.2	1.8	1.3		2.2	2.7	2.5	1.9	1.8	.7	.4		
23	1.2	1.8	1.2		2.2	2.2	2.4	1.9	2.1	.6	.4		
24	1.2	1.7	1.1		2.3	2.3	2.4	1.9	1.3	.6	.4		
25	1.3	1.6	1.0		2.3	2.3	2.4	1.9	1.0	.6	.4		
26	1.3	1.7	.9		2.4	2.3	2.4	1.9	.9	.6	.3		
27	1.3	1.8	.8		3.2	2.3	2.1	1.9	.8	.6	.4		
28	1.3	2.0	.7		3.0	2.3	2.0	1.9	1.0	.6	.4		
29	1.3		.6		2.4	2.9	2.0	1.8	.8	.6	.4		
30	1.4		.6		2.3	3.2	1.4	1.8	.8	.5	.4		
31	1.4		.5		2.3		1.4	1.8		.5			Period
Max.	1.4	2.2	2.7	1.4	3.2	3.3	3.2	2.6	2.1	2.1	.6	.4	
Min.	.9	1.5	.5	0	0	2.0	1.4	0	0	0	.3	0	
Mean	1.1	1.8	1.8	.5	1.9	2.2	2.5	1.1	1.3	1.1	.4	.1	
Total) Ac.Ft)	66.5	98.0	108.9	28.7	117.8	130.7	154.6	68.3	75.4	66.3	25.7	6.3	947.2

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

SHORT DITCH #2 - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						1.5	1.5						
2						1.5	1.5						Gage Heights
3						1.5	1.5						by Daily Gage
4						1.5	1.0	.8					Observations
5						1.5	1.0	.8					
6						1.5	1.0						
7						1.5	1.0						
8						1.5							
9						1.8							
10						2.0							
11						2.0							
12						1.5							
13						1.5	.5						
14						1.0	1.0						
15						.5	1.0						
16							1.0						
17							1.0						
18							1.0						
19							1.0						
20							1.5						
21					1.5		1.5						
22					1.5		1.5						
23					1.5		1.5						
24					1.5		1.5						
25					1.5		1.5						
26					1.5	1.0	1.5						
27					1.5	1.5	1.0						
28					1.5	1.5							
29					1.5	1.5							
30					1.5	1.5							
31					1.5								Period
Max.					1.5	2.0	1.5	.8					
Min.					0	0	0	0					
Mean					.5	1.0	.9	.1					
Total Ac.Ft)					32.7	58.0	52.5	3.2					146.4

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

TURNER DITCH - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					4.6	6.4	7.3	5.6	3.4	4.3			
2					4.5	6.2	7.3	5.6	3.4	4.2			Gage Heights
3					4.5	6.5	7.2	5.6	3.0	3.6			by Daily Gage
4					5.2	6.5	7.2	5.4	2.5	2.7			Observations
5					5.9	6.6	7.2	4.9	2.5	2.0			
6					6.6	6.6	7.0	4.9	2.5	2.0			
7					7.0	6.8	7.0	4.9	2.5	2.0			
8					6.3	6.8	7.2	4.9	2.4	2.0			
9				3.4	5.9	6.8	7.2	4.6	2.2	1.9			
10				3.3	6.8	6.8	7.0	4.4	2.2	1.9			
11				3.2	5.4	7.1	7.0	4.4	2.2	2.0			
12				3.2	5.4	7.2	6.8	4.4	2.2	1.8			
13				3.1	8.0	7.2	6.8	4.4	2.2	1.3			
14				3.0	7.3	7.3	6.4	4.2	2.2	.7			
15				2.9	7.6	7.4	6.4	4.0	2.2				
16				2.8	7.8	7.4	6.4	3.9	2.2				
17				2.8	8.0	7.4	6.6	3.8					
18				2.7	8.0	7.3	6.6	3.8					
19				2.6	7.8	7.3	6.6	3.8					
20				2.8	8.0	7.3	6.4	3.8	.6				
21				3.0	7.9	7.5	6.9	3.8					
22				3.2	7.9	7.2	6.7	3.8					
23				3.5	7.9	7.0	5.3	3.7					
24				3.7	7.3	6.8	5.3	3.7	.1				
25				4.0	6.9	6.8	5.2	3.6	.1				
26				4.2	7.2	6.8	5.2	3.6	.1				
27				4.3	7.3	7.0	5.1	3.4	.1				
28				4.5	6.6	7.0	5.1	3.4	.1				
29				4.7	6.5	7.3	4.8	3.4	.1				
30				4.6	6.4	7.3	5.6	3.4	.1				
31					6.4		5.6	3.4					Period
Max.				4.7	8.0	7.5	7.3	5.6	3.4	4.3			
Min.				0	4.5	6.2	4.8	3.4	0	0			
Mean				2.5	6.7	7.0	6.4	4.2	1.4	1.0			
Total) Ac.Ft)				149.5	413.6	415.0	392.8	258.4	81.4	64.2			1,774.9

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

COMBINED - Daily Diversions in Second Feet from Kings River for the Period January 1 to December 31, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	20.8	24.6	38.9	56.2	123.8	157.9	147.7	123.7	68.7	48.7	38.5	22.4	
2	20.8	25.7	40.7	57.6	119.5	148.6	149.1	120.9	64.0	50.2	40.4	19.2	
3	21.0	26.7	53.1	59.0	118.7	146.2	147.6	116.2	63.7	49.6	41.8	18.2	
4	21.1	27.7	61.0	60.1	125.3	134.2	144.7	116.5	62.8	48.5	41.9	19.4	
5	21.2	27.9	62.7	61.6	129.7	138.2	139.0	114.6	62.8	47.9	41.2	18.7	
6	21.3	26.9	64.4	63.1	134.4	139.7	136.0	106.7	62.8	48.6	39.3	18.2	
7	21.4	27.0	66.5	65.0	131.6	142.4	136.4	103.9	60.5	48.8	38.9	17.0	
8	21.4	26.9	68.3	66.1	124.0	139.3	139.0	109.6	57.2	48.4	38.5	10.8	
9	21.5	26.8	70.4	74.3	114.9	138.4	135.0	105.6	53.0	47.1	39.1	10.9	
10	17.3	26.9	72.3	74.7	125.7	136.5	134.3	93.7	53.1	46.9	39.9	14.6	
11	17.5	27.3	74.1	75.0	132.8	133.4	133.8	83.0	52.0	47.1	40.3	15.1	
12	17.5	27.2	72.3	75.3	140.7	134.7	130.9	75.9	51.7	44.5	42.3	13.5	
13	17.7	27.1	71.4	77.9	154.2	135.2	131.2	70.9	53.7	41.2	42.1	12.8	
14	17.5	27.0	68.1	78.0	152.6	134.9	130.3	71.5	51.4	42.6	42.5	12.6	
15	18.2	27.1	66.1	77.7	151.8	136.3	130.8	66.7	42.3	39.9	38.4	12.5	
16	18.8	27.0	60.4	82.9	150.2	138.4	128.7	65.9	40.7	39.2	31.4	12.6	
17	19.6	26.9	61.4	89.3	150.0	141.6	124.9	69.4	31.1	41.6	29.1	12.5	
18	20.3	27.0	60.3	94.7	146.7	143.6	124.8	60.2	27.9	39.1	29.2	12.8	
19	21.0	26.4	59.0	99.3	147.7	139.1	128.9	56.6	36.7	38.8	31.4	11.0	
20	21.8	26.1	58.7	104.5	147.8	149.1	127.9	67.2	44.7	38.3	31.9	10.8	
21	21.7	25.4	58.5	110.0	151.6	151.0	124.2	74.4	37.9	37.8	32.2	10.8	
22	21.6	25.0	58.2	116.9	153.5	138.6	123.0	74.9	36.8	38.6	30.7	10.9	
23	21.7	24.7	54.9	118.4	154.1	140.3	122.4	74.7	45.2	41.9	29.9	9.5	
24	21.9	24.1	54.6	121.9	156.5	147.5	123.5	73.8	40.4	42.1	28.7	7.2	
25	21.9	23.7	54.7	123.1	143.4	146.8	122.4	73.7	34.8	43.1	30.0	6.7	
26	22.1	25.1	54.9	125.5	141.6	144.6	126.6	74.8	32.1	42.4	28.3	6.7	
27	22.0	26.2	55.1	129.6	150.2	144.2	129.0	73.4	35.5	41.6	26.2	6.9	
28	20.7	27.5	55.3	132.4	146.5	147.5	125.6	72.4	34.9	42.4	23.1	7.1	
29	21.8		55.3	131.1	147.7	146.4	124.7	71.2	34.5	39.8	21.5	6.1	
30	22.8		55.9	127.3	156.0	147.9	122.6	69.6	38.1	36.9	22.2	6.1	
31	23.7		55.7		156.5		122.1	70.3		37.6		6.5	Period
Max.	23.7	27.9	74.1	132.4	156.5	157.9	149.1	123.7	68.7	50.2	42.5	22.4	
Min.	17.3	23.7	38.9	56.2	114.9	133.4	122.1	56.6	27.9	36.9	21.5	6.1	
Mean	20.6	26.4	60.1	91.0	141.3	142.1	131.2	83.9	47.0	43.3	34.4	12.3	
Total) Ac.Ft)	1266.4	1461.0	3689.1	5403.6	8671.8	8439.8	8052.9	5151.8	2794.0	2655.6	2041.2	752.6	50,380

KINGS RIVER WATER ASSOCIATION

KINGS RIVER ABOVE NORTH FORK - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	141	315	730	1100	2330	3760	2000	570	169	117	109	176	
2	140	307	740	1100	2300	3990	1780	527	174	116	110	189	Gage Heights
3	140	300	740	1150	2870	4320	1720	501	179	116	112	202	by Water Stage
4	143	300	700	1190	3720	4200	1750	466	179	116	112	402	Recorder
5	141	300	700	1220	4630	3500	1600	438	174	116	110	279	
6	143	300	700	1290	5210	2620	1470	402	167	114	109	269	
7	143	296	700	1320	5330	2320	1440	363	161	114	109	289	Daily Discharge
8	143	300	850	1360	5870	2120	1470	342	158	114	110	256	from the unpub-
9	138	300	2800	1390	6000	2090	1430	323	152	113	110	252	lished record
10	130	300	2000	1400	4680	1880	1300	311	149	113	112	434	of the U.S.G.S.
11	130	300	1700	1370	4760	1840	1180	300	145	113	116	311	Subject to
12	136	330	1100	1380	5210	1840	1120	293	141	112	210	315	revision.
13	130	800	1000	1560	5270	1690	1130	282	141	112	167	307	
14	122	750	950	1910	5480	1790	1250	272	138	112	149	296	
15	128	600	900	2380	5510	2510	1620	262	136	109	231	289	
16	131	620	890	2850	4990	3060	1350	249	134	109	611	286	
17	138	630	880	3460	5900	3400	1180	236	133	109	269	276	
18	149	640	850	3710	6550	3300	1080	227	131	109	246	276	
19	143	620	850	3660	7230	3280	1000	216	128	110	224	272	
20	145	600	860	3640	7160	3400	924	210	126	109	210	272	
21	147	600	900	3790	6820	3720	856	208	123	110	199	269	
22	143	600	920	4010	5570	4060	797	202	120	109	194	265	
23	150	630	840	4220	4960	4110	732	197	120	109	197	262	
24	942	680	830	4300	5020	3900	709	192	119	109	197	259	
25	917	680	830	4010	4790	3610	726	192	117	110	197	249	
26	389	700	820	3900	4420	3220	745	189	117	112	194	224	
27	330	700	860	3950	4180	2760	726	186	116	112	194	194	
28	359	700	950	3580	4420	2320	679	181	117	112	197	184	
29	363		1040	3020	4470	2190	726	181	119	110	194	233	
30	342		1150	2700	3790	2120	685	176	119	112	186	213	
31	323		1080		3610		614	169		110		224	Year
Max.	363	800	2800	4300	7230	4320	2000	570	179	117	611	434	
Min.	122	296	700	1100	2300	1690	614	169	116	110	109	176	
Mean	231	507	995	2531	4937	2964	1154	286	140	112	183	265	
Total) Ac.Ft)	14200	28160	61210	150600	303600	176400	70990	17580	8330	6880	10880	16310	865,140

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW NORTH FORK - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	178	453	1140	1600	3720	5160	2310	605	190	138	132	240	
2	172	449	1180	1660	3720	5440	2090	590	192	136	136	258	Gage Heights
3	170	441	1160	1780	4890	5820	1980	555	198	134	136	311	by Water Stage
4	178	437	1070	1860	6460	5580	1990	532	198	138	138	601	Recorder
5	174	441	1060	1960	8010	4660	1850	492	190	138	134	423	
6	176	457	1040	2140	8780	3520	1690	437	185	138	134	395	
7	182	453	1060	2240	8780	3150	1650	405	178	134	132	455	
8	182	445	1250	2320	9540	2940	1650	385	174	122	134	388	
9	178	449	5880	2370	9420	3170	1600	364	170	125	136	381	
10	164	449	3260	2430	7210	2890	1480	354	164	122	138	620	
11	160	445	2110	2370	7880	3000	1340	343	160	127	143	451	
12	170	457	1690	2440	8470	2910	1230	332	158	136	432	459	
13	164	1760	1460	2940	8530	2600	1270	322	156	129	265	459	
14	156	2060	1330	3590	8860	2680	1380	309	154	129	210	443	
15	160	1020	1270	4310	8780	3470	1920	303	152	129	595	435	
16	166	954	1230	5120	8090	4120	1560	291	152	125	1120	415	
17	182	962	1220	6040	9660	4420	1340	276	150	127	447	399	
18	202	1210	1120	6460	10500	4200	1220	261	148	127	367	403	
19	185	927	1150	6460	11400	4140	1100	250	146	127	322	407	
20	200	882	1220	6460	11000	4220	1000	242	142	129	295	403	
21	188	875	1410	6750	10200	4570	940	240	138	129	283	399	
22	185	888	1220	7080	8120	4890	875	240	138	127	271	392	
23	198	968	1180	7410	7280	4820	804	228	156	127	280	395	
24	1860	1020	1220	7600	7280	4540	744	220	142	127	289	388	
25	1620	1070	1140	6960	6920	4150	798	218	138	129	286	364	
26	579	1090	1110	6680	6390	3720	798	215	134	129	283	325	
27	470	1070	1210	6800	6040	3180	788	212	134	129	280	286	
28	510	1110	1400	6110	6330	2690	732	208	134	132	283	280	
29	496		1550	5080	6240	2540	766	205	138	132	277	332	
30	478		1920	4450	5320	2440	727	200	134	132	262	304	
31	449		1640		5060		660	192		132		319	Year
Max.	1860	2060	5880	7600	11400	5820	2310	605	198	138	1120	620	
Min.	156	437	1040	1600	3720	2440	660	192	134	122	132	240	
Mean	340	830	1513	4382	7706	3854	1299	323	158	130	278	391	
Total) Ac.Ft)	20890	46100	93020	260800	473800	229300	79900	19890	9410	8000	16540	24060	1,281,710

KINGS RIVER WATER ASSOCIATION

NORTH FORK OF KINGS RIVER - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	37	138	410	500	1390	1400	310	35	21	21	23	64	
2	32	142	440	560	1420	1450	310	63	18	20	26	69	All daily dis-
3	30	141	420	630	2020	1500	260	54	19	18	24	109	charges were
4	35	137	370	670	2740	1380	240	66	19	22	26	199	calculated by
5	33	141	360	740	3380	1160	250	54	16	22	24	144	subtracting
6	33	157	340	850	3570	900	220	35	18	24	25	126	Kings River
7	39	157	360	920	3450	830	210	42	17	20	23	166	Above North
8	39	145	400	960	3670	820	180	43	16	8	24	132	Fork from Kings
9	40	149	3080	980	3420	1080	170	41	18	12	26	129	River Below
10	34	149	1260	1030	2530	1010	180	43	15	9	26	186	North Fork
11	30	145	410	1000	3120	1160	160	43	15	14	27	140	
12	34	127	590	1060	3260	1070	110	39	17	24	222	144	
13	34	960	460	1380	3260	910	140	40	15	17	98	152	
14	34	1310	380	1680	3380	890	130	37	16	17	61	147	
15	32	420	370	1930	3270	960	300	41	16	20	364	146	
16	35	334	340	2270	3100	1060	210	42	18	16	509	129	
17	44	332	340	2580	3760	1020	160	40	17	18	178	123	
18	53	570	270	2750	3950	900	140	34	17	18	121	127	
19	42	307	300	2800	4170	860	100	34	18	17	98	135	
20	55	282	360	2820	3840	820	76	32	16	20	85	131	
21	41	275	510	2960	3380	850	84	32	15	19	84	130	
22	42	288	300	3070	2550	830	78	38	18	18	77	127	
23	48	338	340	3190	2320	710	72	31	36	18	83	133	
24	918	340	390	3300	2260	640	35	28	23	18	92	129	
25	703	390	310	2950	2130	540	72	26	21	19	89	115	
26	190	390	290	2780	1970	500	53	26	17	17	89	101	
27	140	370	350	2850	1860	420	62	26	18	17	86	92	
28	151	410	450	2530	1910	370	53	27	17	20	86	96	
29	133		510	2060	1770	350	40	24	19	22	83	99	
30	136		770	1750	1530	320	42	24	15	20	76	91	
31	126		560		1450		46	23		22		95	Year
Max.	918	1310	3080	3300	4170	1500	310	66	36	24	509	199	
Min.	30	127	270	500	1390	320	35	23	15	8	23	64	
Mean	108	322	517	1850	2768	890	145	38	18	18	95	126	
Total) Ac.Ft)	6690	17940	31810	110200	170200	52900	8910	2310	1080	1120	5660	7750	416,570

KINGS RIVER WATER ASSOCIATION

BIG CREEK - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	5.7	22	38	137	76	20	9.0	2.9	1.7	1.4	2.5	4.3	
2	5.4	20	37	126	65	19	9.0	2.7	1.7	1.6	2.5	4.5	Gage Heights
3	6.3	18	39	120	60	18	8.5	2.9	1.7	1.8	2.9	8.7	by Water Stage
4	6.0	18	37	115	58	18	7.7	2.7	1.6	1.8	2.9	62.0	Recorder
5	5.7	17	36	110	55	18	7.3	2.5	1.4	1.8	2.9	20.0	
6	6.0	17	34	110	56	18	6.9	2.7	1.4	1.8	2.7	12.0	
7	6.0	17	34	109	51	18	6.9	2.5	1.4	1.8	2.7	15.0	
8	6.3	16	34	108	49	19	6.9	2.5	1.6	1.8	2.7	13.0	
9	6.0	15	220	100	50	43	6.9	2.3	1.6	1.8	2.7	12.0	
10	5.7	15	132	95	48	34	6.6	2.2	1.4	3.3	2.9	88.0	
11	5.7	14	90	90	44	27	6.6	2.2	1.4	2.3	3.3	35.0	
12	5.7	16	64	90	43	23	6.0	2.2	1.6	2.2	13.0	26.0	
13	5.4	505	54	90	42	22	5.7	2.2	1.6	2.2	7.7	20.0	
14	5.2	567	51	90	38	21	5.7	2.3	1.6	2.0	4.3	18.0	
15	6.0	128	48	86	36	20	6.6	2.5	1.7	1.8	5.0	15.0	
16	5.7	85	51	83	36	18	5.4	2.5	2.0	1.7	108.0	14.0	
17	7.4	116	66	79	34	17	5.1	2.5	2.0	1.6	20.0	13.0	
18	17.0	232	60	76	32	15	4.8	2.2	2.0	1.7	9.5	12.0	
19	12.0	91	60	72	29	14	4.3	2.2	1.8	1.8	6.9	12.0	
20	11.0	67	101	68	28	14	4.0	2.2	1.7	2.0	5.7	12.0	
21	9.8	59	146	65	27	12	4.5	2.5	1.7	2.0	5.4	12.0	
22	8.4	57	95	64	27	12	4.3	2.5	1.6	2.0	5.1	11.0	
23	8.8	54	96	61	25	11	4.0	2.3	1.6	2.0	4.8	11.0	
24	500.0	54	134	59	24	10	4.0	2.0	2.7	2.2	4.8	10.0	
25	310.0	52	102	58	23	10	4.0	1.7	1.6	2.5	4.8	10.0	
26	71.0	47	88	53	23	10	3.7	1.8	1.1	2.7	4.5	9.5	
27	43.0	42	95	74	23	11	3.5	2.2	1.1	2.7	4.5	7.7	
28	32.0	42	115	227	21	11	3.5	2.2	1.0	2.7	4.5	7.3	
29	28.0		136	104	21	10	3.3	2.2	1.1	2.5	4.5	9.0	
30	26.0		381	94	20	9.5	2.9	1.8	1.3	2.5	4.5	8.5	
31	24.0		171		20		2.9	1.7		2.5		9.0	Year
Max.	500.0	567	381	227	76	43	9.0	2.9	2.7	3.3	108.0	62.0	
Min.	5.2	14	34	53	20	9.5	2.9	1.7	1.0	1.4	2.5	4.3	
Mean	38.7	85.8	91.8	93.8	38.2	17.4	5.5	2.3	1.6	2.1	10.3	16.8	
Total) Ac.Ft)	2380	4770	5640	5580	2350	1040	338	142	95	128	611	1030	24,104

KINGS RIVER WATER ASSOCIATION

SYCAMORE CREEK - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	.9	3.7	6.6	49.0	12.0	1.3						.4	
2	.9	3.2	6.2	39.0	11.0	1.3						.5	Gage Heights
3	.9	3.0	5.8	33.0	9.7	1.0						1.4	by Water Stage
4	.9	2.7	5.5	29.0	8.7	.9						20.0	Recorder
5	.9	2.5	5.5	26.0	7.8	.8						4.1	
6	1.0	2.4	5.2	24.0	7.0	.9						2.0	
7	1.0	2.2	4.9	21.0	6.6	1.0						1.7	
8	1.1	1.9	5.2	18.0	5.8	1.3						2.4	
9	1.0	1.9	25.0	18.0	5.8	8.4						2.4	
10	1.0	1.9	33.0	17.0	6.6	4.6						66.0	
11	1.1	1.8	23.0	16.0	6.6	2.6						11.0	
12	1.0	2.0	13.0	14.0	5.5	2.0						5.5	
13	.9	247.0	9.7	13.0	5.2	2.0						3.8	
14	.9	358.0	8.7	13.0	4.4	1.8						3.0	
15	.9	64.0	7.8	12.0	4.1	1.4					3.8	2.6	
16	.9	33.0	18.0	10.0	4.4	1.2					29.0	2.0	
17	1.8	38.0	54.0	9.7	4.1	1.0					1.2	1.8	
18	4.8	96.0	28.0	9.2	3.6	.8					.5	1.7	
19	3.0	31.0	36.0	8.7	3.0	.7					.5	1.6	
20	2.5	22.0	109.0	7.4	2.6	.5					.4	1.6	
21	2.2	18.0	114.0	7.4	2.6	.4					.4	1.4	
22	1.8	14.0	50.0	7.0	2.4	.2					.4	1.4	
23	2.0	12.0	50.0	6.6	2.2	.1					.4	1.4	
24	269.0	10.0	126.0	6.6	2.2						.4	1.3	
25	154.0	9.2	68.0	7.0	2.0						.4	1.4	
26	24.0	8.2	48.0	7.0	2.0						.4	1.4	
27	23.0	7.8	42.0	20.0	1.8						.4	1.3	
28	9.3	7.0	42.0	78.0	1.8						.4	1.3	
29	6.5		50.0	20.0	1.6						.4	1.3	
30	4.8		291.0	15.0	1.4						.4	1.3	
31	3.7		75.0		1.4						.	1.4	Year
Max.	269.0	358.0	291.0	78.0	12.0	8.4					29.0	66.0	
Min.	.9	1.8	4.9	6.6	1.4	0					0	.4	
Mean	17.0	35.9	44.1	18.7	4.7	1.2					1.3	4.8	
Total) Ac.Ft)	1050	1990	2710	1110	289	72					78	298	7,597

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW PINE FLAT DAM - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	190	472	1150	850	4670	4900	5060	3200	738	164	52	31	
2	185	458	1370	910	4400	4500	5030	3380	752	122	52	31	Gage Heights
3	180	451	1530	980	4380	4870	5000	3220	730	119	52	33	by Water Stage
4	185	451	1550	1000	4400	4850	4980	3120	730	119	52	32	Recorder
5	190	424	1580	1040	4350	5030	4740	3100	738	119	52	31	
6	193	444	1550	1080	4350	5240	4210	2580	730	119	52	31	
7	193	458	1550	1100	3980	5220	4210	2350	708	122	52	31	
8	193	479	1560	1520	3440	4770	4930	2320	645	117	52	38	
9	190	472	1690	1700	3680	4620	4570	2400	560	115	52	64	
10	181	472	1660	1830	3680	4450	4330	2300	473	115	52	66	
11	168	465	1660	1880	3650	4500	4030	2180	305	107	54	62	
12	173	458	1740	1900	3610	4540	4050	2170	296	107	52	62	
13	176	542	1550	1910	3810	4400	3980	2160	278	66	52	61	
14	165	292	1530	1910	3830	4330	3960	2090	292	64	52	61	
15	171	296	1550	1910	2470	4210	4090	1530	296	62	56	78	
16	176	284	1270	2180	1900	4300	4160	1440	296	61	47	80	
17	184	296	1190	2910	2020	4300	4160	1430	110	59	46	90	
18	210	300	1170	3180	2020	3820	4140	1380	158	59	46	90	
19	220	292	1140	3480	2060	4740	4140	1420	202	57	44	90	
20	210	292	980	3640	2100	5000	4260	1310	173	56	43	90	
21	210	288	860	3980	2100	6230	4280	1360	132	52	44	90	
22	198	288	940	4560	2160	5750	4140	1360	145	52	44	90	
23	207	284	1000	4950	2130	5610	4180	1360	150	52	44	90	
24	985	288	960	5310	2690	5930	4140	1150	150	52	44	90	
25	2260	304	980	5310	2780	5640	3870	1080	158	52	44	90	
26	1920	424	1000	5260	2960	5520	3900	1050	155	52	44	90	
27	610	659	950	5180	3720	5640	3830	1040	155	52	44	90	
28	528	740	950	4640	3740	5780	3520	1030	150	52	44	90	
29	535		890	4690	4590	5500	3570	977	145	50	44	90	
30	486		604	4740	4800	4930	3080	822	152	49	34	90	
31	472		770		4820		2960	760		50		90	Year
Max.	2260	740	1740	5310	4820	6230	5060	3380	752	164	56	90	
Min.	165	284	604	850	1900	3820	2960	760	132	49	34	31	
Mean	392	406	1254	2851	3396	4971	4177	1841	357	80.5	48.1	69.1	
Total) Ac.Ft)	24090	22560	77110	169600	208800	295800	256900	113200	21230	4950	2860	4250	1,201,350

KINGS RIVER WATER ASSOCIATION

MILL CREEK - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		8	16	127	24								
2		7	16	100	19								Gage Heights
3		6	14	86	16								by Water Stage
4		5	12	72	16								Recorder
5		5	12	65	13								
6		5	11	56	12								
7		5	10	52	11								
8		5	10	46	11								
9		5	14	45	10								
10		4	24	42	10	1						44	
11		4	27	38	10	1						17	
12		5	18	35	9							8	
13		19	16	34	8							5	
14		423	15	32	8							4	
15		177	14	31	6							2	
16		69	16	29	5							2	
17		50	92	27	4							2	
18		282	67	25	3							1	
19		112	45	22	2							1	
20	3	61	98	21	2							1	
21	3	45	244	19	1							1	
22	3	37	120	17	1							1	
23	3	30	89	16	1							1	
24	21	25	190	16	1							1	
25	231	24	210	16								1	
26	46	21	108	16								1	
27	22	18	78	17								1	
28	15	16	81	65								1	
29	14		84	43								1	
30	10		340	28								1	
31	9		193									1	Year
Max.	231	423	340	127	24	1						44	
Min.	0	4	10	16	0	0						0	
Mean	12.3	52.6	73.7	41.3	6.5	.1						3.2	
Total) Ac.Ft)	752	2917	4522	2451	402	4						194	11,242

KINGS RIVER WATER ASSOCIATION

CALCULATED PREPROJECT DISCHARGE OF KINGS RIVER AT PIEDRA

EXPLANATORY NOTES

(1) From January 1, 1954 to February 12, 1954, or until storage began in the Pine Flat Reservoir, the daily discharge was compiled from the U.S.G.S. records for the Piedra Station.

(2) From February 13, 1954 until the end of the year the discharge of the river is the sum of the measured flows of:

(a) Kings River Below North Fork

(b) Big Creek

(c) Sycamore Creek

(d) Ungaged area above the Dam one and one half times Sycamore Creek discharge

(3) The estimated rainfall on the reservoir surface.

KINGS RIVER WATER ASSOCIATION

PREPROJECT PIEDRA - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	190	486	1213	2002	3853	5183	2319	608	192	139	134	244	
2	188	481	1250	1995	3833	5462	2099	593	194	138	138	265	Gage Heights
3	181	481	1230	2079	4993	5841	1988	558	200	136	139	323	by Water Stage
4	183	463	1135	2129	6559	5601	1998	535	200	140	141	797	Recorder
5	188	458	1124	2208	8100	4680	1857	495	191	140	137	458	
6	183	472	1099	2373	8867	3540	1697	440	186	140	137	412	
7	188	476	1118	2460	8860	3170	1657	408	179	136	135	475	
8	190	463	1308	2525	9616	3018	1657	388	176	124	137	474	
9	190	463	6195	2565	9504	3264	1607	366	172	127	139	429	
10	183	454	3503	2615	7286	2938	1487	356	165	125	148	922	
11	167	445	2305	2543	7952	3036	1347	345	161	129	190	532	
12	177	441	1807	2604	8536	2938	1236	334	159	138	450	509	
13	181	*2913	1557	3101	8594	2627	1276	324	157	131	273	495	*Beginning of
14	169	4015	1421	3749	8917	2706	1386	311	155	131	214	473	storage in Pine
15	165	1507	1354	4461	8833	3493	1927	306	154	131	655	459	Flat Reservoir
16	177	1199	1401	5261	8142	4141	1565	294	154	127	1409	436	
17	183	1243	1529	6174	9709	4439	1345	279	152	129	469	419	
18	218	1998	1325	6587	10545	4217	1225	263	150	129	378	421	
19	225	1221	1376	6580	11438	4156	1104	252	148	129	331	425	
20	215	1072	1737	6569	11037	4236	1004	244	144	131	302	421	
21	218	1029	2115	6853	10235	4582	944	243	140	131	290	417	
22	205	1022	1575	7180	8153	4902	879	242	140	129	277	409	
23	208	1086	1501	7506	7311	4831	808	230	158	129	287	409	
24	931	1127	1882	7694	7310	4550	748	222	145	129	295	401	
25	2700	1172	1648	7115	6948	4160	802	220	140	131	293	377	
26	2100	1181	1439	6768	6418	3730	802	217	135	132	289	338	
27	610	1152	1498	6991	6068	3191	791	212	135	132	286	297	
28	535	1187	1711	6654	6356	2701	735	210	135	135	287	290	
29	548		1926	5282	6266	2550	769	207	139	134	281	344	
30	517		3458	4613	5343	2450	730	202	135	134	266	315	
31	494		2215		5083		663	194		134		331	Year
Max.	2700	4015	6195	7694	11438	5841	2319	608	200	140	1409	922	
Min.	165	441	1099	1995	3833	2450	663	194	135	124	134	244	
Mean	413	1061	1805	4574	7763	3878	1305	326	160	132	297	429	
Total) Ac.Ft)	25403	58924	110987	272208	477359	230746	80236	20030	9503	8132	17667	26414	1,337,609

KINGS RIVER WATER ASSOCIATION

KINGS RIVER AT REEDLEY NARROWS - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	126	*450	426	157	1477	2053	2290	2037	593	42	40	62	
2	119	*435	830	146	1340	1910	2266	2265	597	97	38	53	Gage Heights
3	113	*400	914	136	1510	1720	2258	2227	593	95	38	55	by Water Stage
4	111	*375	894	136	1209	1648	2243	2157	575	92	38	70	Recorder
5	122	344	834	128	1100	1430	2115	2131	575	90	37	69	
6	121	366	822	110	1015	1525	2075	2153	575	92	36	59	
7	122	369	810	78	796	1610	2075	2097	567	97	34	59	
8	125	352	866	83	404	1580	2087	2017	533	98	34	58	
9	125	358	858	70	275	1582	2016	2055	470	95	36	62	
10	122	355	902	61	265	1485	1840	2020	380	95	36	97	
11	113	349	894	69	245	1410	1865	1947	287	96	39	115	
12	106	342	925	72	247	1505	1955	1900	200	89	47	91	
13	113	425	950	61	312	1427	1905	1880	193	83	50	75	
14	108	535	738	54	403	1348	1870	1858	205	56	51	71	
15	98	484	738	47	455	1337	1943	1547	177	51	56	69	
16	98	295	624	45	498	1337	2016	1309	162	46	78	65	
17	107	246	421	107	501	1343	2050	1229	137	40	70	65	
18	119	332	374	403	534	1353	2056	1208	87	41	65	65	
19	149	255	356	534	485	1263	2044	1218	78	38	64	64	
20	150	239	358	629	475	1652	2068	1164	88	34	66	64	
21	145	223	380	712	459	2332	2105	1167	72	33	64	63	
22	132	213	260	940	456	2469	2044	1174	58	36	64	61	
23	130	203	261	1115	478	2178	2058	1166	56	34	64	60	
24	210	197	274	1468	763	2243	2063	1067	47	33	65	61	
25	*750	193	318	1630	1028	2200	1905	902	48	34	65	61	
26	*1900	206	364	1553	1073	2062	1834	869	48	36	63	61	
27	*1300	225	286	1718	1242	2039	1815	852	45	38	65	61	
28	*600	305	269	1692	1394	2160	1803	848	42	38	65	61	
29	*550		261	1665	1590	2235	1762	821	40	38	65	61	
30	*500		282	1588	1900	2243	1865	727	30	36	65	60	
31	*475		164		1983		1942	618		36		60	Year
Max.	1900	535	950	1718	1983	2469	2290	2265	597	98	78	115	
Min.	98	193	164	45	245	1263	1762	618	30	33	34	53	
Mean	292	324	569	574	836	1756	2008	1504	252	60	53	66	
Total) Ac.Ft)	17937	17961	34953	34070	51306	104304	123221	92327	14965	3681	3164	4075	501,964

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW PEOPLES WEIR - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	138	180	391	194	1204	1537	1709	1376	137		3	76	
2	129	173	380	218	1148	1554	1722	1595	110		3	76	Gage Heights
3	124	182	455	185	1033	1408	1735	1665	116	2	3	74	by Water Stage
4	120	182	503	173	957	1290	1727	1581	106	3	3	83	Recorder
5	120	171	442	173	900	1178	1703	1554	103	3	3	83	
6	124	168	413	164	800	1129	1538	1552	103	3	3	81	
7	124	178	405	140	746	1287	1538	1611	97	3	3	76	
8	124	174	410	123	600	1296	1510	1487	87	3	2	76	
9	127	168	463	124	397	1307	1531	1448	53	3	4	76	
10	127	174	470	115	238	1314	1399	1470	37	3	40	85	
11	127	174	500	100	65	1308	1238	1398	30	3	50	101	
12	124	198	513	100	211	1327	1405	1370	30	3	60	111	
13	113	218	547	104	318	1357	1400	1378	22	3	59	96	
14	118	242	450	90	435	1287	1370	1405	17	3	64	85	
15	118	447	321	80	457	1226	1365	1239	18	3	70	82	
16	111	407	325	72	468	1200	1448	864	22	3	75	78	
17	113	308	380	70	504	1160	1508	773	22	3	84	78	
18	120	282	422	134	544	1178	1527	777	19	3	85	77	
19	130	336	365	424	508	1045	1527	765	9	3	76	77	
20	137	317	374	567	498	1097	1496	772	7	3	78	76	
21	136	311	396	681	501	1316	1554	717	6	3	78	76	
22	130	293	382	668	492	2283	1570	755	5	3	75	76	
23	133	230	282	601	504	1824	1520	761	5	3	65	75	
24	130	232	277	712	504	1692	1585	720	3	3	68	75	
25	507	264	317	932	858	1732	1556	583		3	71	75	
26	1511	267	370	1050	993	1600	1354	527		3	73	75	
27	843	275	333	1036	1060	1500	1318	516		3	57	74	
28	283	310	281	1220	1170	1610	1288	515		3	73	72	
29	257		276	1297	1204	1692	1258	510		3	75	72	
30	204		250	1325	1489	1704	1285	464		3	76	74	
31	182		242		1497		1360	312		3		74	Year
Max.	1511	447	547	1325	1497	2283	1735	1665	137	3	85	111	
Min.	111	168	242	70	65	1045	1258	312	0	0	2	72	
Mean	219	245	385	429	719	1415	1485	1047	39	3	49	80	
Total) Ac.Ft)	13432	13585	23631	25487	44160	84027	91167	64271	2305	170	2928	4881	370,044

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW LEMOORE WEIR - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						24	500	725	126			17	
2						111	528	822	98			20	Gage Heights
3						135	592	888	90			23	by Water Stage
4						96	596	961	90			24	Recorder
5						93	573	918	86			25	
6						29	544	868	97			25	
7						29	614	873	91			27	
8						27	600	808	84			27	
9						80	614	752	77			27	
10					22	96	614	753	31			37	
11					100	93	614	731				39	
12					57	94	552	700				42	
13					113	118	648	695				44	
14					89	84	648	742				36	
15					212	21	530	754				27	
16		11			157	17	633	701				14	
17		31			164	10	690	732				11	
18					157	3	692	638				10	
19					140		708	661				9	
20					140		650	649				9	
21					136		632	623				8	
22					135	454	632	600				7	
23					134	950	672	624			1	7	
24					142	836	730	624			1	8	
25					68	588	743	435			2	10	
26	68				19	474	693	394			2	11	
27	276				16	486	680	322			2	10	
28	42				33	570	708	281			2	10	
29	2				29	575	624	281			8	9	
30					27	539	586	268			11	9	
31					36		709	187				7	Year
Max.	276	31			212	950	743	961	126		11	44	
Min.	0	0			0	0	500	187	0		0	7	
Mean	13	2			69	221	631	645	29		1	19	
Total) Ac.Ft)	768	83			4209	13131	38707	39620	1723		57	1166	99,464

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW ARMY WEIR (CLARKS FORK) - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							169	375					
2							148	394					Gage Heights
3							156	395					by Water Stage
4							159	415					Recorder
5							157	424					
6							146	431					
7							144	452					
8							136	379					
9							138	377					
10							144	377					
11							133	360					
12							195	349					
13							303	362					
14							318	373					
15							283	371					
16							294	344					
17							340	330					
18							362	306					
19							380	308					
20							386	295					
21							375	*252					
22						92	370	*244	*Includes 1166 ac.ft. of water				
23						348	378	*263	purchased for Blakeley Canal				
24						385	424	*260	from Crescent Canal				
25						288	445	*157					
26						200	408	40					
27	18					180	384						
28	77					210	374						
29	33					252	358						
30						212	332						
31							364						Year
Max.	77					385	445	452					
Min.	0					0	133	0					
Mean	4					72	281	278					
Total) Ac.Ft)	253					4291	17232	17093					38,869

KINGS RIVER WATER ASSOCIATION

KINGS RIVER (NORTH FORK) BELOW ISLAND WEIR - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							230	302	137				
2							280	326	100				Gage Heights
3							343	386	91				by Water Stage
4							343	426	96				Recorder
5							347	395	91				
6							295	344	102				
7							369	343	97				
8							372	351	89				
9							372	295	74				
10							430	292	57				
11							425	292	35				
12							292	274	25				
13							303	283	13				
14							300	299	5				
15							230	303					
16							270	296					
17							296	307					
18							296	296					
19							261	296					
20							216	295					
21							221	304					
22						191	227	311					
23						463	238	311					
24						306	251	304					
25						178	236	308					
26						147	217	343					
27						176	227	347					
28						247	214	327					
29						242	201	327					
30						230	195	304					
31							255	238					Year
Max.						463	430	426	137				
Min.						0	195	238	0				
Mean						73	282	317	34				
Total) Ac.Ft)						4316	17329	19454	2004				43,103

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW CRESCENT WEIR - Daily Discharge in Second Feet for the Year 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							220	273	23				
2							241	290	3				Gage Heights
3							284	236	2				by Water Stage
4							282	230					Recorder
5							282	235					
6							249	230					
7							285	231					
8							290	260					
9							273	224					
10							293	160					
11							319	133					
12							256	155					
13							228	162					
14							257	169					
15							207	169					
16							204	155					
17							247	177					
18							236	156					
19							239	163					
20							212	151					
21							206	145					
22							208	144					
23						372	214	150					
24						299	235	143					
25						209	230	136					
26						150	202	161					
27						177	222	183					
28						223	215	181					
29						250	196	181					
30						239	186	179					
31							233	117					Year
Max.						372	319	290	23				
Min.						0	186	117	0				
Mean						64	240	183	1				
Total) Ac.Ft)						3800	14753	11244	55				29,852

KINGS RIVER WATER ASSOCIATION

OPERATION OF THE PINE FLAT PROJECT FOR CONSERVATION STORAGE DURING THE YEAR 1954

Twenty members of the Kings River Water Association, the Circle "L" Farms, and the Kings River Water District contracted with the Kings River Conservation District for space in the Pine Flat Reservoir during the year 1954. Storage began on February 13, 1954.

There is presented on page 102 of this report a financial statement listing the names of the contracting units, the storage space requested, adjusted release from storage, and the advance payment and total payment as provided in the Interim Contract. (For the complete text of this Contract see Appendix "A" of this report.)

On the succeeding pages are tabulations showing the daily changes in storage by each of the participating units and the total release from storage by months and for the year.

These tabulations were compiled from the records in this office based on the daily inflow and outflow from the reservoir with adjustments for evaporation from and rainfall on the reservoir surface.

The Corps of Engineers based its determination of release from storage very largely on change in elevation of the reservoir surface. In a communication dated February 4, 1955, the Regional Director of the Bureau of Reclamation advised the Conservation District as follows:

"Gentlemen:

Please refer to my January 7, 1955, letter which transmitted Bill for Collection Number K-55-1. When payment of this bill is made you may deduct $2,176.50. This reduction is in accordance with the Corps of Engineers' revised Reservoir Storage and Loss Summary, dated January 26, 1955, for the months of February 1954 to December 1954, inclusive. The revised summaries show, to the end of December, a total of 380,049 acre-feet of Kings River Conser-

vation District water has been drawn from storage, and this quantity is subject to the terms of the interim contract Number 14-06-200-2365 between your District and the United States."

It will be noted that the sum of the quantities withdrawn from storage by the several units is somewhat larger than that indicated in the above letter. This is due partly to the Corps of Engineers revision of Reservoir Storage and Loss Summary and to a peculiar circumstance which can be explained as follows. Let us assume that on a certain day one unit withdraws 100 sec. ft. and another unit stores 100 sec. ft. the Corps of Engineers' report would show no change in storage while our report would show the release of 100 sec. ft. from storage.

Turning again to the tabulation on the next page of this report, the quantities appearing in the column headed "Adjusted Release from Storage" were obtained by scaling down our figures ratably to equal the total 380,049 ac. ft. as determined by the Corps of Engineers.

KINGS RIVER CONSERVATION DISTRICT

FINANCIAL STATEMENT
of
Pine Flat Storage Operations
During 1954

UNIT	Storage Space Requested Ac. Ft.	Adjusted Release From Storage Ac. Ft.	Advance Payment	Total Payment @ $1.50 per Ac. Ft.
	(1)	(2)	(3)	(4)
Alta Irrigation District	75,000	49,151	2,609.60	73,726.50
Clarks Fork (Reclamation District 2069)	1,500	1,888	52.19	2,832.00
Consolidated Irrigation District	100,000	25,077	3,479.47	37,615.50
Corcoran Irrigation District	30,000	8,559	1,043.85	12,838.50
Crescent Canal Company	15,000	12,759	521.93	19,138.50
Empire West Side Irrigation District	13,000	5,201	452.32	7,801.50
Fresno Irrigation District	90,000	36,264	3,131.52	54,396.00
James Irrigation District	10,000	14,218	347.95	21,327.00
John Heinlen Mutual Water Company	4,000	6,979	139.17	10,468.50
Laguna Irrigation District	44,000	24,097	1,530.98	36,145.50
Last Chance Water Ditch Company	35,000	25,172	1,217.83	37,758.00
Lemoore Canal & Irrigation Company	100,000	24,790	3,479.47	37,185.00
Liberty Canal Company	4,000	4,815	139.18	7,222.50
Circle "L" Farms (Estate of M. Lovelace)	2,000	979	69.57	1,468.50
Murphy Slough & Burrel Ranch	44,000	23,022	1,530.97	34,533.00
Peoples Ditch Company	50,000	61,787	1,739.72	92,680.50
Stinson Canal & Irrigation Company	5,000	12,494	173.98	18,741.00
Stratford Irrigation District	6,000	7,531	208.78	11,296.50
Tranquillity Irrigation District	2,500	7,373	86.98	11,059.50
Tulare Lake Basin Water Storage District	77,000	24,150	2,679.20	36,225.00
Upper San Jose	4,000	3,095	139.18	4,642.50
Kings River Water District	8,000	648	278.35	972.00
TOTALS	720,000	380,049	$25,052.19	$570,073.50

KINGS RIVER WATER ASSOCIATION

ALTA IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1				432	178	-703	-1040					
2				129	426	-933	-1089					The minus sign (-)
3				125	426	-1089	-1089					indicates a with-
4				594	129	-1089	-1089					drawal from stor-
5				594	129	-1089	-1056					age
6				792	-119	-1089						
7			237	772	-624	-1089						
8			344	711	-1010	-1089						
9			495	695	-1208	-911						
10		1861	495	764	-1010	-1010						
11		990	495	586	-1208	-1010						
12			495	782	-1131	-1010				204		
13			495	792	-1208	-1010						
14	543		774	792	-1356	-1010						
15	580		1386	822	-1139	-1010				323		
16			1782	792	-448	-1010				913		
17			1980	792	148	-1010				277		
18			2079	834	99	-1010				75		
19	245		2128	1000	99	-1010				24		
20			2127	1151	99	-1010				2		
21			1317	1077	99	-1188						
22			1412	956	99	-1188						
23			723	772	117	-1188						
24			804	574	99	-1188						
25			849	574	99	-1188						
26			659	376	99	-1238						
27			798	376	-194	-1238						
28			1449	261	-792	-842						
29			1337	376	-1188	-990						
30			891	376	-515	-1039						
31		792		178		-1040						Totals
Into Storage:	+1368	+3643	+25551	+19847	+2345	0	0			+1818		54,572
From Storage:	0	0	0	0	-13150	-32518	-5363			0		-51,031
Correction :	-13	-96	-208	+364	-1189	-581	0			+111	+78	-1,534
Storage :	1355	4902	30245	50456	38462	5363	0			1929	2007	2,007

KINGS RIVER WATER ASSOCIATION

CLARKS FORK (RECLAMATION DISTRICT 2069) - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						-50	-40					
2						-20	-40					The minus sign
3							-40					(-) indicates a
4							-40					withdrawal from
5							-40					storage
6				59			-40					
7				59			-40					
8				57			-40					
9				59			-40					
10		59		57			-40					
11				58		-85	-40					
12				57		-85	-40					
13				59		-79	-40					
14	57			59		-30	-42					
15	57			59		-30	-33					
16				60		-30						
17				59		-30						
18				59		-30						
19			59	59		-30						
20			59	59		-30						
21			59	59	-97	-30						
22			59	59	-95	-30						
23			59	59	-97	-30						
24			59	59	-55							
25			59	60	-49							
26			59	59	-50							
27			60	-63	-50							
28			59		-50							
29			59		-50							
30					-50							
31						-40						Totals
Into Storage:	+114	+59	+650	+1234	0	0	0					2,057
From Storage:	0	0	0	-63	-643	-659	-595					-1,960
Correction :	-1	-4	-10	+8	-52	-38	0					-97
Storage :	113	168	808	1987	1292	595	0					0

KINGS RIVER WATER ASSOCIATION

CONSOLIDATED IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1			150	-412	-479	-673						
2				-727	-455	-703						The minus sign
3				-735	-281	-1000						(-) indicates
4			42	-212	-281	-1045						a withdrawal
5			133	330	-281	-1028						from storage
6			275	578	-677							
7			396	560	-1469							
8			-430	602	-523	-1287						
9			-582	479	-380	-1287						
10		1729	-495	592	-196	-1139						
11		990	-384	372	-380							
12		371	-565	638	-380							
13		63	-432	679	-311							
14	988		-30	679	-723							
15	1140		549	679	-554							
16			875	679	109	16				39		
17			380	580	531							
18	79		479	715	469							
19	244		20	1158	79							
20				1651	-6							
21		95	44	1358	141							
22		178	-345	960	271							
23		194	-267	362	-10							
24			-277	164	-10							
25			-204	65	-10							
26			-315	16	-233							
27			-83	-73	-503							
28			87	-281	-988							
29		4	2	-83	-784							
30		297	-34	-147	-566							
31		990		-281								Totals
Into Storage:	+2451	+4911	+3432	+13896	+1600	+16				+39		26,345
From Storage:	0	0	-4443	-2951	-10480	-8162				0		-26,036
Correction :	-23	-119	+118	+6	-236	0		-3		+3	+2	-252
Storage :	2428	7220	6327	17278	8162	16	16	13	13	55	57	57

KINGS RIVER WATER ASSOCIATION

CORCORAN IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					-303		-150					
2					-242		-150					The minus sign
3					-261		-148					(-) indicates a
4					-226		-149					withdrawal from
5					-224		-148					storage
6				123	-249		-149					
7				347	-261		-147					
8				339	-243		-149					
9				970	-243		-152					
10				966	-243		-150					
11					-244		-149					
12					-247		-149					
13				239	-253		-152					
14	113			226	-244		-152					
15	141			372	-234		-149					
16				353	-248		-150					
17				24	-248		-153			4		
18				988			-148					
19			6	988			-153					
20			6	988			-148					
21			2	990			-148					
22			14	990			-148					
23			26	99			-148					
24			34				-149					
25			38				-146					
26			18				-149					
27			12				-58					
28			18									
29			6									
30				-297								
31				-287		-148						Totals
Into Storage:	+254	0	+180	+9002	0	0	0			+4		9,440
From Storage:	0	0	0	-584	-4213	-148	-3941			0		-8,886
Correction :	-2	-6	+2	-46	-143	-227	-128			0		-550
Storage :	252	246	428	8800	4444	4069	0			4	4	4

KINGS RIVER WATER ASSOCIATION

CRESCENT CANAL CO. - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							-400	-97				
2							-398	+101				The minus sign
3							-396	-99				(-) indicates a
4					297		-295	-99				withdrawal from
5				297	198		-297	-99				storage
6				394			-249	-99				
7				396			-244	-49				
8				388			-248					
9				390			-356					
10		289		390			-349					
11				380			-297					
12				382			-297					
13				394			-354					
14	238			394			-358					
15	249			394			-351					
16				394			-351			4		
17				394			-356					
18			291	398			-345					
19	95		297	412			-428					
20			299	424			-610					
21			297	422	-390		-806					
22			311	410			-810					
23			327	396			-838					
24			337	396			-447					
25			342	396			-442					
26			317	396			-400					
27			309	297			-398					
28			316	297			-374					
29			303	297			-350					
30			124	297			-269					
31							-101					Totals
Into Storage:	+582	+289	+3870	+9825	+495	0	0	0		+4		15,065
From Storage:	0	0	0	0	-390	0	-12214	-643		0		-13,247
Correction :	-5	-23	-62	+9	-430	-739	-564	0		0		-1,814
Storage :	577	843	4651	14485	14160	13421	643	0		4	4	4

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							-151					
2							-150					The minus sign
3							-149					(-) indicates a
4							-148					withdrawal from
5							-149					storage
6				206			-148					
7				206			-146					
8				202			-148					
9				202			-153					
10		208		200			-149					
11				107			-148					
12				198			-148					
13				206			-109					
14	168			206								
15	206			206		-148						
16				206		-149						
17				206		-148						
18				206		-148						
19			62	206		-148						
20			61	206		-148						
21			44	206	-196	-148						
22			125	206	-190	-148						
23			165	206	-97	-148						
24			166	158	-111	-149						
25			166	152	-99	-148						
26			155	71	-99	-146						
27			121		-99	-152						
28			154		-99	-144						
29			61			-146						
30						-148						
31						-148						Totals
Into Storage:	+374	+208	+1280	+3968	0	0	0					5,830
From Storage:	0	0	0	0	-990	-2514	-1896					-5,400
Correction :	-3	-15	-15	-98	-156	-143	0					-430
Storage :	371	564	1829	5699	4553	1896	0					0

KINGS RIVER WATER ASSOCIATION

FRESNO IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		697	970	178	10	-317	103	-12	-108		198	
2		546	752	277	-20	-317	-170	- 8	- 12		198	The minus sign
3		515	564	218	-20	-335	-147	- 6	- 12		198	(-) indicates a
4		415	636	218	-20	-416	-141	-12	- 12		297	withdrawal from
5		-40	574	218	-20	-416	-156	- 6	- 12		198	storage
6		-67	485	218	-20	-487	-168	-12	- 12		198	
7		-101	485	190	-20	-564	-166	-10	- 12		218	
8		-79	436	202	-119	-564	-160	- 8	- 12		188	
9		259	311	54	-144	-564	-158	- 8	- 12		127	
10		1013	115	170	-119	-564	-158	- 6	- 12		214	
11		1013	79	115	-200	-677	-158	- 8	- 12		216	
12		816	14	109	-69	-942	-133	- 4	- 12		200	
13	55	618		129	-133	-1166	-129	- 8	- 12		180	
14	907	509		129	-168	-1087	-139	- 6	- 12		148	
15	946	267		178	-148	-879	-119	- 6	- 12		89	
16	735	123	-218	178	46	-297	-119	-36	- 12	22	87	
17	737	224	-218	129	50	-531	-109	91	- 12		63	
18	673	352	-218	303	50	-879	-99	20	- 12		63	
19	693	77	-251	806	50	-1125	-109	-38	- 12		65	
20	736	514	-253	1261	50	-1338	-113	-26	-6		59	
21	736	822	-269	1083	49	-1485	-95				59	
22	736	796	-186	713		-1606	-99	-20			59	
23	736	608	-147	109		-1665	-97				59	
24	736	608	-73	109	-49	-1708	-111	36			59	
25	736	673	-34	20	-99	-1841	-101	-30			59	
26	341	622	-133	10	-99	-1717	-26	-34			59	
27	79	455	-75	10	-99	-1683	-10	-18			59	
28	79	608	14	10	-198	-1584	-14	-16			59	
29		742	24	10	-317	-1590	-14	-14			59	
30		940	-20	10	-317	-440	-12	-28			59	
31		841		10		-129	-18				59	Totals
Into Storage:	+9661	+15673	+5479	+7374	+305	0	+103	+147	0	+22	+3853	42,617
From Storage:	0	-287	-2095	0	-2398	-28913	-3248	-380	-330	0	0	-37,651
Correction :	-96	-294	+687	+365	-1014	-538	-99	-105	+3	+2	+138	-951
Storage :	9565	24657	28728	36467	33360	3909	665	327	0	24	4015	4,015

KINGS RIVER WATER ASSOCIATION

JAMES IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						-394	-200					
2						-198	-200					The minus sign
3						-196	-198					(-) indicates a
4						-245	-196					withdrawal from
5				303		-245	-198					storage
6				477		-245	-198					
7				479		-245	-196					
8				469		-253	-198					
9				469		-198	-204					
10		69		467		-218	-200					
11				380		-212	-198					
12				463		-214	-198					
13				477		-198	-202					
14	2			477		-196	-204					
15	4			477		-198	-198					
16				477		-198	-200			4		
17				477		-198	-202					
18			309	477		-196	-196					
19			350	479		-198	-204					
20			354	481		-196	-198					
21			352	483	-390	-196	-198					
22			374	481	-382	-198	-4					
23			396	479	-384	-196						
24			416	479	-442	-196						
25			424	479	-394	-198						
26			382	331	-400	-196						
27			370	331	-394	-202						
28			382	133	-397	-192						
29			358	267	-392	-196						
30				265	-390	-198						
31						-198						Totals
Into Storage:	+6	+69	+4467	+11057	0	0	0			+4		15,603
From Storage:	0	0	0	0	-3965	-6607	-4190			0		-14,762
Correction :	0	-2	-92	+49	-414	-288	-90			0		-837
Storage :	6	73	4448	15554	11175	4280	0			4	4	4

KINGS RIVER WATER ASSOCIATION

JOHN HEINLEN MUTUAL WATER CO. - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						-20	-319					
2						-20	-319					The minus sign
3						-20	-317					(-) indicates a
4						-20	-315					withdrawal from
5						-20	-317					storage
6				335		-20	-319					
7				337		-20	-313					
8				329		-20	-317					
9				331		-20	-327					
10		137		329		-22	-220					
11				133		-22	-218					
12				135		-22	-218					
13				335		-20	-222					
14	137			335		-20	-335					
15	137			335		-20						
16				335		-218						
17				184		-218						
18				336		-216						
19			135	337		-218						
20			137	337		-216						
21			137	337	-49	-216						
22			139	337	-48	-119						
23			139	279	-48	-119						
24			139	138	-22	-148						
25			139	139	-20	-148						
26			139	139	-20	-146						
27			139		-20	-123						
28			139		-20	-115						
29			139		-20	-119						
30					-20	-119						
31						-119						Totals
Into Storage:	+274	+137	+1521	+5832	0	0	0					7,764
From Storage:	0	0	0	0	-287	-2883	-4076					-7,246
Correction :	-3	-11	-24	+9	-222	-267	0					-518
Storage :	271	397	1894	7735	7226	4076	0					0

KINGS RIVER WATER ASSOCIATION

LAGUNA IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		26	28	-8	-255	-857		30	30	20	18	
2		26	30	-454	12	-861		30	30	20	20	The minus sign
3		26	30	-438	63	-857		30	30	20	20	(-) indicates a
4		26	28	91	156	-853	24	30	30	20	85	withdrawal from
5		26	28	275	152	-859	24	30	30	20	24	storage
6		26	28	394	-382	-855	24	30	30	20	24	
7		26	28	394	-679	-855	24	30	30	20	24	
8		26	28	871	-630	-885	22	30	30	20	22	
9		26	28	893	-634	-514	22	30	30	20	24	
10		788	28	893	-631	-73	20	30	30	20	85	
11		337	28	853	-647	-81	20	30	30	20	26	
12		152	28	859	-644	-83	18	30	30	24	24	
13		26	28	636	-673	-73	20	30	18	24	24	
14	123	24	87	636	-649	-75	22	30	20	22	24	
15	226	24	87	800	-630	-73	20	30	20	24	24	
16	61	24	93	552	-645	-71	28	30	20	97	24	
17	28	23	576	507	-600	-73	30		20	24	24	
18	109	24	679	531	-570	-4	28		20	24	22	
19	125	24	695	640	-600	-6	30		20	24	24	
20	28	24	699	651	-699	-5	30		20	24	24	
21	28	26	695	649	-685		30		20	24	22	
22	28	26	729	539	-519		30		20	24	24	
23	28	24	764	410	-190		30		20	24	24	
24	28	24	788	428	-339		30		20	24	24	
25	28	25	802	422	-693		30		20	24	22	
26	28	24	743	390	-701		30		20	24	22	
27	28	24	149	287	-741		30		20	24	20	
28	28	24	141	55	-746		30		20	24	22	
29		26	107	-83	-758		30		20	24	22	
30		71	93	-119	-849		30		20	24	22	
31		202		-115			30		20		22	Totals
Into Storage:	+924	+2200	+8295	+13656	+383	0	+736	+480	+738	+747	+832	28,991
From Storage:	0	0	0	-1217	-15789	-8013	0	0	0	0	0	-25,019
Correction :	-9	-55	-85	+143	-430	-3	+21	-235	+68	+166	+137	-282
Storage :	915	3060	11270	23852	8016	0	757	1002	1808	2721	3690	3,690

KINGS RIVER WATER ASSOCIATION

LAST CHANCE WATER DITCH COMPANY - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		-327	253	-105	69	-273	-600					
2		-444	251	-263	156	-275	-598					The minus sign
3		-513	277	-243	129	-277	-396					(-) indicates a
4		-511	313	-6	182	-309	-394				163	withdrawal from
5		-430	227	107	182	-307	-396				51	storage
6		-394	261	147	95	-348	-398				2	
7		-369	251	643	-20	-382	-390				73	
8		-428	267	630	4	-422	-398					
9		-582	281	644		-406	-408					
10		-103	251	644	4	-493	-398				163	
11		-130	213	568	-10	-560	-398				75	
12		-180	239	622	-2	-564	-398				71	
13		148	227	642	-22	-515	-404				73	
14	441	51	220	642	-12	-513	-351				73	
15	471	16	269	642	-14	-517					69	
16	313	2	473	641	-16	-331				8	32	
17	311	-2	228	642	32	-467					14	
18	291	20	257	661	85	-513					14	
19	315	10	265	737	34	-513					18	
20	311	16	-48	806	32	-511					16	
21	277	172		784	37	-511					6	
22	243	202	20	727	99	-521						
23	235	-10	44	644	99	-513						
24	279	-12	85	594	50	-513						
25	309	18	91	592	85	-515						
26	308	22	12	594	32	-513						
27	308	18	50	608	-14	-531						
28	309	16	42	182	-265	-497						
29		150	8	210	-275	-513						
30		145	-6	194	-271	-517						
31		18		93		-519						Totals
Into Storage:	+4721	+1002	+5375	+14640	+1406	0	0			+8	+913	28,065
From Storage:	0	-4457	-54	-617	-921	-14159	-5927			0	0	-26,135
Correction :	-41	+44	+77	-13	-618	-458	0			+1	+36	-972
Storage :	4680	1269	6667	20677	20544	5927	0			9	958	958

KINGS RIVER WATER ASSOCIATION

LEMOORE CANAL & IRRIGATION COMPANY - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		51	313	95	-378	-471	-265			71	91	
2			309	40	-180	-475	-263			71	99	The minus sign
3		-76	321	50	-36	-477	-261			75	119	(-) indicates a
4			313	289	156	-505	-259			75	216	withdrawal from
5			313	608	162	-10	-261			75	143	storage
6		33	313	889	-56	-53	-263			73	136	
7		54	313	889	-176	-87	-261			71	144	
8		37	313	871	-140	-117	-277			71	137	
9		-18	309	883	-144	-109	-301			75	136	
10		604	309	879	-142	-166	-214			75	404	
11		134	309	758	-152	-378	-230			81	138	
12		-22	309	859	-150	-382	-139			158	141	
13		-99	309	889	-172	-538	-149			136	145	
14		-109	301	889	-155	-537	-30			127	145	
15	103	-162	350	889	-152	-539	40			156	145	
16	226	-220	533	889	-164	-428	44			277	138	
17	63	-270	36	887	-117	-535	28			156	138	
18	-44	-149	85	903	-160	-537	4			148	138	
19	206	-192	79	956	-216	-537				144	139	
20	47	-160	46	1006	-416	-731				142	139	
21	-81	-85	-6	988	-402	-729				140	137	
22	-81	132	-14	950	-331	-545				138	139	
23	-57	-16	-12	889	-239	-537				138	141	
24	-77	-16	-285	-40	-352	-537				140	131	
25	24	18	-291	-49	-358	-242				140	135	
26	265	-32	-135	-65	-416	-242				138	127	
27	113	33	-63	-210	-457	-253				138	117	
28	53	31	-97	48	-463	-232				138	115	
29		186	-105	-73	-469	-240				138	129	
30		297	196	-103	-463	-244				139	123	
31		402		-329		-244					125	Totals
Into Storage:	+1100	+2012	+5679	+17293	+318	0	+116			+3644	+4450	34,612
From Storage:	-340	-1635	-1008	-869	-7056	-11657	-3173			0	0	-25,738
Correction :	-8	-30	+125	+89	-553	-287	+3	-23	+4	+231	+300	-149
Storage :	752	1099	5895	22408	15117	3173	119	96	100	3975	8725	8,725

KINGS RIVER WATER ASSOCIATION

LIBERTY CANAL COMPANY - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1				-149	-182	-295						
2				-150		-297						The minus sign
3				-145	184	-295						(-) indicates a
4				-149	198	-291						withdrawal from
5				50	198	-295						storage
6				49		-293						
7				50		-293						
8				194		-305						
9				196		-295						
10		145		194		-215						
11		20		190								
12				192								
13				123								
14	103			123								
15	103			172								
16	57			97						2		
17				83								
18	95		145	83								
19	95		149	91								
20			150	71								
21			149	79								
22			158	65								
23			164	53								
24			170	59								
25			174	57								
26			160	55								
27			14	42	-295							
28			10	57	-297							
29			4	28	-317							
30			-2	20	-295							
31				-144								Totals
Into Storage:	+453	+165	+1447	+2473	+580	0				+2		5,120
From Storage:	0	0	-2	-737	-1386	-2874				0		-4,999
Correction :	-4	-15	-17	+27	-110	0				0		-119
Storage :	449	599	2027	3790	2874	0				2	2	2

KINGS RIVER WATER ASSOCIATION

CIRCLE "L" FARMS - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1												The minus sign
2							-14					(-) indicates a
3							-59					withdrawal from
4							-59					storage
5							-59					
6				40								
7				40								
8				40								
9				40								
10		40		40								
11				18								
12				38			-79					
13				40			-81					
14	34			39			-81					
15	40			40			-79					
16				40			-79					
17				40			-81					
18				40			-79					
19				40			-35					
20				40								
21				40								
22			22	40	-77							
23			40	40	-77							
24			39	40	-77							
25			40	40								
26			36									
27			14									
28			36									
29												
30												Totals
31												
Into Storage:	+74	+40	+227	+775	0		0					1,116
From Storage:	0	0	0	0	-231		-785					-1,016
Correction :	-1	-3	-2	+2	-30	-45	-21					-100
Storage :	73	110	335	1112	851	806	0					0

KINGS RIVER WATER ASSOCIATION

MURPHY SLOUGH - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		26	28	-303	-333		24	30	30	20	18	
2		26	30	-654	-570		24	30	30	20	18	The minus sign
3		26	30	-632	-552		24	30	30	20	22	(-) indicates a
4		26	28	-305	-402		24	30	30	20	83	withdrawal from
5		26	28	-95	-402		24	30	30	20	24	storage
6		26	28	95	-681		24	30	30	20	22	
7		26	28	101	-992		24	30	30	20	24	
8		26	28	774	-921		22	30	30	20	24	
9		26	28	786	-925		22	30	30	20	22	
10		786	28	786	-922		20	30	30	20	85	
11		289	28	568	-939		18	30	30	20	28	
12		152	28	764	-941		18	30	30	24	24	
13	2	26	28	485	-776		20	30	20	24	24	
14	166	24	85	485	-746		22	30	20	22	24	
15	285	24	87	681	-721	24	20	30	20	24	24	
16	61	24	93	386	-744		26	30	20	95	24	
17	28	23	479	335	-699		28		20	24	22	
18	109	24	679	337	-669	-6	30		20	24	24	
19	125	24	681	382	-699	-4	30		20	24	24	
20	28	24	687	317	-699	-5	30		20	24	22	
21	28	26	689	345	-667	26	30		20	24	24	
22	28	26	697	277	149	24	30		20	24	24	
23	28	24	701	218	2	26	30		20	24	24	
24	28	24	206	40	-55	24	30		20	24	22	
25	28	26	200	34	-63	26	30		20	24	24	
26	28	24	172	20	-4	24	30		20	24	22	
27	28	24	216	-20	-2	26	30		20	24	22	
28	28	24	196	-53		24	30		20	24	20	
29		26	-4	-75	20	26	30		20	24	22	
30		69	-105	-166		24	30		20	24	22	
31		200		-196		26	30		20		22	Totals
Into Storage:	+1028	+2147	+6236	+8216	+171	+300	+804	+480	+740	+745	+830	21,697
From Storage:	0	0	-109	-2499	-15144	-15	0	0	0	0	0	-17,767
Correction :	-10	-56	-38	+143	-85	-10	+15	-300	+81	+185	+149	+74
Storage :	1018	3109	9198	15058	0	275	1094	1274	2095	3025	4004	4,004

KINGS RIVER WATER ASSOCIATION

BURREL RANCH - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						-119	-119					
2						-119	-119					The minus sign
3						-119	-119					(-) indicates a
4					30	-119	-119					withdrawal from
5				99		-119	-119					storage
6				247		-119	-119					
7				297		-119	-117					
8				291		-123	-119					
9				291		-119	-123					
10				289		-131	-119					
11				190		-137	-119					
12				240		-129	-119					
13				297		-119	-121					
14				297		-119	-123					
15				297		-119	-59					
16				297		-119				2		
17				246		-119						
18			97	297		-119						
19			97	297		-119						
20			97	297		-119						
21			97	297		-119						
22			99	297		-119						
23			99	248		-119						
24			99	63		-119						
25			99	59		-119						
26			99	-91		-119						
27			99	-109		-123						
28			99	-89		-115						
29			99	-129	-117	-117						
30				-20	-117	-119						
31						-119						Totals
Into Storage:			+1180	+5233	+30	0	0			+2		6,445
From Storage:			0	-438	-234	-3731	-1733			0		-6,136
Correction :			-25	+17	-172	-127	0			0		-307
Storage :			1155	5967	5591	1733	0			2	2	2

KINGS RIVER WATER ASSOCIATION

PEOPLES DITCH COMPANY - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		-220	626	430	396	-402	-915	-871	12	69	40	
2		-376	620	319	600	-406	-913	-905	-6	73	59	The minus sign
3		-471	637	331	572	-412	-905	-895	-10	75	128	(-) indicates a
4		-471	624	428	630	-471	-899	-885	-10	75	376	withdrawal from
5		-362	626	655	715	-467	-903	-895	-6	73	285	storage
6		-313	626	679	640	-550	-909	-883	-10	73	273	
7		-392	626	1087	430	-612	-901	-890	-16	71	289	
8		-358	626	1065	450	-691	-966	-794	-14	73	267	
9		-564	615	1089	441	-665	-1018	-812	-14	73	259	
10			615	1091	691	-822	-1006	-644		75	560	
11		-59	616	949	667	-810	-865	-349	14	81	279	
12		-131	616	1004	691	-814	-869	-349	28	319	283	
13	125	-200	616	1077	671	-733	-790	-329	143	230	289	
14	471	-220	602	1063	661	-728	-804	-353	125	142	289	
15	713	-327	699	1085	632	-733	-790	-349	129	311	289	
16	458	165	840	1085	560	-515	-796	-263	127	717	283	
17	439	289	863	1036	564	-727	-762		133	311	275	
18	436	289	873	1122	465	-729	-739		135	301	275	
19	467	289	919	1279	-32	-729	-762		137	291	275	
20	438	289	921	1422	-32	-725	-739		139	285	275	
21	404	459	907	1372	-20	-723	-739		139	255	275	
22	388	509	186	1257	8	-741	-742		137	239	271	
23	382	293	267	1038	4	-729	-739		137	247	277	
24	406	293	366	988	-234	-727	-746		137	257	269	
25	419	495	396	988	-123	-731	-735		142	265	222	
26	432	297	198	988	-333	-729	-746		142	251	166	
27	434	289	218	754	-324	-760	-838		144	243	105	
28	432	289	485	784	-333	-703	-895		145	253	95	
29		402	384	732	-402	-727	-897		145	241	176	
30		509	338	602	-394	-737	-885		145	245	125	
31		586		584		-739	-907		145		153	Totals
Into Storage:	+6844	+5742	+17551	+28383	+10488	0	0	0	+2680	+6214	+7482	85,384
From Storage:	0	-4464	0	0	-2227	-20787	-26120	-10466	-86	0	0	-64,150
Correction :	-61	+10	+203	+221	-1829	-2272	-1157	-59	+14	+552	+614	-3,764
Storage :	6783	8071	25,825	54,429	60861	37802	10525	0	2608	9374	17470	17,470

KINGS RIVER WATER ASSOCIATION

STINSON CANAL & IRRIGATION COMPANY - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						-196	-150					
2						-198	-150					The minus sign
3						-196	-148					(-) indicates a
4					256	-147	-148					withdrawal from
5				297	20	-147	-148					storage
6				394		-147	-149					
7				396		-147	-147					
8				388		-152	-149					
9				388		-148	-152					
10		196		386		-164	-149					
11				380		-158	-149					
12				382		-160	-149					
13				394		-148	-151					
14	196			394		-148	-152					
15	196			394		-148	-149					
16				394		-148	-151			4		
17				394		-148	-153					
18			252	394		-148	-149					
19			291	394		-148	-153					
20			293	394		-148	-148					
21			293	396	-390	-146	-149					
22			295	396	-382	-148	-343					
23			295	396	-192	-148	-344					
24			295	396	-220	-146	-349					
25			295	396	-198	-149	-344					
26			295	396	-200	-149	-348					
27			295	297	-196	-153	-346					
28			295	297	-198	-144	-349					
29			295	297	-196	-147	-268					
30				297	-196	-148						
31						-148						Totals
Into Storage:	+392	+196	+3489	+9727	+276	0	0			+4		14,084
From Storage:	0	0	0	0	-2368	-4770	-5834			0		-12,972
Correction :	-4	-15	-60	+1	-384	-375	-271			0		-1,108
Storage :	388	569	3998	13726	11250	6105	0			4	4	4

KINGS RIVER WATER ASSOCIATION

STRATFORD IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						-196	-59					
2						-198	-60					The minus sign
3						-198	-59					(-) indicates a
4						-148	-59					withdrawal from
5						-148	-59					storage
6				299		-147	-149					
7				301		-147	-146					
8				295		-152	-148					
9				295		-148	-153					
10		196		293			-148					
11				155			-148					
12				291			-148					
13				299			-152					
14	194			299			-152					
15	194			301		148	-149					
16				301		148	-151					
17				299		148	-153					
18				301		-148	-148					
19			89	301		-148	-149					
20			87	301		-148	-44					
21			65	301	-196	-146						
22			176	301	-190	-148						
23			240	301	-97	-394						
24			240	230	-111	-394						
25			240	224	-99	-148						
26			224	105	-99	-146						
27			143		-99	-101						
28			224		-99	-95						
29			91		-99	-99						
30					-97	-99						
31						-59						Totals
Into Storage:	+388	+196	+1819	+5793	0	0	0					8,196
From Storage:	0	0	0	0	-1186	-4199	-2434					-7,819
Correction :	-3	-14	-27	+124	-229	-179	-49					-377
Storage :	385	567	2359	8276	6861	2483	0					0

KINGS RIVER WATER ASSOCIATION

TRANQUILLITY IRRIGATION DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							-200					
2						-198	-200					The minus sign
3						-198	-198					(-) indicates a
4						-196	-196					withdrawal from
5				155		-198	-198					storage
6				263		-196	-200					
7				263		-196	-107					
8				257		-202						
9				257		-196						
10		111		258		-220						
11				190		-212						
12				253		-214						
13				263		-198						
14	6			263		-196						
15	6			263		-198						
16				263		-198						
17				263		-198				4		
18			149	263		-196						
19			162	263		-198						
20			162	263		-196						
21			164	263	-196	-196						
22			168	263	-190	-198						
23			172	263		-196						
24			174	263		-196						
25			176	263		-198						
26			170	164		-196						
27			166	164		-202						
28			170	65		-192						
29			164	133		-196						
30				131		-198						
31						-198						Totals
Into Storage:	+12	+111	+1997	+5972	0	0	0			+4		8,096
From Storage:	0	0	0	0	-386	-5970	-1299			0		-7,655
Correction :	0	-4	-39	-43	-228	-123	0			0		-437
Storage :	12	119	2077	8006	7392	1299	0			4	4	4

KINGS RIVER WATER ASSOCIATION

TULARE LAKE BASIN WATER STORAGE DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1						-148	-550					
2						-148	-608					The minus sign
3						-148	-590					(-) indicates a
4						-147	-541					withdrawal from
5						-148	-543					storage
6				812		-149	-546					
7				1479		-147	-392					
8				1495		-153	-398					
9				1990		-148	-406					
10		598		1978		-164	-398					
11						-648	-398					
12				408		-652	-396					
13				1067		-602	-455					
14				1039		-600	-459					
15	123			1612		-602	-449					
16				1548		-542	-451					
17				465		-545	-457					
18				2022		-543	-442					
19				2022		-542	-457					
20				2443		-539	-198					
21				2026	-390	-539	-198					
22				2026	-382	-548	-198					
23			117	681	-145	-543	-198					
24			307	91	-164	-541	-91					
25			438	55	-149	-543						
26					-150	-540						
27					-148	-558						
28					-149	-527						
29					-146	-540						
30					-147	-545						
31						-546						Totals
Into Storage:	+123	+598	+862	+25259	0	0	0					26,842
From Storage:	0	0	0	0	-1970	-13285	-9819					-25,074
Correction :	-1	-18	-3	-93	-756	-695	-202					-1,768
Storage :	122	702	1561	26727	24001	10021	0					0

KINGS RIVER WATER ASSOCIATION

UPPER SAN JOSE - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							-69					
2							-139					The minus sign
3							-109					(-) indicates a
4							-109					withdrawal from
5							-109					storage
6				99			-109					
7				99			-107					
8				97			-109					
9				97			-152					
10		97		97			-150					
11				95			-148					
12				95			-148					
13				99			-111					
14	97			99			-113					
15	97			99			-101					
16				99								
17				99								
18				99		-69						
19			97	99		-69						
20			97	99		-69						
21			97	99	-97	-69						
22			99	99	-95	-69						
23			99	99	-30	-69						
24			99	99	-32	-69						
25			99	99	-30	-69						
26			99	99	-30	-69						
27			99		-50	-71						
28			99		-50	-67						
29			99		-50	-69						
30						-69						
31						-69						Totals
Into Storage:	+194	+97	+1083	+2065	0	0	0					3,439
From Storage:	0	0	0	0	-464	-966	-1783					-3,213
Correction :	-2	-8	-17	+11	-95	-115	0					-226
Storage :	192	281	1347	3423	2864	1783	0					0

KINGS RIVER WATER ASSOCIATION

KINGS RIVER WATER DISTRICT - Daily Change in Storage in Acre Feet for the Year 1954

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1								-34			57	
2								-34			61	The minus sign
3											67	(-) indicates a
4											87	withdrawal from
5											89	storage
6											89	
7											89	
8				6							89	
9				-18							87	
10				-12							81	
11				-2							83	
12				-2						39	87	
13							-12			12	83	
14			139				-12		-2	2	85	
15			123				-12		-2	31	89	
16			125				-12		-2	51	89	
17			99				-12		-2	53	91	
18			99				-12		-2	44	91	
19			99				-20		-2	38	91	
20			40				-44		-2	36	97	
21			39				-44		-2	32	97	
22							-44		-2	30	87	
23							-44		-3	32	87	
24							-44			32	87	
25							-34			34	79	
26							-34			32	73	
27							-34			32	67	
28							-34			32	65	
29							-34			30	77	
30							-34			61	70	
31							-34				73	Totals
Into Storage:			+763	+6	0	0	0	0	0	+653	+2544	3,966
From Storage:			0	-34	0	0	-550	-68	-21	0	0	-673
Correction :			-4	+11	-22	-38	-40	-4	+1	+40	+105	+49
Storage :			759	742	720	682	92	20	0	693	3342	3,342

Appendix "A"

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

INTERIM CONTRACT BETWEEN THE UNITED STATES OF AMERICA AND THE KINGS RIVER CONSERVATION DISTRICT

THIS CONTRACT, made this 4th day of February, 1954, pursuant to the Act of Congress approved December 22, 1944 (54 Stat. 887), between THE UNITED STATES OF AMERICA, hereinafter referred to as the United States, represented by the officer executing this contract, his duly appointed successor or his duly authorized representative, hereinafter referred to as the Contracting Officer, and the KINGS RIVER CONSERVATION DISTRICT, organized and existing under and by virtue of the laws of the State of California, hereinafter referred to as the District, with its principal place of business and office in the City of Fresno, State of California;

WITNESSETH, THAT:

EXPLANATORY RECITALS

WHEREAS, pursuant to the Act of Congress approved December 22, 1944 (54 Stat. 887), commonly known as the Flood Control Act of 1944, the United States is constructing Pine Flat Dam and Reservoir, hereinafter referred to as the Project, on the Kings River in the State of California, for flood control and water conservation purposes; and

WHEREAS, construction of the Project has progressed sufficiently to enable its operation during the runoff season of 1953-54 for flood control and water conservation for irrigation, two of the purposes for which it was authorized and is being constructed, without damage to the contractors constructing said Project; and

WHEREAS, the District, for the purpose of a temporary administration of the water to be stored from time to time in Pine Flat Reservoir and released from such storage, represents the parties to that certain Water Right Indenture dated May 3, 1927, recorded in the office of the County Recorder of the County of Fresno, State of California, in Volume 819 of Official Records, at page 431, et seq., and that certain Administrative Agreement dated May 3, 1927, and that certain Agreement Supplementing and Amending said Water Right Indenture and Administrative Agreement, executed on June 1, 1949, and recorded in the office of the County Recorder of Fresno County, State of California, in Volume 2817 of Official Records, at page 75, et seq., and the amended Kings River Monthly Diversion Schedule attached thereto and made a part thereof, who claim rights to divert and store water of Kings River under the laws of the State of California; and the

District is desirous of securing a more effective use of the natural flow of said river by operation of the Project and by controlled releases for irrigation purposes; and

WHEREAS, the United States claims certain rights to the use of the water of Fresno Slough originating in the Kings River, which claims are disputed by the District, and by the parties whom this District so represents, and it is not the intent of the parties by this agreement to alter or define said claims of the United States in any way; and

WHEREAS, the District and the United States are engaged in negotiations for a repayment contract, under which the District will reimburse the United States for the costs of the Project allocated to irrigation; and

WHEREAS, said negotiations may not be completed during the 1953-54 runoff season; and

WHEREAS, the District desires to obtain such benefits as may be derived from storage and release of water by the operation of the Project during the 1953-54 runoff season; and

WHEREAS, the United States is willing to operate the Project during the 1953-54 runoff season so as to make available to the District said benefits, subject to the terms and conditions following:

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, it is hereby mutually agreed by the parties hereto as follows:

SCOPE AND TERM OF CONTRACT

1. This contract provides only for the operation of the Project to render more effective the use of the natural flow of the Kings River by the storage of water subsequently to be released for irrigation purposes. This use shall be subordinate only to the use of the Project by the United States to store and release water for flood control purposes. The term of this contract shall commence on the day and year first above written and extend to December 31, 1954, or until a repayment contract is executed, whichever shall first occur. This contract grants to the District no right to the use of the Project for regulation or reregulation of upstream releases of water for power generation. Stored water released pursuant to this contract shall be utilized for agricultural purposes only.

RESERVOIR OPERATION

2. (a) The District, at any time during the term hereof, and at its option, may request the United States to store water in the reservoir of the Project for irrigation, and the United States shall release water so stored when and at the rate

requested by the District. The foregoing rights of the District to store water shall be subordinate to the use and operation of the Project for flood control purposes, and the extent and method of said flood control usage shall be as determined by the United States Army, Corps of Engineers.

(b) The District, acting by and through the Kings River Water Association, or any successor to said association, as enunciated in Article 2(c) hereof, shall notify the United States, from time to time, of the rate at which water shall be stored and released for irrigation. The United States shall honor these notices and shall operate the reservoir of the Project in accordance therewith, subject to the aforementioned flood control usage. Insofar as practicable, storage and release of water from the reservoir of the Project for agricultural and flood control purposes during the term of this contract shall balance to the end that no water is contained in the reservoir of the Project on December 31, 1954. All water in the reservoir of the Project on December 31, 1954, shall be subject to release in accordance with the flood control criteria of the United States Army, Corps of Engineers.

(c) The Kings River Water Association, or any successor which shall succeed to its powers under the Indenture and Agreements in this article described, as agent for the parties to said indenture and agreements, shall administer the diversion into storage, regulation and release of water in accordance with and in furtherance of the rights and applications of the parties to the Water Right Indenture of May 3, 1927, recorded in the office of the County Recorder of the County of Fresno, State of California, in Volume 819, Official Records, at page 431, et seq., the Administrative Agreement of May 3,1927, in the possession of the Association, the Agreement Supplementing and Amending Water Right Indenture, dated May 3, 1927, and supplementing and amending the Administrative Agreement dated May 3, 1927, executed on June 1, 1949, and recorded on January 27, 1950, in the office of the County Recorder of the County of Fresno, State of California, in Volume 2817 of Official Records, at page 75 et seq., and the amended Kings River Monthly Diversion Schedule attached thereto and made a part thereof, and any amendments and supplements thereto and any storage or release agreements, regulations, or instructions which may hereafter be adopted by the members of said Association.

(d) The execution of this contract and the performance of its terms shall not in any manner reduce or prejudice any of the water rights and applications therefor, present or future, of any of the members of the Association in or to any of the water of Kings River whether in natural direct flow or under storage control or release, or in or under any of the agreements mentioned in Article 2(c); and the District hereby recognizes and acknowledges all water rights existing under the laws of the State of California and agrees not to interfere or do anything in prejudice thereof.

COMPUTATION OF PAYMENT BY DISTRICT

3. The computation of the payment or payments to be made pursuant to Article 4 hereof, shall be made as follows:

(a) When stored water is being released solely at the request of the District, payment shall be at the rate of One Dollar and Fifty Cents ($1.50) per acre-foot for all decreases in storage, measured as daily amounts at the reservoir.

(b) When stored water is being released in excess of the amounts requested by the District, payment shall be at the rate of One Dollar and Fifty Cents ($1.50) per acre-foot for the amount of the actual total irrigation diversions of all units participating in storage in excess of the total entitlements of those units, as determined from the preproject Piedra flow and the Kings River Monthly Diversion Schedule, mentioned in article 2(c) hereof. Measurements of actual irrigation diversions shall be made at the headgates, and diversions and entitlements shall be measured as mean daily values.

PAYMENT BY DISTRICT

4. The District shall pay to the United States, at the Office of the Bureau of Reclamation, Department of the Interior, Sacramento, California, within thirty (30) days after the date on which a fully executed copy of this contract is delivered to the District, the sum of Twenty-five Thousand Dollars ($25,000), which shall constitute an advance payment for the storage and releases to be provided hereunder. If the total amount payable by the District determined as provided in Article 3 hereof, exceeds said advance payment of Twenty-five Thousand ($25,000), the balance due shall be paid by the District not later than ninety (90) calendar days after the District is notified by the Contracting Officer of the amount established as the said total amount payable. Said advance payment of Twenty-five Thousand Dollars ($25,000), however, shall constitute the minimum amount payable by the District for the operation and maintenance of Project works by the United States in accordance with the provisions of this contract and, therefore, no refund shall be made to the District in the event that the amount payable, computed as provided in Article 3 hereof, is less than said advance payment of Twenty-five Thousand Dollars ($25,000).

PAYMENT DELINQUENCY PENALTY

5. Upon every installment of money required to be paid by the District to the United States pursuant to this contract which shall remain unpaid after the same shall become due and payable, there shall be imposed a penalty of one-half ($\frac{1}{2}$) of one (1) percent per month of the amount of such delinquent installment from and after the date when the same becomes due until paid, and the District hereby agrees to pay said penalty.

OWNERSHIP AND PHYSICAL OPERATIONS

6. Title to all Project works shall be and remain in the name of the United States. Any and all physical operation of the dam and reservoir pursuant to this contract shall be performed by the United States Army, Corps of Engineers, and all notices to be given by the District pursuant to Article 2 hereof shall be given to the United States Army, Corps of Engineers.

AVAILABILITY OF GOVERNMENT FUNDS

7. 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 allotment being made. The failure of the Congress so to appropriate funds or the failure of an allotment of funds shall not relieve the District from any obligations then accrued under this contract, and no liability shall accrue to the United States in case such funds are not appropriated or allotted.

RELEASE

8. (a) The District agrees to indemnify and hold the United States harmless from any liability, responsibility, damage or claim of damage arising as the result or alleged result of the storing or release of water for irrigation purposes pursuant to this contract.

(b) The United States shall not be liable or responsible for the carriage, distribution, or division of water for irrigation purposes after its release from the reservoir, or for any loss or damage of any type or description arising therefrom, and the District agrees to indemnify and hold the United States harmless from any liability or responsibility arising therefrom.

(c) The District does not agree to indemnify against any obligation or liability arising out of operation of the Project for flood control purposes. The United States shall not be responsible for loss of water to which the District or those claiming by, through, or under the District are entitled and which has been stored in the reservoir of the Project and which has been released as a result of the operation of the Project for flood control purposes.

COVENANT AGAINST CONTINGENT FEES

9. The District warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees of the District. For breach or violation of this warranty, the United States shall have the right to annul this contract without liability or in its discretion to add to the contract price or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

OFFICIALS NOT TO BENEFIT

10. 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 therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

NOTICES

11. Any notice or announcement which the provisions hereof contemplate shall be given to one of the parties hereto by the other shall be deemed to have been given if deposited in the United States Post Office, on the part of the United States in a franked or postage prepaid envelope addressed to the District at its office, and on the part of the District in a postage prepaid envelope addressed to the District Engineer, Corps of Engineers, United States Army, Sacramento, California, where notice as provided herein is to be given to the United States Army, Corps of Engineers, or, when notice to the United States is otherwise provided herein, to the Bureau of Reclamation, Department of the Interior, Sacramento, California, or such other address as from time to time may be designated by the Contracting Officer in a written notice to the District: Provided, however, That this article shall not preclude the effective service of any such notice or announcement by other means.

ASSIGNMENT PROHIBITED: SUCCESSORS AND ASSIGNS OBLIGATED: DEFAULT

12. The provisions of this agreement shall apply to and bind the successors and assigns of the respective parties, but no assignment or transfer of this contract or any part thereof or interest therein shall be valid until and unless approved by the United States. Any waiver at any time by either party to this contract of its rights with respect to a default, or any other matter arising in connection with this contract, shall not be deemed to be a waiver with respect to any subsequent default or matter.

IN WITNESS WHEREOF, the parties hereto have executed this contract as of the day and year first above written.

THE UNITED STATES OF AMERICA

KINGS RIVER CONSERVATION DISTRICT

Appendix "B"

AGREEMENT BY PACIFIC GAS AND ELECTRIC COMPANY
WITH KINGS RIVER IRRIGATION INTERESTS
FOR POWER USE OF THE WATERS OF KINGS RIVER

THIS AGREEMENT, made and entered into this 20th day of December, 1954, between PACIFIC GAS AND ELECTRIC COMPANY, a corporation organized and existing under the laws of the State of California, hereinafter referred to as "PACIFIC" and the KINGS RIVER WATER ASSOCIATION, an unincorporated association, hereinafter referred to as "ASSOCIATION", and the members of said KINGS RIVER WATER ASSOCIATION, whose names are subscribed hereto;

W I T N E S S E T H :

WHEREAS, On December 21, 1951, the Federal Power Commission authorized issuance to Pacific of a License for Project Number 1988, and Amendment of License for Project Number 175 (Balch), for the construction of Wishon and Helms Reservoirs and power facilities on Kings River, California, hereinafter referred to as the "Power Project"; and

WHEREAS, as a prerequisite to the issuance of such License and Amendment the Federal Power Commission has ordered Pacific to submit satisfactory evidence of an agreement with the local irrigation interests providing for the use by Pacific of the waters involved for power purposes; and

WHEREAS, Association through its Water Master administers the waters of Kings River in accordance with that certain Water Right Indenture and that certain Administrative Agreement, both dated May 3, 1927, and that certain Agreement Supplementing and Amending said Water Right Indenture and Administrative Agreement, dated June 1, 1949, and the Amended Kings River Monthly Diversion Schedule attached thereto and made a part thereof, copies of each of which are on file with the Federal Power Commission; and

WHEREAS, Pacific has entered into a contract with the United States for purchase of water and delivery thereof from the Friant-Kern Canal of the Central Valley Project into Kings River in exchange for Kings River water to be retained for the account of Pacific in Pine Flat Reservoir subject to losses from evaporation or other causes at the sole cost and expense of Pacific; and

WHEREAS, Pacific has entered into an interim contract and is currently negotiating a permanent contract with the United States for storage of water for the account of Pacific in Pine Flat Reservoir whereby such storage will be entirely subordinate to irrigation storage in reservoir space not reserved by the United States for flood control purposes; and

WHEREAS, Pacific desires to enter into an agreement with Association and its members which will meet the foregoing require-

ment of the Federal Power Commission and which will enable Pacific to construct and operate the "Power Project" as hereinafter described.

NOW, THEREFORE, it is hereby mutually agreed by and between the parties hereto as follows:

1. Pacific shall acquire from any source such water as may be available for initial filling and subsequent operation of Power Project reservoirs and to replace losses therefrom resulting from evaporation or other causes; provided that any Kings River water not replaced pursuant to Article 2 hereof shall be acquired only after written notice to all members of the Association and with the written consent of members of Association whose rights are affected thereby and only with the written consent of the members of Association to which such water is scheduled, allocated and assigned by the provisions of said Water Right Indenture and said Administrative Agreement, both dated May 3, 1927, said Agreement dated June 1st, 1949, supplementing and amending said Water Right Indenture and said Administrative Agreement, and the 1949 Amended Kings River Monthly Diversion Schedule attached thereto and made a part thereof.

2. Pacific shall cause to be delivered to Association and Association shall accept, at practicable points satisfactory to Association, water of quality equal to Kings River water, acquired by Pacific from sources outside the Kings River watershed, at times, in amounts and at rates of flow satisfactory to Association.

3. Subject to performance of this contract and particularly compliance with Articles 1 and 2 hereof Pacific shall have the right to use the waters of Kings River for the generation of electric power at said Power Project and to retain in Power Project reservoirs and for its account in Pine Flat Reservoir a total amount of water equal to the quantity of water acquired by Pacific pursuant to Article 1, less losses resulting from evaporation or other causes; provided, however, that at no time shall the total amount of water retained by, or for the account of, Pacific above Piedra exceed the ultimate combined capacities of Power Project reservoirs, or 230,000 acre feet, whichever is the lesser.

4. Subject to adjustments for evaporation and other losses, water held by Pacific pursuant to Article 3 shall be accounted for as follows: The amount of decrease or increase each day in water held in Power Project reservoirs shall be a credit or debit, respectively, to the account of water held for Pacific in Pine Flat Reservoir.

5. At any time when no water is in storage in Pine Flat Reservoir for the account of Pacific, Pacific may nevertheless retain in Power Project reservoirs such part of the river flow as is then not requested by Association or any of its members for use downstream from the Power Project; provided, that Pacific shall release from Power Project reservoirs the water so retained whenever such release is so requested. Whenever Pacific is unable to fill Power Project reservoirs as provided in Article 3, Pacific, to the extent consistent with operational requirements of the Power Project, shall, at the request of ASSOCIATION, store and release water of its members in Power Project reservoirs.

6. To the extent that the United States recognizes that flood control space is provided by Power Project reservoirs and allows Pacific credit therefor, water may be held for the account of Pacific in space in Pine Flat Reservoir which otherwise would be reserved by the United States for flood control purposes. All water held for the account of Pacific in other space (that is, space which would have been available if there were no Power Project) in Pine Flat Reservoir during the term of this contract shall be entirely subordinate to irrigation storage therein. In the event that such other space in Pine Flat Reservoir, in the sole judgement of Association, is insufficient to satisfy storage requirements for irrigation, generation of power at Pine Flat Dam and for the account of Pacific in Pine Flat Reservoir, the first water released therefrom shall be deemed to be that held therein for the account of Pacific and such account shall be debited accordingly. In any year in which the United States Army Corps of Engineers, pursuant to its flood control criteria, orders the release of water from Pine Flat Reservoir, Pacific shall immediately proceed to store and thereafter continue to store water which Pacific is entitled to store, in Power Project reservoirs to the maximum extent consistent with operational requirements of the Power Project. Contracts by Pacific with the United States for use of Pine Flat Reservoir storage space shall provide that storage of water for the account of Pacific shall be in accordance with the provisions of this Agreement.

7. All water from any source stored, or to be stored for the account of Association, or any member of Association in Pine Flat Reservoir, is and shall be deemed to be stored for irrigation purposes, regardless of whether any such water may be used for the generation of electric power at Pine Flat Dam by Association, or any of its members, or Fresno Irrigation District as Trustee, or any successors or assigns of any of them.

8. (A) Pacific shall furnish, install, maintain and operate measuring and gauging stations and recording devices satisfactory to Association at sites approved by Association and shall furnish Association promptly with data and daily records obtained therefrom for use in the determination of:

(1) The mean daily outflow from each of the Power Project reservoirs and power plants;

(2) The increase or decrease each day in the amount of water held in each of the Power Project reservoirs;

(3) Evaporation and other losses from the Power Project reservoirs, which shall be determined by methods mutually satisfactory to Association, the Corps of Engineers of the United States Army and Pacific.

(4) The mean daily natural flow of the North Fork of Kings River.

(B) Association shall furnish promptly to Pacific records

of the determination of:

(1) The amounts of water received by Association in exchange for Kings River water retained above Piedra for the account of Pacific;

(2) The increase or decrease each day in the amount of water held for the account of Pacific in Pine Flat Reservoir; and

(3) Evaporation and other losses from Pine Flat Reservoir debited to the account of Pacific, which shall be determined by methods mutually satisfactory to Association, the Corps of Engineers of the United States Army and Pacific.

9. Pacific shall pay all expenses reasonably incurred by Association in the administration of this agreement. Such payments shall be made to Association whenever Association notifies Pacific of the amount of such expense.

10. Any notice or demand pursuant to the terms hereof may be given in writing to the parties hereto at the addresses appearing opposite their signatures at the end hereof.

11. Any waiver at any time by any party to this agreement of its rights with respect to a default, or any other matter arising in connection herewith, shall not be deemed to be a waiver with respect to any subsequent default or matter.

12. This agreement shall be effective as of the 14th day of May, 1954, and shall continue during the term of said License to Pacific for Project Number 1988 and said Amendment of License for Project Number 175, or any renewal or extension thereof.

13. As against Pacific its successors and assigns, the rights of the members of Association to the waters of Kings River are as set forth and provided in the said Water Right Indenture and Administrative Agreement of May 3rd, 1927, the said Agreement dated June 1st, 1949, supplementing and amending said Water Right Indenture and Administrative Agreement, and the 1949 Amended Kings River Monthly Diversion Schedule attached thereto.

Pacific agrees that it will not claim any right to water, or to the use of water, or storage rights on Kings River adverse to any rights of any member of Association, but that its rights to acquire, store or use water in the operation of its power project are as herein specifically provided for and not otherwise.

It is agreed that, except as expressly provided by this agreement, neither the execution nor the performance hereof is intended to, and it does not and will not affect or change in any manner whatsoever, or to any extent, any of the following agreements:

(A) That certain Water Right Indenture dated May 3, 1927, recorded in the office of the County Recorder of the County of Fresno,

State of California, in Volume 819 of Official Records at page 431 et seq.;

(B) That certain Administrative Agreement dated May 3, 1927;

(C) That certain Agreement Supplementing and Amending said Water Right Indenture and Administrative Agreement, executed on June 1st, 1949, and recorded in the office of the County Recorder of Fresno County, State of California, in Volume 2817 of Official Records, at page 75 et seq., and the Amended Kings River Monthly Diversion Schedule attached thereto and made a part thereof.

14. In the event that it becomes necessary for a party hereto to file suit to enforce performance or prevent a breach of any of the provisions of this agreement by another party hereto, or to secure damages for a breach of any provisions hereof by another party hereto, the unsuccessful party in such litigation shall pay such reasonable attorneys fees to the prevailing party in such litigation as the Trial, or Appellate Court may determine.

15. This agreement may be executed in parts, or counterparts, each part or counterpart being an exact duplicate of all other parts, or counterparts, and all parts, or counterparts shall be considered as constituting one complete original and may be attached together when executed by the parties hereto.

16. This Agreement and all the terms and provisions hereof shall inure to the benefit of and be binding upon the successors and assigns of the respective parties hereto; but this Agreement is not intended to and shall not alter or affect the rights of the members of the Association as among themselves.

IN WITNESS WHEREOF, the parties hereto, pursuant to resolutions duly and regularly adopted by their respective Boards of Directors have executed this Agreement as of the day and year first above written.

PACIFIC GAS AND ELECTRIC COMPANY

KINGS RIVER WATER ASSOCIATION

ALTA IRRIGATION DISTRICT

J. G. BOSWELL COMPANY

BURREL RANCH

CLARKS FORK RECLAMATION DIST. #2069

COHN CENTRAL CONSOLIDATED RECLAMATION DIST. #761

CONSOLIDATED IRRIGATION DISTRICT

CORCORAN IRRIGATION DISTRICT

CRESCENT CANAL COMPANY

CROCKET & GAMBOGY, INC.

EMPIRE WEST SIDE IRRIGATION DISTRICT

FRESNO IRRIGATION DISTRICT

GATES-JONES MUTUAL WATER COMPANY

JAMES IRRIGATION DISTRICT

JOHN HEINLEN MUTUAL WATER COMPANY

LAGUNA IRRIGATION DISTRICT

LAST CHANCE WATER DITCH COMPANY

LEMOORE CANAL & IRRIGATION COMPANY

LIBERTY CANAL COMPANY

LIBERTY FARMS MUTUAL WATER COMPANY

LIBERTY MILL RACE COMPANY

MURPHY SLOUGH ASSOCIATION

PEOPLES DITCH COMPANY

REED DITCH COMPANY

RIVERDALE IRRIGATION DISTRICT

SALYER LAND COMPANY

STINSON CANAL & IRRIGATION COMPANY

STRATFORD IRRIGATION DISTRICT

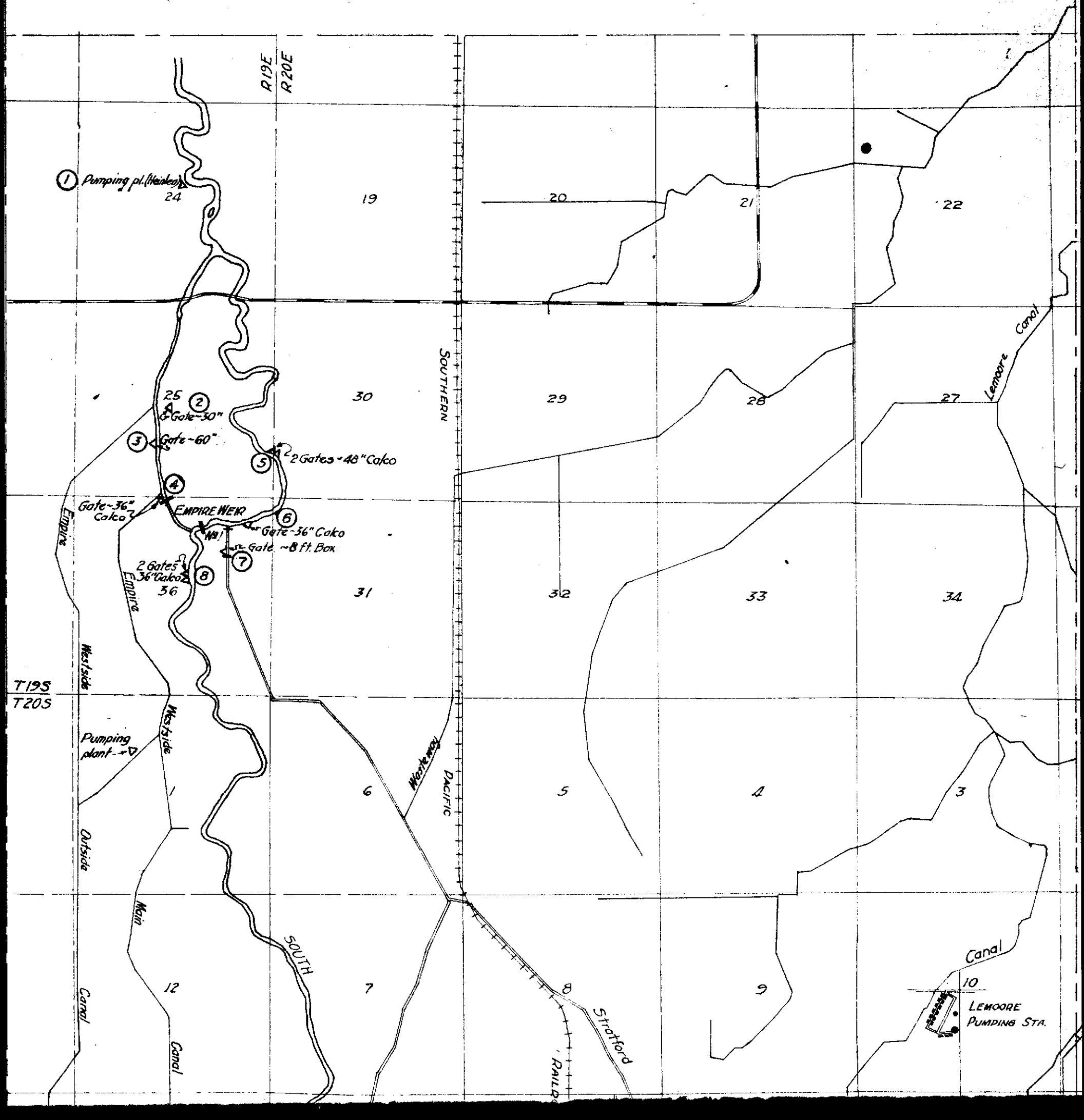
TRANQUILLITY IRRIGATION DISTRICT

TULARE LAKE BASIN WATER STORAGE DISTRICT

TULARE LAKE CANAL COMPANY

TULARE LAKE WATER COMPANY

UPPER SAN JOSE


R19E
R20E
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T20S
1 Pumping pl. (Heinlen)
24
19
20
21
22
25
2 Gate-30"
30
29
28
27
3 Gate-60"
5 2 Gates-48" Calco
4
Gate-36" Calco
EMPIRE WEIR
6 Gate-36" Calco
Gate ~8 ft. Box
7
2 Gates 36" Calco
8
36
31
32
33
34
Empire
Westside
Pumping plant
Westside
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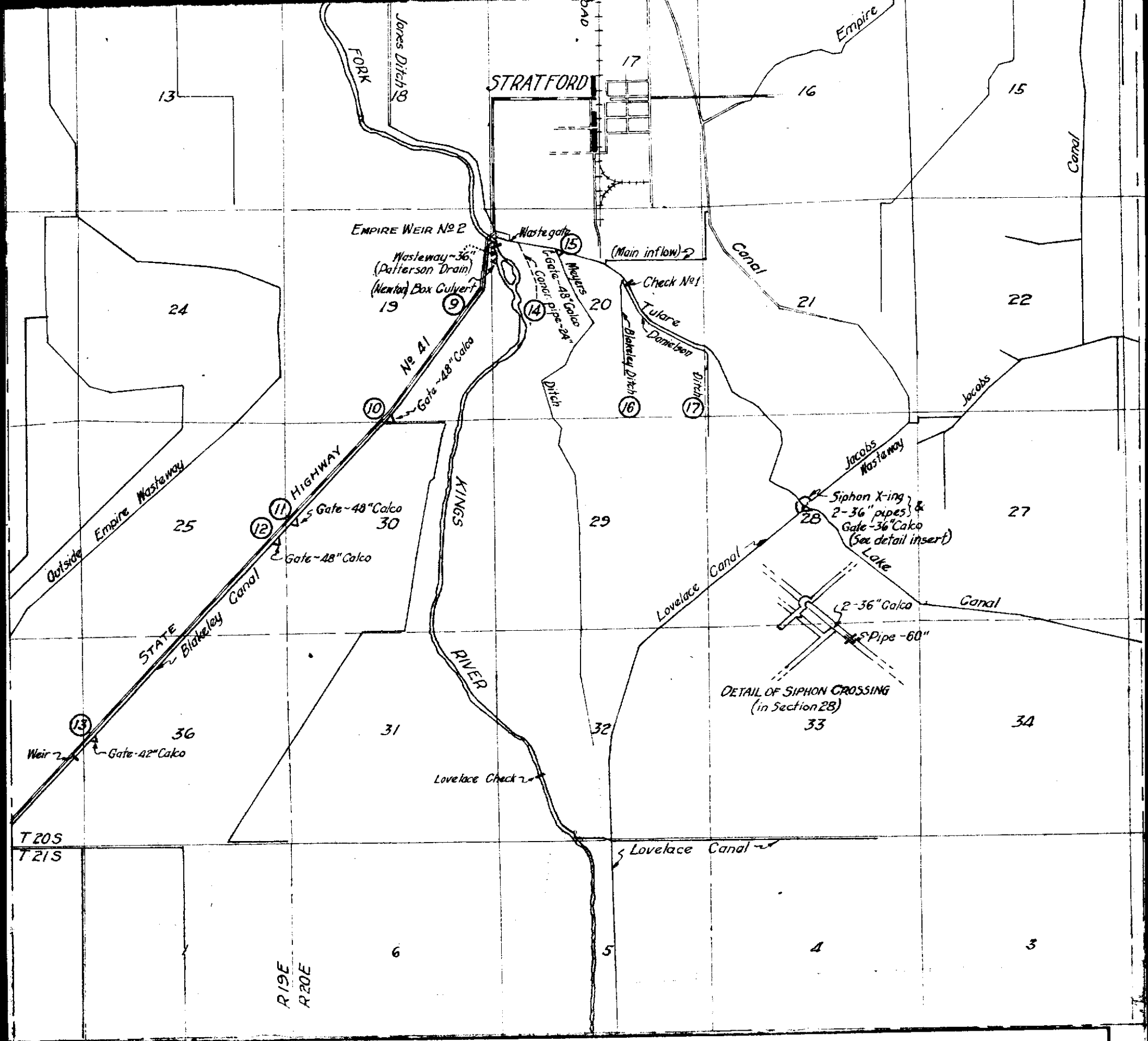
6
5
4
3
Outside
Main
Canal
12
7
8
9
10
SOUTH
Westway
PACIFIC
RAILROAD
Stratford
Canal
Lemoore
Canal
LEMOORE PUMPING STA.



MAP OF PORTION OF THE SOUTH FORK OF KINGS RIVER

SHOWING

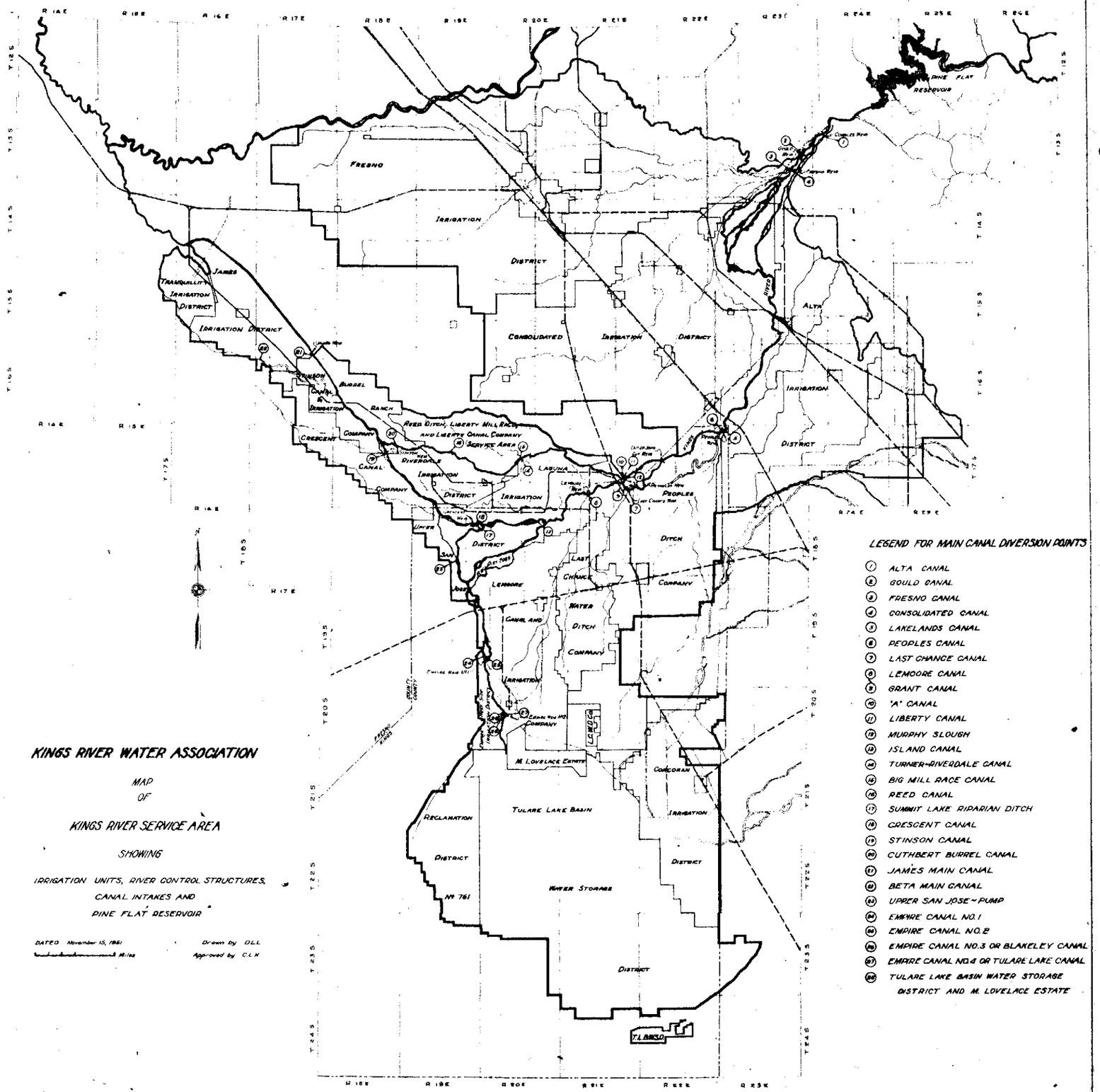
RIVER CHANNELS, CANAL DIVERSIONS & PUMPING PLANTS

IN THE VICINITIES OF

EMPIRE WEIRS NOS. 1 & 2

Scale: 2 ins = 1 mile
Date: Oct. 31, 1951

Drawn by DLL
Approved by CLK



KINGS RIVER WATER ASSOCIATION

MAP
OF
KINGS RIVER SERVICE AREA

SHOWING

IRRIGATION UNITS, RIVER CONTROL STRUCTURES,
CANAL INTAKES AND
PINE FLAT RESERVOIR

DATED November 15, 1961 — Drawn by O.L.L.
Miles — Approved by C.L.H.

LEGEND FOR MAIN CANAL DIVERSION POINTS

1. ALTA CANAL
2. GOULD CANAL
3. FRESNO CANAL
4. CONSOLIDATED CANAL
5. LAKELANDS CANAL
6. PEOPLES CANAL
7. LAST CHANCE CANAL
8. LEMOORE CANAL
9. GRANT CANAL
10. 'A' CANAL
11. LIBERTY CANAL
12. MURPHY SLOUGH
13. ISLAND CANAL
14. TURNER-RIVERDALE CANAL
15. BIG MILL RACE CANAL
16. REED CANAL
17. SUMMIT LAKE RIPARIAN DITCH
18. CRESCENT CANAL
19. STINSON CANAL
20. CUTHBERT BURREL CANAL
21. JAMES MAIN CANAL
22. BETA MAIN CANAL
23. UPPER SAN JOSE ~ PUMP
24. EMPIRE CANAL NO. 1
25. EMPIRE CANAL NO. 2
26. EMPIRE CANAL NO. 3 OR BLAKELEY CANAL
27. EMPIRE CANAL NO. 4 OR TULARE LAKE CANAL
28. TULARE LAKE BASIN WATER STORAGE DISTRICT AND M. LOVELACE ESTATE