

**Fourth**  
**Annual Report**  
**ARKANSAS RIVER COMPACT**  
**ADMINISTRATION**  
**(1952)**

**For the Report-Year November 1, 1951 to October 31, 1952**

**LAMAR, COLORADO**

December 9, 1952

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**THE ADMINISTRATION**

**HANS KRAMER**, *Representative of the United States and Chairman*  
**HARRY C. NEVIUS**, *Secretary and Treasurer*

**HARRY B. MENDENHALL**, **HARRY C. NEVIUS** and **CLIFFORD H. STONE**  
*for Colorado*

**WILLIAM E. LEAVITT**, **R. V. SMRHA** and **ROLAND H. TATE**  
*for Kansas.*

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**Annual Report of**  
**ARKANSAS RIVER COMPACT ADMINISTRATION**  
**(1952)**

Report-Year November 1, 1951 to October 31, 1952

TO: THE PRESIDENT OF THE UNITED STATES AND THE  
GOVERNORS OF THE STATES OF COLORADO AND  
KANSAS.

Sirs:

Pursuant to Article VIII of the Arkansas River Compact, the Arkansas River Compact Administration submits its report for the report-year November 1, 1951 through October 31, 1952 as follows:

**1. *Members of the Administration***

Representative of the United States:

Hans Kramer (Brig. General U. S. A.—Ret.)

Colorado Representatives:

Harry B. Mendenhall, Rocky Ford, Colorado

Harry C. Nevius, Lamar, Colorado

\*Clifford H. Stone, Denver, Colorado.

Kansas Representatives:

William E. Leavitt, Garden City, Kansas

R. V. Smrha, Topeka, Kansas

Roland H. Tate, Garden City, Kansas.

**2. *Officers of the Administration***

Chairman—Hans Kramer (Brig. General U. S. A.—Ret.), as required  
by Article VIII C of the Compact

Vice-Chairman—William E. Leavitt of Garden City, Kansas

Secretary—Harry C. Nevius of Lamar, Colorado.

Treasurer—Harry C. Nevius of Lamar, Colorado

**3. *Standing Committees***

Administrative and Legal Committee:

\*Clifford H. Stone of Colorado and Roland H. Tate of Kansas.

Engineering Committee:

R. V. Smrha of Kansas and Harry C. Nevius of Colorado.

Operations Committee:

Harry B. Mendenhall of Colorado and William E. Leavitt of  
Kansas.

Hans Kramer, Representative of the United States, is ex-officio member of all standing committees.

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\*Deceased, October 22, 1952.

#### 4. Meetings

December 11, 1951	Lamar, Colorado	Annual Meeting
March 25, 1952	Lamar, Colorado	Regular Meeting
May 13, 1952	Lamar, Colorado	Special Meeting
July 22, 1952	Lamar, Colorado	Regular Meeting
October 28, 1952	Lamar, Colorado	Special Meeting

#### 5. Fiscal

(a) Balance on hand, October 31, 1951, Auditor's Report..\$2,624.91

(b) Assessments of March 25, 1952 due after July 1, 1952:

State of Kansas, Aug. 22.....	\$1,200.00
State of Colorado, Sept. 25.....	1,800.00
	<hr/>
	\$3,000.00      3,000.00

Total .....\$5,624.91

(c) Disbursements by the Administration Nov. 1, 1951 to Oct. 31, 1952:

Voucher No.	Date	Payee and Purpose	Amount
58	12-10-51	Mt. States T & T Co. Nov. Service, Tolls.....	\$ 8.55
59	12-10-51	Secretary Salary, Nov.....	100.00
60	12-10-51	Butler Stationery Co., Office Supplies.....	6.74
61	12-11-51	R. W. Rollins, Audit Administration Records.....	65.00
62	2- 9-52	Prowers County Clerk, Photo-stat, copies.....	6.00
63	2- 9-52	Mt. States T & T Co., Dec. and Jan. Serv. & Tolls....	14.60
64	2- 9-52	Colo. Blue Print Co., Blueprints.....	12.50
65	2- 9-52	Peerless Printing Co., Annual Reports.....	485.00
66	2- 9-52	Secretary Salary, Dec. & Jan. (less F.I.C.A.).....	182.00
67	3-15-52	Mt. States T & T Co., Feb. Service & Tolls.....	9.80
68	3-15-52	Secretary Salary, February.....	100.00
69	3-22-52	Lamar Daily News, Supplies.....	24.35
70	5-10-52	Mt. States T & T Co., March & April Serv. & Tolls....	20.50
71	5-10-52	Secretary Salary, March & April.....	200.00
72	6-30-52	Mt. States T & T Co., May & June Serv. & Tolls.....	116.85
73	6-30-52	Secretary Salary, May & June (less F.I.C.A.).....	191.00
74	6-30-52	Secretary, Cash Adv. \$14.43, Mileage \$49.00.....	63.43
75	6-30-52	Mt. States T & T Co., June & July Add Tolls.....	10.15
76	9-27-52	Western Union Tel. Co., July & Aug. Telegrams.....	3.02
77	9-27-52	Mt. States T & T Co., July & Aug. Serv. & Tolls.....	63.90
78	9-27-52	Secretary Salary, July & Aug.....	200.00
79	10-25-52	J. L. Wade, Agt. Nat'l. Surety Corp., Sec. Bond.....	50.00
80	10-25-52	Mt. States T & T Co., Sept. Tolls & Serv.....	25.65
81	10-25-52	Secretary Salary, Sept.....	100.00
82	10-31-52	Secretary Salary, Oct. (less F.I.C.A. \$6.00).....	94.00
83	10-31-52	Western Union Tel Co., Oct. Telegrams.....	4.32
84	10-31-52	Mt. States T & T Co., Oct. Serv. & Tolls.....	20.60
			<hr/>
			\$2,177.96

(d) Balance on hand October 31, 1952.....\$3,446.91\*

\*Fiscal year closes June 30, 1953.

- (e) On October 28, 1952 the Administration approved a budget for the fiscal year July 1, 1953 to June 30, 1954, for transmittal to the Governor of each of the States of Colorado and Kansas in accordance with Article VIII E (2) of the Compact as follows:

Personal Services .....	\$1,800.00
Secretary Salary .....	\$1,200.00
Gage Reports .....	500.00
Professional Services (Audit of Accounts) .....	100.00
Capital Outlay .....	300.00
Maintenance and Operation .....	\$1,700.00
Bond, Treasurer .....	50.00
Printing .....	600.00
Official Publications .....	100.00
Travel Expense—Secretary and Employees .....	150.00
Typing and Mailing .....	200.00
Investigations—Inspections .....	150.00
Telephone—Telegraph .....	300.00
Office Supplies .....	150.00
TOTAL BUDGET proposed for 1953-54 .....	\$3,800.00
Estimated carry-over as of June 30, 1953 .....	1,400.00
Total to be appropriated by Colorado-Kansas .....	\$2,400.00
To be appropriated by Colorado 60% .....	\$1,440.00
To be appropriated by Kansas 40% .....	960.00
	\$2,400.00

- (f) Pursuant to provisions of the Compact (Article VIII E (3) and of the By-Laws of the Administration (Article VII (5)), the receipts and disbursements of the Administration have been audited for the period commencing November 1, 1951 through October 31, 1952 the end of the report-year. The report of such audit is hereto attached as Appendix A.

#### 6. *Cooperative Studies and Activities*

- (a) Article VIII-G-(1) of the Arkansas River Compact requires the Administration to cooperate with the Chief Official of each of the States of Colorado and Kansas charged with the administration of water rights and with the Federal agencies in a systematic determination and correlation of the facts as to the flow and diversion of the waters of the Arkansas River and as to the operation and siltation of John Martin Reservoir and other related structures. Article VIII-G-(2) requests the Director of the United States Geological Survey, the Commissioner of Reclamation, and the Chief of Engineers, United States Army, to collaborate with the Administration and with appropriate State officials in such determination and correlation of stream flow and related data. The carrying out of these cooperative studies and activities is assigned, under the By-Laws of the Administration, to the Engineering Committee.

- (b) During the period covered by this report the Administration has had the benefit of excellent cooperation from all agencies and officials referred to in the above provisions of the Compact. The United States Geological Survey has proceeded with the establishment and operation of Compact gaging stations, an activity which is covered in detail in Paragraph 8 of this report. The United States Geological Survey has also continued the compilation of hydrologic data which are presented in this report and which have been utilized in the administration of the Compact. The Corps of Engineers has continued to operate John Martin Reservoir in accordance with the provisions of the Compact. The Corps of Engineers made a sediment survey and established new area-capacity tables for John Martin Reservoir.

#### **7. *Water Supply, Reservoir Operation and Hydrologic Data***

The Compact year considered in this report, beginning on November 1, 1951, commenced with 22,800 acre-feet of water in storage in the John Martin Reservoir. The third successive exceedingly dry winter period resulted in the accumulation of additional water in the reservoir only to the extent of 28,900 acre-feet. At the end of the winter storage season on March 31, 1952, the amount of water impounded in the reservoir was 51,700 acre-feet. This was the smallest quantity in the reservoir for that time of year since the Compact has been in effect. The outlook at that time, nevertheless, appeared rather favorable based on reports of surveys indicating more than twice the normal amount of snow in the watershed. The indicated water supply, however, failed to materialize. The combined discharge of the Arkansas and Purgatoire rivers near Las Animas amounted to 107,790 acre-feet during the irrigation season from April 1, 1952 to October 31, 1952. This was only slightly less than for the same period in the preceding year. Nearly 40 per cent of it occurred during the month of June and about 50 per cent after that time.

Releases from the reservoir were begun on April 7, 1952, and continued until May 31, 1952. Demands to meet Colorado needs were continuous throughout this period while, because of rains, Kansas demands for water at the Stateline did not require additional releases for periods from April 22 to 26, and from April 30 to May 10. At midnight on May 12, 1952, the water remaining in the reservoir amounted to 20,200 acre-feet. At a special meeting of the Administration on May 13, 1952 the Operations Committee reported that it estimated the reservoir would be empty by May 27, 1952. Based upon this estimate action was taken as reported in Paragraph 9 below. On May 31, 1952, the administration of decreed rights of water users in Colorado reverted to the office of the State Engineer of Colorado. As a result of action by all interests concerned, there was left by common consent a pool of 1,170 acre-feet at elevation 3779 for the preservation of fish in the reservoir. This pool fluctuated between 2,420 acre-feet as a maximum and 750 acre-feet as a minimum. Efforts to maintain the fish pool subsequently presented questions of jurisdiction as to operation of the

reservoir gates and resulted in problems of administration of water rights along the river. The experience was unsatisfactory to the extent that water users withdrew their consent to the maintenance of the fish pool. On August 28, 1952, the reservoir gates were opened and the fish pool was discharged. The gates were left open and the reservoir remained empty to October 31, 1952, the end of the period covered by this report.

Releases from the reservoir during the period April 1 to May 31, 1952, amounted to 59,260 acre-feet. Stateline flows during the corresponding period amounted to 23,750 acre-feet. During the period June 1 to October 31, 1952, discharge of the Arkansas River, reported as outflow from John Martin Reservoir, was 94,270 acre-feet and Stateline flow was 28,680 acre-feet.

The inflow, outflow and storage at the John Martin Reservoir and Stateline flow for the report-year are shown in graphs on Plate I. Hydrologic data as listed below are presented in Appendix B:

- B-1. Daily discharges, Arkansas River near Pueblo, Colorado, monthly totals corrected for transmountain water.
- B-2. Daily discharges, Arkansas River at Las Animas, Colorado.
- B-3. Daily discharges, Purgatoire River near Las Animas, Colorado.
- B-4. Inflow into John Martin Reservoir.
- B-5. Daily contents, John Martin Reservoir.
- B-6. Outflow from John Martin Reservoir.
- B-7. Daily discharges, Arkansas River at the Colorado-Kansas Stateline.
- B-8. Daily discharges, Arkansas River at Garden City, Kansas.
- B-9. Demands by Colorado for water.
- B-10. Demands by Kansas for water.
- B-11. Stateline flows on days of Kansas Demand.
- B-12. Diversions by ditches in Colorado Water Districts 14 and 17.
- B-13. Diversions by ditches in Colorado Water District 67.
- B-14. Diversions by ditches in Kansas, Stateline to Garden City.

#### **8. Gaging Stations**

Except for reconstruction of the station on the Purgatoire River near Las Animas, all construction and repair work originally planned for the Compact gaging stations has been completed. Materials have been purchased for replacing this station and the work is scheduled to be done during the winter of 1952-1953.

Prior to the beginning of the 1952 irrigation season radio stage transmitters were installed at the station below John Martin Reservoir and at the two Stateline stations. Because of occasional battery failures, gage reports were not received with complete regularity but, in general, operation was satisfactory. Power lines were constructed to all three of the stations late in the report-year. It is expected that the use of commercial power will not only prevent failures due to battery trouble, but will also improve the signal strength and increase the efficiency of the installations.

## **9. Findings of Fact by the Administration**

(a) The Administration, at a special meeting called for the purpose on May 13, 1952, considered the amount of water remaining in the conservation pool of John Martin Reservoir together with the prospective releases and inflow.

As the result of such consideration, the Administration passed a resolution, which is attached hereto as Appendix "C", making findings of fact and giving notice to the State Engineer of Colorado, under the provisions of Article V-F of the Compact, regarding the impending exhaustion of water in the conservation pool. The notification to the State Engineer as to the effective date for the commencement of priority administration of water rights was subsequently modified, by communications from the Secretary in behalf of the Administration on May 23, 26 and 28, 1952.

In view of the provision in Article V-A of the Compact that "Winter storage in John Martin Reservoir shall commence on November 1st of each year and continue to and include the next succeeding March 31st," the Administration, at its meeting on October 28, 1952, passed a motion to notify the State Engineer of Colorado that the notice of May 13, 1952, as modified, was rescinded effective November 1, 1952. The rescinding of this notice was without reference to the findings of fact made on May 13, 1952, it being the sense of the Administration that further findings in the premises would be made at the regular meeting in March, 1953 (just prior to the commencement of the next irrigation season on April 1, 1953) in the light of conditions then existing.

(b) Under the provisions of Article IV-D of the Compact, the Administration gave consideration to the Survey Report, Fountain River Watershed, Colorado, 1951, prepared by the Department of Agriculture. As the result of such consideration, the Administration adopted and transmitted to the Secretary of Agriculture a statement setting forth its views, but withholding its final comments pending the correction of certain deficiencies in the project report. The Administration's statement, which was ratified at the meeting on July 22, 1952, is attached hereto as Appendix "D". In view of the studies still to be made in this matter, findings of fact thereon have been deferred.

## **10. Change in Personnel of Administration**

The untimely death on October 22, 1952 of Clifford H. Stone of Colorado was a grievous loss to the membership of the Administration. The sentiments of the Administration were expressed in a resolution adopted October 28, 1952 which is attached hereto as Appendix E. No successor to his office as Director of the Colorado Water Conservation Board having been appointed by the end of the report-year, Mr. Stone's place on the Administration remained vacant as of October 31, 1952. Mr. R. M. Gildersleeve was designated by the Colorado Water Conservation Board on November 1, 1952 as its Acting Director; as such, he became a member of the Administration under the provisions of



Article VIII-C and participated in the annual meeting on December 9, 1952 at which this report was adopted.

\* \* \* \* \*

Respectfully submitted,  
ARKANSAS RIVER COMPACT ADMINISTRATION  
By:

HANS KRAMER,  
Representative of the United States and Chairman

HARRY B. MENDENHALL  
HARRY C. NEVIUS  
R. M. GILDERSLEEVE  
Colorado Members of the Administration

WILLIAM E. LEAVITT  
R. V. SMRHA  
ROLAND H. TATE  
Kansas Members of the Administration

Lamar, Colorado  
December 9, 1952

## APPENDICES

for

### Annual Report of the Arkansas River Compact Administration

For the Report-Year Nov. 1, 1951 to Oct. 31, 1952

APPENDIX "A" —Auditor's Report.

APPENDIX "B-1" —Daily Discharges, Arkansas River near Pueblo, Colorado.

APPENDIX "B-2" —Daily Discharges, Arkansas River at Las Animas, Colorado.

APPENDIX "B-3" —Daily Discharges, Purgatoire River near Las Animas, Colorado.

APPENDIX "B-4" —Inflow into John Martin Reservoir.

APPENDIX "B-5" —Daily Contents, John Martin Reservoir.

APPENDIX "B-6" —Outflow from John Martin Reservoir.

APPENDIX "B-7" —Daily Discharges, Arkansas River at Colorado-Kansas Stateline.

APPENDIX "B-8" —Daily Discharges, Arkansas River at Garden City, Kansas.

APPENDIX "B-9" —Demands by Colorado for Water.

APPENDIX "B-10"—Demands by Kansas for Water.

APPENDIX "B-11"—Stateline Flows on Days of Kansas Demand.

APPENDIX "B-12"—Diversions by Ditches in Colorado Water Districts 14 and 17.

APPENDIX "B-13"—Diversions by Ditches in Colorado Water District 67.

APPENDIX "B-14"—Diversions by Ditches in Kansas, Stateline to Garden City.

APPENDIX "C" —May 13, 1952 Resolution Regarding John Martin Reservoir.

APPENDIX "D" —Administration Preliminary Statement on Survey Report, Fountain River Watershed.

APPENDIX "E"—Resolution Concerning Clifford H. Stone.

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PLATE 1—Graphs showing inflow, outflow and storage at John Martin Reservoir and Stateline Flow for Report-Year.

**APPENDIX "A"**

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**AUDITOR'S REPORT**

\* \* \* \*

**ROBERT W. ROLLINS**  
Certified Public Accountant  
La Junta, Colorado

December 6, 1952

To the Representatives  
Arkansas River Compact Administration  
Lamar, Colorado

Gentlemen:

As requested by you, an examination has been made of the financial transactions of the Arkansas River Compact Administration for its third "Report year"—November 1, 1951 to October 31, 1952. The results of this audit are submitted in the attached Statement of Cash Receipts and Disbursements—Schedule I. The following remarks are offered as additional information and also tend to describe the extent of the auditing work performed.

**General Comments**

Schedule I reflects all cash activity of the Administration for the year under review. Revenue assessments received from the States of Colorado and Kansas, expenditures by classification together with respective beginning and ending cash in bank balances are detailed on the above mentioned Statement of Cash Receipts and Disbursements.

As provided for in the budget of the Minutes of the Administration's Meeting of October 30, 1951, funds due from Kansas (40% share) of \$1,200.00 and Colorado (60% share) of \$1,800.00 were received for the fiscal year ending June 30, 1953 and deposited in the First National Bank in Lamar on the respective dates of August 22, 1952 and September 25, 1952.

All disbursements were made by checks drawn on the Administration's account at the depository previously mentioned. The individual checks were examined for amount, signature and endorsement. Amounts so expended were substantiated by verification of each payment to payee's statement, authorization by the Administration as evidenced in Minutes of Representatives' Meetings or other supporting evidence. Minutes of the October 28, 1952 Meeting were not reviewed as they were unavailable for examination at this time.

Salary of the secretary amounting to \$1,200.00 has been reduced by \$33.00, because of the deduction of Old-Age and Survivors Insurance deductions for the period January 1, 1951 to October 31, 1952. The agreement between the Federal Security Administration and the Arkansas River Compact Administration dated October 27, 1952 has been reviewed and appears to be in order. The Administration provides its secretary (and other subsequent employees) with social security ben-

efits, in a manner as available to the various States. The related quarterly reports due the Federal Security Authority starting January 1, 1951 have been prepared by the writer and instructions for filing same have been discussed with Mr. Harry C. Nevius. It should be remembered the Administration contributes a similar amount, or 1½% of employee's salary, thus matching the employee's deduction. As of October 31, 1952, the combined amount due by the Administration for O. A. and S. I. of its employee is \$66.00. Since the records of the Administration are handled on a cash basis, this data is reflected accordingly.

Premiums of \$50.00 paid in October 1952 for the secretary-treasurer's bond covers the period of twelve months ending September 12, 1953. Renewal of bond No. 1203007, carried with the National Surety Corporation, per vendor's statement, extends the \$10,000.00 protection feature accordingly.

Travel expense of secretary amounting to \$49.00 represents 700 miles of business travel at \$0.07 a mile incurred during April, May and June of 1952.

As shown on Schedule I, cash in bank at October 31, 1952 of \$3,446.95 was reconciled to the amount confirmed by the First National Bank in Lamar.

The financial position of the Administration at October 31 for the year under review and the previous one is expressed in the following schedule:

ARKANSAS RIVER COMPACT ADMINISTRATION  
Lamar, Colorado

Comparative Balance Sheets

	October 31, 1952	October 31, 1951	Increase
<b>Assets:</b>			
Cash in bank.....	\$3,446.95	\$2,624.91	\$822.04
Equipment (Portable typewriter) .....	92.50	92.50	.....
<b>Total Assets .....</b>	<b>\$3,539.45</b>	<b>\$2,717.41</b>	<b>\$822.04</b>
<b>Liabilities:</b>			
Employees deductions (held in trust) .....	\$ 33.00	.....	\$ 33.00
<b>Capital:</b>			
Unexpended fund balance.....	\$3,413.95	\$2,624.91	\$789.04
Expended fund balance for equip't .....	92.50	92.50	.....
<b>Total Capital .....</b>	<b>\$3,506.45</b>	<b>\$2,717.41</b>	<b>\$789.04</b>
<b>Total Liabilities and Capital.....</b>	<b>\$3,539.45</b>	<b>\$2,717.41</b>	<b>\$822.04</b>

**Special Comments**

It should be remembered the original budget for 1951-1952 was considered void, and no revised estimate was ever prepared. In view of these facts, the expenditures for the period July 1, 1951 to June 30, 1952 are compared below with the revised budget as adopted for the fiscal year ending June 30, 1953.

ARKANSAS RIVER COMPACT ADMINISTRATION  
Lamar, Colorado

Comparison of Disbursements to Budget\*  
Fiscal Year July 1, 1951 to June 30, 1952

Classification	Disbursements	Budget July 1, 1952 to June 30, 1953
Salary of secretary.....	\$1,200.00	\$1,200.00
Gage reports .....		500.00
Professional services .....	65.00	100.00
Capital outlay .....	92.50	300.00
Bond, treasurer .....	50.00	50.00
Printing .....	485.00	600.00
Official publications .....		100.00
Travel expense—Secretary, etc.....	65.80	150.00
Typing and mailing.....	12.00	200.00
Investigation and inspection.....		150.00
Telephone and telegraph.....	235.75	300.00
Office supplies .....	60.02	150.00
 Totals .....	 \$2,266.07	 \$3,800.00*

The Secretary-Treasurer of the Administration advises provision has been made in the Minutes of the October 28, 1952 Meeting for the use of the excess of funds at June 30, 1953, approximating \$1,400.00 which will reduce the assessments from the States for the fiscal year July 1, 1953 to June 30, 1954 to \$2,400.00.

The writer has been advised it will be the Administration's policy to maintain a budget aggregating \$3,800.00, but that any excess of amounts budgeted over actual disbursements will always be used to reduce the subsequent year's revenue assessments of the States accordingly.

Respectfully submitted,

ROBERT W. ROLLINS,  
Certified Public Accountant.

\*You are again reminded that the expenditures for the fiscal year ending June 30, 1952 are compared with the budgeted figures for the future year. The excess of revenue over disbursements at June 30, 1952 of some \$800.00 together with the combined assessments made and collected from Colorado and Kansas in the Summer of 1952 amounting to \$3,000.00 provided the funds for the \$3,800.00 budget.

## (SCHEDULE I)

ARKANSAS RIVER COMPACT ADMINISTRATION  
Lamar, ColoradoStatement of Cash Receipts and Disbursements  
November 1, 1951 to October 31, 1952

(Refer to comments in text of audit)

Cash in bank at November 1, 1951 (per audit).....		\$2,624.91
<b>Receipts</b>		
Revenue from assessments		
Colorado portion 60%.....	\$1,800.00	
Kansas portion 40%.....	1,200.00	
<b>Total Receipts</b> .....		3,000.00
<b>Total Available Funds</b> .....		\$5,624.91
<b>Disbursements</b>		
Salary of Secretary.....	\$1,200.00	
Less: O.A. and S.I. deduction.....	33.00*	1,167.00
Printing—Annual reports .....		485.00
Telephone and telegraph.....		297.94
Audit fee—Fiscal Year—Oct. 31, 1951..		65.00
Office supplies and stationery.....		58.02
Premium on secretary-treasurer bond.....		50.00
Travel expense of secretary (mileage basis) .....		49.00
Typing and mailing.....		6.00
<b>Total Disbursements</b> .....		\$2,177.96
Cash in bank at October 31, 1952.....		\$3,446.95*
<b>Cash on deposit at First National Bank in Lamar</b> (Per direct confirmation) on October 31, 1952.....		\$3,741.52
Less: Outstanding checks of:		
No. 79 J. L. Wade, Nat'l. Surety.....\$	50.00	
No. 80 Mt. States Tel. & Tel. Co.....	25.65	
No. 81 Harry C. Nevius.....	100.00	
No. 82 Harry C. Nevius.....	94.00	
No. 83 Western Union Tele. Co.....	4.32	
No. 84 Mt. States Tel. & Tel. Co.....	20.60	294.57
		\$3,446.95

Note—All outstanding checks at October 31, 1952 cleared in November of 1952.

\*\$33.00 of the cash in bank at October 31, 1952 represents an amount held in trust, pending payment to Federal Reserve Bank of Old-Age and Survivors Insurance obligations. This amount arose from 1½% deduction from the secretary's monthly salary—Effective January 1, 1951 to October 31, 1952.

# APPENDIX "B-1"

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## ARKANSAS RIVER NEAR PUEBLO, COLORADO

### ARKANSAS RIVER NEAR PUEBLO, COLORADO

Report Year Ending October 31, 1952  
U S G S Records—Provisional, Subject to Revision  
(Colorado State Engineer)

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	382	266	259	167	122	169	682	2160	2320	1400	551	228
2	295	253	263	167	110	159	644	2310	2340	1450	506	234
3	230	239	279	167	138	137	662	2250	1860	1820	462	203
4	185	226	249	216	154	128	764	2470	1740	1600	418	207
5	208	227	242	221	154	136	911	2480	1780	1500	393	208
6	241	233	255	221	142	124	1510	2810	1840	1360	378	208
7	217	244	328	215	128	154	1700	3250	2220	1300	348	201
8	191	238	338	215	125	160	1760	4130	2120	1330	348	195
9	187	284	323	215	125	170	1630	4240	1840	1290	324	179
10	190	264	307	209	116	244	1430	3610	1880	1270	296	178
11	189	334	298	203	103	299	1090	3450	2400	1230	317	185
12	188	328	297	198	156	300	1160	3590	2300	1260	288	185
13	194	301	348	197	239	314	1070	3410	2040	1230	310	194
14	195	256	273	214	197	314	1220	3250	1760	1220	674	193
15	189	227	215	208	165	300	1390	3310	1650	1240	777	205
16	240	266	204	197	154	447	1660	3760	1490	1250	746	204
17	246	292	204	202	148	897	1950	4010	1380	1230	777	187
18	258	396	217	226	123	935	2040	3630	1260	1120	776	187
19	314	362	223	231	95	821	1670	3430	1160	1100	385	182
20	308	268	248	218	84	807	1270	3070	1210	1070	253	191
21	294	293	235	213	106	1600	1220	3050	1210	1300	260	189
22	286	340	244	232	175	1080	1120	3000	1160	1600	303	189
23	307	360	280	238	131	594	1060	3060	1260	1020	348	183
24	315	370	280	248	135	529	931	3140	2700	831	296	167
25	322	340	247	290	135	459	777	3080	1010	769	268	163
26	307	290	229	208	119	442	700	2560	974	676	241	162
27	279	310	217	182	125	522	789	2500	1100	571	235	167
28	273	350	211	150	93	634	884	2500	1410	590	229	162
29	279	357	199	155	76	662	929	2380	1260	820	228	162
30	272	366	199		61	673	1130	2180	1380	570	234	162
31		318	188		66		1600		1340	569		151
TOTAL												
Sec. Ft.	7581	9198	7899	6023	4000	14210	37353	92070	51394	35586	11969	5811
Ac. Ft.	15040	18240	15670	11950	7930	28190	74090	182600	101900	70780	23740	11330
(a) ac. ft.	-790	-0	-0	-0	-490	-12300	-3850	-7120	-22890	-25270	-5900	-0
(b) ac. ft.	14250	18240	15670	11950	7440	15890	70240	175480	79010	45310	17840	11530
(a) Less upstream res. and transmountain water.												
(b) Corrected Total, acre feet.									THE YEAR	561460 Ac. Ft.		
									CORRECTED	482850 Ac. Ft.		

\* \* \* \* \*

ARKANSAS RIVER AT LAS ANIMAS, COLORADO

Report Year Ending October 31, 1952

Report Year Ending October 31, 1912  
U S G S Records—Provisional, Subject to Revision

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	23	22	35	52	27	27	25	706	403	526	275	69
2	44	21	36	51	26	26	28	666	474	600	140	53
3	82	20	30	48	35	25	28	310	396	571	119	41
4	48	21	35	52	36	24	25	274	102	499	96	31
5	45	25	35	55	42	23	26	322	166	421	78	27
6	42	27	40	49	42	22	24	334	410	508	53	25
7	41	27	50	49	41	22	24	594	499	403	40	24
8	40	28	82	51	35	22	62	819	571	368	36	24
9	40	28	80	49	31	40	31	837	235	250	38	24
10	40	28	78	51	31	48	28	819	298	304	33	24
11	48	30	74	52	30	49	36	559	322	298	40	24
12	109	35	70	57	36	80	28	420	389	214	41	24
13	88	35	65	57	35	64	28	538	508	182	346	23
14	49	35	60	52	34	58	28	580	340	190	88	24
15	47	35	57	52	31	47	23	872	450	147	43	24
16	34	40	60	52	30	33	23	650	361	108	46	24
17	27	60	62	51	25	33	52	1000	382	96	33	24
18	25	50	60	48	24	29	116	836	590	178	26	23
19	25	40	58	51	22	26	462	1000	245	123	23	23
20	24	40	62	45	22	27	124	728	240	66	23	26
21	21	40	64	42	30	51	104	544	347	57	35	27
22	19	40	78	41	34	1080	65	932	198	55	50	26
23	19	35	41	36	86	246	88	571	143	171	74	27
24	20	35	76	34	76	76	64	508	105	494	76	30
25	20	35	80	28	55	45	47	630	88	442	83	28
26	25	35	65	69	52	31	52	442	206	354	116	26
27	20	35	62	44	51	27	34	255	113	235	150	24
28	24	35	55	35	40	27	28	403	206	123	102	24
29	23	35	52	34	40	26	29	932	389	193	170	23
30	21	35	51	28	25	25	37	600	347	553	96	24
31	35	35	52	24	24	322	322	450	450	508	24	24
TOTAL	1133	1042	1805	1387	1145	2359	2091	18681	9973	9237	2569	864
Sec. Ft.	2250	2070	3580	2750	2270	4680	4150	37050	19780	18320	5100	1710
Ac. Ft.								THE YEAR 103710 Ac. Ft.				



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PURGATOIRE RIVER NEAR LAS ANIMAS, COLORADO

Report Year Ending October 31, 1952

Report Year Ending October 31, 1972

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	11	24	9.2	4.4	16	5.8	7.5	9.8	3.4	2.6	32	3.4
2	12	23	8.8	4.4	19	5.6	7.5	9.8	3.4	2.5	30	3.2
3	14	29	8.8	4.6	23	5.4	7.5	9.3	843	2.7	28	2.9
4	17	27	9.3	4.4	14	5.0	9.6	9.3	21	149	16	3.1
5	26	29	8.6	4.4	10	4.4	8.2	9.8	14	14	12	3.1
6	42	24	8.0	4.4	7.2	4.2	3.8	10	8.4	8.4	5.7	32
7	42	20	7.5	4.2	7.5	3.8	4.6	9.8	6.6	4.3	2.6	16
8	42	16	7.4	4.2	8.5	4.0	4.8	9.8	6.6	3.2	1.7	3.2
9	40	12	8.3	4.2	7.0	7.5	5.4	9.8	6.0	2.5	1.4	4.8
10	40	13	10	4.2	6.5	9.9	6.0	9.3	5.4	2.3	1.2	3.2
11	40	14	14	4.2	5.8	9.6	7.0	64	5.4	2.5	1.4	4.0
12	44	15	13	4.2	5.0	9.6	7.8	307	5.1	2.2	1.7	2.3
13	45	11	16	4.4	4.8	9.6	7.8	281	4.8	1.9	934	2.5
14	47	8.2	17	4.4	5.4	11	7.8	328	4.8	1.4	894	2.2
15	49	6.8	15	4.4	5.4	15	8.5	360	4.0	1.3	128	2.5
16	47	6.8	14	5.4	6.8	12	8.8	294	2.9	1.2	79	2.6
17	44	7.2	13	6.0	7.0	12	8.8	231	3.1	1.3	56	2.2
18	39	8.4	11	5.8	6.8	12	13	213	3.1	1.6	30	2.2
19	47	8.2	19	6.2	6.8	12	23	268	2.9	2.1	20	2.2
20	49	7.6	8.5	6.2	6.8	12	25	125	1.4	2.1	14	4.0
21	39	8.8	7.8	6.0	6.2	34	23	51	2.6	1.9	15	5.9
22	30	10	6.8	6.0	5.8	27	22	23	2.3	1.9	7.2	5.6
23	30	8.8	5.0	6.2	5.4	16	397	8.8	2.5	299	4.5	5.8
24	24	11	3.9	6.1	7.8	12	454	2.9	2.3	50	4.1	6.0
25	33	9.0	4.0	5.6	11	11	88	2.9	2.1	35	4.0	4.9
26	36	9.0	4.4	7.0	9.2	9.6	43	2.9	2.3	21	4.0	4.3
27	29	9.8	4.6	8.2	8.5	8.8	10	2.9	2.3	21	3.6	4.4
28	24	11	4.4	12	7.8	7.5	10	2.9	2.0	21	3.6	4.7
29	21	12	4.4	17	7.2	7.5	10	2.9	2.6	69	3.6	4.5
30	22	11	4.4		6.8	7.5	10	3.6	3.1	60	3.6	4.1
31		9.8	4.4		6.0		10		2.6	50		4.0
TOTAL	1031	420.4	271.4	168.7	261.0	311.3	1259.4	2671.5	983.2	838.9	2341.9	155.6
Sec. Ft.	2040	834	538	335	518	617	2500	5300	1950	1660	4650	309

THE YEAR 21250 Ac. Ft.

# APPENDIX "B-4"

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## INFLOW INTO JOHN MARTIN RESERVOIR

### INFLOW INTO JOHN MARTIN RESERVOIR

Report Year Ending October 31, 1972

U S G S Records—Provisional, Subject to Revision

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	34	46	44	56	43	33	33	716	406	529	307	72
2	56	44	45	55	45	32	36	676	477	602	170	56
3	96	49	39	53	58	30	36	319	1240	574	147	44
4	65	48	44	56	50	29	35	283	123	648	112	34
5	71	54	44	59	52	27	34	333	180	435	90	30
6	84	51	48	53	49	26	28	344	418	516	59	57
7	83	47	58	53	49	26	29	604	506	407	43	40
8	82	44	89	55	43	26	67	829	578	371	38	27
9	80	40	88	53	38	48	36	847	241	252	39	27
10	80	41	88	53	38	58	34	828	303	306	34	29
11	88	44	88	56	36	59	43	623	327	301	41	28
12	153	50	83	61	41	90	36	727	394	216	43	26
13	133	46	81	61	40	74	36	819	513	184	1280	25
14	96	43	77	56	39	69	36	908	345	191	982	26
15	96	42	72	56	36	62	31	1230	454	148	171	27
16	81	47	74	57	37	45	32	944	364	109	125	27
17	71	67	75	57	32	45	61	1230	385	97	89	26
18	64	58	71	54	31	41	129	1050	593	180	56	25
19	72	48	68	57	29	38	485	1270	248	125	43	25
20	73	48	71	51	29	39	149	853	243	68	37	30
21	60	49	72	48	36	85	127	595	350	59	50	33
22	49	50	85	47	40	1110	87	955	200	57	57	32
23	49	44	46	42	91	262	485	580	145	470	79	33
24	50	46	80	40	78	88	518	511	107	544	80	36
25	53	44	84	34	66	56	135	633	90	477	87	33
26	56	44	69	76	61	41	95	445	208	375	120	30
27	54	45	67	52	59	36	44	258	115	256	154	28
28	48	46	59	47	48	35	38	406	208	144	106	29
29	44	47	56	51	47	34	39	395	392	262	174	28
30	43	46	55	55	35	33	47	604	350	613	100	28
31		45	56		30		332		453	558		28
TOTAL	2164	1463	2076	1551	1406	2677	3353	21355	10956	10074	4913	1019
Sec. Ft.	4290	2900	4120	3076	2790	5310	6650	42360	21730	19980	9740	2020
Ac. Ft.	Arkansas River at Las Animas plus Purgatoire River near Las Animas.											
	THE YEAR 124970 Ac. Ft.											

# APPENDIX "B-5"

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## DAILY CONTENTS JOHN MARTIN RESERVOIR

### DAILY CONTENTS JOHN MARTIN RESERVOIR

(Acre Feet)

Report Year Ending October 31, 1952

Corps of Engineers Records—Provisional, Subject to Revision

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	22900	29100	35200	41400	47600	46500*	29400	1530	1290	1350	0	0
2	23000	29200	35300	41700	47700	46600	28700	1810	1590	1420	0	0
3	23200	29400	35500	41900	47800	46700	27900	1550	2240	1390	0	0
4	23400	29600	35600	42000	47900	46800	27200	1200	1050	1690	0	0
5	23800	29700	35700	43500	48000	46900	26400	1130	1290	1360	0	0
6	24000	29800	35800	43600	48200	46900	25700	1120	1660	1290	0	0
7	24200	30000	36000	43800	48400	46500	24900	1570	1850	850	0	0
8	24400	30100	36200	44000	48600	45800	24200	2260	1600	890	0	0
9	24500	30200	36400	44100	48700	44800	23400	2420	1270	750	0	0
10	24600	30300	36800	44200	48700	43900	22500	2410	1440	950	0	0
11	24900	30500	37000	44400	49100	43600	21500	1770	1400	1270	0	0
12	25100	30900	37300	44600	49100	42900	20200	1140	1220	1170	0	0
13	25500	31400	37600	44800	49100	42200	19000	1170	1660	1190	0	0
14	25700	31500	38000	44900	49400	41500	17800	1740	1400	1250	0	0
15	26000	31700	38200	45100	49600	40600	16500	2030	1500	1160	0	0
16	26200	31800	38400	45300	49700	39900	15400	2040	1290	1170	0	0
17	26400	32000	38600	45500	49900	38800	14200	2100	1150	1180	0	0
18	26600	32200	38900	45700	49900	37700	13200	2110	1090	1230	0	0
19	26800	32400	39100	45800	50000	36300	13000	1950	950	1180	0	0
20	27100	32500	39300	45900	50000	35200	12100	1700	1010	1340	0	0
21	27200	32700	39500	46000	50300	34400	10900	1170	1160	1230	0	0
22	27400	32800	39700	46200	50300	35000	9710	1540	990	1160	0	0
23	27600	33000	39600	46400	50500	35500	8870	850	940	1160	0	0
24	27800	33200	39800	46400	50700	35000	8480	1240	840	1360	0	0
25	28000	33400	40100	46500	50900	34400	7620	1000	970	1340	0	0
26	28200	33600	40300	46600	51100	33700	6660	1160	1290	1280	0	0
27	28300	33800	40600	47100	51200	32700	5250	1180	1120	440	0	0
28	28500	34000	40800	47300	51300	31600	4080	1700	1240	0	0	0
29	28700	34300	40900	47400	51500	30700	2950	2000	1800	0	0	0
30	28900	34700	41200		51600	30000	1880	1200	1620	0	0	0
31		35000	41300		51700*		1170		1140			

(\*Revised capacity table adopted, effective April 1, 1952).

# APPENDIX "B-6"

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## OUTFLOW FROM JOHN MARTIN RESERVOIR

### OUTFLOW FROM JOHN MARTIN RESERVOIR

Report Year Ending October 31, 1952

U S G S Records—Provisional. Subject to Revision

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	61	4	4	4	4	4	424	581	454	430	392	117
2	11	5	4	4	4	4	424	555	386	436	215	98
3	8	4	4	4	4	4	430	510	568	496	181	83
4	8	4	4	4	4	4	436	454	802	510	144	68
5	8	4	6	4	4	4	454	386	245	555	122	54
6	6	4	5	4	4	4	454	326	336	503	101	52
7	6	4	5	4	4	4	448	326	454	510	71	50
8	5	4	5	4	4	4	442	419	594	408	36	50
9	5	4	5	4	4	4	448	419	594	408	36	50
10	5	4	5	4	4	4	442	816	295	252	44	48
11	5	4	5	4	4	4	454	816	295	252	44	48
12	5	4	4	4	4	4	414	816	336	215	43	48
13	5	4	4	4	3	408	676	788	436	235	44	48
14	5	4	4	4	4	408	697	620	414	226	192	50
15	6	4	4	4	4	419	690	490	436	185	1230	48
16	6	4	4	4	4	460	697	676	454	207	600	50
17	6	4	4	4	4	484	690	893	436	141	226	52
18	5	3	4	4	3	568	669	893	436	116	138	52
19	5	4	4	4	4	655	648	928	419	135	110	52
20	4	4	4	4	4	690	634	1000	364	174	74	54
21	4	4	4	4	4	697	669	935	275	107	64	56
22	4	3	4	4	4	600	711	830	261	122	95	60
23	4	4	4	4	4	353	704	816	336	107	89	65
24	4	3	4	4	3	408	704	858	230	306	107	65
25	4	4	4	3	4	442	697	540	185	392	107	65
26	4	4	4	4	4	436	655	555	95	372	107	65
27	4	4	4	4	4	436	655	436	58	414	116	60
28	4	4	4	4	3	548	655	348	151	336	132	58
29	4	4	4	4	18	641	662	270	151	493	122	54
30	4	4	4	4	7	562	634	495	168	207	128	50
31	4	4	4	4	4	424	522	985	402	408	148	46
TOTAL							567		581	448		48
Sec. Ft.	215	122	135	115	137	11673	18205	19200	11300	9972	5246	1816
Ac. Ft.	426	242	268	228	272	23150	36110	38080	22410	19780	10400	3600

Daily discharges are from gaging station officially designated, Arkansas River below John Martin Reservoir, Colorado.

THE YEAR 154970 Ac. Ft.

APPENDIX "B-7"

ARKANSAS RIVER AT THE COLORADO-KANSAS  
STATELINE

ARKANSAS RIVER AT THE COLORADO-KANSAS STATELINE

Report Year Ending October 31, 1952  
U S G S Records—Provisional, Subject to Revision

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	273	194	173	194	184	148	201	191	83	33	158	75
2	285	184	158	189	173	135	152	237	168	32	141	77
3	281	167	140	184	178	126	149	219	93	46	132	73
4	240	173	120	158	158	110	132	160	64	40	125	68
5	232	158	120	173	184	110	138	132	44	40	67	68
6	232	173	140	162	194	95	141	113	55	53	74	70
7	230	167	194	184	189	98	129	66	62	56	73	72
8	233	184	240	194	194	110	118	56	62	48	68	72
9	237	144	230	194	189	119	108	52	68	50	51	68
10	222	153	225	178	178	150	95	81	74	47	50	68
11	214	162	222	167	162	223	96	70	74	64	55	71
12	225	211	210	153	189	220	99	73	68	51	47	74
13	208	205	205	173	173	196	99	72	60	49	51	65
14	171	153	222	162	189	192	181	73	62	50	50	65
15	166	130	222	167	184	163	221	57	67	46	62	70
16	178	140	229	173	173	156	251	55	79	39	165	88
17	153	180	222	162	200	155	298	56	63	39	89	97
18	162	226	205	148	178	174	399	76	54	49	79	95
19	173	180	189	140	178	224	358	99	48	45	73	95
20	178	165	167	148	167	264	290	92	39	54	71	92
21	184	144	167	162	173	319	238	139	42	187	93	87
22	200	150	153	173	194	425	262	106	42	451	106	80
23	205	160	205	158	211	293	326	101	37	200	90	81
24	189	170	162	194	205	174	320	77	33	153	88	81
25	194	180	235	216	189	153	302	78	33	194	86	84
26	178	190	189	126	178	148	276	58	30	167	83	76
27	173	200	173	194	189	138	246	53	27	158	77	80
28	178	222	167	194	194	117	230	62	29	135	75	84
29	184	230	184	200	173	169	235	63	30	248	73	90
30	205	240	178	162	162	246	271	65	36	162	75	93
31		210	178	162	162		249		35	205		100
TOTAL												
Sec. Ft.	6203	5545	5824	5020	5644	5350	6624	2832	1761	4879	2527	2462
Ac. Ft.	12300	11000	11550	9960	11190	10610	13140	5620	3490	9680	5010	4880

THE YEAR 108430 Ac. Ft.  
The daily discharges shown are the sum of the flows of the Arkansas River near Coolidge, Kansas and the Frontier Ditch.

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ARKANSAS RIVER AT GARDEN CITY, KANSAS

Report Year Ending October 31, 1952  
U S G S Records—Provisional, Subject to Re-

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	305	285	350	285	115	98	102	36	10	5	7	2
2	285	285	305	285	115	55	106	31	9	28	7	4
3	290	265	235	285	115	45	102	26	5	21	8	7
4	290	245	210	270	150	41	98	21	4	14	7	5
5	295	295	175	290	195	36	72	16	3	13	7	1
6	300	326	150	270	190	33	38	16	4	11	5	6
7	300	290	175	295	190	33	38	14	10	10	5	1
8	300	320	255	285	135	31	41	13	12	8	6	2
9	300	275	265	250	125	38	41	12	9	12	4	2
10	300	245	280	210	125	41	48	12	7	31	4	2
11	300	270	326	155	120	41	55	12	7	14	4	2
12	300	275	376	135	111	41	62	11	6	19	4	1
13	305	337	400	120	130	45	65	9	5	14	4	2
14	305	295	454	106	235	45	65	7	14	8	4	2
15	305	145	472	145	240	36	69	5	31	4	3	2
16	290	102	394	130	245	33	69	4	28	4	4	2
17	265	125	348	111	260	31	76	4	13	7	3	8
18	250	135	290	94	275	26	89	4	12	13	4	10
19	255	150	285	89	275	24	85	4	10	10	5	11
20	265	145	265	81	240	28	62	6	8	9	3	11
21	260	98	280	81	220	41	58	5	6	3	5	11
22	270	125	220	72	90	275	48	6	7	2	6	11
23	260	140	200	69	100	205	45	7	5	210	2	10
24	255	135	190	69	200	111	45	12	4	85	2	10
25	255	180	255	72	235	72	45	13	3	36	9	10
26	255	210	310	120	265	55	45	12	3	26	4	11
27	255	220	320	210	255	48	41	12	3	14	2	11
28	270	280	305	175	255	52	41	11	3	8	4	12
29	280	359	295	135	195	76	41	11	3	8	4	12
30	280	400	295	135	135	106	38	11	3	8	1	13
31	560	285			135		36	2	2	8		14
TOTAL	8445	7537	8965	4894	5671	1842	1866	363	249	663	114.3	205.6
Sec. Ft.	16750	14950	17780	9710	11250	3650	3700	720	494	1320	227	408
Ac. Ft.												

THE YEAR 80960 Ac. Ft.

# APPENDIX "B-9"

\* \* \* \* \*

## DEMANDS BY COLORADO FOR WATER

### DEMANDS BY COLORADO FOR WATER

Report Year Ending October 31, 1952

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	0	0	0	0	0	0	440					
2	0	0	0	0	0	0	435					
3	0	0	0	0	0	0	440					
4	0	0	0	0	0	0	450					
5	0	0	0	0	0	0	450					
6	0	0	0	0	0	0	450					
7	0	0	0	0	0	0	450					
8	0	0	0	0	0	160	450					
9	0	0	0	0	0	250	450					
10	0	0	0	0	0	280	460					
11	0	0	0	0	0	280	465					
12	0	0	0	0	0	280	465					
13	0	0	0	0	0	280	465					
14	0	0	0	0	0	280	465					
15	0	0	0	0	0	280	465					
16	0	0	0	0	0	350	465					
17	0	0	0	0	0	350	465					
18	0	0	0	0	0	350	465					
19	0	0	0	0	0	400	465					
20	0	0	0	0	0	440	465					
21	0	0	0	0	0	450	465					
22	0	0	0	0	0	450	500					
23	0	0	0	0	0	350	500					
24	0	0	0	0	0	420	500					
25	0	0	0	0	0	450	500					
26	0	0	0	0	0	450	480					
27	0	0	0	0	0	450	480					
28	0	0	0	0	0	450	480					
29	0	0	0	0	0	450	460					
30	0	0	0	0	0	450	440					
31	0	0	0	0	0	450	350					
TOTAL						8800	14310	0	0	0	0	0
Sec.Ft.	0	0	0	0	0	17460	28380	0	0	0	0	0
Ac.Ft.	0	0	0	0	0							
THE YEAR 45840 Ac. Ft.												0

COLORADO DITCHES ON DECREED PRIORITIES

\* \* \* \* \*

**DEMANDS BY KANSAS FOR WATER**  
Report Year Ending October 31, 1952  
(Arkansas River Compact Administration records)

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	0	0	0	0	0	0	0					
2	0	0	0	0	0	0	0					
3	0	0	0	0	0	0	0					
4	0	0	0	0	0	0	0					
5	0	0	0	0	0	0	0					
6	0	0	0	0	0	0	0					
7	0	0	0	0	0	200	0					
8	0	0	0	0	0	200	0					
9	0	0	0	0	0	200	0					
10	0	0	0	0	0	200	250					
11	0	0	0	0	0	200	250					
12	0	0	0	0	0	200	250					
13	0	0	0	0	0	200	250					
14	0	0	0	0	0	200	250					
15	0	0	0	0	0	200	250					
16	0	0	0	0	0	200	250					
17	0	0	0	0	0	200	250					
18	0	0	0	0	0	200	250					
19	0	0	0	0	0	200	250					
20	0	0	0	0	0	200	250					
21	0	0	0	0	0	200	250					
22	0	0	0	0	0	0	250					
23	0	0	0	0	0	0	250					
24	0	0	0	0	0	0	250					
25	0	0	0	0	0	0	250					
26	0	0	0	0	0	0	250					
27	0	0	0	0	0	250	250					
28	0	0	0	0	0	250	250					
29	0	0	0	0	0	250	250					
30	0	0	0	0	0	0	250					
31	0	0	0	0	0	0	250					
TOTAL	0	0	0	0	0	3750	5250	0	0	0	0	0
Sec. Ft.	0	0	0	0	0	7440	10410	0	0	0	0	0
Ac. Ft.												
												THE YEAR 17850 Ac. Ft.



\* \* \* \* \*

STATELINE FLOWS ON DAYS OF KANSAS DEMAND\*

Report Year Ending October 31, 1952  
U S G S Records—Provisional; Subject to Revision

[illegible]

Three days time is allowed for water released from John Martin Reservoir to reach the Stateline.

## APPENDIX "B-12"

\* \* \* \* \*

## DIVERSIONS BY DITCHES IN COLORADO WATER DISTRICTS 14 AND 17

Report Year Ending October 31, 1952

(Acre Feet)

Source of Information, A.V.D.A. Reports—Reservoir Water is That from Upstream Reservoirs above Pueblo

	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	THE YEAR
Bessemer (River) .....	4,225	2,914	1,736	682	4,366	4,332	4,181	14,344	6,264	5,045	4,225	4,354	56,668
Res. or Imported .....	0	0	0	0	0	660	734	0	2,301	2,460	331	0	6,486
Total .....	4,225	2,914	1,736	682	4,366	4,992	4,915	14,344	8,565	7,505	4,556	4,354	63,154
West Pueblo (River) .....	6	0	0	0	93	179	214	446	204	184	179	177	1,682
Booth-Orchard Gr. (Riv.) .....	873	210	0	482	1,099	1,071	1,131	1,287	1,111	1,107	1,016	1,000	10,387
Excelsior (River) .....	0	0	540	1,137	0	62	395	1,745	219	113	0	0	4,211
Res. or Imported .....	0	0	0	0	0	238	79	0	305	280	0	0	902
Total .....	0	0	540	1,137	0	300	474	1,745	524	393	0	0	5,113
Colorado Canal (River) .....	0	9,094	2,475	0	0	270	3,003	26,499	0	0	0	0	41,341
Res. or Imported .....	776	0	0	0	476	6,188	2,876	6,728	17,207	18,764	4,834	0	57,849
Total .....	776	9,094	2,475	0	476	6,458	5,879	33,227	17,207	18,764	4,834	0	99,190
Highline (River) .....	4,136	3,233	3,529	5,109	3,227	5,240	10,836	23,137	6,394	6,165	3,999	3,550	78,555
Res. or Imported .....	0	0	0	0	0	0	0	0	873	2,705	952	0	4,530
Total .....	4,136	3,233	3,529	5,109	3,227	5,240	10,836	23,137	7,267	8,870	4,951	3,550	83,085
Oxford (River) .....	902	375	353	1,716	766	2,087	5,425	6,032	5,187	3,084	817	819	27,563

APPENDIX "B-12" (Continued)

\* \* \* \* \*

DIVERSIONS BY DITCHES IN COLORADO WATER DISTRICTS 14 AND 17

	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	THE YEAR
Otero (River) .....	0	1,061	629	0	0	54	552	5,310	0	0	0	0	7,606
Res. or Imported .....	0	0	0	0	0	2,822	823	252	4,056	3,025	0	0	10,978
Total .....	0	1,061	629	0	0	2,876	1,375	5,562	4,056	3,025	0	0	18,584
Catlin (River) .....	7,751	4,919	4,064	8,707	6,173	5,141	14,428	15,138	14,759	14,582	7,646	4,011	107,319
Res. or Imported .....	0	0	0	0	0	1,190	0	0	0	0	0	0	1,190
Total .....	7,751	4,919	4,064	8,707	6,173	6,331	14,428	15,138	14,759	14,582	7,646	4,011	108,509
Holbrook (River) .....	81	2,307	4,814	716	1,140	1,371	4,308	16,782	966	627	0	0	33,092
Res. or Imported .....	0	0	0	0	0	1,628	0	0	0	0	0	0	1,628
Total .....	81	2,307	4,814	716	1,140	2,979	4,308	16,782	966	627	0	0	34,720
Rocky Ford (River) .....	3,743	1,720	1,396	3,382	2,715	4,875	5,746	6,276	6,292	5,486	5,359	5,234	52,224
Ft. Lyon Storage (River) .....	0	0	0	0	0	0	0	1,488	0	0	0	0	1,488
Ft. Lyon Canal (River) .....	16,826	12,143	12,664	12,048	11,587	12,125	39,447	52,735	27,164	16,669	9,735	10,024	233,167
Las Animas Cons. (Riv.) .....	2,225	680	0	282	1,384	3,249	5,195	5,818	3,856	3,420	2,291	2,237	30,637
Las Animas Town (Riv.) .....	196	173	0	73	532	851	1,658	1,938	1,964	1,855	1,428	639	11,307
TOTAL	40,964	38,829	32,200	34,334	33,082	40,887	96,519	178,975	74,380	58,337	36,695	32,045	697,247
River .....	776	0	0	0	476	12,726	4,512	6,980	24,742	27,234	6,117	0	83,563
Res. or Imported .....	41,740	38,829	32,200	34,334	33,558	53,613	101,031	185,955	99,122	85,571	42,812	32,045	780,810

## APPENDIX "B-13"

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## DIVERSIONS BY DITCHES IN COLORADO WATER DISTRICT 67

Report Year Ending October 31, 1952  
(Acre Feet)

Source of Information A.V.D.A. Reports

	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	THE YEAR
Ft. Bent Canal.....	129	0	0	0	0	2,146	4,165	4,225	2,011	2,432	1,920	1,656	18,684
Kessee Ditch .....	28	0	0	0	0	649	1,016	849	819	881	809	742	5,793
Amity Canal .....	619	0	0	0	0	11,026	17,459	20,797	11,970	9,931	3,790	85	75,677
Lamar Canal .....	1,583	1,519	984	920	952	4,485	6,700	8,085	5,788	5,526	3,981	1,855	42,378
Hyde Ditch .....	171	123	0	0	0	139	379	432	371	399	345	220	2,579
Manvel Canal .....	0	0	0	0	0	294	579	468	179	179	238	0	1,937
X. Y. & Graham Canal....	1,460	952	506	0	0	1,091	1,716	1,779	466	1,121	1,081	1,468	11,640
Buffalo Canal .....	633	615	615	575	79	1,162	2,521	3,209	2,487	2,061	2,458	1,956	18,371
TOTAL .....	4,623	3,209	2,105	1,495	1,031	20,992	34,535	39,844	24,091	22,530	14,622	7,982	177,059

# APPENDIX "B-14"

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## DIVERSIONS BY DITCHES IN KANSAS

Report Year Ending October 31, 1952

(Acre Feet)

Frontier Ditch, U.S.G.S. Records

Other Ditches, Division of Water Resources Records

	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	THE YEAR
Frontier Ditch .....	505	0	0	0	0	779	1,240	955	951	1,280	1,250	1,710	8,670
Alamo Canal .....	0	0	0	0	0	0	0	0	0	0	0	0	0
Ft. Aubrey Canal .....	0	0	0	0	407	1,443	1,195	1,318	1,231	432	1,521	1,388	8,935
Total Stateline to													
Syracuse .....	505	0	0	0	407	2,222	2,435	2,273	2,182	1,712	2,771	3,098	17,605
Amazon Canal .....	0	0	0	0	0	875	3,829	0	0	0	936	2,319	7,959
South Side Ditch .....	381	955	0	680	284	450	2,411	475	0	221	0	0	5,857
Great Eastern Canal .....	0	0	0	4,132	2,699	2,727	2,982	2,077	53	1,439	0	0	15,909
Farmers Ditch .....	0	0	0	94	93	4,470	0	621	533	2,894	1,524	452	10,681
Garden City Canal .....	0	0	0	0	15	498	762	1,052	624	229	374	283	3,837
Total Syracuse to													
Garden City .....	381	955	0	4,906	3,091	8,820	9,984	4,225	1,210	4,783	2,834	3,054	44,243
Total Stateline to													
Garden City .....	886	955	0	4,906	3,498	11,042	12,419	6,498	3,392	6,495	5,605	6,152	61,848

APPENDIX "C"

\* \* \* \* \*

MAY 13, 1952 RESOLUTION REGARDING  
JOHN MARTIN RESERVOIR

\* \* \* \* \*

WHEREAS, Article VF of the Arkansas River Compact which became effective on May 31, 1949, provides as follows:

"In the event the Administration finds that within a period of fourteen (14) days the water in the conservation pool will be or is liable to be exhausted, the Administration shall forthwith notify the State Engineer of Colorado, or his duly authorized representative, that commencing upon a day certain within said fourteen (14) day period, unless a change of conditions justifies cancellation or modification of such notice, Colorado shall administer the decreed rights of water users in Colorado Water District 67 as against each other and as against all rights now or hereafter decreed to water users diverting upstream from John Martin Dam on the basis of relative priorities in the same manner in which their respective priority rights were administered by Colorado before John Martin Reservoir began to operate and as though John Martin Dam had not been constructed. Such priority administration by Colorado shall be continued until the Administration finds that water is again available in the conservation pool for release as provided in this Compact, and timely notice of such finding shall be given by the Administration to the State Engineer of Colorado or his duly authorized representative. Provided, that except as controlled by the operation of the preceding provisions of this paragraph and other applicable provisions of this Compact, when there is water in the conservation pool the water users upstream from John Martin Reservoir shall not be affected by the decrees to the ditches in Colorado Water District 67. Except when administration in Colorado is on a priority basis the water diversions in Colorado Water District 67 shall be administered by Colorado in accordance with distribution agreements made from time to time between the water users in such District and filed with the Administration and with the State Engineer of Colorado or, in the absence of such agreement, upon the basis of the respective priority decrees, as against each other, in said District."

NOW, THEREFORE, acting pursuant to the above quoted provision of the Arkansas River Compact, and in the exercise of the powers set forth in Article VIII of such Compact, the Arkansas River Compact Administration finds:

That, based upon the present quantity of water stored in, and anticipated release of water from, and inflow to, the John Martin Reservoir, the conservation pool thereof, within a period of fourteen (14) days

from this 13th day of May, 1952, will be, or is liable to be, exhausted.  
NOTIFICATION: In further compliance with the above quoted provision of the Arkansas River Compact, the Arkansas River Compact Administration hereby notifies the State Engineer of Colorado as follows:

That, commencing on the 24th day of May, 1952, unless a change of conditions justifies cancellation or modification of this notice, he is required, under the terms of the Compact, to administer the decreed rights of the water users in Colorado in the manner and for a period of time determined in accordance with the provisions set forth in the above quoted Article VF of the Compact.

The above findings have been made, and notification thereof given, at a special meeting of the Arkansas River Compact Administration held at Lamar, Colorado, on the 13th day of May, 1952.

APPENDIX "D"

\* \* \* \* \*

ADMINISTRATION PRELIMINARY STATEMENT  
ON SURVEY REPORT, FOUNTAIN RIVER  
WATERSHED

\* \* \* \* \*

The Arkansas River Compact Administration has given consideration to the Survey Report, Fountain River Watershed, Colorado, 1951, prepared by the Department of Agriculture, and is cognizant of the official comments thereon by the State of Colorado contained in letter from the Director of the Colorado Water Conservation Board to the Secretary of Agriculture, dated May 15, 1952.

The Arkansas River Compact Administration concurs in general with the comments contained in the communication referred to above. The Administration is particularly concerned, under the following provisions of Article IV-D of the Arkansas River Compact with the effect of the proposed development on the water supply of the Arkansas River:

"This Compact is not intended to impede or prevent future beneficial development of the Arkansas River Basin in Colorado and Kansas by Federal or State agencies, by private enterprise, or by combinations thereof, which may involve construction of dams, reservoirs and other works for the purposes of water utilization and control, as well as the improved or prolonged functioning of existing works: Provided, that the waters of the Arkansas River, as defined in Article III, shall not be materially depleted in usable quantity or availability for use to the water users in Colorado and Kansas under this compact by such future development or construction."

As pointed out in Colorado's official comments, the project report fails to make a definitive evaluation of the effects of the project measures upon the usable quantity and availability of the water supply under the above terms of the Arkansas River Compact. In view of this deficiency in the report, the Arkansas River Compact Administration joins with the State of Colorado in objecting to the authorization of the proposed development and withholds final comments until satisfactory data for evaluation are supplied.



APPENDIX "E"

\* \* \* \* \*

RESOLUTION CONCERNING  
CLIFFORD H. STONE

(Adopted October 28, 1952)

\* \* \* \* \*

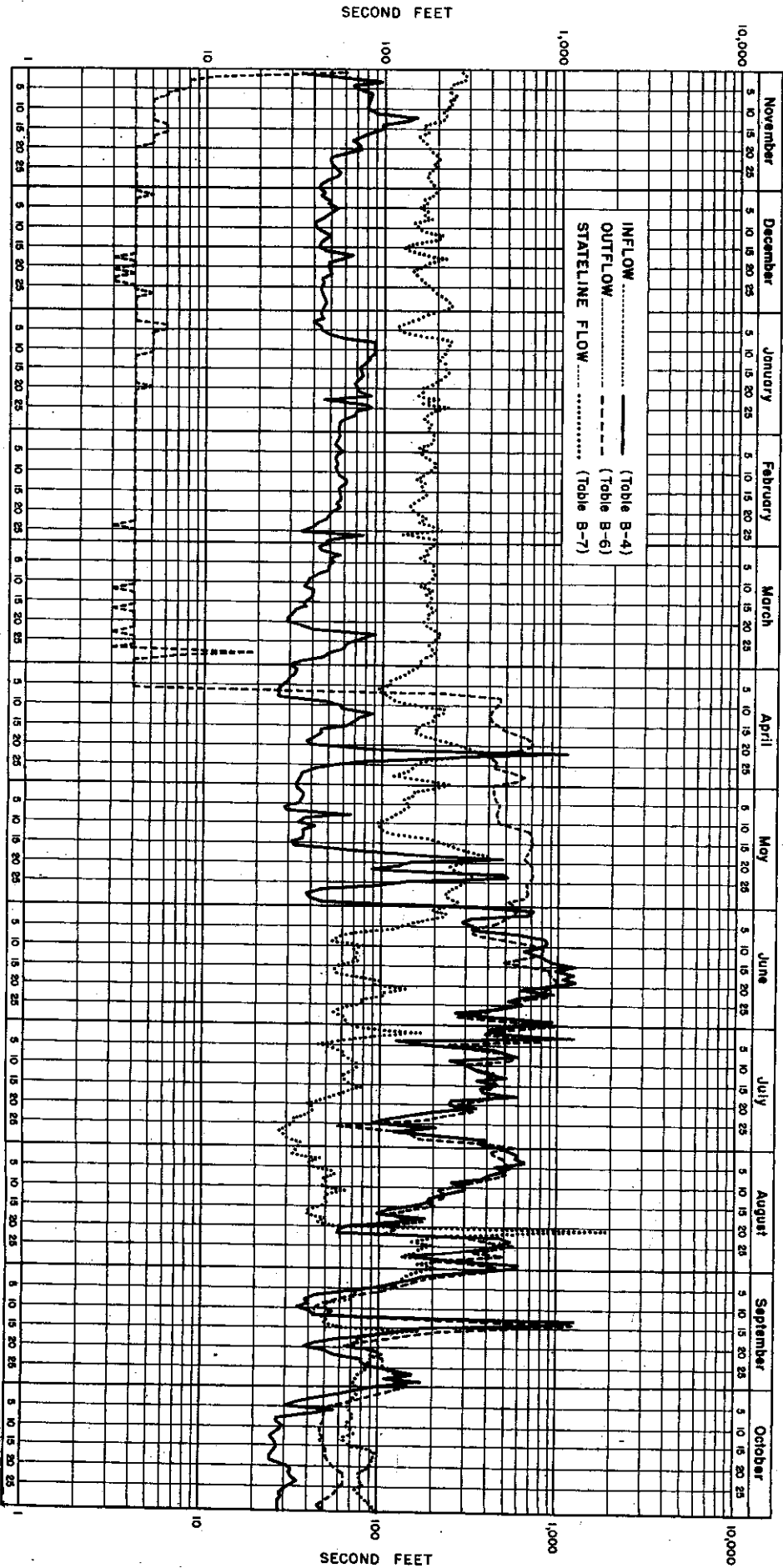
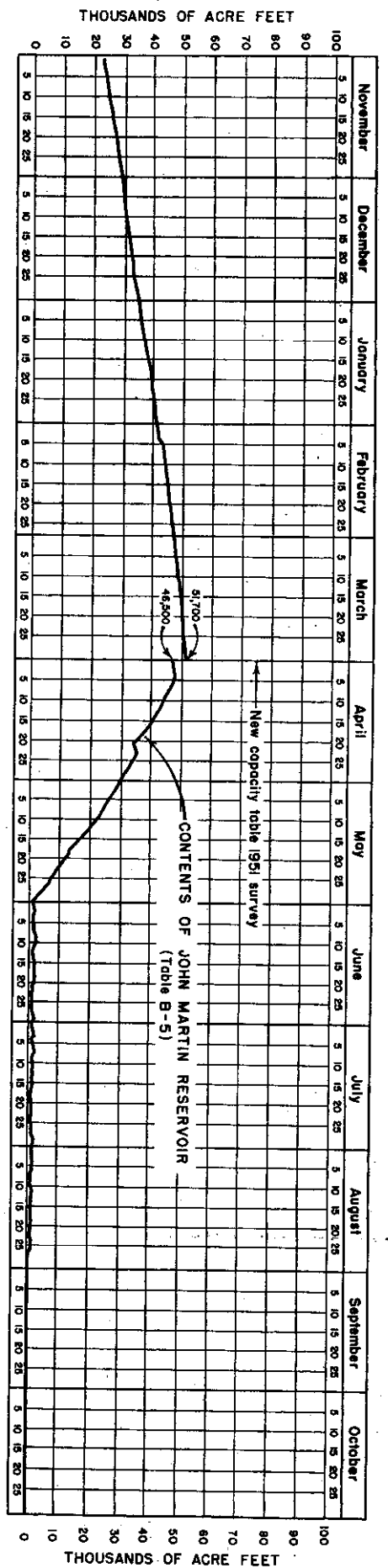
In the untimely and unexpected passing of Judge Clifford H. Stone, Director of the Colorado Water Conservation Board, the Arkansas River Compact Administration has lost a valued and esteemed member, who was recognized as an authority on water and as a conservation leader on local, state, regional, national and international levels.

Judge Stone, who has served on this Administration since it was established in 1949, contributed immensely from his wide experience and knowledge, to the solution of difficult problems which have confronted this Administration. All members of this Administration recognize and appreciate the extraordinary understanding and patience which Judge Stone contributed to their deliberations.

In the work of this Administration, as well as in all of his other associations and contacts, Judge Stone was a painstaking, conscientious, and tireless worker, who sacrificed his own time and well-being for the common good of all.

The Administration deeply mourns the passing of Judge Stone, whose devotion to duty and responsibility symbolized every high qualification for public service.

Now therefore, be it resolved by the Arkansas River Compact Administration that this statement be placed upon the record, and a copy be sent to Judge Stone's family; to the Colorado Water Conservation Board; and to the Governor of Colorado.



# INFLOW, OUTFLOW AND CONTENTS OF JOHN MARTIN RESERVOIR AND STATELINE FLOW

Report Year, November 1, 1951 - October 31, 1952