KINGS RIVER WATER ASSOCIATION

WATER MASTER REPORT

FOR YEAR

1953

River Discharge

Canal Diversions and

Schedule

Administration

by

CHAS. L. KAUPKE
Water Master

FRESNO, CALIFORNIA

August, 1954

OFFICERS

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

***

Chas. L. Kaupke
Chief Engineer
and Water Master

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
J. G. McCain
Corcoran
A. J. Sample
Helm
L. M. Stone
Hanford

August 1, 1954

Board of Directors
Kings River Water Association
Fresno, California

Dear Sirs:

It is my pleasure to transmit herewith the report of the Water Master for the year 1953 which has been prepared for your consideration in accordance with the provisions of Section Three of the Administrative Agreement.

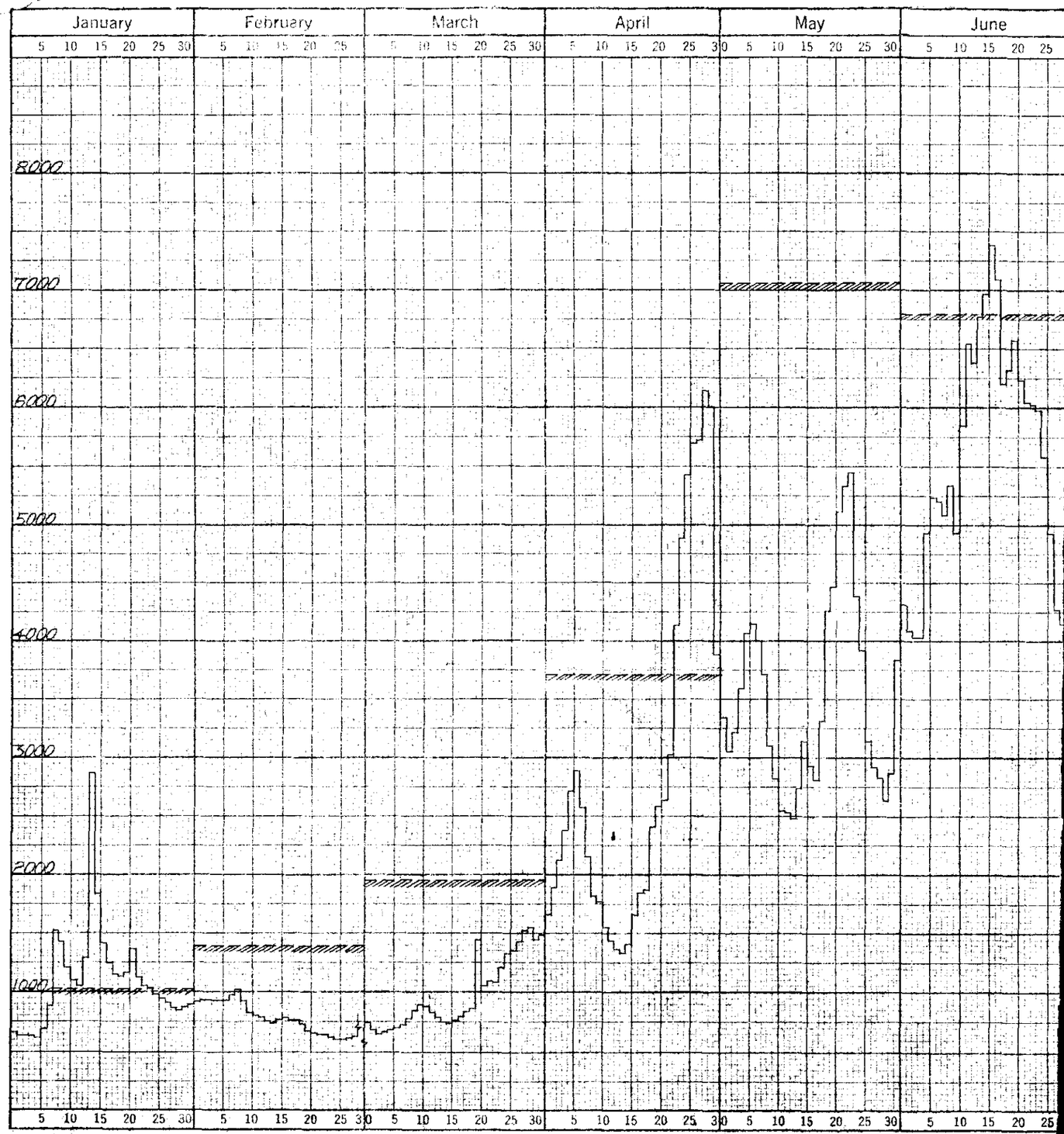
This is the thirty-sixth Annual Report since the commencement of the work in January 1918 and the twenty-sixth Report since the organization of the Kings River Water Association in May 1927.

At this time I desire to commend Mr. Clarence H. Smith, Assistant Water Master, Mr. Wm. H. McGlasson and Mr. J. A. Patterson, Hydrographers, and Mrs. Vivian D. Kester, Office Secretary, for loyal, faithful and efficient service.

May I also express my appreciation for your confidence and wise counsel and the interest you have manifested in the business of the Association.

Respectfully submitted,

Chas. L. Kaupke
Water Master



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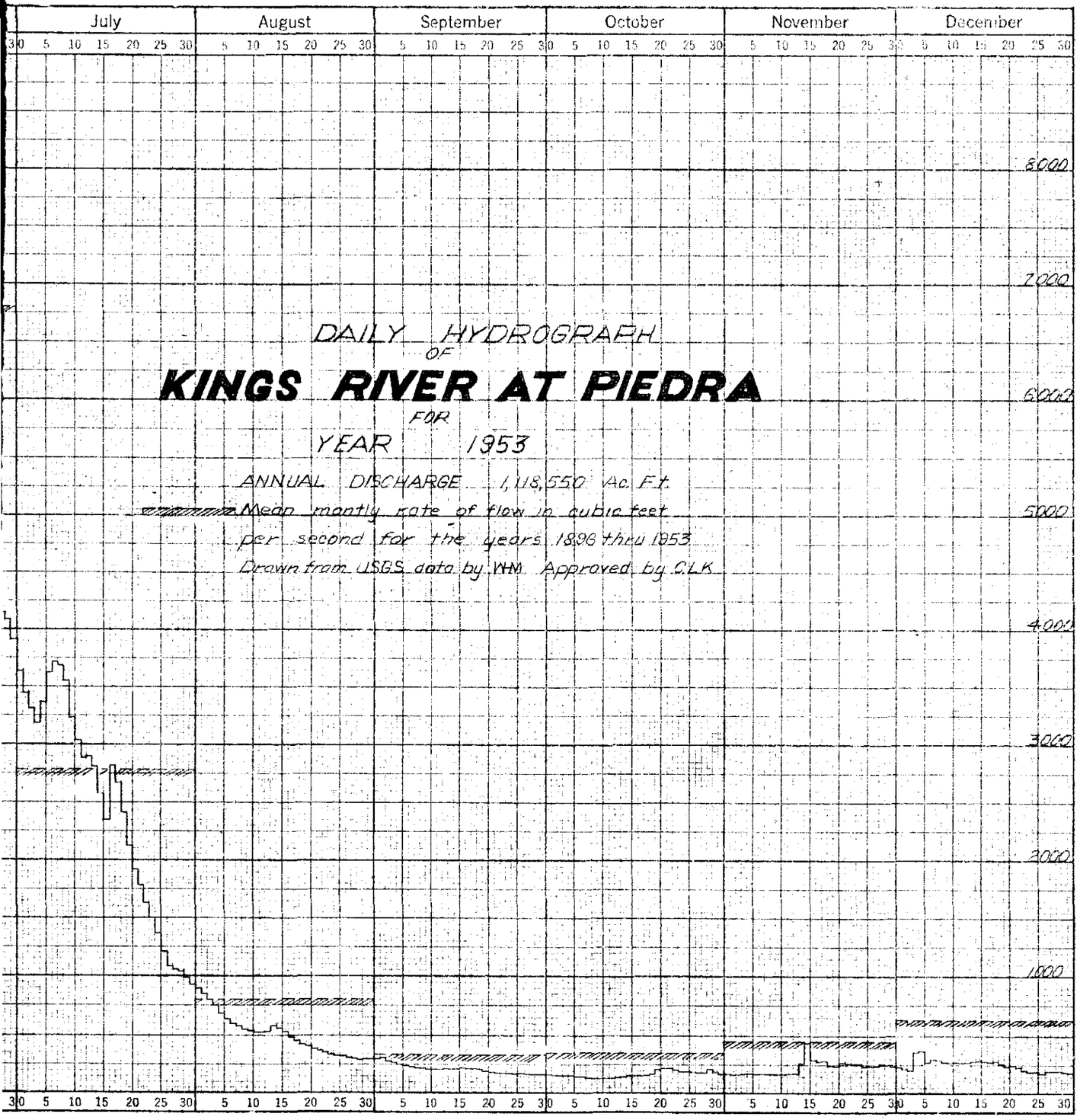
July
August
September
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December
5 10 15 20 25 30
8000
7000
6000
5000
4000
3000
2000
1000
DAILY HYDROGRAPH
OF
KINGS RIVER AT PIEDRA
FOR
YEAR 1953
ANNUAL DISCHARGE 1,118,550 Ac. Ft.
Mean montly rate of flow in cubic feet
per second for the years 1896 thru 1953
Drawn from USGS data by WM Approved by CLK

KINGS RIVER WATER ASSOCIATION

WATER MASTER'S REPORT

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KINGS RIVER WATER ASSOCIATION

ORGANIZATION

BOARD OF DIRECTORS

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

-MEMBERS-

MEMBERSHIP	DIRECTORS
Alta Irrigation District	Wm. P. Boone
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Consolidated Irrigation District	W. T. Martin
Corcoran Irrigation District	W. F. Turner
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James Irrigation District	Robert L. Kent
Laguna Irrigation District	Andrew Jensen
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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	
John Heinlen Mutual Water Company	Vernon Chinn

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

GROUP (b) comprising
Empire West Side Irrigation District
Stratford Irrigation District
- Robert Jones

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
J. G. McCain - - - - - - - - - - - - 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
James A. Patterson - - - - - - - - Hydrographer
Vivian D. Kester - - - - - - - - - Office Secretary

REPORT OF THE
KINGS RIVER WATER MASTER
FOR THE YEAR 1953

This report 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 of 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 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.

KINGS RIVER

The runoff of the river at Piedra during the year 1953, as compiled from the provisional records of the U. S. Geological Survey, was 1,118,550 acre feet or 67% of the average during the past 58 years. There were no peak flows of unusual magnitude. The only outflow from the Kings River Service Area through Fresno Slough occurred in January and amounted to 3,455 acre feet.

WATER CONDITIONS IN CALIFORNIA

The State Report on Water Conditions in California for February 1, 1953 showed for the Kings River watershed a snow pack of 100% and precipitation for July 1 to date of 130% of the seasonal normal. The February precipitation was generally deficient both on the mountain watershed and the valley floor. This condition was reflected in the report for March 1 which showed the

precipitation for July 1, 1952 to date as 80% and the snow pack as 90% 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 1,000,000 acre feet and 700,000 acre feet respectively.

Water conditions in California as indicated by the April 1 data were generally unsatisfactory except in the Klamath and Upper Sacramento River Basins. Negligible precipitation during February and subnormal precipitation during March resulted in far less than normal increments to the snow pack. For Kings River the April 1 report showed precipitation 70% and snow pack 55% of the seasonal normal.

The forecast of the snowmelt on the assumptions stated above was 700,000 acre feet and 550,000 acre feet.

General storms in Central California near the end of the month of April brought unseasonably heavy precipitation to many areas and ended a three-month period of subnormal precipitation. Forecasts of the April-July runoff on Kings River were increased from 700,000 acre feet to 740,000 acre feet assuming normal precipitation for the remainder of the season. The measured runoff for the four-month period was 865,600 acre feet or 24% and 17% more than the respective forecasts of April 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 feet.

(2) From April 26 to 29, 1953, to protect a county highway bridge under construction at Piedra. Storage was nominal.

NEW CONSTRUCTION OF GAGING FACILITIES

On the recommendation of the Engineers of the Members of the Kings River Water Association, the Executive Committee approved and authorized the construction of gaging stations on Mill Creek and Hughes Creek. Mill Creek which enters Kings River from the south about midway between the Pine Flat Dam and Piedra has a watershed covering 124.92 square miles. The runoff averages about 2% of the flow of the river. For a number of years stream gagings have been made from the county road bridge and by wading. The construction of a concrete roadway to by-pass the bridge with heavy equipment made it impractical to use the bridge for current meter gagings.

The new station, about 300 feet upstream from the bridge, was built on U.S.G.S. standards for cable gaging stations.

Hughes Creek flows into Kings River from the north just upstream from Piedra. Its watershed area is 15.23 square miles or about 12% of the Mill Creek watershed. Because of the inability to find a suitable gaging section, and the presence of some temporary dams, this station has not been built.

Register houses made of 36 inch galvanized corrugated iron well sections were installed on Kings River below the Lemoore Weir and on Clarks Fork below the new Army Weir.

During the year the Corps of Engineers, U. S. Army built standard cable gaging stations on Sycamore Creek and Big Creek above the high water line of the Pine Flat Reservoir. These are the largest streams tributary to Kings River within the reservoir area.

CENTERVILLE BOTTOMS

The Kings River Water District, which embraces the major portion of the Centerville Bottoms area is negotiating a contract with the Kings River Conservation District for acquisition of storage space in the Pine Flat Reservoir to a maximum of

8,000 acre feet at the rate of $1.50 per acre foot in accordance with the terms and provisions of the Interim Contract for 1954.

The Kings River Water District, which is not a member of the Kings River Water Association, has indicated its willingness to comply with and conform to all reasonable regulations and administrative procedures of the Association, particularly the following requirements:

1. That satisfactory control gates be installed at the heads of all ditches.
2. That satisfactory gaging sections equipped with automatic water stage recorders be installed near the intakes of all canals.
3. That pumping records (time that pumps are in operation) of all pumps, taking water from sloughs or river channels, be made available to the Water Master.
4. That there shall exist a responsible central organization which shall have the authority to control all diversions when and as directed by the Water Master.

Your Water Master again supervised the diversion of water by the Centerville Bottoms ditches in accordance with the Tentative Schedules dated October 31, 1927.

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 NE¼ of the SE¼ 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 SW¼ of the SW¼ 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 NW¼ of the NW¼ 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 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.
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 northeast 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 17 to 20 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 thirty-five and will be explained and discussed in that order.

Column (1) The monthly flow of Kings River at Piedra as compiled from the provisional records of the Water Resources Branch, U.S. Geological Survey.

Columns (2) to (5) In these columns are tabulated the diversions by all canals between Piedra and the Peoples Weir excepting those in the Centerville Bottoms. The Centerville Bottoms area, recently organized as the Kings River Water District, is not a member of the Kings River Water Association and complete records of canal diversions for all months of the year are not available. The Lakelands Canal made no diversion in 1953.

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

Column (7) Indicates the river flow below the Peoples Weir.

Column (8) This column is the sum of quantities appearing in columns (6) and (7).

Column (9) This column indicates the losses or gains in the river between Piedra and the Peoples Weir.

Column (10) to (14) These columns are grouped under the general heading "Diversions between Peoples Weir and Lemoore Weir" and indicate the diversions of all canals diverting from the river between these two weirs.

Column (15) This column is the sum of columns (10) to (14), Diversions Between Peoples Weir and Lemoore Weir.

Column (16) This column is the sum of columns (6) and (15).

Column (17) Measured flow of the River Below the Lemoore Weir.

Column (18) This column is the sum of all diversions (excepting Centerville Bottoms) between Piedra and the Lemoore Weir plus the flow in the river below the weir.

Column (19) This column indicates the loss or gain in the river channel between Piedra and the Lemoore Weir and is obtained by subtracting the quantities in column (18) from the river flow at Piedra in column (1).

Column (20) This column shows the losses or gains between Peoples Weir and the Lemoore Weir.

Columns (21) to (28) These columns are grouped under the general heading Diversions Between Lemoore Weir and Fresno Slough By-Pass and indicate the diversions by all canals heading from the Main River and the North Fork downstream from the Lemoore Weir, namely: Island, Summit Lake, Crescent, Stinson, Beta Main, James Main and the river flows through Clarks Fork and Sand Slough into the South Fork and the Tulare Lake Basin. Clarks Fork and Sand Slough are natural channels, which for the purpose of this summary, are treated as diversions from the river.

Column (29) This column is the sum of the quantities appearing in Columns (21) to (28), both inclusive.

Column (30) This column indicates the measured flow in Fresno Slough By-Pass at a point below all diversions from Kings River.

Column (31) This column is the sum of the quantities appearing in columns (29) and (30).

Column (32) This column indicates the losses or gains in the river channel between the Lemoore Weir and the Fresno Slough By-Pass Station and is obtained by subtracting monthly quantities in column (31) from the corresponding quantities in column (17).

Column (33) This column is the sum of all canal diversions from Kings River (excepting the Centerville Bottoms Ditches) and the flow into the San Joaquin River and is obtained by adding columns (16), (29) and (30).

Column (34) The quantities tabulated in this column are obtained by subtracting the monthly quantities in column (33) from the corresponding quantities in column (1) and indicate the difference between river flow at Piedra and the total canal diversions.

Column (35) The last column indicates the loss or gain in the river by months, expressed as a percentum of the corresponding flow at Piedra. For the entire year the canal diversions, excepting the Centerville Bottoms Ditches, but including the river flow into the South Fork and into the San Joaquin River were 32,520 acre feet or 2.9% less than the river flow of 1,118,550 acre feet at Piedra.

SUMMARY SHOWING MONTHLY RIVER FLOW, CANAL DIVERSIONS
AND GAINS AND LOSSES IN SEVERAL SECTIONS OF THE RIVER CHANNEL FOR THE YEAR 1953
ALL QUANTITIES ARE IN ACRE FEET

Month	River Flow at Piedra	Diversions Between Piedra and Peoples Weir					River Below Peoples Weir	Total	Losses Between Piedra and Peoples Weir
		Fresno District	Consolidated District	Alta District	Peoples Canal	Total (2) to (5)		(6) & (7)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Jan.	67,510	17,018	16,895		10,745	44,658	30,201	74,859	*7,349
Feb.	43,490	20,342			10,813	31,155	18,151	49,306	*5,816
March	60,580	35,529			11,448	46,977	11,605	58,582	1,998
April	172,600	74,644	22,893	15,925	17,703	131,165	40,406	171,571	1,029
May	215,000	84,321	39,606	34,052	21,691	179,670	30,252	209,922	5,078
June	326,200	82,579	69,148	56,596	24,803	233,126	90,391	323,517	2,683
July	150,400	74,937	20,434	16,311	17,485	129,167	19,796	148,963	1,437
Aug.	30,700	21,893			3,473	25,366	5,764	31,130	*430
Sept.	12,710	10,734				10,734	3,033	13,767	*1,057
Oct.	10,520			91	8,391	8,482	1,529	10,011	509
Nov.	13,500			263	7,542	7,805	6,583	14,388	*888
Dec.	15,340	6,213			3,992	10,205	8,211	18,416	*3,076
Total	1,118,550	428,210	168,976	123,238	138,086	858,510	265,922	1,124,432	*5,882

* Indicates a gain

Note: Diversions in Centerville Bottoms are not included in this summary.

Month	Diversions Between Peoples Weir and Lemoore Weir						Diversion Piedra to Lemoore Weir (6) + (15)	River Below Lemoore Weir	Sum Upstream Diversions and Flow Below Lemoore Weir
	Liberty Canal (10)	Grant and "A" (11)	Murphy Slough (12)	Last Chance (13)	Lemoore Canal (14)	Total (10) to (14) (15)	(16)	(17)	(18)
Jan.	606	3,283	3,146	1,220	4,083	12,338	56,996	12,531	69,527
Feb.	125	1,174	1,531	5,077	6,744	14,651	45,806	269	46,075
March		1,303	946	3,297	5,338	10,884	57,861		57,861
April	337	3,556	4,306	8,247	10,961	27,407	158,572	9,197	167,769
May	578	3,459	3,144	10,995	12,470	30,646	210,316	1,721	212,037
June	2,875	11,255	13,050	14,836	17,468	59,484	292,610	33,816	326,426
July		1,221	1,249	8,108	8,831	19,409	148,576	257	148,833
Aug.		1,170	946	75	1,364	3,555	28,921		28,921
Sept.		533	691			1,224	11,958		11,958
Oct.		61	218			279	8,761		8,761
Nov.		592	273		1,984	2,849	10,654		10,654
Dec.		353	467		4,758	5,578	15,783		15,783
Total	4,521	27,960	29,967	51,855	74,001	188,304	1,046,814	57,791	1,104,605

CONTINUATION OF SUMMARY SHOWING MONTHLY RIVER FLOW, CANAL DIVERSIONS
AND GAINS AND LOSSES IN SEVERAL SECTIONS OF THE RIVER CHANNEL FOR THE YEAR 1953
ALL QUANTITIES ARE IN ACRE FEET

Month	Losses Between Piedra and Lemoore Weir (17) - (18) (19)	Losses Between Peoples Weir and Lemoore Weir (20)	Diversions Between Lemoore Weir and Fresno Slough By-Pass							
				South Fork						
			Island Canal (21)	Clarks Fork (22)	Sand Slough (23)	Summit Lake Canal (24)	Crescent Canal (25)	Stinson Canal (26)	Beta Main (27)	James Main (28)
Jan.	*2,017	5,332	1,059	158	2,465	164	1,418			820
Feb.	*2,585	3,231	170							
March	2,719	721								
April	4,831	3,802	1,121	3,307	59	127	1,269	208	40	
May	2,963	*2,115	503	752	55	53	483	119	600	188
June	*226	*2,909	3,283	4,160	1,493	1,257	5,677	982	2,829	942
July	1,567	130								
Aug.	1,779	2,209								
Sept.	752	1,809								
Oct.	1,759	1,250								
Nov.	2,846	3,734								
Dec.	*443	2,633								
Total	13,945	19,827	6,136	8,377	4,072	1,601	8,847	1,309	3,469	1,950

*Indicates a gain

Month	Total Diversions (21) to (28) (29)	River at Fresno Slough By-Pass (30)	Totals (29) + (30) (31)	Loss Between Lemoore Weir and Fresno Slough By-Pass (32)	Sum of all Diversions (33)	Loss From River (34)	Loss in Percentum of River Flow (35)
Jan.	6,084	3,455	9,539	2,992	66,535	975	1.4
Feb.	170		170	99	45,976	*2,486	*5.7
March					57,861	2,719	4.5
April	6,131		6,131	3,066	164,703	7,897	4.6
May	2,753		2,753	*1,032	213,069	1,931	0.9
June	20,623		20,623	13,193	313,233	12,967	4.0
July				257	148,576	1,824	1.2
Aug.					28,921	1,779	5.8
Sept.					11,958	752	5.9
Oct.					8,761	1,759	16.8
Nov.					10,654	2,846	21.1
Dec.					15,783	*443	*2.9
Total	35,761	3,455	39,216	18,575	1,086,030	32,520	2.9

*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.	April	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	119
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	175
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	78
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	237
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	174
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	170
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

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	% Normal
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	91
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	133
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
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	114
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	110
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	118
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	80.7	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	58
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
Totals	3719.6	4494.0	7055.6	12974.6	25431.5	23776.1	10040.7	2888.4	1161.6	1239.5	1637.0	2289.0	96688.1	
58 Yr. Mean in Ac.Ft.	64.1	77.5	121.6	223.7	438.5	409.9	173.1	49.8	20.0	21.4	28.2	39.5	1667.0	100

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

TABULATION SHOWING THE MONTHLY RUNOFF OF KINGS RIVER AT PIEDRA
AND AT SEVERAL UPSTREAM STATIONS FOR THE YEAR 1953
ALL QUANTITIES ARE IN ACRE FEET

Month	River at Piedra (1)	Mill Creek (2)	Hughes Creek Estimated (3)	Below Pine Flat Dam (1)-(2)+(3) (4)	River Below North Fork (5)	Difference (4)-(5) (6)	Above North Fork (7)	North Fork (5)-(7) (8)	Percentum River Flow From North Fork (9)
Jan.	67,510	2,517	302	64,691	58,540	6,151	36,610	21,930	32.5
Feb.	43,490	956	114	42,420	39,180	3,240	25,010	14,170	32.6
March	60,580	1,105	132	59,343	53,410	5,933	33,250	20,160	33.3
April	172,600	1,144	136	171,320	172,900	-1,580	102,400	70,500	40.8
May	215,000	739	88	214,173	202,700	11,473	129,800	72,900	33.9
June	326,200	533	64	325,603	324,200	1,403	228,600	95,600	29.3
July	150,400			150,400	150,000	400	134,300	15,700	10.4
Aug.	30,700			30,700	29,470	1,230	27,200	2,270	7.4
Sept.	12,710			12,710	12,620	90	11,120	1,500	11.8
Oct.	10,520			10,520	10,040	480	8,550	1,490	14.2
Nov.	13,500			13,500	12,690	810	9,420	3,270	24.2
Dec.	15,340			15,340	14,340	1,000	10,440	3,900	25.5
Total	1,118,550	6,994	836	1,110,720	1,080,090	30,630	756,700	323,390	29.0

EXPLANATION OF TABULATION ON PAGE 24

(1) RIVER AT PIEDRA: Runoff of Kings River at Piedra as compiled from the Unpublished Records of the U. S. Geological Survey.

(2) MILL CREEK: Runoff of Mill Creek. This stream discharges into Kings River from the South about midway between the Pine Flat Dam and the Piedra Station. It has a watershed covering 124.92 square miles.

(3) HUGHES CREEK: Hughes Creek flows into Kings River from the North just upstream from Piedra. Its watershed area is 15.23 square miles or about 12% of the Mill Creek watershed. The discharges of this creek were estimated to be 12% of the Mill Creek discharge.

(4) BELOW PINE FLAT DAM: The flows at this point are calculated quantities obtained by subtracting the flows of Mill Creek and Hughes Creek from the flows of Kings River at Piedra for the corresponding months.

(5) RIVER BELOW NORTH FORK: This station, on the main stem of the river and commonly known as the Fish Hatchery Station, is located at the upper end of the Pine Flat Reservoir. The discharge is compiled from the Unpublished Records of the U. S. Geological Survey.

(6) DIFFERENCE: This column indicates the difference in the flow of Kings River between the Pine Flat Dam and the upper end of the reservoir and is obtained by subtracting the quantities in Column 5 from the corresponding quantities in Column 4. It shows the total accretions directly to the reservoir from all sources including in particular Big Creek and Sycamore Creek.

(7) ABOVE NORTH FORK: Runoff of Kings River (Main River) above its confluence with the North Fork as compiled from the Unpublished Records of the U. S. Geological Survey.

(8) NORTH FORK: This is a calculated quantity obtained by subtracting the flow at the Above North Fork Station, Column 7, from the corresponding flow at the Below North Fork (Fish Hatchery) Station and indicates the flow of the North Fork at its junction with the Main River.

(9) PERCENTUM RIVER FLOW FROM THE NORTH FORK: This column shows the percentum of river flow contributed by the North Fork by months and a total percentum of 29 for the year 1953.

KINGS RIVER WATER ASSOCIATION

"A" DITCH - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							16						
2							15						Gage Heights
3							15						by Water Stage
4							14						Recorder
5							12						
6						7	7						
7	7					14							
8	7			16		14							
9	7			16		15							
10	7			16		16							
11	7			16		17							
12	7			15		18							
13	7			15		18							
14	7			17		18							
15	7			12		18							
16	7			9		18							
17	7			7		18							
18	7			16		18							
19	7			19		18							
20	7			17		18							
21	7			15		18							
22	7			10		18							
23	7			7		18							
24	7			12		16							
25	7			12		16							
26	7			12		16							
27	7			12		16							
28	7			20		16							
29	7			20		16							
30				20		16							
31													Year
Max.	7			20		18	16						
Min.	0			0		0	0						
Mean	5			11		14	3						
Total) Ac.Ft)	319			655		4	156						1,944

KINGS RIVER WATER ASSOCIATION

ALTA CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					610	836	745						
2					438	880	520						Gage Heights
3					410	859	457						by Water Stage
4				80	494	770	446						Recorder
5				188	640	867	440						
6				370	772	925	608						
7				302	825	925	663						
8				61	760	921	745						
9					600	925	730						
10					355	921	503						
11					300	921	375						
12					283	928	335						
13					150	955	330						
14					215	1012	305						
15					350	1055	231				75		
16					385	1078	200				58		
17					315	1078	205						
18					415	1085	260						
19					660	1095	140						
20				148	870	1090							
21				253	910	1085							
22				334	977	1030							
23				605	1010	1015							
24				832	970	1005				3			
25				1020	834	1005				5			
26				1060	583	1003				1			
27				854	450	915							
28				593	418	825							
29				678	315	785				17			
30				665	307	790				15			
31					577					5			Year
Max.				1060	1010	1095	745			17	75		
Min.				0	150	770	0			0	0		
Mean				268	555	953	266			1	4		
Total) Ac.Ft)				15925	34052	[illegible]596	16311			91	263		123,238

KINGS RIVER WATER ASSOCIATION

LONE WILLOW CHANNEL (BETA MAIN) - Daily Diversions in Second Feet from Kings River for the year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					151								
2					102								Gage Heights
3					41								by Water Stage
4					9								Recorder
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16						21							
17						160							
18						175							
19						178							
20						144							
21						94							
22						116							
23						134							
24						75							
25						71							
26						85							
27						75							
28						57							
29						32							
30				20		12							
31													Year
Max.				20	151	178							
Min.				0	0	0							
Mean				1	10	48							
Total) Ac.Ft)				40	600	2829							3,469

KINGS RIVER WATER ASSOCIATION

CONSOLIDATED CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					738	985	800						
2					604	1015	700						Gage Heights
3				44	507	840	648						by Water Stage
4				170	620	825	605						Recorder
5				363	848	1038	590						
6				521	1055	1185	630						
7				409	1050	1271	710						
8	134			127	896	1229	728						
9	456			10	622	1271	736						
10	492			15	485	1271	679						
11	478			17	326	1271	559						
12	435			17	295	1378	480						
13	435			10	272	1378	480						
14	422			8	263	1045	480						
15	422			6	445	1045	291						
16	422			17	484	1076	210						
17	422			17	370	1290	210						
18	422			17	405	1334	237						
19	422			156	662	1290	250						
20	422			252	940	1380	190						
21	422			322	995	1350	107						
22	402			464	1025	1305							
23	388			738	1110	1287							
24	388			974	1048	1287							
25	388			1212	798	1287							
26	388			1356	585	1287							
27	346			1335	480	1139							
28	229			1189	485	921							
29	108			761	465	825							
30	90			1035	465	818							
31					660								Year
Max.	492			1356	1110	1378	800						
Min.	0			0	263	818	0						
Mean	275			385	645	1164	333						
Total) Ac.Ft)	16895			22893	39606	69148	20434						168,976

KINGS RIVER WATER ASSOCIATION

CRESCENT CANAL - Daily Diversions in Second Feet from Kings River for the year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	22				156								
2	65				68								Gage Heights
3	30												by Water Stage
4	28												Recorder
5	25												
6	24												
7	24												
8	23					10							
9	28					35							
10	29					56							
11	29					70							
12	29					28							
13	28					112							
14	27					176							
15	30					185							
16	31					190							
17	21					173							
18	21					160							
19	20					156							
20	20					180							
21	20				6	183							
22	20					187							
23	20					187							
24	19				4	186							
25	18				5	180							
26	17				5	175							
27	16			83		95							
28	15			196		41							
29	8			193		48							
30	6			169		54							
31	3												Year
Max.	65			196	156	190							
Min.	3			0	0	0							
Mean	23			21	8	96							
Total) Ac.Ft)	1418			1269	483	5677							8,847

KINGS RIVER WATER ASSOCIATION

FRESNO IRRIGATION DISTRICT - Combined Diversions in Second Feet by Fresno and Gould Canals for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	212	392	312	1118	1381	1267	1432	677	246			103	
2	217	431	371	1236	1387	1263	1415	655	259			103	Gage Heights
3	254	448	312	1321	1384	1292	1399	625	248			103	by Water Stage
4	257	470	274	1348	1381	1381	1386	580	236			105	
5	259	493	324	1360	1407	1426	1391	519	221			105	
6	258	501	314	1360	1419	1444	1431	463	213			106	
7	260	501	335	1362	1425	1396	1475	420	206			101	
8	225	501	348	1355	1427	1317	1470	384	199			101	
9	268	501	548	1237	1398	1285	1467	367	197			100	
10	303	440	527	1229	1357	1305	1414	386	187			101	
11	300	354	524	1188	1346	1335	1366	350	180			100	
12	241	359	471	1148	1336	1364	1365	334	182			105	
13	236	372	400	1069	1344	1363	1355	336	182			103	
14	218	357	362	1001	1342	1363	1355	364	180			101	
15	217	350	365	892	1338	1357	1340	375	177			101	
16	224	357	378	1082	1368	1353	1343	357	192			101	
17	234	360	403	1208	1351	1387	1352	328	168			101	
18	260	363	446	1253	1368	1418	1340	299	163			101	
19	307	364	475	1322	1417	1402	1340	265	163			106	
20	310	301	824	1350	1430	1441	1342	257	163			104	
21	308	276	822	1350	1439	1504	1270	246	159			104	
22	321	274	712	1346	1434	1505	1205	248	157			102	
23	328	274	663	1352	1431	1449	1170	248	157			93	
24	328	274	680	1352	1432	1453	1090	248	157			99	
25	328	253	805	1350	1430	1426	1034	248	149			99	
26	328	223	823	1355	1407	1418	917	248	139			91	
27	328	231	950	1322	1394	1429	795	246	138			98	
28	326	254	1034	1212	1307	1453	700	246	137			97	
29	326		1103	1278	1226	1459	676	246	135			100	
30	312		1062	1343	1217	1452	615	246	131			101	
31	302		977		1263		597	246				103	Year
Max.	328	501	1103	1362	1439	1505	1475	677	259			106	
Min.	212	223	312	892	1217	1263	597	246	131			91	
Mean	277	367	578	1256	1373	1391	1221	356	181			101	
Total) Ac.Ft)	17018	20342	35529	74644	84321	82579	74937	21893	10734			6213	428,210

KINGS RIVER WATER ASSOCIATION

FRESNO CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	117	251	211	887	1056	978	1050	402	246			34	
2	122	283	270	979	1067	974	1040	384	259			34	Gage Heights
3	158	297	211	1021	1065	1003	1035	366	248			34	by Water Stage
4	161	317	173	1038	1056	1079	1035	346	236			34	Recorder
5	163	340	221	1052	1069	1118	1046	317	221			34	
6	163	348	211	1052	1078	1138	1078	300	213			34	
7	165	348	228	1052	1082	1107	1118	287	206			30	
8	147	348	236	1047	1082	1050	1113	283	199			30	
9	170	348	390	929	1069	1020	1110	286	197			30	
10	199	297	384	919	1034	1030	1063	281	187			30	
11	193	223	281	889	1021	1050	1021	148	180			30	
12	134	223	351	850	1013	1060	1020	132	182			32	
13	128	218	289	792	1021	1050	1010	132	182			23	
14	119	197	270	744	1017	1050	1010	163	180			21	
15	130	194	278	667	1013	1040	995	175	177			21	
16	130	201	289	797	1044	1030	998	157	192			21	
17	130	204	303	900	1028	1051	1013	128	152			21	
18	150	207	331	943	1045	1068	1015	141	143			20	
19	197	216	351	984	1092	1048	1015	139	143			17	
20	199	189	651	1000	1096	1075	1015	231	143			17	
21	197	166	635	1000	1101	1138	962	246	139			15	
22	197	166	526	996	1096	1142	905	248	137			13	
23	197	166	491	1000	1094	1088	870	248	137			7	
24	197	166	501	1000	1096	1092	800	248	137			12	
25	197	145	612	1000	1092	1063	773	248	122			13	
26	197	115	626	1005	1071	1053	694	248	110			13	
27	197	121	740	986	1058	1068	641	246	110			13	
28	197	151	823	908	1007	1092	540	246	110			12	
29	197		891	976	941	1096	522	246	108			12	
30	189		850	1021	933	1079	487	246	104			12	
31	180		780		974		464	246				12	Year
Max.	199	348	891	1052	1101	1142	1118	402	259			34	
Min.	117	115	173	667	933	974	464	128	104			7	
Mean	168	227	436	948	1048	1065	918	242	170			22	
Total) Ac.Ft)	10330	12761	26738	56299	64372	63221	56347	14878	10098			1348	316,392

KINGS RIVER WATER ASSOCIATION

GOULD CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	95	141	101	231	325	289	382	275				69	
2	95	148	101	257	320	289	375	271				69	Gage Heights
3	96	151	101	300	319	289	364	259				69	by Water Stage
4	96	153	101	310	325	302	351	234				71	Recorder
5	96	153	103	308	338	308	345	202				71	
6	95	153	103	308	341	306	353	163				72	
7	95	153	107	310	343	289	357	133				71	
8	78	153	112	308	345	267	357	101				71	
9	98	153	158	308	329	265	357	81				70	
10	104	143	143	310	323	275	351	105				71	
11	107	131	143	299	325	285	345	202				70	
12	107	136	120	298	323	304	345	202				73	
13	108	154	111	277	323	313	345	204				80	
14	99	160	92	257	325	313	345	201				80	
15	87	156	87	225	325	317	345	200				80	
16	94	156	89	285	324	323	345	200				80	
17	104	156	100	308	323	336	339	200	16			80	
18	110	156	115	310	323	350	325	158	20			81	
19	110	148	124	338	325	354	325	126	20			89	
20	111	112	173	350	334	366	327	26	20			87	
21	111	110	187	350	338	366	308		20			89	
22	124	108	186	350	338	363	300		20			89	
23	131	108	172	352	337	361	300		20			86	
24	131	108	179	352	336	361	290		20			87	
25	131	108	193	350	338	363	261		27			86	
26	131	108	197	350	336	365	223		29			78	
27	131	110	210	336	336	361	154		28			85	
28	129	103	211	304	300	361	160		27			85	
29	129		212	302	285	363	154		27			88	
30	123		212	322	284	373	128		27			89	
31	122		197		289		133					91	Year
Max.	131	160	212	352	345	373	382	275	29			91	
Min.	78	103	87	225	284	265	128	0	0			69	
Mean	109	137	143	309	325	326	303	114	10			79	
Total) Ac.Ft)	6688	7581	8791	18345	19949	19358	18590	7015	636			4865	111,818

KINGS RIVER WATER ASSOCIATION

GRANT CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	24	17	24	23	174	52	40	17	15	*	7	6	
2	54	17	25	23	80	67	26	17	13		7	2	Gage Heights
3	61	17	25	22	19	68	20	17	11		7		by Water Stage
4	60	23	21	22	16	71	22	17	10		8		Recorder
5	60	35	18	23	17	45	21	14	10		9		
6	59	34	17	25	30	128	21	13	10		9		
7	58	33	16	20	38	188	22	13	10		15		* Closed for
8	58	34	16	5	38	189	21	13	10		15		Highland Ave.
9	58	36	16	2	37	202	21	13	10		15		bridge construc-
10	58	32	16	2	39	205	20	13	10		15		tion
11	58	26	15		31	200	20	13	10		15	3	
12	55	25	17		27	219	20	13	10		15	7	
13	54	25	16		23	255	19	13	10		14	8	
14	56	25	16		13	268	14	13	10		12	8	
15	55	20	17		16	270	13	13	10		10	8	
16	53	15	17		20	228	14	13	10		10	8	
17	50	15	17		17	222	13	13	10		10	7	
18	48	15	17		15	227	13	13	10		10	8	
19	47	15	18		16	228	13	16	10		10	9	
20	45	15	17		45	231	12	27	10		10	9	
21	43	14	28		51	234	12	31	10		9	9	
22	44	10	31	5	128	229	11	30	10		9	9	
23	43	11	29	12	226	226	11	30	0		9	9	
24	43	11	29	20	256	226	12	30	6		7	13	
25	42	10	30	108	140	234	13	31	6	4	7	11	
26	39	17	28	200	56	219	13	32	6	4	7	6	
27	40	23	25	213	27	184	13	28	6	4	7	7	
28	37	23	25	225	20	76	16	28	6	4	7	8	
29	32		25	257	18	40	18	21	6	4	7	9	
30	37		24	258	16	42	17	19	4	4	7	8	
31	26		23		98		17	17		7		8	Year
Max.	61	36	31	258	256	270	40	32	15	7	15	13	
Min.	24	10	15	0	13	40	11	13	0	0	7	0	
Mean	48	21	21	49	56	176	17	19	9	1	10	6	
Total) Ac.Ft)	2964	1174	1303	2901	3459	10441	1065	1170	533	61	592	353	26,016

KINGS RIVER WATER ASSOCIATION

ISLAND CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	22				71								
2	22	5			24	25							Gage Heights
3	24	15			10	51							by Water Stage
4	28	43				18							Recorder
5	28	17											
6	27	6			38	19							
7	25				29	28							
8	22				10	64							
9	17					53							
10	26					78							
11	41					44							
12	37					20							
13	37					89							
14	26					86							
15	23					87							
16	20					84							
17	20					80							
18	16					84							
19	12					85							
20	11				15	84							
21	14				20	84							
22	18					86							
23	19				7	79							
24				12	13	99							
25				98	17	85							
26				87		87							
27				106		43							
28				75		16							
29				84									
30				104									
31													Year
Max.	41	43		106	71	99							
Min.	0	0		0	0	0							
Mean	17	3		19	8	55							
Total) Ac.Ft)	1059	170		1121	503	3283							6,136

KINGS RIVER WATER ASSOCIATION

JAMES MAIN CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					54								
2					41								Gage Heights
3													by Water Stage
4													Recorder
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17						33							
18						70							
19						85							
20						30							
21						10							
22						79							
23	107					81							
24	157					33							
25	100					30							
26	50					25							
27													
28													
29													
30													
31													Year
Max.	157				54	85							
Min.	0				0	0							
Mean	13				3	16							
Total) Ac.Ft)	820				188	942							1,950

KINGS RIVER WATER ASSOCIATION

LAGUNA IRRIGATION DISTRICT (Combined) - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	53	17	24	23	266	52	56	17	15		7	6	
2	84	22	25	23	107	92	41	17	13		7	2	Gage Heights
3	94	32	25	22	29	119	35	17	11		7		by Water Stage
4	96	66	21	22	16	89	36	17	10		8		Recorder
5	96	52	18	23	17	45	33	14	10		9		
6	93	40	17	25	68	154	28	13	10		9		
7	96	33	16	20	67	230	22	13	10		15		Combined
8	89	34	16	21	48	272	21	13	10		15		Diversions of
9	90	36	16	18	37	270	21	13	10		15		Grant, "A",
10	97	32	16	18	39	303	20	13	10		15		Island and
11	112	26	15	16	31	261	20	13	10		15	3	Summit Lake
12	104	25	17	15	27	257	20	13	10		15	7	Canals
13	101	25	16	15	23	388	19	13	10		14	8	
14	89	25	16	17	13	410	14	13	10		12	8	
15	85	20	17	12	16	418	13	13	10		10	8	
16	80	15	17	9	20	378	14	13	10		10	8	
17	77	15	17	7	17	363	13	13	10		10	7	
18	71	15	17	16	15	377	13	13	10		10	8	
19	66	15	18	19	16	374	13	16	10		10	9	
20	63	15	17	17	63	379	12	27	10		10	9	
21	64	14	28	15	71	386	12	31	10		9	9	
22	69	10	31	15	128	380	11	30	10		9	9	
23	69	11	29	19	233	367	11	30			9	9	
24	50	11	29	44	269	387	12	30	6		7	13	
25	49	10	30	218	157	381	13	31	6	4	7	11	
26	46	17	28	299	56	364	13	32	6	4	7	6	
27	47	23	25	344	27	259	13	28	6	4	7	7	
28	44	23	25	360	20	108	16	28	6	4	7	8	
29	39		25	366	18	56	18	21	6	4	7	9	
30	37		24	388	16	58	17	19	4	4	7	8	
31	26		23		98		17	17		7		8	Year
Max.	112	66	31	388	269	418	56	32	15	7	15	13	
Min.	26	10	15	7	13	45	11	13	0	0	7	0	
Mean	73	24	21	81	65	266	20	19	9	1	10	6	
Total) Ac.Ft)	4506	1344	1303	4804	4016	15794	1222	1170	533	61	592	353	35,698

KINGS RIVER WATER ASSOCIATION

LAST CHANCE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		56	54	45	260	170	182	38					
2		57	57	59	220	245	163						Gage Heights
3		60	61	120	182	240	160						by Water Stage
4		62	56	128	185	210	175						Recorder
5		65	60	147	188	177	173						
6		62	61	152	192	215	175						
7		61	61	149	194	270	169						
8		61	61	132	219	258	167						
9		98	62	106	137	234	165						
10		129	60	97	128	308	152						
11		128	45	117	136	260	141						
12		110	48	69	136	258	168						
13		122	45	60	140	296	158						
14		116	45	36	150	282	158						
15		113	46	37	167	273	141						
16		114	49	26	174	294	147						
17		113	50	57	168	304	139						
18		111	50	83	159	320	132						
19	55	117	51	81	145	291	169						
20	55	118	52	98	186	247	164						
21	55	109	77	133	224	255	150						
22	55	100	80	140	238	248	80						
23	55	102	62	167	243	248	120						
24	55	96	54	203	244	249	111						
25	55	96	48	248	204	273	88						
26	55	80	46	288	199	260	72						
27	24	61	45	291	133	246	66						
28	12	47	44	297	130	184	54						
29	35		45	298	140	176	47						
30	49		45	291	161	202	54						
31	56		45		171		55						Year
Max.	56	129	80	298	260	320	182	38					
Min.	0	47	44	26	128	170	47	0					
Mean	20	92	54	139	179	250	132	1					
Total) Ac.Ft)	1220	5077	3297	8247	10995	14836	8108	75					51,855

KINGS RIVER WATER ASSOCIATION

LEMOORE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	99	190	104	100	306	292	256	59				73	
2	99	204	118	164	208	296	160	73				72	Gage Heights
3	98	182	99	138	150	276	167	74				85	by Water Stage
4	98	149	41	147	178	259	200	50				74	Recorder
5	98	149	66	183	280	248	185	49				72	
6	98	153	82	213	290	353	200	40				73	
7	97	158	70	221	265	320	263	21				80	
8	69	157	75	151	194	286	240	17				84	
9	52	152	78	110	112	280	197	44			15	90	
10	44	121	69	107	115	308	150	46			17	87	
11	41	109	62	93	152	304	120	30			20	82	
12	40	114	64	48	130	347	143	10			26	74	
13	38	122	56	36	130	356	184	10			33	82	
14	38	109	62	36	131	334	170	10			39	91	
15	39	106	57	47	215	348	146	10			28	87	
16	38	112	72	57	252	364	120	10			26	84	
17	36	117	66	136	216	378	136	47			41	89	
18	33	98	64	111	133	354	171	61			36	91	
19	32	98	67	95	256	301	284	28			48	92	
20	32	95	63	130	290	250	212				53	92	
21	66	78	134	195	298	250	154				50	83	
22	72	86	106	194	253	250	96				49	76	
23	72	96	65	193	259	248	92				53	73	
24	74	89	61	379	257	248	73				57	64	
25	73	90	85	457	223	243	44				64	59	
26	73	77	153	348	200	245	36				69	59	
27	92	87	148	395	79	252	35				63	55	
28	90	108	141	380	101	239	50				70	59	
29	57		126	335	160	277	66				72	71	
30	60		132	337	220	316	54				73	74	
31	114		110		245		56					76	Year
Max.	114	204	153	457	306	378	284	74			73	92	
Min.	32	77	41	36	79	239	35	0			0	55	
Mean	67	122	87	185	203	294	144	22			33	77	
Total) Ac.Ft)	4083	6744	5338	10961	12470	17468	8831	1364			1984	4758	74,001

KINGS RIVER WATER ASSOCIATION

LIBERTY CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1		12			26								
2		12			24								Gage Heights
3		12			25								by Water Stage
4		12			27								Recorder
5		9			33								
6		3			35								
7		3			27								
8					24	82							
9					23	43							
10						74							
11						26							
12						63							
13	25					86							
14	25					84							
15	25					93							
16	25					84							
17	24					89							
18	22					91							
19	18					74							
20						73							
21					6	75							
22	24				8	74							
23	21				8	72							
24	9				20	78							
25	15				6	79							
26	13					75							
27	12			28		37							
28	12			34									
29	12			52									
30	12			56									
31	12												
													Year
Max.	25	12		56	35	93							
Min.	0	0		0	0	0							
Mean	10	2		6	9	48							
Total) Ac.Ft)	606	125		337	578	2875							4,521

KINGS RIVER WATER ASSOCIATION

MURPHY SLOUGH - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	82	28	21	14	142	45	48	17	19	*	4	2	
2	53	28	21	15	82	65	34	17	18		6	2	Gage Heights
3	69	28	20	14	39	74	29	16	16		7	3	by Water Stage
4	58	32	19	12	24	77	31	14	16		8	4	Recorder
5	50	44	14	12	20	54	30	14	14		8	4	
6	50	42	12	12	32	150	30	14	13		9	4	
7	50	42	15	12	49	215	24	14	13		10	4	* Closed for
8	50	42	16	14	48	224	23	14	13		10	3	Highland Ave.
9	50	42	16	15	34	206	24	14	12		11	3	bridge construc-
10	50	34	15	15	33	242	22	14	12		10	3	tion
11	49	24	14	15	24	196	23	14	12		10	5	
12	48	24	14	14	19	248	23	14	12		6	9	
13	46	23	13	14	18	280	20	14	12		4	10	
14	48	23	13	15	20	278	15	17	11		3	9	
15	54	24	13	12	22	262	14	15	11		2	9	
16	53	24	14	10	25	390	13	10	11		2	9	
17	52	24	14	12	27	415	13		11		3	8	
18	52	24	14	15	28	400	14		11	6	2	7	
19	50	23	14	15	28	310	14	12	11	11	3	7	
20	56	23	14	31	40	308	13	16	11	11	3	7	
21	55	23	16	45	56	308	13	19	11	11	1	6	
22	55	23	14	48	163	300	12	17	11	11	1	6	
23	54	23	13	52	184	300	12	18	8	11	1	6	
24	54	22	17	55	190	300	14	18		12	2	9	
25	52	22	18	143	80	311	23	21	11	9	2	12	
26	50	21	17	260	37	226	23	21	11	6	2	11	
27	47	21	15	288	30	177	21	19	11	5	2	12	
28	42	20	15	314	26	100	14	21	11	5	2	12	
29	40		16	360	19	73	13	23	9	4	2	16	
30	39		16	322	18	57	14	21	7	4	2	17	
31	31		15		31		15	20		4		17	Year
Max.	82	44	21	360	190	415	48	23	19	12	11	17	
Min.	31	20	12	10	18	45	12	0	0	0	1	2	
Mean	51	28	15	72	51	220	20	15	11	4	5	8	
Total) Ac.Ft)	3146	1531	946	4306	3144	13050	1249	946	691	218	273	467	29,967

KINGS RIVER WATER ASSOCIATION

PEOPLES CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	254	223	177	201	*551	337	328	132			105	145	
2	231	206	182	194	*382	381	330	105		5	88	56	Gage Heights
3	188	195	186	244	340	379	327	115		46	89	50	by Water Stage
4	185	203	188	324	339	360	333	95		162	71	48	Recorder
5	184	202	190	318	332	336	322	70		230	72	75	
6	187	204	182	305	333	414	340	76		196	72	156	
7	234	200	182	295	350	480	329	83		217	72	130	* Amount
8	253	208	184	298	350	452	321	60		205	73	108	diverted into
9	229	210	188	286	343	398	338	57		141	74	105	Lakeland Canal
10	138	207	190	260	309	465	351	68		128	74	104	
11	107	205	202	223	309	470	333	72		128	75	104	
12	135	198	196	181	320	463	326	72		130	75	76	
13	161	190	200	154	312	421	320	72		116	75	49	
14	216	193	195	159	335	392	345	72		110	89	60	
15	237	193	185	152	330	392	335	72		110	146	82	
16	107	193	180	153	333	422	345	70		111	228	78	
17	105	194	171	161	325	439	329	68		114	202	71	
18	101	194	171	231	330	454	335	68		122	178	71	
19	108	194	171	254	322	450	317	67		132	167	76	
20	86	195	173	318	332	440	328	65		142	171	74	
21	106	194	208	333	363	427	317	59		168	165	73	
22	119	190	186	344	381	441	288	56		184	168	72	
23	89	185	184	350	393	447	215	54		202	165	83	
24	127	180	188	344	430	440	187	26		196	160	42	
25	188	178	190	357	402	445	190			166	164	15	
26	206	176	190	446	367	441	184			140	161	13	
27	212	175	188	442	413	441	174			140	157		
28	210	176	187	448	374	410	160			130	157		
29	235		193	*641	335	360	161			122	157		
30	258		188	*524	310	330	162			124	159		
31	231		187		310		161			121			Year
Max.	258	223	208	641	551	480	351	132		230	228	156	
Min.	86	175	171	147	309	330	160	0		0	71	0	
Mean	175	195	187	298	353	418	285	57		137	127	65	
Total) Ac.Ft)	10745	10813	11448	17703	21691	24803	17485	3473		8391	7542	3992	138,086

KINGS RIVER WATER ASSOCIATION

STINSON CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					40								
2					20								Gage Heights
3													by Water Stage
4													Recorder
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15						31							
16						31							
17						31							
18						31							
19						31							
20						31							
21						31							
22						31							
23						31							
24						31							
25						31							
26						31							
27						31							
28				25		31							
29				40		31							
30				40		31							
31													Year
Max.				40	40	31							
Min.				0	0	0							
Mean				3	2	17							
Total) Ac.Ft)				208	119	982							1,309

KINGS RIVER WATER ASSOCIATION

SUMMIT LAKE CANAL - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	7				21								
2	8				3								Gage Heights
3	9												by Water Stage
4	8												Recorder
5	8												
6	7												
7	6												
8	2					5							
9	8												
10	6					4							
11	6												
12	5												
13	3					26							
14						38							
15						43							
16						48							
17						43							
18						48							
19						43							
20					3	46							
21						50							
22						47							
23						44							
24						46							
25						46							
26						42							
27				13		16							
28				40									
29				5									
30				6									
31													Year
Max.	9			40	21	50							
Min.	0			0	0	0							
Mean	3			2	1	21							
Total) Ac.Ft)	164			127	53	1257							1,601

KINGS RIVER WATER ASSOCIATION

BLAKELEY CANAL (Empire Canal No. 3) - Daily Diversions in Second Feet for the Year 1953

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													These daily
8													diversions in-
9													clude any water
10													which may have
11													been diverted
12													by the Empire
13													West Side Irri-
14													gation Dist.
15													through the
16						25							Blakeley Canal.
17						107							
18						110							
19						115							
20						53							
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													Year
Max.						115							
Min.						0							
Mean						14							
Total) Ac.Ft)						812							812

CLARKS FORK ISLAND - Annual Diversions in Second Feet from Kings River for the Year 1953

An estimated total diversion of 215 Acre Feet (215 ac. x 1.0 ft. deep) was made during the irrigation season.

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE CANAL (Empire Canal No. 1) - Daily Diversions in Second Feet for the Year 1953

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						5							
16						30							
17						80							
18						115							
19						101							
20						85							
21						66							
22						43							
23						4							
24						10							
25						9							
26						10							
27						9							
28													
29													
30													
31													Year
Max.						115							
Min.						0							
Mean						20							
Total) Ac.Ft)						1123							1,123

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE OUTSIDE CANAL - Daily Diversions in Second Feet for the Year 1953

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						6							
16						21							
17						22							
18						23							
19						23							
20						19							
21						16							
22						12							
23													
24													
25													
26													
27													
28													
29													
30													
31													Year
Max.						23							
Min.						0							
Mean						5							
Total) Ac.Ft)						281							281

KINGS RIVER WATER ASSOCIATION

EMPIRE WEST SIDE (Combined) - Daily Diversions in Second Feet from Kings River for the Year 1953

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						11							
16						51							
17						102							
18						138							
19						124							
20						104							
21						82							
22						55							
23						4							
24						10							
25						9							
26						10							
27						9							
28													
29													
30													
31													Year
Max.						138							
Min.						0							
Mean						24							
Total) Ac.Ft)						1404							3,024

Daily diversions are totals of Empire West Side Main Canal and Empire West Side Outside Canal. To the season totals of the above two canals have been added all additional diversions as seasonal totals.

ALL OTHER DIVERSIONS

Outlet #2 (30" Pipe)	60	Ac.Ft.
Outlet #4 (36" Calco Gate)	250	"
Outlet #3 (60" Pipe)	250	"
Upper Empire West Side end Storage in Empire #1	305	"
Lower Empire West Side end Storage in Empire #1	305	"
Outlet #9 (W. H. Newton)	150	"
Outlets #10, 11, 12 and 13	300	"
Sub-Total	1620	"
Empire West Side Canals combined	1404	"
Total	3024	Ac.Ft.

Note: See attached map for location of outlets by number.

KINGS RIVER WATER ASSOCIATION

HEINLEN CANAL - Annual Diversions in Second Feet from Kings River for the Year 1953

Outlet No. 1 (Pumping Plant)

An estimated total diversion of 70 Acre Feet (70 ac. x 1 ft. deep) was made during the irrigation season this year.

KINGS RIVER WATER ASSOCIATION

SOUTH FORK BELOW EMPIRE WEIR NO. 2 - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					56								
2					85								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													
27													
28													
29													
30													
31													Year
Max.					85								
Min.					0								
Mean					5								
Total) Ac.Ft)					279								279

KINGS RIVER WATER ASSOCIATION

STRATFORD IRRIGATION DISTRICT - Daily Diversions in Second Feet from Kings River for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1													
2													Gage Heights
3							Only water diverted through main headgate is						by Water Stage
4							shown in daily diversions. Other diversions						Recorder
5							are added in an annual lump sum.						
6													
7													
8													
9													
10													
11													
12													
13							OTHER DIVERSIONS						
14													
15						7	Outlet #6 (36" Calco Gate)				50	Ac.Ft.	
16						7	Upper Stratford end storage in						
17						7			Empire #1		445	"	
18						7	Lower Stratford end storage in						
19						6			Empire #1		445	"	
20						24	Outlet #15 (Meyers river run)				500	"	
21						21							
22						21			Sub-Total		1440	"	
23													
24						13	Stratford Canal				891	"	
25						50							
26						49	Total of all diversions				2331	"	
27						46							
28						61	Note: See attached map for location of						
29						66	outlets by number.						
30						65							
31													Year
Max.						66							
Min.						0							
Mean						15							
Total) Ac.Ft)						891							2,331

KINGS RIVER WATER ASSOCIATION

UPPER SAN JOSE - Combined Diversions in Second Feet by a Stationary Marine Pump and Two Tractor Portable Pumps in 1953

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						40							
16						40							
17						40							
18						40							
19						40							
20						40							
21						40							
22						40							
23						40							
24						40							
25						40							
26						40							
27						40							
28													
29													
30													
31													Year
Max.						40							
Min.						0							
Mean						17							
Total) Ac.Ft)						1030							1,030

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 July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							26.3	18.0	9.6	5.0	8.4	4.1	
2							26.3	17.6	9.1	4.5	8.3	4.3	Gage Heights
3							26.2	17.3	8.7	4.3	8.3	4.3	by Daily Gage
4							27.5	16.6	8.3	4.0	8.4	4.3	Observations
5							28.7	16.1	5.8	3.6	8.5	4.3	
6							29.0	17.0	6.0	3.5	8.5	4.3	
7							28.5	17.6	6.1	2.9	8.4	4.3	
8	No record kept Jan. 1 - June 30, 1953						28.3	17.9	6.3	2.2	8.4	4.4	
9							28.2	18.0	6.0	2.8	8.4	4.4	
10							28.0	18.1	5.8	3.4	8.3	4.4	
11							25.0	18.5	5.5	3.9	8.3	4.3	
12							24.0	18.5	5.5	4.3	8.3	4.2	
13							21.0	18.7	5.4	5.0	8.2	4.2	
14							20.5	18.5	5.4	5.0	8.2	4.0	
15							20.0	18.5	5.3	4.9	8.0	3.8	
16							20.0	18.1	5.3	5.0	4.0	3.3	
17							22.5	18.0	5.3	5.0	3.5	3.0	
18							22.5	17.8	4.8	5.1	3.0	2.8	
19							22.5	17.8	4.5	6.3	2.0	2.8	
20							22.3	17.8	4.5	7.5	2.0	2.7	
21							22.0	17.5	4.5	8.0	2.0	2.7	
22							21.8	18.0	4.5		2.0	2.7	
23							21.5	18.3	4.5	3.0	2.0	2.7	
24							21.0	18.5	4.5	7.9	2.0	2.7	
25							20.6	18.4	4.5	10.0	2.0	2.7	
26							20.1	18.4	4.6	11.6	2.0	2.6	
27							19.4	18.4	4.6	12.5	2.4	2.5	
28							18.1	18.4	4.6	10.0	2.6	2.5	
29							18.0	16.1	4.8	8.3	3.0	2.5	
30							18.0	14.0	4.8	8.3	3.6	2.5	
31							18.5	11.5		8.3		2.5	Period
Max.							29.0	18.7	9.6	12.5	8.5	4.4	
Min.							18.0	11.5	4.5	0	2.0	2.5	
Mean							23.1	17.5	5.6	5.7	5.4	3.4	
Total) Ac.Ft)							1418	1077	335	349	323	211	3,713

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

CAMERON DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							8.2	6.6	2.8	1.3	6.0	3.1	
2							8.2	6.6	2.8	3.0	5.2	3.0	Gage Heights
3							8.1	6.6	2.7	3.3	4.8	2.9	by Daily Gage
4							9.0	6.3	2.7	3.3	4.3	2.8	Observations
5							10.0	6.2	2.7	3.4	4.3	2.9	
6							12.0	6.1	2.6	3.5	4.3	3.0	
7							11.5	6.0	2.6	3.6	4.3	3.1	
8	No record kept January 1 - June 30, 1953						11.0	6.0	2.6	3.7	4.2	3.0	
9							10.1	6.0	2.5	3.7	4.2	2.9	
10							10.0	6.0	2.5	3.7	4.2	2.9	
11							9.5	5.9	2.5	3.8	4.1	3.0	
12							8.0	5.9	2.5	3.9	4.1	3.0	
13							8.0	5.8	2.5	3.9	4.0	3.0	
14							8.0	5.7	2.4	3.9	4.0	3.0	
15							7.9	5.7	2.4	3.8	4.1	3.0	
16							7.8	5.5	2.3	3.8	4.3	3.0	
17							7.8	5.4	2.3	3.8	4.3	3.0	
18							7.7	5.3	2.3	3.8	4.4	3.0	
19							7.7	5.3	2.0	3.9	4.4	3.0	
20							7.7	5.3	1.9	3.9	4.3	3.0	
21							7.6	5.2	1.7	4.0	4.3	2.9	
22							7.6	4.9	1.6	4.0	4.2	2.9	
23							7.5	4.8	1.4	3.9	4.2	2.9	
24							7.5	4.5	1.5	3.7	4.2	2.9	
25							7.5	4.1	1.5	4.1	4.3	2.9	
26							7.4	3.8	1.5	4.8	4.3	2.9	
27							7.3	3.6	1.3	5.6	4.2	2.7	
28							7.2	3.5	1.1	6.6	4.1	2.7	
29							7.0	3.3	1.1	7.5	3.8	2.5	
30							6.9	3.1	1.1	7.3	3.5	2.5	
31							6.8	3.0		6.6		2.5	Period
Max.							12.0	6.6	2.8	7.5	6.0	3.1	
Min.							6.8	3.0	1.1	1.3	3.5	2.5	
Mean							8.3	5.2	2.1	4.2	4.3	2.9	
Total) Ac.Ft)							511	321	126	256	255	178	1,647

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

CARMELITA DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							8.3	4.2	3.2	4.0	4.1		
2							8.1	4.2	3.1	3.7	4.1		Gage Heights
3							8.0	4.2	3.0	3.4	4.0		by Daily Gage
4							8.0	4.1	3.0	3.4	3.9		Observations
5							8.0	4.1	2.9	3.3	3.8		
6							7.9	4.1	2.9	3.3	3.8		
7							7.7	4.0	2.9	3.2	3.8		
8	No record kept January 1 - June 30, 1953						7.5	4.0	2.9	3.2	3.8		
9							7.5	3.9	2.8	3.5	3.7		
10							7.6	3.9	2.8	3.8	3.7		
11							8.0	3.9	2.8	4.2	3.6		
12							8.0	3.9	2.8	4.5	3.6		
13							8.0	3.8	2.8	4.8			
14							8.0	3.8	2.8	5.2			
15							8.0	3.8	2.7	5.2			
16							8.0	3.8	2.7	5.2			
17							7.5	3.8	2.6	5.0			
18							7.0	3.8	2.8	5.0			
19							6.5	3.8	2.9	4.8			
20							6.0	3.8	3.0	4.8			
21							5.0	3.8	3.2	4.8			
22							5.0	4.0	3.3	4.7			
23							5.0	4.1	3.4	3.2		1.5	
24							4.9	4.3	3.4	2.6		1.5	
25							4.9	4.4	3.4	3.0		1.5	
26							4.9	4.2	3.4	3.5		1.5	
27							4.8	3.9	3.3	4.8		1.5	
28							4.8	3.8	3.3	5.2		1.5	
29							4.6	3.7	3.5	6.0		1.5	
30							4.5	3.5	3.5	5.2		1.5	
31							4.4	3.5		4.6		1.5	Period
Max.							8.3	4.4	3.5	6.0	4.1	1.5	
Min.							4.4	3.5	2.6	2.6	0	0	
Mean							6.7	3.9	3.0	4.2	1.5	.44	
Total) Ac.Ft)							408	242	180	260	91	27	1,208

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

CHINA SLOUGH DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							14.0	10.0	9.5	12.0	9.0	6.8	
2							14.0	10.0	8.1	13.1	5.0	6.7	Gage Heights
3							14.0	10.0	7.5	12.0	5.0	6.7	by Daily Gage
4							14.0	9.5	6.1	10.3	5.0	6.7	Observations
5							14.0	9.5	6.1	8.5	8.9	6.7	
6							14.0	9.4	6.2	8.4	8.8	6.7	
7							14.0	9.8	6.3	8.1	8.8	6.8	
8	No record kept from January 1 - June 30, 1953						14.4	10.0	6.3	8.0	8.5	6.8	
9							14.6	10.0	6.2	7.8	8.3	6.9	
10							15.0	10.0	6.1	7.8	8.2	6.9	
11							15.0	12.0	6.0	7.5	8.1	6.1	
12							15.0	13.5	6.1	3.0	8.0	6.0	
13							14.8	13.5	6.2		8.0	5.7	
14							14.7	13.0	6.3		8.0	5.6	
15							14.6	13.0	5.0		8.0	5.4	
16							8.1	13.0	11.5		8.0	5.4	
17							14.0	12.9	13.0		8.0	5.3	
18							13.0	12.9	13.0		8.0	5.3	
19							12.5	13.0	12.0		8.0	5.3	
20							12.5	13.0	11.0		8.0	5.3	
21							13.0	12.7	10.0		7.8	5.3	
22							10.0	12.5	9.5		7.8	5.3	
23							8.0	12.1	9.5		7.7	5.3	
24							8.5	11.6	8.0		7.7	5.3	
25							8.5	11.2	7.6		7.7	5.3	
26							9.0	10.5	7.5		7.7	5.3	
27							9.0	10.0	7.5		7.6	5.3	
28							10.0	9.5	7.5	10.2	7.5	5.2	
29							10.5	9.5	7.5	9.5	7.3	5.2	
30							10.3	9.5	7.5		7.0	5.0	
31							10.0	9.5		5.0		5.0	Period
Max.							15.0	13.5	13.0	13.1	9.0	6.9	
Min.							8.0	9.4	5.0	0	5.0	5.0	
Mean							12.4	11.3	8.0	4.2	7.7	5.8	
Total) Ac.Ft)							758	692	476	260	458	358	3,002

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

FARMS DITCHES #1 & #3 - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							8.0	5.5	5.0	2.8	2.5	1.0	
2							8.0	5.5	4.9	2.4	2.1	1.1	Gage Heights
3							8.0	5.6	4.8	2.4	2.0	1.0	by Daily Gage
4							8.0	5.6	4.9	2.3	1.9	1.0	Observations
5							8.2	5.4	4.9	2.0	1.7	1.0	
6							8.2	5.3	4.7	1.8	1.8	1.1	
7							8.1	5.2	4.7	1.5	1.8	1.2	
8	No record kept January 1 - June 30, 1953						8.0	5.2	4.6	1.5	1.8	1.4	
9							7.5	5.2	4.5	1.5	1.9	1.4	
10							7.0	5.2	4.4	1.6	1.9	1.5	
11							6.6	5.1	4.4	1.8	2.0	1.5	
12							6.3	5.0	4.4	1.9	2.0	1.5	
13							6.8	4.9	4.4	2.1	1.8	1.5	
14							6.8	4.9	4.3	2.2	1.8	1.5	
15							6.9	5.0	4.2	2.0	1.5	1.5	
16							7.0	5.5	4.1	2.0	1.5	1.5	
17							6.9	5.6	4.0	2.0	1.1	1.5	
18							6.9	5.8	3.5	2.1	1.1	1.5	
19							6.8	5.9	3.4	2.1	.8	1.5	
20							7.0	6.5	3.0	2.2	.9	1.5	
21							7.0	6.4	2.7	2.3	1.0	1.5	
22							6.6	4.9	2.5	2.4	1.1	1.5	
23							6.0	4.8	2.4	2.2	1.1	1.5	
24							6.0	4.5	2.4	2.1	1.0	1.5	
25							5.9	4.1	2.4	2.0	1.1	1.5	
26							5.8	3.8	2.5	4.0	1.1	1.5	
27							5.7	3.6	2.6	5.1	1.1	1.5	
28							5.6	3.5	2.6	5.8	1.1	1.5	
29							5.7	5.6	2.6	6.0	1.0	1.5	
30							5.7	5.2	2.7	4.8	1.1	1.5	
31							5.7	5.1		3.5		1.5	Period
Max.							8.2	6.5	5.0	6.0	2.5	1.5	
Min.							5.6	3.5	2.4	1.5	.8	1.0	
Mean							6.9	5.1	3.7	2.6	1.5	1.4	
Total) Ac.Ft)							422	316	223	159	88	86	1,294

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

FINK DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							26.0	21.8	6.1	8.0	7.1		
2							26.3	21.7	5.3	7.2	6.4		Gage Heights
3							26.5	21.5	4.8	6.8	5.5		by Daily Gage
4							27.0	20.0	4.5	6.3	5.6		Observations
5							27.5	19.3	4.2	5.8	5.8		
6							28.2	19.3	4.0	5.8	5.8		
7							28.2	18.8	3.9	5.8	5.8		
8	No record kept January 1 to June 30						30.0	18.7	3.8	5.8	5.7		
9							30.5	18.5	4.0	5.9	2.5		
10							30.0	17.9	4.0	6.0			
11							25.0	17.5	4.0	6.2			
12							24.5	17.2	4.5	6.2		2.0	
13							26.0	17.2	5.0	6.3		3.0	
14							26.0	17.1	6.0	6.5		7.0	
15							26.0	17.1	5.0	6.4		8.0	
16							25.0	17.1	5.0	6.5		8.0	
17							24.6	17.0	5.0	6.5		8.0	
18							24.5	17.0	5.0	6.6		8.0	
19							23.8	17.0	5.4	7.2		8.0	
20							23.3	17.0	5.3	8.6		8.0	
21							22.9	17.0	5.1	8.8		8.0	
22							22.7	16.1	5.1	8.9		8.0	
23							22.5	14.9	5.1	8.8		7.9	
24							22.8	13.8	5.1	8.7		7.9	
25							23.5	12.6	5.1	10.0		7.9	
26							24.0	12.4	5.0	15.2		7.8	
27							24.8	12.2	5.0	16.9		7.8	
28							24.1	11.9	5.2	20.0		7.8	
29							23.8	10.4	5.2	23.0		7.8	
30							23.6	10.1	6.0	10.0		7.8	
31							24.0	9.3		8.3		7.8	Period
Max.							30.5	21.8	6.1	23.0	7.1	8.0	
Min.							22.5	9.3	3.8	5.8	0	0	
Mean							25.4	16.4	4.9	8.7	1.7	4.7	
Total) Ac.Ft)							1560	1008	290	533	99	290	3,780

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

HANKE DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							26.0	17.2	4.0	2.5	9.6	6.3	
2							26.0	17.1	4.8	2.5	11.2	6.3	Gage Heights
3							26.0	17.1	5.3	2.5	12.3	6.3	by Daily Gage
4							26.1	17.9	6.4	2.5	12.3	6.3	Observations
5							26.3	18.7	4.4	4.0	12.3	6.3	
6							26.5	19.0	4.3	8.6	12.3	6.3	
7							26.5	19.6	4.2	8.6	12.3	6.3	
8	No record kept January 1 to June 30						26.5	20.0	4.0	8.5	12.3	6.4	
9							26.3	20.5	4.0	8.5	12.3	6.4	
10							24.2	20.5	4.0	8.5	12.3	6.5	
11							24.6	20.7	4.0	8.6	12.3	6.4	
12							25.0	21.0	4.0	8.7	12.3	6.4	
13							25.5	21.0	3.8	8.7	11.4	6.3	
14							25.5	20.9	4.6	8.8	10.1	6.3	
15							26.0	20.6	3.6	8.8	9.2	6.2	
16							26.5	20.3	3.8	8.8	8.3	6.2	
17							25.0	19.6	4.0	8.7	7.8	6.2	
18							24.3	19.1	4.1	8.7	7.2	6.2	
19							23.6	18.4	4.4	8.8	6.5	6.2	
20							21.4	17.3	4.0	8.9	6.5	6.2	
21							19.0	16.9	2.0	9.2	6.4	6.2	
22							16.5	16.0	1.5	9.5	6.4	6.2	
23							16.0	15.1	.9	9.4	6.3	6.2	
24							16.0	13.7	1.0	9.3	6.3	6.1	
25							15.8	12.4	1.1	9.1	6.3	6.1	
26							15.6	9.0	1.5	8.6	6.3	6.1	
27							15.5	7.5	1.5	8.3	6.3	6.0	
28							15.2	5.0	2.0	7.5	6.3	6.0	
29							16.0	4.5	2.5	6.8	6.3	6.0	
30							17.3	4.4	2.5	7.0	6.3	6.0	
31							17.3	4.2		7.4		6.0	Period
Max.							26.0	21.0	6.4	9.5	12.3	6.5	
Min.							15.2	4.2	.9	2.5	6.3	6.0	
Mean							22.2	16.0	3.4	7.6	9.1	6.2	
Total) Ac.Ft)							1362	980	202	468	543	382	3,937

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

HARRIS SLOUGH DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							9.5	5.8	.7	3.5	3.2	2.4	
2							9.4	4.3	.5	3.5	3.2	2.3	Gage Heights
3							9.3	4.0	.5	3.4	3.5	2.3	by Daily Gage
4							8.0	5.0	.5	3.4	3.5	2.2	Observations
5							7.5	7.0	2.3	3.4	3.5	2.2	
6							7.4	7.5	3.2	3.3	3.5	2.2	
7							7.3	8.0	3.4	3.3	3.5	2.2	
8	No record kept January 1 - June 30						7.3	8.0	3.7	3.2	3.5	2.2	
9							7.2	8.0	3.7	3.2	3.4	2.4	
10							5.3	8.3	3.6	3.2	3.4	2.4	
11							5.5	8.4	3.6	3.1	3.4	2.3	
12							6.0	8.5	4.8	3.1	3.4	2.3	
13							6.5	8.4	5.3	3.0	3.3	2.3	
14							7.0	8.9	5.3	3.0	3.2	2.3	
15							7.5	8.8	5.3	3.0	3.0	2.2	
16							7.7	8.8	5.3	3.0	3.0	2.2	
17							7.6	8.6	4.2	3.0	2.9	2.2	
18							7.6	8.6	4.8	3.0	2.8	2.2	
19							7.5	8.5	3.0	3.1	2.5	2.2	
20							7.5	8.5	3.0	3.1	2.5	2.2	
21							7.5	8.4	3.0	3.1	2.4	2.2	
22							7.5	8.2	3.5	3.1	2.4	2.1	
23							7.4	8.0	3.2	3.0	2.3	2.1	
24							7.4	7.8	3.2	3.0	2.3	2.1	
25							7.3	3.3	3.0	3.0	2.4	2.1	
26							7.2	2.8	3.3	3.0	2.5	2.0	
27							7.1	2.3	3.5	3.0	2.5	1.9	
28							7.0	2.0	2.8	3.0	2.5	1.8	
29							6.9	.9	2.8	3.0	2.4	1.8	
30							6.9	.8	3.0	3.0	2.4	1.8	
31							6.7	.9		3.0		1.8	Period
Max.							9.5	8.9	5.3	3.5	3.5	2.4	
Min.							5.3	.8	.5	3.0	2.3	1.8	
Mean							7.3	6.4	3.3	3.1	2.9	2.2	
Total) Ac.Ft)							451	391	194	192	175	132	1,535

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

JACK DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							3.0	4.0	1.4	1.2	2.6		
2							3.0	4.5	1.3	1.4	2.6		Gage Heights
3							3.0	4.5	1.3	1.5	2.6		by Daily Gage
4							3.3	4.5	1.2	1.5	2.6		Observations
5							3.4	4.8	1.2	1.5	2.6		
6							3.5	5.0	1.2	1.8	2.6		
7							3.5	4.9	1.1	1.9	2.6		
8	No record kept January 1 - June 30						3.5	4.9	1.1	2.0	2.6		
9							3.5	4.6	1.1	2.0	2.6		
10							3.7	4.5	1.0	2.0	2.5		
11							3.7	4.7	1.0	2.0	2.5	.5	
12							3.7	5.0	1.0	2.0	2.5	1.0	
13							2.8	5.2	1.0	2.0	2.2	1.5	
14							2.5	5.2	1.1	2.0	2.0	2.0	
15							2.4	4.8	1.1	2.0	2.0	2.5	
16							2.2	4.6	1.2	2.0		3.0	
17							2.0	4.1	1.2	2.0		3.0	
18							1.6	3.4	1.2	2.1		3.0	
19							1.5	3.0	1.2	2.2		3.0	
20							1.2	3.0	1.1	2.3		3.0	
21							1.1	2.9	1.1	2.4		2.8	
22							1.0	2.8	1.1	2.4		2.8	
23							1.0	2.7	1.1	2.3		2.8	
24							1.0	2.5	1.1	2.1		2.7	
25							1.0	2.4	1.0	3.0		2.7	
26							1.0	2.0	1.0	3.1		2.6	
27							1.0	1.7	1.0	3.3		2.6	
28							1.0	1.8	1.0	3.4		2.6	
29							1.0	1.5	1.0	3.5		2.5	
30							1.0	1.5	1.0	3.1		2.5	
31							1.0	1.5		2.6		2.5	Period
Max.							3.7	5.2	1.4	3.5	2.6	3.0	
Min.							1.0	1.5	1.0	1.2	0	0	
Mean							2.2	3.6	1.1	2.2	1.2	1.7	
Total) Ac.Ft)							135	223	66	136	73	102	735

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

JACOBI DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							.5						
2							.5						Gage Heights
3							.5						by Daily Gage
4							.5						Observations
5							.5						
6							2.0						
7							2.5						
8	No record kept January 1 - June 30						2.8						
9							1.0						
10							.5						
11							.5						
12							.5						
13							1.0						
14							4.0						
15							5.0						
16							6.5						
17							3.0						
18													
19													
20													
21													
22							.5						
23							.5						
24							.5						
25							.5						
26							.5						
27							.5						
28							.5						
29							.5						
30													
31													Period
Max.							6.5						
Min.							0						
Mean							1.5						
Total) Ac.Ft)							71.0						71.0

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

McLAUGHLIN & RICE DITCHES - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							4.2	5.5	2.4	4.0	3.1	2.8	
2							4.1	5.2	2.4	4.0	3.2	2.7	Gage Heights
3							3.9	4.7	2.3	4.0	3.4	2.7	by Daily Gage
4							4.8	4.4	2.3	3.9	3.5	2.7	Observations
5							5.3	3.8	2.6	3.9	3.5	2.7	
6							5.6	3.8	2.6	3.9	3.5	2.8	
7							6.5	3.7	2.8	3.9	3.5	2.9	
8	No record kept January 1 - June 30						7.7	3.8	2.9	3.8	3.5	3.0	
9							7.7	3.9	3.2	3.8	3.4	3.1	
10							7.5	3.9	3.3	3.8	3.4	3.1	
11							7.1	4.2	3.3	3.8	3.4	3.1	
12							6.5	4.2	3.3	3.8	3.4	3.1	
13							6.3	4.3	3.4	3.8	3.3	3.2	
14							6.2	4.3	3.5	3.8	3.2	3.2	
15							6.1	4.3	3.5	3.6	3.2	3.2	
16							6.0	4.4	3.7	3.6	3.0	3.3	
17							5.6	4.4	3.7	3.6	2.9	3.3	
18							5.2	4.5	3.9	3.7	2.8	3.3	
19							4.9	4.6	3.9	3.9	2.7	3.3	
20							4.6	4.7	3.7	3.8	2.8	3.2	
21							4.5	4.6	3.6	3.9	2.9	3.2	
22							5.1	4.3	3.6	4.0	3.0	3.2	
23							5.8	4.2	3.6	4.0	3.0	3.2	
24							5.8	4.1	3.5	3.9	3.0	3.2	
25							5.8	4.0	3.5	3.5	3.0	3.2	
26							5.9	3.7	3.5	3.3	3.0	3.1	
27							6.0	3.5	3.3	2.7	3.0	3.0	
28							6.0	2.9	3.3	2.4	3.0	3.0	
29							6.0	2.6	3.3	2.2	2.8	3.0	
30							6.0	2.6	3.3	2.7	2.8	3.0	
31							6.0	2.4		3.1		3.0	Period
Max.							7.7	5.5	3.9	4.0	3.5	3.3	
Min.							3.9	2.4	2.3	2.2	2.7	2.7	
Mean							5.8	4.0	3.2	3.6	3.1	3.1	
Total) Ac.Ft)							354	248	192	222	187	188	1,391

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

MITCHELL DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

NO DIVERSIONS DURING THIS PERIOD

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

PHILLIPS DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							1.8	3.0	1.0	4.0	1.5	1.3	
2							1.8	2.9	1.0	4.0	1.8	1.2	Gage Heights
3							1.7	2.9	1.0	3.5	2.1	1.2	by Daily Gage
4							4.0	2.7	1.0	2.0	2.2	1.2	Observations
5							4.2	2.7	1.0	1.5	2.3	1.2	
6							4.3	2.7	1.0	1.4	2.3	1.2	
7							4.3	2.7	1.1	1.3	2.2	1.2	
8	No record kept January 1 - June 30						3.9	2.7	1.1	1.3	2.2	1.2	
9							3.3	2.6	1.2	1.4	2.2	1.3	
10							2.8	2.6	1.3	1.5	2.1	1.3	
11							2.5	2.6	1.3	1.8	2.1	1.3	
12							2.5	2.5	1.3	2.0	2.1	1.3	
13							2.6	2.5	1.3	2.5	2.0	1.2	
14							2.7	2.5	1.2	2.8	1.8	1.2	
15							2.8	2.4	1.2	2.7	1.8	1.2	
16							2.8	2.4	1.2	2.7	1.7	1.2	
17							2.9	2.3	1.1	2.7	1.7	1.2	
18							2.9	2.3	2.0	2.7	1.6	1.2	
19							3.0	2.2	2.5	2.7	1.5	1.2	
20							3.4	2.1	2.5	2.7	1.5	1.2	
21							3.5	2.1	2.5	2.8	1.4	1.1	
22							3.3	2.0	2.6	2.8	1.4	1.1	
23							3.0	1.8	2.8	2.7	1.4	1.1	
24							3.0	1.6	2.8	2.7	1.3	1.1	
25							3.0	1.1	2.8	2.0	1.3	1.0	
26							3.0	1.1	2.8	1.3	1.3	1.0	
27							3.0	1.1	2.9	1.0	1.4	1.0	
28							3.0	1.1	2.9	.8	1.3	1.0	
29							3.0	1.1	2.9	.5	1.3	1.0	
30							3.0	1.0	2.9	.8	1.3	1.0	
31							3.0	1.0		1.3		1.0	Period
Max.							4.3	3.0	2.9	4.0	2.3	1.3	
Min.							1.7	1.0	1.0	.5	1.3	1.0	
Mean							3.3	2.1	1.8	2.1	1.7	1.2	
Total) Ac.Ft)							186	131	107	130	103	71	728

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

SHORT DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							3.0	3.7	1.3	6.0	2.4	2.1	
2							3.0	3.7	1.2	6.0	2.5	2.0	Gage Heights
3							2.9	3.6	1.2	8.0	2.5	2.0	by Daily Gage
4							3.0	3.5	1.2	7.5	2.9	2.0	Observations
5							3.5	3.5	1.1	6.0	2.9	2.0	
6							3.5	3.5	1.1	5.0	2.9	2.1	
7							3.5	3.4	1.1	4.0	2.9	2.1	
8	No record kept January 1 - June 30						3.5	3.3	1.1	3.8	2.9	2.1	
9							3.4	3.1	1.0	3.9	2.8	2.2	
10							3.2	3.0	1.0	4.0	2.8	2.2	
11							3.0	3.0	1.0	4.1	2.8	2.2	
12							2.8	3.0	1.0	4.2	2.8	2.2	
13							3.0	2.8	1.0	4.3	2.7	2.2	
14							3.2	2.8	1.0	4.4	2.7	2.2	
15							3.2	2.8	1.0	4.3	2.6	2.2	
16							3.3	2.8	1.0	4.1	2.6	2.3	
17							3.3	2.8	1.0	3.6	2.6	2.3	
18							3.4	2.9	2.5	3.3	2.5	2.3	
19							3.6	2.9	2.8	3.3	2.5	2.3	
20							3.8	2.9	2.9	3.4	2.4	2.3	
21							4.0	2.7	3.0	3.4	2.4	2.3	
22							3.8	2.4	3.0	3.5	2.3	2.2	
23							3.7	2.2	3.2	3.3	2.3	2.2	
24							3.7	2.0	3.1	3.2	2.1	2.2	
25							3.8	2.0	3.1	2.6	2.2	2.2	
26							3.9	1.9	3.1	2.0	2.2	2.1	
27							3.9	1.8	3.1	1.6	2.2	2.0	
28							4.0	1.5	3.0	1.3	2.1	2.0	
29							4.0	1.4	3.0	1.0	2.1	2.0	
30							4.0	1.4	3.0	1.5	2.1	2.0	
31							4.0	1.4		2.0		2.0	Period
Max.							4.0	3.7	3.2	8.0	2.9	2.3	
Min.							2.8	1.4	1.0	1.0	2.1	2.0	
Mean							3.5	2.7	1.9	3.8	2.5	2.1	
Total) Ac.Ft)							214	166	113	235	150	132	1,010

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

TURNER DITCH - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							3.2	11.0	.5	7.0	4.8	.5	
2							3.1	11.0	.5	9.0	6.6	.5	Gage Heights
3							2.9	11.5	.5	8.6	7.0		by Daily Gage
4							3.0	11.5	.5	8.3	7.1		Observations
5							5.0	11.5	.5	7.8	7.2		
6							6.0	11.8	.5	7.5	7.2		
7							6.5	12.0	.5	7.3	7.3		
8	No record kept January 1 - June 30						8.0	12.0	.5	7.1	7.4		
9							9.0	12.0	.5	6.8	7.4	.5	
10							1.0	12.0	.5	6.7	7.5	.5	
11							1.5	11.3	.5	6.6	7.5	.3	
12							2.0	10.8	.5	6.5	7.5	.2	
13							7.0	10.4	.4	6.5	6.0	.2	
14							10.0	10.3	.3	6.5	5.0	.2	
15							12.0	10.3	.3	6.3	3.0	.2	
16							12.0	10.1	.3	6.3	1.3	.1	
17							12.0	10.1	.3	6.3	.8	.1	
18							12.0	10.1	.2	6.4	.4	.1	
19							12.0	10.0	.5	6.6	.4	.1	
20							12.0	9.9	.5	7.1	.4	.1	
21							12.0	9.7	.6	7.1	.4	.1	
22							12.0	9.0	.7	7.0	.5	.1	
23							12.0	8.5	.7	6.8	.5	.1	
24							11.8	7.5	.7	6.7	.5	.1	
25							11.6	.6	.7	4.2	.5		
26							11.5	.5	.6	3.1	.5		
27							11.2	.5	.6	1.0	.5		
28							11.0	.5	.6	.5	.5		
29							11.0	.5	.5	.5	.5		
30							10.7	.5	.5	.8	.5		
31							10.5	.5		2.5			Period
Max.							12.0	12.0	.7	9.0	7.5	.5	
Min.							1.0	.5	.2	.5	.4	0	
Mean							8.6	8.3	.5	5.9	3.6	.1	
Total) Ac.Ft)							527	511	30	359	211	8	1,645

KINGS RIVER WATER ASSOCIATION
CENTERVILLE BOTTOMS DITCHES

COMBINED - Daily Diversions in Second Feet from Kings River for the Period July 1 to December 31, 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1							142.0	116.3	47.5	61.3	64.3	30.4	
2							141.8	114.3	45.0	64.3	62.2	30.1	
3							141.0	113.5	43.6	[illegible]	63.0	29.4	
4							146.2	111.6	42.6	55.7	63.2	29.2	
5							152.1	112.6	39.7	54.7	67.3	29.3	
6							158.1	114.5	40.3	57.0	67.3	29.7	
7							158.6	115.7	40.7	55.1	67.2	30.1	
8							162.4	116.5	40.9	51.1	66.7	30.5	
9							159.5	116.3	40.7	51.6	63.1	31.5	
10							145.8	115.9	40.3	56.0	60.3	31.7	
11							137.5	117.8	39.9	57.4	60.1	31.0	
12							134.8	119.0	41.7	54.1	60.0	33.2	
13							139.3	118.5	42.5	52.9	52.9	34.2	
14							145.1	117.9	44.1	54.1	50.0	38.5	
15							148.4	117.1	40.6	53.0	46.4	39.4	
16							142.9	116.4	47.4	53.0	37.7	39.5	
17							144.7	114.6	47.7	52.2	35.6	39.7	
18							138.6	113.5	50.1	52.5	33.8	38.9	
19							135.9	112.4	48.5	54.9	31.3	38.9	
20							132.7	111.8	46.4	58.3	31.3	38.7	
21							129.1	109.9	43.0	59.8	31.0	38.3	
22							123.4	106.6	42.5	52.3	31.1	38.1	
23							119.9	103.0	41.8	52.6	30.8	39.5	
24							119.9	98.2	40.3	55.9	30.4	39.3	
25							119.7	82.7	39.7	56.5	30.8	39.1	
26							119.7	76.5	40.3	63.5	30.9	38.5	
27							119.2	72.6	40.2	65.8	31.2	37.8	
28							117.5	67.9	39.9	76.7	31.0	37.6	
29							118.0	61.1	43.7	77.8	30.5	37.3	
30							117.9	57.6	41.8	54.5	30.6	37.1	
31							117.9	53.7		58.2		37.1	Period
Max.							162.4	119.0	50.1	77.8	67.3	39.7	
Min.							117.5	53.7	39.7	52.2	30.4	29.2	
Mean							136.4	103.1	42.8	58.0	46.4	35.3	
Total) Ac.Ft)							8375	6328	2541	3558	2756	2165	25,723

KINGS RIVER WATER ASSOCIATION

KINGS RIVER ABOVE NORTH FORK - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	375	533	420	922	1800	2580	2980	837	262	140	140	160	
2	380	538	370	1030	1700	2300	2900	774	252	140	140	153	Gage Heights
3	371	544	380	1180	1850	2260	2820	714	237	139	140	151	by Water Stage
4	380	544	392	1360	2100	2560	2740	653	226	136	139	255	Recorder
5	371	538	392	1570	2500	3230	3040	596	221	134	139	185	
6	414	533	397	1660	2600	3400	3230	554	218	133	140	185	Daily Discharge
7	513	549	410	1460	2340	3090	3320	523	215	132	137	194	from the unpub-
8	677	554	432	1220	2190	3250	3340	498	212	132	137	187	lished record
9	708	508	450	1070	1910	3400	2980	478	207	132	136	185	of the U.S.G.S.
10	647	488	473	1040	1740	3190	2870	478	207	131	136	187	Subject to
11	618	493	460	922	1630	4100	2770	469	207	132	139	182	revision.
12	602	464	455	879	1540	4490	2680	460	202	132	139	182	
13	835	446	432	844	1510	4330	2660	503	199	132	140	185	
14	1070	446	428	781	1640	4800	2510	528	197	132	192	187	
15	816	446	428	837	1800	4890	2340	488	197	132	207	187	
16	754	441	432	938	1650	5220	2160	455	180	132	178	185	
17	695	441	441	1010	1650	4750	2730	423	176	132	178	182	
18	665	437	450	1030	2010	4100	2420	401	171	133	171	178	
19	653	388	503	1370	2650	4640	2080	375	167	151	156	171	
20	671	380	680	1440	2740	4780	1780	354	163	149	174	171	
21	714	380	570	1500	3160	4620	1740	338	160	151	167	163	
22	635	370	564	1660	3280	4620	1600	327	158	149	167	154	
23	608	370	586	2410	3320	4660	1460	312	154	145	176	142	
24	591	340	641	3000	2650	4640	1350	301	151	149	171	140	
25	570	350	677	3700	2240	4360	1240	291	148	149	171	140	
26	554	350	714	3700	1970	3790	1100	281	145	149	171	137	
27	518	360	774	4600	1830	3340	1020	271	142	146	169	148	
28	513	380	851	3700	1720	3340	1000	262	146	144	171	151	
29	508		879	2700	1600	3320	998	258	145	142	165	148	
30	508		830	2100	1730	3190	945	258	142	142	162	145	
31	523		851		2370		886	255		141		142	Year
Max.	1070	554	851	4600	3320	5220	3340	837	262	151	207	255	
Min.	371	340	370	781	1510	2260	886	255	142	131	136	137	
Mean	595	450	541	1721	2110	3841	2184	442	187	139	158	170	
Total) Ac.Ft)	36610	25010	33250	102400	129800	228600	134300	27200	11120	8550	9420	10440	756,700

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW NORTH FORK - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	524	875	655	1600	2880	4280	3580	863	297	164	160	222	
2	542	882	532	1870	2680	3740	3420	804	291	162	156	208	Gage Heights
3	537	888	565	2150	2950	3620	3310	749	273	162	154	198	by Water Stage
4	537	869	565	2480	3500	4060	3200	690	252	158	160	373	Recorder
5	537	901	570	2850	3940	4940	3470	650	245	152	162	255	
6	605	875	605	2930	4040	5420	3710	600	240	150	164	267	
7	769	920	645	2450	3710	4840	3780	575	235	144	162	285	
8	1090	908	705	1950	3400	5020	3740	537	232	144	156	264	
9	1250	788	766	1650	2880	5220	3530	528	222	142	158	255	
10	1060	722	793	1600	2610	4870	3200	514	218	138	162	252	
11	1010	732	727	1380	2460	6150	3070	510	215	140	166	255	
12	954	695	705	1320	2350	6580	2940	506	222	142	168	258	
13	1800	670	660	1280	2330	6330	2900	550	220	142	188	264	
14	2180	675	640	1170	2630	6940	2770	575	215	142	314	267	
15	1280	690	640	1350	2950	7110	2540	537	215	142	322	270	
16	1140	680	670	1590	2620	7470	2340	496	218	144	264	264	
17	1030	685	710	1780	2600	6700	2950	470	210	142	258	285	
18	968	680	732	1840	3280	6000	2660	437	205	146	252	248	
19	1000	595	837	1990	4220	6510	2380	409	200	192	218	238	
20	1070	585	1110	2600	4230	6530	2030	389	195	192	245	235	
21	1180	585	863	2810	4940	6170	1890	374	190	190	258	230	
22	954	560	908	3410	5140	6130	1710	364	188	202	238	200	
23	914	580	954	4670	5120	6130	1560	340	185	182	250	182	
24	882	519	1100	5440	4010	6020	1450	329	178	185	235	178	
25	882	532	1200	5910	3350	5540	1320	318	174	180	238	166	
26	857	532	1220	5870	2910	4780	1160	309	168	180	240	180	
27	776	546	1310	8100	2720	4220	1070	297	166	178	240	182	
28	766	585	1450	5650	2580	4150	1050	288	166	200	248	195	
29	776		1400	4140	2420	4100	1020	285	166	185	235	182	
30	804		1290	3320	2720	3900	975	285	164	172	228	192	
31	839		1400		4010		908	282		170		180	Year
Max.	2180	920	1450	8100	5140	7470	3780	863	297	202	322	373	
Min.	524	519	532	1170	2330	3620	908	282	164	138	154	166	
Mean	952	706	869	2905	3296	5449	2440	479	212	163	213	233	
Total) Ac.Ft)	58540	39180	53410	172900	202700	324200	150000	29470	12620	10040	12690	14340	1,080,090

KINGS RIVER WATER ASSOCIATION

NORTH FORK OF KINGS RIVER - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	149	342	235	678	1080	1700	600	26	35	24	20	62	
2	162	344	162	840	980	1440	520	30	39	22	16	55	All daily dis-
3	166	344	185	970	1100	1360	490	35	36	23	14	47	charges were
4	157	325	173	1120	1400	1500	460	37	26	22	21	118	calculated by
5	166	363	178	1280	1440	1710	430	54	24	18	23	70	subtracting
6	191	342	208	1270	1440	2020	480	46	22	17	24	82	Kings River
7	256	371	235	990	1370	1750	460	52	20	12	25	91	Above North
8	413	354	273	730	1210	1770	400	39	20	12	19	77	Fork from Kings
9	542	280	316	580	970	1820	550	50	15	10	22	70	River Below
10	413	234	320	560	870	1680	330	36	11	7	26	65	North Fork
11	392	239	267	458	830	2050	300	41	8	8	27	73	
12	352	231	250	441	810	2090	260	46	20	10	29	76	
13	965	224	228	436	820	2000	240	47	21	10	48	79	
14	1110	229	212	389	990	2140	260	47	18	10	122	80	
15	464	244	212	513	1150	2220	200	49	18	10	115	83	
16	386	239	238	652	970	2250	180	41	38	12	86	79	
17	335	244	269	770	950	1950	220	47	34	10	80	103	
18	303	243	282	810	1270	1900	240	36	34	13	81.	70	
19	347	207	334	620	1570	1870	300	34	33	41	62	67	
20	399	205	430	1160	1490	1750	250	35	32	43	71	64	
21	466	205	293	1310	1780	1550	150	36	30	39	91	67	
22	319	190	344	1750	1860	1510	110	37	30	53	71	46	
23	306	210	368	2260	1800	1470	100	28	31	37	74	40	
24	291	179	459	2440	1360	1380	100	28	27	36	64	38	
25	312	182	523	2210	1110	1180	80	27	26	31	67	26	
26	303	182	506	2170	940	990	60	28	23	31	69	43	
27	258	186	536	3500	890	880	50	26	24	32	71	34	
28	253	205	599	1950	860	810	50	26	20	56	77	44	
29	268		521	1440	820	780	22	27	21	43	70	34	
30	296		460	1220	990	710	30	27	22	30	66	47	
31	316		549	[illegible]	1640		22	27		29		38	Year
Max.	1110	488	599	3500	1860	2250	600	52	39	56	122	103	
Min.	149	179	162	441	810	710	22	26	17	7	14	26	
Mean	357	255	328	1184	1186	1608	256	37	25	24	55	63	
Total) Ac.Ft)	21930	14170	20160	70500	72900	95600	15700	2270	1500	1490	3270	3900	323,390

KINGS RIVER WATER ASSOCIATION

KINGS RIVER AT PIEDRA - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	665	920	740	1660	3340	4320	3630	896	292	161	175	235	
2	640	938	680	1890	3050	4080	3450	849	306	161	166	225	Gage Heights
3	640	944	650	2120	3220	4020	3320	800	282	159	168	212	by Water Stage
4	630	938	660	2380	3590	4020	3190	745	266	157	173	358	Recorder
5	620	938	670	2720	4060	4930	3360	680	253	155	180	365	
6	690	938	695	2890	4150	5240	3620	640	244	150	178	268	
7	896	980	725	2560	4000	5210	3710	600	238	150	178	298	
8	1520	1010	778	2150	3710	5080	3690	573	235	142	170	289	
9	1430	932	844	1810	3100	5330	3550	546	229	142	168	274	
10	1210	822	896	1760	2810	4930	3230	537	217	142	170	268	
11	1100	805	884	1550	2540	5850	3030	528	212	142	168	271	
12	1050	788	822	1490	2530	6540	2890	519	214	144	175	265	
13	1290	756	794	1410	2480	6380	2900	537	217	148	175	271	
14	2870	740	750	1330	2740	6770	2800	582	214	150	260	277	
15	1830	761	740	1410	3130	6970	2560	564	212	153	445	283	
16	1410	772	756	1660	2930	7390	2350	524	217	153	292	280	
17	1250	761	794	1850	2810	7080	2820	488	214	153	279	277	
18	1150	756	832	1870	3310	6200	2680	457	209	157	285	280	
19	1130	725	860	2410	4260	6320	2410	429	203	170	247	256	
20	1160	670	1450	2580	4460	6560	2120	409	195	212	244	241	
21	1360	660	1050	2630	5020	6240	1920	385	190	217	266	247	
22	1120	645	1090	3010	5300	6040	1780	374	187	223	256	232	
23	1040	645	1080	4140	5450	6020	1640	354	185	203	256	210	
24	1010	625	1210	4880	4380	5980	1500	340	182	195	253	195	
25	980	605	1320	5430	3810	5590	1360	330	175	195	244	198	
26	956	605	1350	5700	3140	4930	1210	323	170	195	244	177	
27	914	610	1420	5720	2920	4270	1090	309	166	192	247	198	
28	860	635	1520	6140	2810	4150	1060	299	161	187	253	200	
29	849		1550	6000	2640	4090	1040	285	164	220	250	200	
30	872		1450	3880	2870	3910	994	289	161	192	241	195	
31	896		1480		3830		938	289		182		190	Year
Max.	2870	1010	1550	6140	5450	7390	3710	896	306	223	445	365	
Min.	620	605	650	1330	2480	3910	938	285	161	142	166	177	
Mean	1098	783	985	2901	3496	5481	2447	499	214	171	227	250	
Total) Ac.Ft)	67510	43490	60580	172600	215000	326200	150400	30700	12710	10520	13500	15340	1,118,550

KINGS RIVER WATER ASSOCIATION

MILL CREEK - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	27	23	19	19	20	17							
2	25	23	20	19	19	20							Gage Heights
3	24	22	17	20	18	18							by Water Stage
4	23	21	16	21	17	16							Recorder
5	21	21	15	22	16	14							
6	25	21	15	22	15	14							
7	53	20	14	21	15	14							
8	110	20	13	20	14	14							
9	49	19	13	19	14	12							
10	36	19	14	18	13	12							
11	32	19	14	17	13	12							
12	29	19	14	15	11	11							
13	37	18	14	14	10	11							
14	180	18	14	14	15	11							
15	86	17	15	13	16	10							
16	59	17	16	12	13	10							
17	41	16	15	12	12	9							
18	40	16	15	12	11	8							
19	39	15	16	12	9	8							
20	36	14	37	12	7	8							
21	34	14	27	12	7	8							
22	32	14	23	12	6	5							
23	30	14	21	12	6	4							
24	29	13	20	11	7	3							
25	28	13	20	12	6								
26	26	13	20	12	6								
27	25	12	19	113	7								
28	25	12	18	20	11								
29	24		19	20	14								
30	23		23	20	12								
31	23		22		13								Year
Max.	180	23	37	113	20	20							
Min.	21	12	13	11	6	0							
Mean	41	17	18	19	12	9							
Total) Ac.Ft)	2517	956	1105	1144	739	533							6,994

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW PEOPLES WEIR - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	455	448	230	208	760	690	380	182	68	34	50	136	
2	316	425	230	250	433	800	300	150	65	16	85	147	Gage Heights
3	320	423	200	290	363	660	450	110	64	23	90	132	by Water Stage
4	309	397	130	307	460	605	465	100	62	25	91	135	Recorder
5	300	380	179	355	546	695	425	105	61	25	90	181	
6	287	362	182	395	675	1027	512	100	60	25	91	162	
7	300	345	182	345	547	1540	495	103	58	20	94	110	
8	469	371	194	255	425	1230	430	112	57	12	100	130	
9	685	382	202	219	365	1440	380	117	56	7	103	136	
10	575	361	155	221	354	1533	282	110	54	6	103	132	
11	460	325	126	183	301	1153	375	95	54	5	103	127	
12	395	345	170	128	283	2015	430	90	54	5	106	133	
13	355	340	139	122	303	2365	375	90	54	15	106	150	
14	831	322	152	111	340	2150	355	90	54	20	108	148	
15	1834	315	165	111	435	2620	285	100	54	27	110	135	
16	1015	318	180	178	552	2760	360	90	53	30	120	140	
17	734	320	188	226	430	3090	278	85	53	31	90	146	
18	615	308	185	207	495	2555	515	80	52	31	118	146	
19	533	297	188	197	655	1820	400	70	51	31	132	148	
20	498	293	185	322	720	2130	325	80	48	31	134	136	
21	490	274	342	322	550	2200	254	80	46	33	136	127	
22	592	291	165	281	935	1910	220	78	44	33	129	125	
23	490	274	165	404	1057	1850	258	68	42	33	126	117	
24	393	250	182	1260	1092	1850	200	84	40	33	126	103	
25	340	253	225	1627	555	1780	170	88	38	33	126	115	
26	288	245	236	1651	311	1355	164	85	38	32	131	100	
27	236	253	218	1810	249	590	164	84	38	32	129	112	
28	215	250	210	2524	225	336	170	77	38	31	130	128	
29	236		182	3177	235	445	190	70	38	31	130	136	
30	295		198	2721	268	458	197	69	38	31	138	138	
31	392		176		360		194	69		31		136	Year
Max.	1834	448	342	3177	1092	3090	515	182	68	34	138	181	
Min.	215	245	126	111	225	336	164	69	38	5	50	100	
Mean	492	327	189	680	493	1522	323	94	51	25	111	134	
Total) Ac.Ft)	30201	18151	11605	40406	30252	90391	19796	5764	3033	1529	6583	8211	265,922

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW LEMOORE WEIR - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	218				304	44	55						
2	100					111	50						Gage Heights
3	52	6				103	25						by Water Stage
4	40	56											Recorder
5	35	41			34								
6	22	29			160	113							
7	18	4			54	180							
8	124					185							
9	467					150							
10	405					215							
11	225												
12	145					261							
13	95					900							
14	171					915							
15	1304					1145							
16	945					1190							
17	560					1500							
18	415					1165							
19	295				32	1078							
20	195				126	1150							
21	125				24	1425							
22	158					1157							
23	70				50	1035							
24	100			2	85	1035							
25	40			96		970							
26	5			170		720							
27				375		145							
28				770		65							
29				1470		64							
30				1762		58							
31													Year
Max.	1304	56		1762	304	1500	55						
Min.	0	0		0	0	0	0						
Mean	204	5		155	28	569	4						
Total) Ac.Ft)	12531	269		9197	1721	33816	257						57,791

KINGS RIVER WATER ASSOCIATION

KINGS RIVER BELOW ISLAND WEIR - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					100								
2					10	12							Gage Heights
3					10	12							by Water Stage
4					10	5							Recorder
5					9	4							
6					39	8							
7					15	12							No record from
8					9	72							Jan. 1 - Apr.
9					4	28							24. Construc-
10						80							tion of station
11						20							completed Apr.
12						53							23.
13						408							
14						480							
15						742							
16						768							
17						628							
18						584							
19						411							
20					20	502							
21					18	708							
22					8	572							
23					11	442							
24				10	50	460							
25				186	20	416							
26				136	6	277							
27				251		58							
28				436		20							
29				696		17							
30				915		16							
31													Year
Max.				915	100	768							
Min.				0	0	0							
Mean				88	11	260							
Total) Ac.Ft)				5207	671	15474							21,352

KINGS RIVER WATER ASSOCIATION

KINGS RIVER IN THE SOUTH FORK - Combined Flows in Second Feet for Clarks Fork and Sand Slough for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	30				393								
2	50				15								Gage Heights
3	50												by Water Stage
4	50												Recorder
5	50												
6	50												
7	50												
8	50												
9	100												
10	75												
11	50												
12	50												
13	50					280							
14	85					332							
15	130					122							
16	115					225							
17	60					514							
18	50					518							
19	45					230							
20	40					83							
21	35					123							
22	30					105							
23	30					83							
24						78							
25						73							
26						54							
27						35							
28				130									
29				570									
30				1000									
31													Year
Max.	115			1000	393	518							
Min.	0			0	0	0							
Mean	43			57	13	95							
Total) Ac.Ft)	2623			3366	807	5653							12,449

KINGS RIVER WATER ASSOCIATION

KINGS RIVER IN CLARKS FORK - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1					365								
2					15								Gage Heights
3													by Water Stage
4													Recorder
5													
6													
7													
8													
9													
10													
11													
12													
13						40							
14	10					78							
15	30					100							
16	40					205							
17						495							
18						498							
19						218							
20						70							
21						100							
22						80							
23						60							
24						55							
25						50							
26						32							
27						20							
28				130									
29				570									
30				970									
31													Year
Max.	40			970	365	498							
Min.	0			0	0	0							
Mean	3			56	12	70							
Total) Ac.Ft)	158			3307	752	4160							8,377

KINGS RIVER WATER ASSOCIATION

KINGS RIVER IN SAND SLOUGH - Daily Discharge in Second Feet for the Year 1953

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	30				28								
2	50												Gage Heights
3	50												by Water Stage
4	50												Recorder
5	50												
6	50												
7	50												
8	50												
9	100												
10	75												
11	50												
12	50												
13	50					240							
14	75					254							
15	100					22							
16	75					20							
17	60					19							
18	50					20							
19	45					12							
20	40					13							
21	35					23							
22	30					25							
23	30					23							
24						23							
25						23							
26						22							
27						15							
28													
29													
30				30									
31													Year
Max.	100			30	28	254							
Min.	0			0	0	0							
Mean	40			1	1	25							
Total) Ac.Ft)	2465			59	55	1493							4,072

KINGS RIVER WATER ASSOCIATION

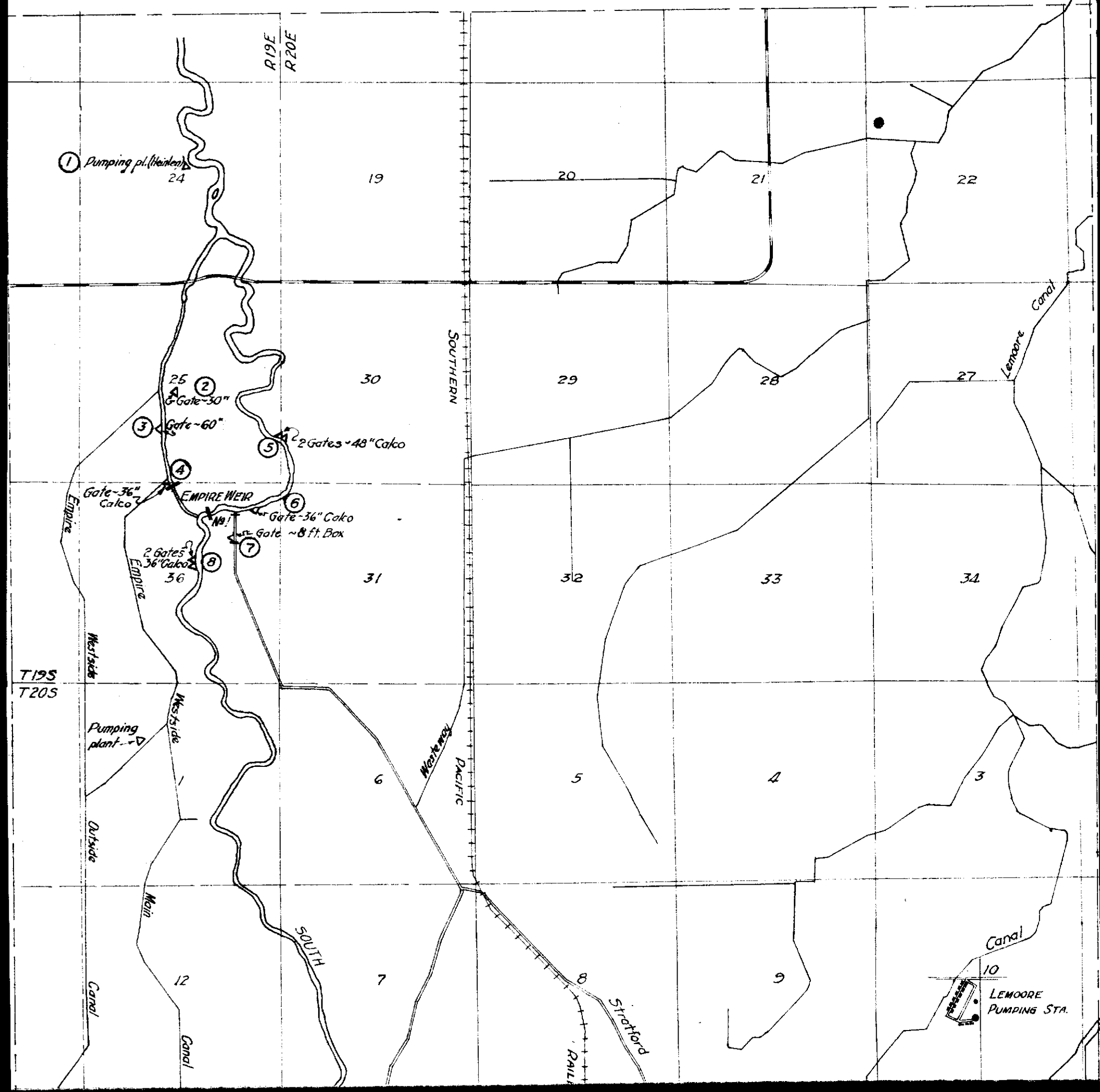
KINGS RIVER BELOW CRESCENT WEIR - Daily Discharge in Second Feet for the Year 1953

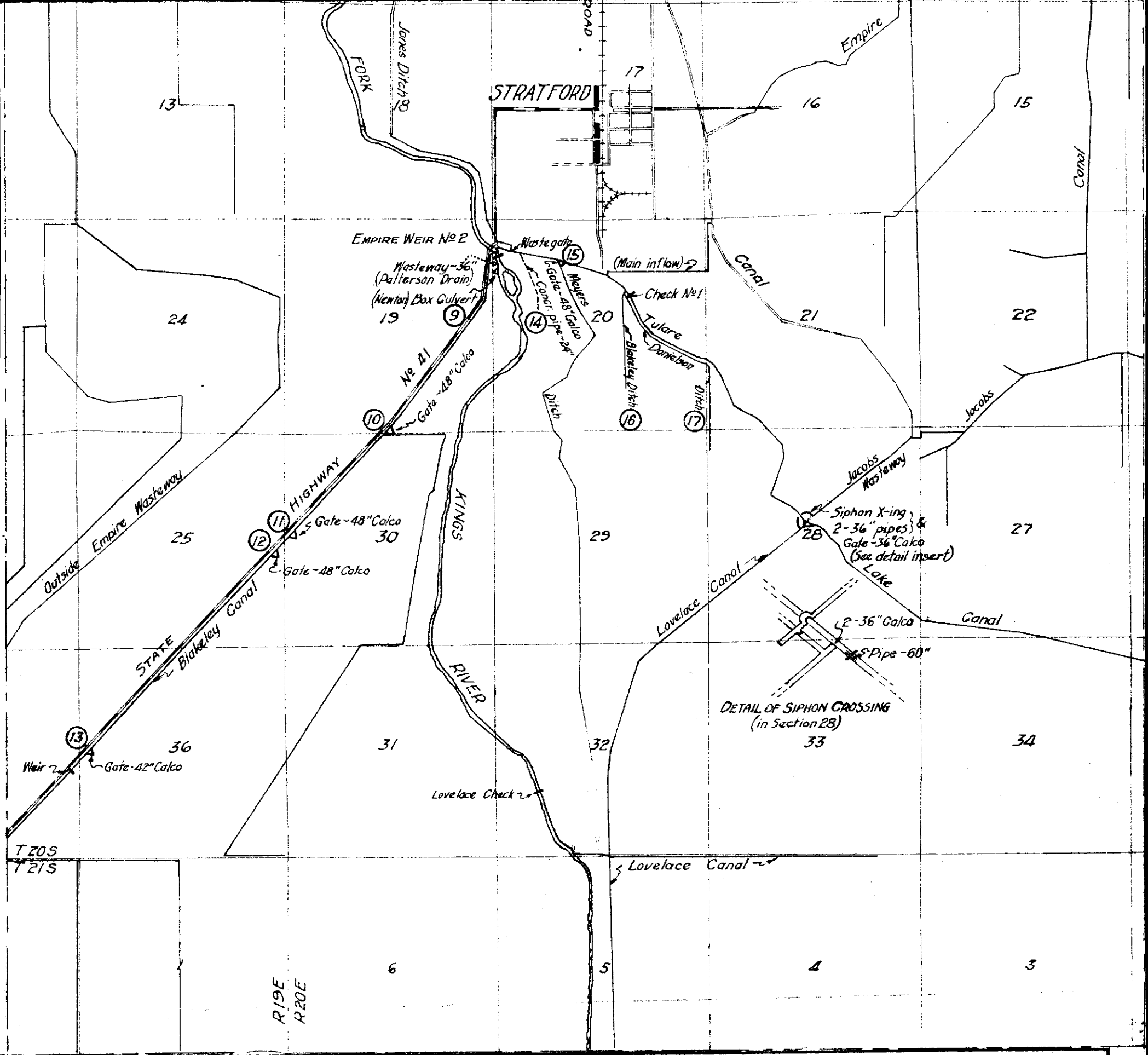
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1	18				105								
2	35												Gage Heights
3	55												by Water Stage
4	50												Recorder
5	45												
6	40												
7	38												
8	30												
9	191												
10	298												
11	197												
12	108												
13	45					130							
14	40					200							
15	750					343							
16	943					538							
17	423					370							
18	285					460							
19	190					270							
20	95					260							
21	50					420							
22	57					350							
23	80					210							
24	28					235							
25				55		210							
26				10		132							
27				30		10							
28				164									
29				490									
30				770									
31													Year
Max.	943			770	105	538							
Min.	0			0	0	0							
Mean	132			51	3	138							
Total) Ac.Ft)	8100			3008	208	8193							19,509

KINGS RIVER WATER ASSOCIATION

KINGS RIVER IN FRESNO SLOUGH BY-PASS - Daily Discharge in Second Feet for the Year 1953

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	8												
13	6												
14													
15													
16	172												
17	640												
18	445												
19	267												
20	157												
21	42												
22	8												
23													
24													
25													
26													
27													
28													
29													
30													
31													Year
Max.	640												
Min.	0												
Mean	56												
Total) Ac.Ft)	3455												3,455


R19E
R20E
T19S
T20S
1 Pumping pl. (Heidlen)
24
19
20
21
22
25
2 Gate-30"
3 Gate-60"
5 2 Gates-48" Calco
4
Gate-36" Calco
EMPIRE WEIR
No. 1
6 Gate-36" Calco
7 Gate-8 ft. Box
2 Gates 36" Calco
8
36
30
29
28
27
31
32
33
34
Lemoore Canal
SOUTHERN
PACIFIC
Waste way
Empire
West side
West side
Pumping plant
1
6
5
4
3
Outside
Main
Canal
Canal
SOUTH
12
7
8
9
10
Canal
LEMOORE PUMPING STA.
Stratford
RAIL



MAP OF PORTION OF THE SOUTH FORK OF KINGS RIVER

SHOWING

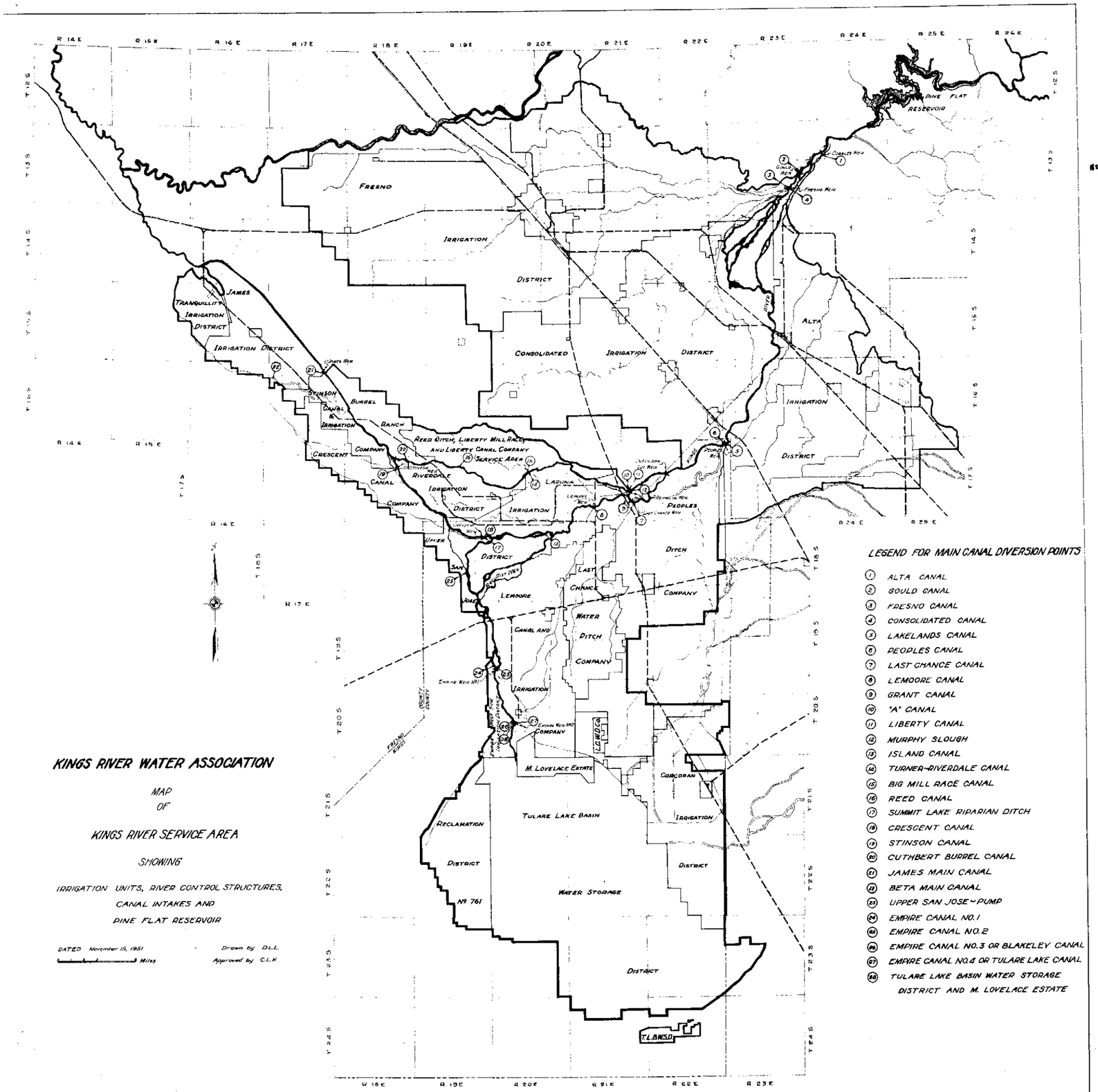
RIVER CHANNELS, CANAL DIVERSIONS & PUMPING PLANTS

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, 1951 — Drawn by D.L.L.
Miles — Approved by C.L.K

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