# **SECOND ANNUAL REPORT**

# Arkansas River Compact Administration

For the Year 1950

LAMAR, COLORADO

December 12, 1950

#### Second

## **Annual Report**

# ARKANSAS RIVER COMPACT ADMINISTRATION

For the Year 1950 LAMAR, COLORADO

December 12, 1950

#### THE ADMINISTRATION

HANS KRAMER, Federal Representative and Chairman

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

GEORGE S. KNAPP, WILLIAM E. LEAVITT AND ROLAND H. TATE for Kansas

\* \* \* \*

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#### Annual Report of

#### ARKANSAS RIVER COMPACT ADMINISTRATION

For the Year 1950

TO: THE PRESIDENT OF THE UNITED STATES AND TO 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 1950 annual report as follows:

#### 1. Provisions of Administration's By-Laws for Annual Report

(a) Article VIII of the By-Laws provides:

"1. The report-year referred to in this Article for the making of the annual report shall commence on November 1 and end on the succeeding October 31.

"2. The Administration shall make and transmit on or before January first of each year to the Governors of the States of Colorado and Kansas and to the President of the United States a report covering its activities for the preceding report-year. The annual report shall include, among other things, the following:

"(a) The receipts and expenditures of all funds of the Administration and all pertinent financial data.

"(b) All hydrologic data relating to the Arkansas River which the Administration deems pertinent.

"(c) Statements as to cooperative studies of water supplies made during the preceding year, including cooperative studies and activities with any Federal agency.

"(d) All findings of fact made by the Administration during the preceding year.

"(e) Such other pertinent matters as the Administration may deem advisable."

(b) Since the Arkansas River Compact did not become effective until May 31, 1949, the annual report for the year 1949 covered only a portion of the report-year; but in order to bring up to date the status of the organization of the Administration, it included certain items of information for the period subsequent to October 31, 1949, to December 31, 1949. This report covers the report-year of November 1, 1949, to October 31, 1950.

#### 2. Members of the Administration

(a) The members of the Administration remain the same as shown by the last report and are:

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:

George S. Knapp, Topeka, Kansas William E. Leavitt, Garden City, Kansas Roland H. Tate, Garden City, Kansas

# 3. Meetings, Officers, and Standing Committees of the Administration

(a) Six meetings of the Administration have been held during the report period. Four of them were held at Lamar, Colorado, on these dates: November 14, 1949; December 13, 1949; March 24, 1950, and August 4, 1950.

One meeting was held at Denver, Colorado, on January 31, 1950; and one meeting was held at Garden City, Kansas, on October 20, 1950. Of these meetings, the annual meeting was held at Lamar, Colorado, on December 13, 1949; the two regular meetings were held at Lamar, Colorado, on March 24, 1950, and August 4, 1950. The meeting held on August 4, 1950, had been postponed from July 25, 1950. The other meetings, hereinabove set out, were all special meetings.

(b) The officers of the Administration remain the same as set forth in the 1949 report of the Administration. They are:

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-Treasurer—Harry C. Nevius of Lamar, Colorado.

- (c) The Standing Committees, appointed pursuant to Article V of the By-Laws, remain the same as set forth in the last report of the Administration. They are:
  - Administrative and Legal: Clifford H. Stone of Colorado and Roland H. Tate of Kansas.
  - (2) Engineering Committee:
    George S. Knapp of Kansas and Harry C. Nevius of Colorado
  - (3) Operations Committee:
    Harry B. Mendenhall of Colorado and William E. Leavitt

Hans Kramer, Representative of the United States, is ex-officio member of all Standing Committees.

#### 4. Fiscal – Receipts and Expenditures of Funds

(a) In accordance with Article VIII E of the Compact, requiring the State of Colorado to pay 60 per cent and the State of Kansas 40 per cent of the expenses incident to the administration

of the Compact, there have been paid by each state during the report-year to the Administration the following amounts:

State of Colorado......\$ 800.00 State of Kansas....... 533.33

Total ......\$1,333.33

The 1949 report of the Administration showed that Colorado had paid to the Administration \$1,200 and Kansas \$800, making a total of \$2,000. This results in a total of \$3,333.33 for the present biennium (July 1, 1949, to June 30, 1951).

biennium (July 1, 1949, to June 30, 1951).

(b) There were expended by the Administration from November 1, 1949, to October 31, 1950, the following amounts:

| Disl | oursements | S—                                                                                                                  |                |
|------|------------|---------------------------------------------------------------------------------------------------------------------|----------------|
| 1.   | 12-13-49   | James L. Wade, Agent, National Surety Corporation.                                                                  |                |
|      |            | James L. Wade, Agent, National Surety Corporation,<br>Secretary BondOutWest Printing and Stationery Company, Office | \$ 50.00       |
| 2.   | 1-28-50    | OutWest Printing and Stationery Company, Office                                                                     | , , , , , , ,  |
|      |            | Supplies                                                                                                            | 26.02          |
| 3.   | 1-28-50    | Lamar Daily News, Stationery                                                                                        | 26.75          |
| 4.   | 2- 4-50    | Peerless Printing Company, Printing Annual Reports.                                                                 | 245.00         |
| 5.   | 3-22-50    | OutWest Printing and Stationery Company, Office                                                                     |                |
|      |            | Supplies                                                                                                            | 20.02          |
| 6.   | 4-17-50    | Garden City Telegram, Printing                                                                                      | 244.77         |
| 7.   | 4-17-50    | Lamar Daily News, Office Supplies and Printing                                                                      | 110.00         |
| 8.   | 5-29-50    | Lamar Daily News, Office Supplies                                                                                   | 10.25          |
| 9.   | 6. 1.50    | Secretary Salary, April and May                                                                                     | 200.00         |
| 10.  | 6- 1-50    | W. R. Patterson, Reading Holly Drain Gage                                                                           | 61.50          |
| 11.  | 5-29-50    | Peerless Printing Company, Binding Legislative Record                                                               | 50.00          |
| 12.  | 6- 5-50    | Mountain States Telephone & Telegraph Company,                                                                      |                |
|      |            | Installing, Service, Tolls                                                                                          | 19. <b>7</b> 0 |
| 13.  | 7-15-50    | Mountain States Telephone & Telegraph Company,                                                                      |                |
|      |            | June Service, Tolls                                                                                                 | <b>27</b> .40  |
| 14.  | 7-15-50    | Secretary Salary, June                                                                                              | 100.00         |
| 15.  | 7-15-50    | W. R. Patterson, Reading Holly Drain Gage                                                                           | 45.00          |
| 16.  | 8- 2-50    | Western Union, Cablegram                                                                                            | 3.80           |
| 17.  | 8- 2-50    | Western Union, Cablegram                                                                                            | •••            |
|      |            |                                                                                                                     | 28.10          |
| 18.  | 8- 2-50    | W. R. Patterson, Reading Holly Drain Gage                                                                           | 46.50          |
| 19.  | 8- 2-50    | W. R. Patterson, Reading Holly Drain Gage<br>Secretary Salary, July                                                 | 100.00         |
| 20.  | 9-22-50    | Mountain States Telephone & Telegraph Company,                                                                      | 0.50           |
|      |            | August Service, Tolls                                                                                               | 9.70           |
| 21.  | 9-22-50    | W. K. Patterson, Reading Holly Gage, August                                                                         | 46.50          |
| 22.  | 9-22-50    | Secretary Salary, August                                                                                            | 100.00         |
| 23.  | 10-18-50   | W. R. Patterson, Reading Holly Gage, August                                                                         | 50.00          |
| 24.  | 10-18-50   | Mountain States Tolonhone & Tolograph Company                                                                       | 70.00          |
| 24.  | 10,19,10   | September Service, Tolls                                                                                            | 11.45          |
| 25.  | 10-18-50   | W. R. Patterson, Reading Holly Gage, September                                                                      | 45.00          |
| 26.  | 10-18-50   | Secretary Salary, September                                                                                         | 100.00         |
| 27.  | 10-18-50   | Lamar Daily News, Office Supplies                                                                                   | 12.25          |
| 28.  | 10-13-50   | W R Patterson Reading Holly Gage October                                                                            | 46.50          |
| 29.  | 10-31-50   | W. R. Patterson, Reading Holly Gage, October<br>Secretary Salary, October                                           | 100.00         |
| 30.  | 10-31-50   | Mountain States Telephone & Telegraph Company,                                                                      | 100.00         |
| 30.  | 10-31-70   | October Service, Tolls                                                                                              | 10.85          |
|      |            | October ourvice, rono                                                                                               |                |
|      | Total Evn  | enditures                                                                                                           | \$1,947.06     |
|      | TOTAL DAD  |                                                                                                                     | ,              |
|      | Balance or | n hand, First National Bank, Lamar, Colorado                                                                        | \$1,386.27     |

(c) The 1949 report of the Administration showed no expenditures. A recapitulation of the receipts and disbursements from the beginning of the biennium (July 1, 1949, to October 31, 1950) is as follows:

Balance on hand, October 31, 1950.....\$1,386.27

- (d) Article VII (5) of the By-Laws of the Administration, in accordance with Article VIII E(3) of the Compact, provides:
  - "5. All receipts and disbursements of the Administration shall be audited yearly by a certified public accountant to be selected by the Administration, and the report of audit shall be included in the annual report of the Administration."

Pursuant to this provision of the By-Laws, the receipts and disbursements of the Administration have been audited for the period commencing with the organization of the Administration on July 22, 1949, to October 31, 1950, the end of the report-year. The report of such audit is hereto attached as Appendix A.

(e) The First National Bank of Lamar, Colorado, has been designated by the Administration as the official depository of its funds. Article VIII (2) of the By-Laws provides that disbursements of Administration funds shall be made by check signed by the Treasurer, and countersigned by the Chairman or Vice-Chairman of the Administration. In order to protect Administration funds against loss, the Administration on October 20, 1950, adopted a resolution, a copy of which is attached as Appendix B.

#### 5. Rules and Regulations

In accordance with Article VIII B(1) of the Compact and Article VI of the By-Laws of the Administration, Rules and Regulations for the administration of the Arkansas River Compact were adopted by the Administration on March 24, 1950, published and became effective on April 15, 1950. A copy of these Rules and Regulations is attached hereto as Appendix C.

#### 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 water of the Arkansas River and as to the operation and siltation of John Martin Reservoir and other related structures; and 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 of related data. The carrying out of the cooperative studies and activities herein mentioned is assigned, under the By-Laws of the Administration, to the Engineering Committee.

(b) The above-mentioned cooperative studies and activities of the Administration, during the period covered by this report, have consisted of the establishment of gaging stations, a special silt survey of John Martin Reservoir by the Corps of Engineers, and the compilation of hydrological data for the purpose of making this report and for the administration of the Compact provisions.

# 7. Water Supply, Reservoir Operation and Hydrological Data

The Compact year, commencing on November 1, 1949, began with a carry-over in the John Martin Reservoir of 128,700 acree-feet of water. During the winter storage period, the water in storage increased to 158,700 acree-feet. This increase, 30,000 acree-feet, was but 69 per cent of the 42,974 acree-feet accumulating during the like period the year before. Inflow into the reservoir through the irrigation season April 1, 1950, to October 31, 1950, was 103,722 acree-feet. The total inflow into the reservoir for the Compact year was 132,530 acree-feet, compared to 253,100 acree-feet (revised) during the preceding Compact year. The year ended with 58,500 acree-feet remaining in storage.

The early part of the 1950 irrigation season was very dry. Beginning on April 1, 1950, both states made large demands on stored water. This continued until June 20, 1950, when, due to the occurrence of rains, Kansas cancelled its demand for water. Rainfall in Kansas became abundant during July and August and Kansas made no further demand during the season for water. The low in reservoir storage was reached on July 18, 1950, when the supply dropped to 31,297 acre-feet. During the remainder of the season, inflow exceeded the demands of Colorado and reservoir storage increased.

Included as Appendix D are the following hydrologic data:

- D-1. Daily discharges, Arkansas River at Pueblo, Colorado, monthly totals corrected for transmountain water.
- D-2. Daily discharges, Arkansas River at Las Animas, Colorado.
- D-3. Daily discharges, Purgatoire River at Las Animas, Colorado.
- D-4. Daily discharges, Arkansas River at the Colorado-Kansas State Line.
- D-5. Daily discharges, Arkansas River at Garden City, Kansas.

- D-6. Inflow into John Martin Reservoir.
- D-7. Outflow from John Martin Reservoir.
- D-8. Demands by Colorado for water.
- D-9. Demands by Kansas for water.
- D-10. State-line flows on days of Kansas Demand.
- D-11. Diversions by ditches in Colorado Water Districts 14 and 17.
- D-12. Diversions by ditches in Colorado Water District 67.
- D-13. Diversions by ditches in Kansas, State Line to Garden City.

#### 8. Gaging Stations

The Administration, at its meeting on November 14, 1949, adopted a resolution requesting the Director of the United States Geological Survey, pursuant to the provisions of Article VIII G(2) of the Compact to allot sufficient funds for fiscal year ending June 30, 1951, and from year to year thereafter for the purpose of installing, maintaining and operating gaging stations required for proper administration of the Compact. The following existing and proposed gaging stations were listed in the resolution:

#### Inflow stations:

Arkansas River at Las Animas, Colorado (existing) Purgatoire River at Las Animas, Colorado (existing)

#### Outflow station

Arkansas River at Caddoa, Colorado (existing)

#### State line stations:

Arkansas River at Holly, Colorado (existing) Holly Drain at Holly, Colorado (existing) Arkansas River at Coolidge, Kansas (proposed) Frontier Ditch at Coolidge, Kansas (proposed)

In designating the State line stations it was anticipated by the Administration that when constructed and properly rated the proposed stations at Coolidge would replace those at Holly for official determinations of State line flow.

As requested by resolution of the Administration the Director of the Geological Survey solicited the necessary appropriations from the Congress and with the assistance of Colorado and Kansas this effort to obtain funds was successful. As a result there will be available during the fiscal year 1951, \$13,800 for the support of the Compact gaging stations.

Since no specific provision for this work had been provided for the fiscal year 1950, the Federal Representative on the Administration released a portion of the funds allotted him for participation in the work of the Administration to carry on the stream gaging work until the beginning of the 1951 fiscal year. Funds released by him and subsequently allotted for operation of Compact gaging stations amounted to \$2,150.

In accordance with the request of the Administration the Geological Survey on July 1, 1950, assumed full responsibility for the operation of the stations on the Arkansas River at Las Animas and Caddoa and that on the Purgatoire River at Las Animas. Prior to that time those stations had been operated by the Corps of Engineers, U. S. Army, with only minor participation by the Survey. Likewise arrangements were made with the Colorado State Engineer whereby on October 1, 1950, the Survey assumed full responsibility for the existing State line stations.

The new State line station on the Arkansas River at Coolidge, Kansas, was constructed during the summer months and placed in operation on October 1, 1950. Plans for the station on Frontier Ditch have been completed and orders placed for the necessary materials. Both stations will be equipped with long-distance communications systems and are expected to be in full operation at the beginning of the 1951 irrigation season.

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

The Administration has had no occasion, during the period covered by this report, to make any Findings of Fact under the provisions of the Arkansas River Compact.

#### 10. Change in Regular Meeting Dates of the Administration

At its meeting on March 24, 1950, the Administration amended its By-Laws to provide for a change in the dates of the regular meetings of the Administration from the third Tuesdays in March and July to the fourth Tuesdays in March and July of each year.

#### 11. Secretary - Salary

- (a) At the meeting of the Administration, held on March 24, 1950, the Administration directed its Secretary to perform the functions delegated to him under Paragraph 2 of the Rules and Regulations, adopted by the Administration and which became effective on April 15, 1950.
- (b) The Administration fixed the compensation of the Secretary in consideration of the performance of the duties imposed upon him by the By-Laws and the Rules and Regulations of the Administration at \$100 a month.

# 12. Communications Between the Administration and the Arkansas-White-Red Basins Inter-Agency Committee

The Chairman of the Administration on October 3, 1950, at Dodge City, Kansas, and on October 5, 1950, at Pueblo, Colorado, presented a statement on behalf of the Arkansas River Compact Administration at hearings held by the Arkansas-White-Red Basins Inter-Agency Committee. This statement is identical with a com-

munication, dated September 22, 1950, submitted by him to Colonel Louis W. Prentiss, Chairman of the Inter-Agency Committee. A copy of such communication and the reply of Colonel Prentiss are attached hereto as Appendix E.

Respectfully submitted,

#### ARKANSAS RIVER COMPACT ADMINISTRATION

By:

BRIG. GEN. HANS KRAMER, U. S. A. RET. Representative of the United States and Chairman

HARRY B. MENDENHALL
HARRY C. NEVIUS
CLIFFORD H. STONE
Colorado Members of the Administration

GEORGE S. KNAPP
WILLIAM E. LEAVITT
ROLAND H. TATE
Kansas Members of the Administration

Lamar, Colorado December 12, 1950

#### **APPENDICES**

For

#### Annual Report of the Arkansas River Compact Administration

For the Year 1950

APPENDIX "A" —Audit of Administration Finances

APPENDIX "B" —Bank Deposits Resolution.

APPENDIX "C" —Rules and Regulations.

APPENDIX "D-1" —Daily Discharges, Arkansas River at Pueblo, Colorado

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

APPENDIX "D-3" —Daily Discharges, Purgatoire River at Las Animas, Colorado.

APPENDIX "D-4" — Daily Discharges, Arkansas River at the Colorado-Kansas State Line.

APPENDIX "D-5" — Daily Discharges, Arkansas River at Garden City, Kansas.

APPENDIX "D-6" - Inflow into John Martin Reservoir

APPENDIX "D-7" -Outflow from John Martin Reservoir.

APPENDIX "D-8" -Demands by Colorado for Water.

APPENDIX "D-9" - Demands by Kansas for Water.

APPENDIX "D-10"-State-Line Flow on Days of Kansas Demand.

APPENDIX "D-11"—Diversions by Ditches in Colorado Water Districts 14 and 17.

APPENDIX "D-12"—Diversions by Ditches in Colorado Water District 67.

APPENDIX "D-13"—Diversions by Ditches in Kansas, State Line to Garden City.

APPENDIX "E" —Arkansas-White-Red Basins Correspondence.

#### APPENDIX "A"

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# AUDIT OF ADMINISTRATION FINANCES \* \* \* \* \*

ROBERT W. ROLLINS Certified Public Accountant La Junta, Colorado

November 30, 1950

To the Representatives, Arkansas River Compact Administration, Lamar, Colorado.

Gentlemen:

As requested by you, I have made an examination of the records of the Arkansas River Compact Administration for the period October 27, 1949, to October 31, 1950, which includes all the transactions of receipts and disbursements of the Compact to date. My Report of the Audit, consisting of Schedule I, page No. 4, together with the following comments, covers the "Report-Year" period ending October 31, 1950.

#### History

On December 14, 1948, a Compact between the State of Colorado and Kansas was completed for the purpose of settling disputes, apportionment of the waters of the Arkansas River, and the utilization of the benefits arising from the John Martin Reservoir Project. Consent to this interstate compact was given by the Congress of the United States by Public Law 34, 79th Congress, 1st Session. Briefly, the Compact Administration is to receive its funds from the States of Colorado and Kansas in the respective ratio of 60% and 40%. As provided for in the Compact Agreement, the provisions of the Compact are performed by the Administration, consisting of three representatives from Colorado, three representatives from Kansas, and a representative of the United States.

#### **General Comments**

Schedule I, page No. 4, a Statement of Receipts and Disbursements reflects by classification the revenues and expenditures of the Administration for the period October 29, 1949, to October 31, 1950. In accordance with the provisions of the By-Laws, Article VIII, this Statement covers the "Report Year" ending October 31, 1950. It will be noted proceeds from Colorado of \$1,200.00 and Kansas of \$800.00 placed in the official depository at Lamar, Colorado, on October 27, 1949, are included within the scope of the audit.

All disbursements were made by checks drawn on the Administration's account at the First National Bank in Lamar, Colorado. The individual checks were examined for amount, signature and endorsement. The correctness of the amounts disbursed were verified to payee's state-

ment, authorization of payment as evidenced in Minutes of the Meetings of the Representatives or other supporting evidence.

As authorized by the Representatives, the expenditure of reading the Holly Drain Gauge from April 21, 1950, to October 31, 1950, cost \$1.50 a day or a total of \$291.00.

Secretary-treasurer's bond in the amount of \$10,000.00 is carried with the National Surety Corporation. The related expense of \$100.00 represents the premium costs for two years.

As reflected on Schedule I, cash in bank at October 31, 1950, amounted to \$1,386.27. This amount was reconciled to the amount directly confirmed by that depository.

No office equipment or other capital outlay was acquired during

the period under review.

The financial position of the Administration at October 31, 1950, is expressed in the following schedule:

## ARKANSAS RIVER COMPACT ADMINISTRATION Lamar, Colorado

#### Balance Sheet October 31, 1950

| Assets<br>Cash in First National Bank, I | .amar, Colorado\$1,386.27 |
|------------------------------------------|---------------------------|
| Capital Unexpended Fund Balance          | \$1,386.27                |

#### **Special Comments**

Referring to the requirements relating to the submission of a budget, Article VII paragraph 3 of the By-Laws states, "In each even numbered year the Administration shall adopt and transmit to the Governor of each State its budget covering anticipated expenses for the forthcoming biennium and the amount thereof payable by each State."

A preliminary budget to cover initial expenses of organizing the Administration was submitted by the Secretary at the meeting held in Lamar, Colorado, on November 14, 1949, and consisted of:

|                                  | Amount    |
|----------------------------------|-----------|
| Office supplies\$                | 200.00    |
| Telephone and telegraph for year | 500.00    |
| Office equipment                 | 125.00    |
| Printed annual reports           | 300.00    |
| Auditing expense                 | 150.00    |
| Secretary-treasurer bond         | 50.00     |
| Publication of official notices  | 150.00    |
| Total\$                          | 1 475 00* |
| 1 ΟταιΨ                          | 1,17,00   |

\*This budget was tabled temporarily for further study and possible expansion and the subsequent minutes of the Administration's Meetings do not reflect its adoption. At the time the preliminary budget

was offered, the Secretary announced an overall budget could not be determined until agreements had been reached with various agencies for services to be rendered and until the Administration had decided on what employees might be needed and the salaries to be paid. Although the Administration did not approve a budget for the fiscal years ended June 30, 1950, or June 30, 1951, the Representatives specifically authorized such expenditures as the secretary's salary, expense of reading Holly Drainage Gauge, etc.

A biennium budget for the fiscal years ending June 30, 1952, and June 30, 1953, amounting to \$5,000.00 for each year was adopted at the Administration's Meeting on August 4, 1950. The writer is advised, said budget will be submitted as required under Article VII of

the By-Laws.

Your attention is called to the fact, the Administration has a fiscal year beginning July 1, and ending June 30, and a related budget geared accordingly. The Arkansas River Compact Administration also is required to submit an annual report embracing the period beginning November 1, and ending on the succeeding October 31. Care should be taken, in subsequent years, not to confuse a budget adopted for a

fiscal year to the "Report Year."

In conclusion, the writer wishes to point out, the By-Laws prescribe under Article VII paragraph 5, "All receipts and disbursements of the Administration shall be audited yearly by a certified public accountant . . . . . and the report of audit shall be included in the annual report of the Administration." Since Article VII refers to "Fiscal," there arises a question in the writer's mind if the fiscal year ended June 30, is not the period to be examined by the certified public accountant. In view of the problems arising in the future on the preparation of statements reflecting actual revenues and disbursements when compared to budgeted amounts for a fiscal year ending June 30 and the annual report covering receipts and expenditures for the report year ending October 31, the writer suggests the Representatives clarify the Auditor's position in this matter.

As previously mentioned, this Report covers, as directed by you, transactions of the "Report year" ended October 31, 1950.

Respectfully submitted,

ROBERT W. ROLLINS Certified Public Accountant.

# ARKANSAS RIVER COMPACT ADMINISTRATION Lamar, Colorado

#### Statement of Receipts and Disbursements October 27, 1949, to October 31, 1950

| Receipts                                                  |            |            |
|-----------------------------------------------------------|------------|------------|
| Revenue from assessments                                  |            |            |
| Colorado portion 60%                                      | \$2,000.00 |            |
| Kansas portion 40%                                        | 1,333.33   |            |
| ·                                                         |            |            |
| Total Receipts                                            |            | \$3,333.33 |
| Disbursements                                             |            |            |
| Salary of secretary (April '49-Oct. '50 inc.)<br>Printing | \$ 700.00  |            |
| Legal publications, etc\$ 402.77                          |            |            |
| First annual report                                       |            |            |
|                                                           |            |            |
|                                                           | 647.77     |            |
| Expense of reading Holly Drain Gauge from                 | 201.00     |            |
| April 21, 1950 to October 31, 1950                        | 291.00     |            |
| Telephone and telegraph                                   | 111.00     |            |
| Premium on sec'y-treas, bond                              | 100.00     |            |
| Office supplies and stationery                            | 97.29      |            |
| Total Disbursements                                       |            | \$1,947.06 |
| Cash in bank at October 31, 1950                          |            | \$1,386.27 |
| Cash on deposit at First National Bank in Lama            | ır         |            |
| (per direct confirmation) on October 31, 1950             | \$1,600.87 |            |
| Less: Outstanding checks:                                 | Ψ1,000.0.  |            |
| No. 25 Wm. R. Patterson \$ 45.00                          |            |            |
| No. 27 Lamar Daily News 12.25                             |            |            |
| No. 28 Wm. R. Patterson 46.50                             |            |            |
| No. 29 Harry C. Nevius                                    |            |            |
| No. 30 Mt. States Tel. & Tel 10.85                        | 214.60     | \$1,386.27 |
|                                                           |            |            |

#### APPENDIX "B"

#### BANK DEPOSITS RESOLUTION

(Adopted October 20, 1950)

\* \* \* \* \*

WHEREAS, the activities of the Arkansas River Compact Administration are financed by funds made available by the States of Colorado and Kansas, under the provisions of the Arkansas River Compact, and such Administration is responsible and accountable to such States for the proper handling and expenditures of such money; and

WHEREAS, appropriate security should be provided in the deposit of such funds in any bank or banks, designated by the Administration as depository, in addition to the bond required of the Secretary-Treasurer of the Administration:

NOW, THEREFORE BE IT RESOLVED, That if the Arkansas River Compact Administration should request and receive a total amount of funds from the States of Colorado and Kansas exceeding \$10,000 in its hands at any one time, then arrangements shall be made by the Secretary-Treasurer of the Administration with the depository bank, in the usual and approved manner, for the protection of such deposit, or in lieu of such arrangements, Administration funds, where the total amount in its hands at any one time exceeds \$10,000 shall be deposited in two banks, approved as depositories by the Administration, it being the intent and purpose of this resolution to assure protection of Administration funds on deposit in banks which exceed the amount secured under the Federal Deposit Insurance Corporation.

#### APPENDIX "C"

# Rules and Regulations of ARKANSAS RIVER COMPACT ADMINISTRATION Effective April 15, 1950

#### **Explanatory Statement**

The Arkansas River Compact is herein referred to as the "Compact," and the Arkansas River Compact Administration is herein referred to as the "Administration".

Under the Compact, authority and responsibilities for the operation and maintenance of John Martin Dam and Reservoir, for the release of water therefrom, for the interstate operation of the Arkansas River between Colorado and Kansas and for the intrastate distribution of water of that river, are divided among these Federal and State agencies, viz: the Corps of Engineers, United States Army, the Administration and the Chief Official in each of the States of Colorado and Kansas charged with the administration of water rights.

The authority and responsibilities of each of these agencies and officials are recognized to be as follows:

#### Corps of Engineers, United States Army

1. The Corps of Engineers is authorized to operate and maintain the John Martin Dam and Reservoir for flood control and conservation purposes: Provided, that the conservation pool in such project shall be operated in a manner conforming with the Arkansas River Compact.

2. Under the provisions of the Compact, the maintenance of John Martin Dam and appurtenant works may at times require the Corps of Engineers to release water then impounded in the conservation pool, or to prohibit the storage of water therein, until such maintenance work is completed and that flood control operations may also involve temporary utilization of conservation storage.

#### The Arkansas River Compact Administration

1. The conservation pool in John Martin Reservoir will be operated for the benefit of water users in Colorado and Kansas, both upstream and downstream from John Martin Dam, as provided in the Compact.

2. The administration has the authority and responsibility to effectuate the apportionment of water between the States of Colorado and Kansas in the manner provided by, and in accordance with, the

Arkansas River Compact, including these provisions:

(a) Article V A, B, C, D and E of the Compact relating to the releases, and reduction in releases, of water from storage in the conservation pool of John Martin Reservoir and of river

flow through such reservoir, and also to making such water available for use in each of the two States.

(b) Article V F requiring the Administration to make findings and give notice with respect to the exhaustion of water in the conservation pool of John Martin Reservoir.

(c) Article V H requiring the Administration to make findings of fact with respect to proposed transfer of priority rights to ditches in Colorado Water District Number 67 to points of diversion upstream from John Martin Reservoir and with respect to a proposed increase in diversion rights from the Arkansas River in Water District Number 67 and in Kansas between the Stateline and Garden City, Kansas.

3. The Administration is charged among other duties, with carry-

ing out these additional provisions of the Compact:

- (a) Article VII G (1), (2) and (3) requiring the Administration (1) to determine from time to time, in collaboration with appropriate Federal and State agencies, the location of gaging stations required for the proper administration of the Compact; (2) to require, if necessary for the administration of the Compact, the installation and maintenance of measuring devices in any ditch or group of ditches diverting water from the Arkansas River in Colorado or Kansas; (3) to cooperate with the Chief Official of each of the States of Colorado and Kansas charged with the administration of water rights and with Federal agencies in the procurement, interchange, compilation, and publication of all factual data bearing upon the administration of the Compact; and (4) to call upon interested Federal agencies and officials to collaborate with the Administration and with appropriate State officials to facilitate the administration of the Compact.
- (b) Article VIII H requiring the Administration to investigate violations of any of the provisions of the Compact or other action prejudicial thereto, which comes to the attention of the Administration, and, when deemed advisable, to report its findings and recommendations to the Chief Official of each of the States of Colorado and Kansas charged with the administration of water rights.

(c) Article VIII B (1) and (2) requiring the Administration to adopt and revoke By-Laws, Rules and Regulations, prescribe procedures for the administration of the Compact, and to adopt and transmit to the Governors of each of the States of Colorado and Kansas in each even-numbered year its budget covering anticipating expenses for the forth-coming biennium.

#### Chief Official of Each of the States of Colorado and Kansas Charged With the Administration of Water Rights

1. Nothing contained in the Compact, or in the By-Laws and Rules and Regulations of the Administration thereunder, supplants, or is intended to supersede, the authority of the Chief Official of each

- of the States of Colorado and Kansas charged with the administration of water rights, with respect to the administration and distribution of water which is available to each of such States under the provisions of the Compact.
- 2. The Chief Official charged with the administration of water rights in Kansas will exercise full jurisdiction and control over the waters of the Arkansas River that originates in Kansas and over the waters that flow from Colorado across the Stateline into Kansas. (Article VI A (1).
- 3. The Chief Official of Kansas charged with the administration of water rights is given and assumes exclusive administrative control, under the Compact, over the operations of the Frontier Canal and its headworks for irrigation uses in Kansas to the same extent as though such works were located entirely within the State of Kansas. (Article VI B).
- 4. Except as otherwise provided, nothing in the Compact shall be construed as supplanting the administration by Colorado of the rights of appropriators of water of the Arkansas River in that State as decreed to such appropriators by the courts of Colorado, nor as interfering with the distribution among such appropriators by Colorado, nor as curtailing the diversion and use for irrigation and other beneficial purposes in Colorado of the waters of the Arkansas River. (Article VI A (2)). Accordingly, the State Engineer of Colorado, by virtue of the authority given him under the Colorado statutes, and in conformity with the Arkansas River Compact, has authority and responsibility as follows:
  - (a) During such periods of time when no water remains in storage in the conservation pool of John Martin Reservoir and after the Administration, pursuant to Article V F of the Compact, has made a finding that such storage will be or is liable to be exhausted and gives notice thereof as prescribed by Article V F of the Compact, he shall administer the decreed water rights of water users in Colorado Water District Number 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 Dam began to operate. (Article V F).
  - (b) During such times as there is water in storage in the conservation pool of John Martin Reservoir and water is available for release from such storage or from river flows which may be passed through such reservoir under the provisions of the Compact, he shall administer diversions of water in Colorado Water District Number 67 in accordance with distribution agreements made from time to time by the water users in such District and filed with the Administration and with the State Engineer of Colorado, or in the absence of

- such agreements, upon the basis of respective priority decrees, as against each other, in said District (Article V F).
- (c) During such times as there is water in storage in the conservation pool of John Martin Reservoir and water is available for release from such storage, or from river flows which may be passed through such reservoir under the provisions of the Compact, he shall administer 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 before John Martin Dam began to operate, as against each other and without regard to any priority rights in Colorado Water District Number 67 (Article V F).
- (d) He shall furnish pertinent factual data to the Administration upon its request; and he is required to supervise the installation of measuring devices required by the Administration under Article VIII G (3) of the Compact.
- (e) He shall collaborate, on behalf of his State, in providing such available facilities, equipment and other assistance as the Administration may need to carry out its duties, in accordance with the provisions of Article VIII F of the Compact.

#### Rules and Regulations

Based on the foregoing delineation of authority and responsibilities, and with the approval of the Corps of Engineers, these Rules and Regulations for the administration of the Compact are adopted by the Administration, pursuant to Article V E (6) and VIII B (1) of the Compact and in accordance with Article VI of the By-Laws of the Administration.

- 1. Under the general direction of the Administration, the Operations Committee, set up under Article V of the By-Laws of the Administration, shall have supervision over these Rules and Regulations governing the storage and release of water from the conservation pool of the John Martin Reservoir and over such other Arkansas River interstate administration and operation between the States of Colorado and Kansas as come within the purview of the Compact.
- 2. The Administration hereby delegates to the Secretary of the Administration, acting under the direct supervision of the Operations Committee, the following duties and functions:
  - (a) (1) To receive calls from an authorized representative of the water users in Colorado and in Kansas for releases and reduction in releases of water in storage in the conservation pool of John Martin Reservoir and of river flow through such reservoir, under the provisions of the Compact; (2) to ascertain from day to day and from time to time the total quantities of water available and required to fulfill such calls; (3) to request the Reservoir Manager of John Martin Dam and Reservoir of the Corps of Engineers to make releases and

reduction in releases of quantities of water required to meet such calls; and (4) to ascertain from time to time, as necessary, between the first day of April and the 31st day of October of each year, the water available at the Colorado-Kansas Stateline for use in Kansas in order to effectuate the apportionment of water to Kansas as provided by the Compact. For the purpose of carrying out the functions and duties set forth in this Paragraph 2 (a), and in compliance therewith, the Secretary of the Administration is hereby authorized, on behalf of the Administration, to make appropriate and cooperative use of the services of all interested Federal and State agencies and officials.

- (b) To be responsible for the day-by-day relations with the Chief Official of each of the States of Colorado and Kansas charged with the administration of water rights, and with the Corps of Engineers.
- (c) To maintain such records and prepare such reports covering the functions and duties delegated by these Rules and Regulations as may be required of him from time to time by the Administration.
- (d) To report to the Operations Committee, set up under Article V of the Administration's By-Laws, any violations of the provisions of the Compact or other action prejudicial thereto which comes to his attention.
- 3. The District Engineer, Albuquerque District, Corps of Engineers, or his authorized representative, the Water Commissioner of Colorado Water District Number 67, and the local representative of the U. S. Geological Survey are hereby requested to communicate from time to time to the Secretary of Administration any information and recommendations which relate to, and will aid in, the conservation of water and in the performance of the functions and duties delegated to such Secretary. In the interest of the improvement of operation practices and cooperation, Federal and State officials and agencies are requested to advise the Administration of any complaints or suggestions with respect to the carrying out of these Rules and Regulations.

#### Effective Date

These Rules and Regulations shall become effective April 15, 1950, and after publication as required by Article VI 3 of the By-Laws of the Administration.

# ARKANSAS RIVER AT PUEBLO, COLORADO Report Year Ending October 31, 1950

| U | SGS | Records—Preliminary, | Subject | to Revision |
|---|-----|----------------------|---------|-------------|
|   |     |                      |         |             |

| DAY         | NOV.         | DEC.  | JAN.  | FEB.  | MAR.  | APR.  | MAY   | JUNE   | JULY  | AUG.   | SEPT. | OCT. |
|-------------|--------------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|------|
| 1           | 413          | 261   | 251   | 232   | 140   | 48    | 808   | 1130   | 985   | 268    | 50    | 70   |
| 2 .         | 416          | 260   | 245   | 231   | 146   | 39    | 785   | 1290   | 972   | 316    | 3 5   | 119  |
| 3           | 412          | 255   | 223   | 241   | 127   | 48    | 786   | 1580   | 984   | 247    | 28    | 108  |
| 4           | 389          | 242   | 212   | 247   | 114   | 69    | 764   | 1950   | 1080  | 196    | 353   | 98   |
| 5           | 426          | 233   | 231   | 242   | 100   | 81    | 764   | 1660   | 938   | 149    | 568   | 75   |
| 6           | 453          | 236   | 262   | 234   | 87    | 36    | 641   | 1500   | 1290  | 121    | 627   | 76   |
| 7           | 452          | 245   | 283   | 207   | 99    | 30    | 441   | 1610   | 1330  | 115    | 616   | 6    |
| 8           | 453          | 258   | 297   | 192   | 90    | 26    | 389   | 1600   | 1460  | 176    | 765   | 59   |
| 9           | 459          | 300   | 308   | 197   | 61    | 28    | 347   | 1430   | 1440  | 401    | 559   | 79   |
| 10          | 435          | 278   | 291   | 158   | 64    | 176   | 340   | 1580   | 1530  | 609    | 302   | 79   |
| 11          | 406          | 280   | 282   | 149   | 69    | 198   | 289   | 1340   | 1760  | 618    | 223   | 83   |
| 12          | 373          | 351   | 310   | 169   | 44    | 155   | 256   | 1960   | 1810  | 648    | 93    | 75   |
| 13          | 347          | 362   | 308   | 191   | 69    | 137   | 269   | 2250   | 1140  | 679    | 155   | 70   |
| 14          | 317          | 345   | 317   | 178   | 145   | 140   | 303   | 2350   | 1020  | 678    | 267   | 81   |
| 15          | 326          | 374   | 324   | 164   | 146   | 164   | 337   | 2300   | 1010  | 818    | 98    | 81   |
| 16          | 326          | 420   | 352   | 188   | 145   | 278   | 302   | 2260   | 1060  | 726    | 116   | 89   |
| 17          | 329          | 418   | 365   | 188   | 111   | 343   | 375   | 2350   | 864   | 427    | 102   | 85   |
| 18          | 308          | 376   | 359   | 186   | 118   | 301   | 472   | 2350   | 807   | 389    | 161   | 69   |
| 19          | 280          | 338   | 355   | 178   | 101   | 286   | 770   | 2560   | 647   | 323    | 109   | 6    |
| 20          | 296          | 316   | 369   | 190   | 90    | 183   | 896   | 2060   | 677   | 235    | 103   | 69   |
| 21          | 300          | 358   | 318   | 217   | 124   | 105   | 825   | 1720   | 688   | 215    | 97    | 69   |
| 2.2         | 288          | 370   | 296   | 233   | 33    | 73    | 770   | 1380   | 598   | 196    | 92    | 73   |
| 23          | 289          | 337   | 296   | 176   | 23    | 86    | 781   | 1210   | 1850  | 172    | 102   | 89   |
| 24          | 288          | 321   | 297   | 168   | 21    | 251   | 837   | 1030   | 766   | 178    | 91    | 81   |
| 25          | 305          | 337   | 301   | 151   | 34    | 833   | 1280  | 1090   | 784   | 178    | 107   | 73   |
| 26          | 288          | 306   | 296   | 147   | 32    | 721   | 1580  | 1210   | 1880  | 287    | 109   | 69   |
| 27          | 270          | 313   | 297   | 147   | 28    | 690   | 972   | 1190   | 311   | 323    | 63    | 69   |
| 28          | 270          | 261   | 241   | 133   | 87    | 743   | 818   | 1150   | 296   | 293    | 83    | 69   |
| 29          | 249          | 260   | 268   |       | 341   | 844   | 771   | 1040   | 186   | 286    | 83    | 5 4  |
| 30          | 255          | 261   | 241   |       | 237   | 904   | 983   | 1060   | 167   | 204    | 70    | 65   |
| 31<br>TOTAI |              | 264   | 232   |       | 84    |       | 959   |        | 322   | 103    |       | 61   |
| Sec. Ft.    |              | 9536  | 9027  | 5334  | 3110  | 8016  | 20910 | 49190  | 30652 | 10574  | 6227  | 2365 |
| Ac. Ft.     | 20660        | 18910 | 17900 | 10580 | 6170  | 15900 | 41470 | 97570  | 60800 | 20970  | 12350 | 4690 |
|             | tream res.   |       |       |       | -1080 | -6310 | -8650 | -11240 | -8800 | -12650 | -6670 | -540 |
|             | d total, acr |       |       |       | 5090  | 9590  | 32820 | 86330  | 52000 | 8320   | 5680  | 4150 |
| 11.000      | _ ,,,,,,,    |       |       |       |       |       |       |        |       | YEAR 3 |       |      |

CORRECTED 272000 Ac. Ft.

#### ARKANSAS RIVER AT LAS ANIMAS, COLORADO

Report Year Ending October 31, 1950 U S G S Records—Preliminary, Subject to Revision

ARKANSAS RIVER AT LAS

ANIMAS, COLORADO

| DAY        | NOV. | DEC.    | JAN.    | FEB. | MAR. | APR. | MAY  | JUNE | JULY  | AUG. | SEPT.    | ост.     |
|------------|------|---------|---------|------|------|------|------|------|-------|------|----------|----------|
| 1          | 39   | 50      | 78      | 70   | 50   | 22   | 21   | 23   | 31    | 157  | 35       | 84       |
| 2          | 3 3  | 223     | 85      | 95   | 50   | 22   | 20   | 22   | 30    | 89   | 35       | 52       |
| 3          | 31   | 76      | 67      | 130  | 50   | 22   | 42   | 28   | 31    | 68   | 29       | 36       |
| 4          | 32   | 72      | 61      | 157  | 50   | 22   | 24   | 122  | 23    | 61   | 25       | 36       |
| 5          | 3 1  | 74      | 70      | 192  | 48   | 23   | 50   | 122  | 25    | 58   | 24       | 32       |
| 6          | 65   | 43      | 80      | 151  | 53   | 22   | 33   | 44   | 167   | 77   | 25       | 30       |
| 7          | 44   | 38      | 100     | 119  | 56   | 21   | 3 1  | 25   | 209   | 47   | 24       | 30       |
| 8          | 36   | 52      | 130     | 95   | 145  | 23   | 29   | 22   | 54    | 33   | 25       | 29       |
| 9          | 3 3  | 80      | 145     | 90   | 154  | 24   | 30   | 25   | 74    | 30   | 28       | 29       |
| 10         | 32   | 78      | 140     | 97   | 164  | 25   | 25   | 28   | 67    | 30   | 29       | 27       |
| 11         | 37   | 100     | 139     | 88   | 167  | 24   | 25   | 38   | 39    | 29   | 3 3      | 28       |
| 12         | 44   | 68      | 1,27    | 92   | 124  | 24   | 23   | 50   | 42    | 27   | 32       | 28<br>27 |
| 13         | 48   | 90      | 119     | 83   | 108  | 30   | 26   | 20   | 85    | 26   | 38       | 27       |
| 14         | 40   | 120     | 97      | 76   | 95   | 30   | 23   | 29   | 44    | 24   | 276      | 30       |
| 15         | 38   | 165     | 113     | 58   | 83   | 39   | 24   | 24   | 38    | 23   | 86       | 82<br>77 |
| 16         | 36   | 200     | 83      | 54   | 70   | 36   | 23   | 23   | 36    | 22   | 649      | 77       |
| 17         | 28   | 150     | 108     | 52   | 70   | 33   | 23   | 44   | 32    | 21   | 220      | 38       |
| 18         | 24   | 130     | 95      | 48   | 50   | 40   | 23   | 42   | 32    | 20   | 84       | 33<br>27 |
| 19         | 28   | 116     | 102     | 47   | 50   | 29   | 24   | 88   | 124   | 19   | 54       | 27       |
| 20         | 28   | 105     | 178     | 50   | 47   | 23   | 22   | 181  | 61    | 20   | 44       | 27       |
| 21         | 3 1  | 74      | 262     | 48   | 46   | 20   | 22   | 181  | 50    | 20   | 38       | 27       |
| 22         | 30   | 58      | 157     | 50   | 40   | 20   | 22   | 139  | 30    | 20   | 37       | 27       |
| 23         | 32   | 59      | 139     | 50   | 31   | 20   | 30   | 40   | 70    | 19   | 37       | 26       |
| 24         | 3 1  | 77      | 127     | 50   | 23   | 20   | 22   | 30   | 1150  | 20   | 53       | 25       |
| 25         | 32   | 88      | 110     | 46   | 22   | 20   | 25   | 50   | 494   | 20   | 160      | 28<br>29 |
| 26         | 30   | 90      | 88      | 46   | 32   | 20   | 30   | 3 3  | 1190  | 92   | 234      | 29       |
| 27         | 32   | 92      | 120     | 50   | 32   | 18   | 34   | 23   | 4350  | 344  | 196      | 27       |
| 28         | 3 3  | 102     | 90      | 50   | 21   | 20   | 53   | 23   | 316   | 86   | 132      | 25       |
| 29         | 34   | 102     | 67      |      | 21   | 23   | 29   | 30   | 1040  | 64   | 97       | 23       |
| 30         | 39   | 92      | 70      |      | 22   | 26   | 23   | 33   | 590   | 44   | 51       | 21       |
| 31         |      | 78      | 58      |      | 22   |      | 26   |      | 183   | 37   |          | 21       |
| TOTAL      |      |         |         |      |      |      |      |      |       |      |          |          |
| Sec. Ft.   | 1051 | 2942    | 3405    | 2234 | 1996 | 741  | 857  | 1582 | 10707 | 1647 | 2830     | 1061     |
| Ac. Ft     | 2080 | 5840    | 6750    | 4430 | 3960 | 1470 | 1700 | 3140 | 21040 | 3270 | 5610     | 2100     |
| - * 0. * 0 |      | , , , , | · · · - |      |      |      |      |      |       |      | 1390 Ac. |          |

#### PURGATOIRE RIVER AT LAS ANIMAS, COLORADO

|         | Report Year Ending October 31, 1950 U S G S Records—Preliminary, Subject to Revision  OAY NOV. DEC. JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. |       |      |       |       |      |      |        |         |        |        |       |  |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|-------|-------|------|------|--------|---------|--------|--------|-------|--|
| DAY     | NOV.                                                                                                                                                  | DEC.  | JAN. | FEB.  | MAR.  | APR. | MAY  | JUNE   | JULY    | AUG.   | SEPT.  | OCT.  |  |
| 1       | 45                                                                                                                                                    | 9.2   | 39   | 14    | 3.9   | 2.5  | 2.0  | 1.8    | 22      | 651    | 35     | 35    |  |
| 2       | 59                                                                                                                                                    | 12    | 39   | 17    | 3.9   | 2.5  | 1.9  | 1.6    | 11      | 500    | 14     | 33    |  |
| 3       | 45                                                                                                                                                    | 20    | 20   | 19    | 4.2   | 2.5  | 2.0  | 1.9    | 7.1     | 116    | 8.0    | 31    |  |
| 4       | 38                                                                                                                                                    | 22    | 7    | 25    | 3.7   | 2.5  | 2.5  | 1.9    | 591     | 823    | 6.5    | 22    |  |
| 5       | 35                                                                                                                                                    | 26    | 8    | 3 1   | 3.7   | 2.6  | 5.4  | 1.5    | 150     | 180    | 5.7    | 24    |  |
| 6       | 13                                                                                                                                                    | 28    | 9    | 35    | 3.0   | 2.5  | 3.3  | 1.6    | 38      | 132    | 5.2    | 19    |  |
| 7       | 19                                                                                                                                                    | 28    | 10   | 25    | 2.5   | 2.6  | 2.6  | 1.3    | 17      | 71     | 5.2    | 19    |  |
| 8       | 3 3                                                                                                                                                   | 23    | 11   | 21    | 2.6   | 2.8  | 3.0  | 1.4    | 74      | 105    | 13     | 19    |  |
| 9       | 3 1                                                                                                                                                   | 28    | 12   | 21    | 3.7   | 2.3  | 2.5  | 1.5    | 136     | 62     | 271    | 22    |  |
| 10      | 28                                                                                                                                                    | 3 1   | 11   | 25    | 4.2   | 3.1  | 2.6  | 1.6    | 1050    | 33     | 165    | 16    |  |
| 11      | 74                                                                                                                                                    | 25    | 13   | 25    | 4.2   | 2.4  | 2.4  | 1.6    | 65      | 19     | 172    | 14    |  |
| 12      | 108                                                                                                                                                   | 20    | 15   | 24    | 3.5   | 2.4  | 2.4  | 1.3    | 28      | 112    | 960    | 11    |  |
| 13      | 120                                                                                                                                                   | 14    | 17   | 22    | 7.1   | 2.4  | 2.4  | 1.4    | 19      | 100    | 292    | 9.2   |  |
| 14      | 108                                                                                                                                                   | 19    | 19   | 2.5   | 13    | 2.5  | 2.2  | 1.5    | 16      | 656    | 2260   | 8.9   |  |
| 15      | 78                                                                                                                                                    | 26    | 17   | 28    | 11    | 3.7  | 1.9  | 1.3    | 18      | 265    | 360    | 6.8   |  |
| 16      | 38                                                                                                                                                    | 23    | 26   | 21    | 8.6   | 4.6  | 1.9  | 1.4    | 62      | 62     | 1720   | 6.5   |  |
| 17      | 32                                                                                                                                                    | 17    | 22   | 18    | 7.7   | 4.0  | 2.2  | 2.0    | 74      | 21     | 97     | 14    |  |
| 18      | 16                                                                                                                                                    | 12    | 21   | 16    | 6.1   | 3.3  | 2.2  | 2.8    | 25      | 9.8    | 65     | 22    |  |
| 19      | 15                                                                                                                                                    | 12    | 24   | 11    | 4.8   | 2.8  | 2.2  | 1.8    | 1290    | 8.9    | 39     | 11    |  |
| 20      | 12                                                                                                                                                    | 9.8   | 21   | 8.3   | 4.2   | 2.6  | 2.2  | 1410   | 74      | 5.4    | 32     | 6.3   |  |
| 21      | 9.8                                                                                                                                                   | 10    | 39   | 5.9   | 3.5   | 2.4  | 2.2  | 204    | 20      | 4.2    | 24     | 6.1   |  |
| 22      | 9.5                                                                                                                                                   | 13    | 54   | 5.2   | 3.3   | 2.2  | 2.2  | 112    | 59      | 3.9    | 48     | 5.7   |  |
| 23      | 9.2                                                                                                                                                   | 20    | 38   | 5.2   | 3.0   | 1.9  | 1.9  | 22     | 94      | 3.5    | 28     | 5.7   |  |
| 24      | 9.5                                                                                                                                                   | 25    | 31   | 4.6   | 2.8   | 1.9  | 2.2  | 9.8    | 2260    | 3.3    | 20     | 5.4   |  |
| 25      | 9.5                                                                                                                                                   | 16    | 20   | 4.6   | 2.5   | 1.8  | 2.6  | 5.9    | 278     | 3.5    | 112    | 5.0   |  |
| 26      | 8.6                                                                                                                                                   | 17    | 12   | 5.0   | 3.3   | 1.7  | 2.3  | 4.2    | 1610    | 480    | 175    | 4.6   |  |
| 27      | 8.6                                                                                                                                                   | 18    | 14   | 5.0   | 4.2   | 1.6  | 1.9  | 4.0    | 3760    | 299    | 124    | 4.0   |  |
| 28      | 8.9                                                                                                                                                   | 19    | 19   | 4.0   | 3.0   | 1.7  | 1.9  | 3.9    | 932     | 31     | 124    | 4.0   |  |
| 29      | 12                                                                                                                                                    | 21    | 16   |       | 2.5   | 2.0  | 1.9  | 82     | 891     | 2250   | 112    | 3.9   |  |
| 30      | 8.6                                                                                                                                                   | 26    | 14   |       | 2.6   | 1.9  | 2.0  | 78     | 918     | 632    | 108    | 3.9   |  |
| 31      |                                                                                                                                                       | 32    | 13   |       | 2.8   |      | 2.2  |        | 264     | 155    |        | 3.7   |  |
| TOTA    | r                                                                                                                                                     |       |      |       |       |      |      |        |         |        |        |       |  |
| Sec. Ft | 1041.2                                                                                                                                                | 622.0 | 631  | 470.8 | 139.1 | 75.7 | 73.0 | 1967.0 | 15253.1 | 7797.5 | 7400.6 | 401.7 |  |
| Ac. Ft. | 2060                                                                                                                                                  | 1230  | 1250 | 934   | 276   | 150  | 145  | 3900   | 30250   | 15470  | 14680  | 797   |  |
| AC, Pt. | 2000                                                                                                                                                  | 1230  | 1270 | 234   | 270   | 170  | 17)  | 3900   |         | 1)4/U  |        | 191   |  |

THE YEAR 71140 Ac. Ft.

ARKANSAS RIVER at the COLORADO-KANSAS STATE LINE

#### ARKANSAS RIVER at the COLORADO-KANSAS STATE LINE

Report Year Ending October 31, 1950 U S G S Records—Preliminary, Subject to Revision

| DAY    | NOV.   | DEC  | . JAN. | FEB. | MAR    | . APR.  | MAY    | JUNE    | JULY    | AUG.            | SEPT.             | OCT.           |
|--------|--------|------|--------|------|--------|---------|--------|---------|---------|-----------------|-------------------|----------------|
| 1      | 245    | 161  | 211    | 157  | 155    | 46.1    | 338.2  | 450.1   | 342     | 527             | 274               | 238            |
| 2      | 248    | 159  | 231    | 179  | 156    | 44.1    | 314    | 418     | 260     | 542             | 217               | 223            |
| 3      | 230    | 150  | 229    | 174  | 154    | 211     | 311    | 349     | 314     | 794             | 170               | 211            |
| 4      | 206    | 146  | 225    | 160  | 154    | 500     | 302    | 363     | 285     | 568             | 151               | 227            |
| 5      | 210    | 145  | 255    | 215  | 177    | 497.6   | 345.5  | 313     | 283     | 461             | 150               | 236            |
| 6      | 218    | 151  | 210    | 230  | 167    | 510.5   | 343.2  | 232     | 263.7   | 325.3           | 134               | 220            |
| 7      | 209    | 154  | 141    | 211  | 155    | 522.6   | 279    | 183     | 244     | 309             | 127               | 212            |
| 8      | 192    | 139  | 164    | 191  | 130    | 543.8   | 249    | 145     | 222     | 246.3           | 129               | 197.6          |
| 8<br>9 | 187    | 158  | 191    | 180  | 160    | 527     | 232    | 131     | 272     | 233.6           | 191               | 221            |
| 10     | 185    | 157  | 191    | 175  | 125    | 549     | 211    | 122     | 273     | 272.4           | 673               | 201            |
| 11     | 172    | 150  | 194    | 175  | 116    | 531     | 198    | 297     | 249     | 229             | 313               | 194            |
| 12     | 196    | 126  | 184    | 187  | 90     | 529.8   | 222    | 547     | 269     | 178             | 235               | 204            |
| 13     | 205    | 109  | 183    | 170  | 117    | 513     | 201    | 226     | 234     | 226             | 161               | 184            |
| 14     | 199    | 126  | 153    | 181  | 150    | 549     | 214    | 205     | 212     | 203             | 177               | 165            |
| 15     | 193    | 129  | 181    | 178  | 142    | 557     | 201    | 229     | 203     | 235             | 185               | 176            |
| 16     | 178    | 171  | 159    | 185  | 124    | 577.9   | 199    | 260     | 179     | 464             | 381               | 206            |
| 17     | 166    | 181  | 196    | 185  | 104    | 503.2   | 186    | 265     | 150     | 1199            | 1497              | 189            |
| 18     | 172    | 174  | 154    | 175  | 103    | 395     | 208    | 263     | 135     | 1004            | 717               | 186            |
| 19     | 193    | 169  | 153    | 169  | 109    | 318.7   | 237    | 278.4   | 131.8   | 524             | 631               | 185            |
| 20     | 179    | 167  | 217    | 169  | 117    | 305     | 238    | 442     | 255.8   | 421             | 535               | 179            |
| 21     | 185    | 136  | 226    | 176  | 120    | 345     | 325    | 2774    | 1288    | 333             | 410               | 191            |
| 22     | 186    | 125  | 221    | 167  | 109    | 359     | 367    | 530     | 544     | 287             | 387               | 201            |
| 23     | 184    | 134  | 197    | 153  | 100    | 362     | 334    | 341     | 352     | 262             | 394               | 198            |
| 24     | 192    | 184  | 184    | 156  | 97     | 322     | 352    | 283     | 305.2   | 262             | 426               | 187            |
| 25     | 180    | 217  | 143.6  | 164  | 96     | 309     | 403    | 225     | 336.2   | 338             | 362               | 172            |
| 26     | 172    | 195  | 97     | 166  | 91     | 338     | 468.7  | 170.1   | 337.2   | 219             | 453               | 165            |
| 27     | 164    | 195  | 125    | 166  | 86.8   | 388.2   | 420    | 188     | 295.2   | 192             | 418               | 165            |
| 28     | 154    | 202  | 186    | 155  | 85.7   | 397.0   | 448    | 173     | 534     | 331             | 404               | 153            |
| 29     | 154    | 193  | 163    |      | 85.1   | 378.1   | 629    | 325     | 360     | 351             | 348               | 165            |
| 30     | 161    | 222  | 107    |      | 85.4   |         | 552    | 392     | 466     | 299             | 336               | 170            |
| 31     | 102    | 190  | 141    |      | 77.7   |         | 409    |         | 540     | 261             |                   | 163            |
| TOTA   | L      |      |        |      |        |         |        |         |         |                 |                   |                |
|        | . 5715 | 5015 | 5612.6 | 4949 | 3738.7 | 12316.8 | 9736.6 | 11119.6 | 10135.1 | 12096.6         |                   | 5984.6         |
|        | 11320  | 9930 | 11110  | 9800 | 7400   | 24390   | 19280  | 22020   | 20070   | 23950<br>YEAR 1 | 21750<br>92870 Ac | 11850<br>. Ft. |

The daily discharges shown are the sum of the flows of the Arkansas River at Holly, Wild Horse Creek and the Holly Drain

#### ARKANSAS RIVER AT GARDEN CITY, KANSAS

Report Year Ending October 31, 1950 U S G S Records—Preliminary, Subject to Revision

| DAY      | NOV.  | DEC.  | JAN.  | FEB. | MAR.       | APR. | MAY  | JUNE | JULY | AUG.  | SEPT.     | OCT  |
|----------|-------|-------|-------|------|------------|------|------|------|------|-------|-----------|------|
| 1        | 271   | 222   | 360   | 131  | 44         | 22   | 62   | 9    | 20   | 1000  | 377       | 36   |
| 2        | 258   | 218   | 330   | 165  | 46         | 17   | 53   | 12   | 3 1  | 716   | 382       | 38   |
| 3        | 266   | 218   | 168   | 196  | 49         | 19   | 29   | 31   | 99   | 563   | 350       | 34   |
| 4        | 275   | 222   | 100   | 226  | 44         | 20   | 29   | 40   | 113  | 605   | 306       | 31   |
| 5        | 293   | 234   | 90    | 280  | 34         | 16   | 3 1  | 38   | 96   | 1520  | 242       | 29   |
| 6        | 275   | 234   | 108   | 382  | 31         | 15   | 36   | 27   | 113  | 648   | 215       | 26   |
| 7        | 250   | 246   | 122   | 446  | 60         | 20   | 3 1  | 27   | 88   | 1010  | 204       | 24   |
| 8        | 234   | 242   | 134   | 428  | 67         | 22   | 56   | 19   | 67   | 707   | 204       | 23   |
| 9        | 234   | 234   | 189   | 366  | 60         | 22   | 34   | 15   | 44   | 496   | 211       | 25   |
| 10       | 266   | 207   | 222   | 326  | 60         | 10   | 23   | 16   | 36   | 458   | 192       | 24   |
| 1 1      | 258   | 207   | 254   | 196  | 53         | 15   | 20   | 20   | 3 4  | 382   | 192       | 24   |
| 12       | 246   | 200   | 297   | 137  | 40         | 13   | 23   | 3 1  | 40   | 382   | 250       | 250  |
| 13       | 246   | 110   | 311   | 113  | 83         | 10   | 29   | 25   | 326  | 549   | 226       | 23   |
| L 4      | 246   | 108   | 316   | 207  | 185        | 16   | 25   | 134  | 204  | 428   | 192       | 22   |
| 15       | 254   | 137   | 280   | 207  | 148        | 25   | 27   | 42   | 122  | 446   | 182       | 22   |
| 16       | 250   | 148   | 271   | 222  | 80         | 60   | 19   | 23   | 85   | 434   | 254       | 21   |
| 17       | 246   | 178   | 258   | 171  | 56         | 75   | 17   | 22   | 62   | 382   | 271       | 18   |
| 18       | 246   | 218   | 185   | 108  | 51         | 72   | 17   | 17   | 62   | 428   | 366       | 19   |
| 19       | 238   | 275   | 151   | 88   | <b>6</b> 0 | 67   | 16   | 17   | 58   | 1010  | 1030      | 20   |
| 20       | 234   | 266   | 222   | 62   | 134        | 65   | 15   | 15   | 51   | 820   | 741       | 20   |
| 21       | 234   | 238   | 266   | 42   | 165        | 53   | 16   | 19   | 65   | 622   | 605       | 20   |
| 22       | 238   | 182   | 330   | 42   | 148        | 40   | 16   | 306  | 88   | 509   | 490       | 20   |
| 23       | 226   | 139   | 326   | 42   | 70         | 3.1  | 13   | 563  | 3 1  | 452   | 410       | 189  |
| 24       | 222   | 139   | 284   | 42   | 56         | 31   | 13   | 262  | 250  | 416   | 388       | 15   |
| 25       | 211   | 165   | 204   | 42   | 46         | 29   | 15   | 77   | 266  | 382   | 394       | 11   |
| 26       | 145   | 182   | 99    | 38   | 44         | 56   | 19   | 42   | 211  | 416   | 394       | 10   |
| 27       | 148   | 211   | 122   | 44   | 58         | 67   | 16   | 29   | 271  | 394   | 382       | 9    |
| 28       | 192   | 234   | 145   | 40   | 62         | 53   | 23   | 23   | 360  | 382   | 410       | 9    |
| 29       | 211   | 262   | 102   |      | 85         | 53   | 44   | 20   | 404  | 377   | 410       | 8    |
| 30       | 222   | 335   | 83    |      | 58         | 58   | 20   | 23   | 458  | 340   | 377       | 91   |
| 31       |       | 372   | 90    |      | 31         |      | 13   |      | 656  | 355   |           | 6    |
| ГОТАІ    |       |       |       |      |            |      |      |      |      |       |           |      |
| Sec. Ft. | 7135  | 6583  | 6419  | 4789 | 2208       | 1072 | 800  | 1944 | 4811 | 17629 | 10647     | 650  |
| Ac. Ft.  | 14150 | 13060 | 12730 | 9500 | 4380       | 2130 | 1590 | 3860 | 9540 | 34970 | 21120     | 1289 |
| ic. Pt.  | 17170 | 13000 | 12/30 | 7,00 | 1300       | 2130 | 1770 | 3000 |      |       | 59920 Ac. |      |

INFLOW INTO JOHN MARTIN RESERVOIR

#### INFLOW INTO JOHN MARTIN RESERVOIR

Report Year Ending October 31, 1950 U S G S Records—Preliminary, Subject to Revision

| DAY         | NOV.   | DEC.  | JAN. | FEB.   | MAR.   | APR.  | MAY  | JUNE  | JULY    | AUG.   | SEPT.              | OCT   |
|-------------|--------|-------|------|--------|--------|-------|------|-------|---------|--------|--------------------|-------|
| 1           | 84     | 59.2  | 117  | 84     | 53.9   | 24.5  | 23.0 | 24.8  | 53      | 808    | 70                 | 119   |
| 2           | 92     | 235   | 124  | 112    | 53.9   | 24.5  | 21.9 | 23.6  | 41      | 589    | 49                 | 85    |
| 2<br>3<br>4 | 76     | 96    | 87   | 149    | 54.2   | 24.5  | 44.0 | 29.9  | 38.1    | 184    | 37                 | 67    |
| 4           | 70     | 94    | 68   | 182    | 53.7   | 24.5  | 26.5 | 123.9 | 614     | 884    | 31.5               | 58    |
| 5           | 66     | 100   | 78   | 223    | 51.7   | 25.6  | 55.4 | 123.5 | 175     | 238    | 29.7               | 56    |
| 6           | 78     | 71    | 89   | 186    | 56.0   | 24.5  | 36.3 | 45.6  | 205     | 209    | 30.2               | 49    |
| 7           | 63     | 66    | 110  | 144    | 58.5   | 23.6  | 33.6 | 26.3  | 226     | 118    | 29.2               | 49    |
| 8           | 69     | 75    | 141  | 116    | 147.6  | 25.8  | 32.0 | 23.4  | 128     | 138    | 38                 | 48    |
| 9           | 64     | 108   | 157  | 111    | 157.7  | 26.3  | 32.5 | 26.5  | 210     | 92     | 299                | 51    |
| 10          | 60     | 109   | 151  | 122    | 168.2  | 28.1  | 27.6 | 29.6  | 1117    | 63     | 194                | 43    |
| 11          | 111    | 125   | 152  | 113    | 171.2  | 26.4  | 27.4 | 39.6  | 104     | 48     | 205                | 42    |
| 12          | 152    | 88    | 142  | 116    | 127.5  | 26.4  | 25.3 | 51.3  | 70      | 139    | 992                | 39    |
| 13          | 168    | 104   | 136  | 105    | 115.1  | 32.4  | 28.4 | 21.4  | 104     | 126    | 330                | 36.   |
| 14          | 148    | 139   | 116  | 101    | 108    | 32.5  | 25.2 | 30.5  | 60      | 680    | 2536               | 38.   |
| 15          | 116    | 191   | 130  | 86     | 94     | 42.7  | 25.9 | 25.3  | 56      | 288    | 446                | 88.   |
| 16          | 74     | 223   | 109  | 75     | 78.6   | 40.6  | 24.9 | 24.4  | 98      | 84     | 2369               | 83.   |
| 17          | 60     | 167   | 130  | 70     | 77.7   | 37.0  | 25.2 | 46.0  | 106     | 42     | 317                | 52    |
| 18          | 40     | 142   | 116  | 64     | 56.1   | 43.3  | 25.2 | 44.8  | 57      | 29.8   | 149                | 55    |
| 19          | 43     | 128   | 126  | 58     | 54.8   | 31.8  | 26.2 | 89.8  | 1414    | 27.9   | 93                 | 38    |
| 20          | 40     | 114.8 | 199  | 58.3   | 51.2   | 25.6  | 24.2 | 1591  | 135     | 25.4   | 76                 | 33.   |
| 21          | 40.8   | 84    | 301  | 53.9   | 49.5   | 22.4  | 24.2 | 385   | 70      | 24.2   | 62                 | 33.   |
| 22          | 39.5   | 71    | 211  | 55.2   | 43.3   | 22.2  | 24.2 | 251   | 89      | 23.9   | 85                 | 32.   |
| 23          | 41.2   | 79    | 177  | 55.2   | 34     | 21.9  | 31.9 | 62    | 164     | 22.5   | 65                 | 31.   |
| 24          | 40.5   | 102   | 158  | 54.6   | 25.8   | 21.9  | 24.2 | 39.8  | 3810    | 23.3   | 73                 | 30.   |
| 25          | 41.5   | 104   | 130  | 50.6   | 24.5   | 21.8  | 27.6 | 55.9  | 772     | 23.5   | 272                | 33.   |
| 26          | 38.6   | 107   | 100  | 51     | 35.3   | 21.7  | 32.3 | 37.2  | 2800    | 572    | 409                | 33.   |
| 27          | 40.6   | 110   | 134  | 55     | 36.2   | 19.6  | 35.9 | 27.0  | 8110    | 643    | 320                | 31.   |
| 28          | 41.9   | 121   | 109  | 54     | 24.0   | 21.7  | 54.9 | 26.9  | 1248    | 117    | 256                | 29.   |
| 29          | 46     | 123   | 83   |        | 23.5   | 25.0  | 30.9 | 112   | 1931    | 2314   | 209                | 26.   |
| 30          | 47.6   | 118   | 84   |        | 24.6   | 27.9  | 25.0 | 111   | 1508    | 676    | 159                | 24.   |
| 3 1         |        | 110   | 71   |        | 24.8   |       | 28.2 |       | 447     | 192    |                    | 24.   |
| TOTAI       | L.     |       |      |        |        |       |      |       |         |        |                    |       |
| Sec. Ft     | 2092.2 | 3564  | 4036 | 2704.8 | 2135.1 | 816.7 | 930  | 3549  | 25960.1 | 9444.5 | 10230.6            | 1462. |
| Ac. Ft      | 4140   | 7060  | 7990 | 5350   | 4230   | 1620  | 1840 | 7030  | 51400   | 18700  | 20260<br>32520 Ac. | 2900  |

Arkansas River at Las Animas plus Purgatoire River near mouth.

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# OUTFLOW FROM JOHN MARTIN RESERVOIR

#### OUTFLOW FROM JOHN MARTIN RESERVOIR

Report Year Ending October 31, 1950 U S G S Records—Preliminary, Subject to Revision

| DAY      | NOV.  | DEC.  | JAN.  | FEB.  | MAR.   | APR.  | MAY   | JUNE  | JULY  | AUG                 | SEPT.     | OCT   |
|----------|-------|-------|-------|-------|--------|-------|-------|-------|-------|---------------------|-----------|-------|
| 1        | 31    | 18    | 4.0   | 4.0   | 4.5    | 874   | 635   | 747   | 481   | 250                 | 173       | 118   |
| 2        | 7.3   | 18    | 4.0   | 4.0   | 4.5    | 1100  | 635   | 691   | 418   | 241                 | 201       | 125   |
| 3        | 6.9   | 18    | 4.2   | 4.2   | 4.5    | 1190  | 628   | 656   | 118   | 218                 | 228       | 140   |
| 4        | 5.7   | 19    | 4.2   | 4.2   | 4.5    | 1190  | 622   | 570   | 165   | 205                 | 232       | 140   |
| 5        | 5.3   | 19    | 4.0   | 4.5   | 4.5    | 1190  | 602   | 493   | 188   | 210                 | 277       | 140   |
| 6        | 5.3   | 20    | 3.8   | 4.5   | 4.5    | 1190  | 505   | 493   | 318   | 84                  | 350       | 140   |
| 7        | 5.3   | 22    | 3.5   | 4.0   | 4.5    | 1190  | 505   | 481   | 365   | 143                 | 418       | 140   |
| 8        | 4.5   | 16    | 3.5   | 3.8   | 13     | 1190  | 518   | 481   | 365   | 355                 | 463       | 130   |
| 9        | 4.5   | 6.9   | 3.5   | 3.5   | 49     | 1140  | 518   | 609   | 336   |                     | 136       | 185   |
| 10       | 4.5   | 6.5   | 3.8   | 3.5   | 53     | 1190  | 564   | 698   | 390   | 1 <b>5</b> 2<br>350 | 355       | 254   |
| 11       | 4.9   | 5.3   | 4.0   | 3.5   | 53     | 1130  | 544   | 670   | 385   | 375                 | 406       | 282   |
| 12       | 5.3   | 5.3   | 4.2   | 3.5   | 53     | 1080  | 544   | 691   | 365   | 406                 | 440       | 282   |
| 13       | 4.5   | 5.3   | 4.5   | 3.2   | 53     | 1070  | 544   | 684   | 380   | 406                 | 440       | 313   |
| 14       | 5.7   | 4.9   | 4.5   | 3.5   | 53     | 1010  | 538   | 684   | 380   | 440                 | 434       | 380   |
| 5        | 4.9   | 4.9   | 4.5   | 3.5   | 53     | 986   | 524   | 684   | 375   | 475                 | 428       | 406   |
| 6        | 4.5   | 4.5   | 4.5   | 3.5   | 55     | 858   | 602   | 677   | 385   | 499                 | 66        | 401   |
| 7        | 4.2   | 4.2   | 4.5   | 3.8   | 63     | 782   | 642   | 684   | 434   | 412                 | 56        | 401   |
| 18       | 4.0   | 4.0   | 4.9   | 3.8   | 63     | 754   | 635   | 726   | 434   | 282                 | 300       | 401   |
| 19       | 4.2   | 3.5   | 4.9   | 3.8   | 63     | 740   | 691   | 726   | 423   | 282                 | 331       | 401   |
| 20       | 4.5   | 3.5   | 4.5   | 2.5   | 63     | 747   | 740   | 347   | 334   | 282                 | 326       | 401   |
| 21       | 5.3   | 3.5   | 4.5   | 3.8   | 61     | 820   | 740   | 338   | 107   | 282                 | 318       | 401   |
| 22       | 4.9   | 3.8   | 4.5   | 3.8   | 57     | 812   | 754   | 481   | 390   | 264                 | 304       | 401   |
| 2.3      | 4.9   | 3.8   | 4.9   | 3.8   | 51     | 656   | 842   | 487   | 440   | 241                 | 300       | 406   |
| .4       | 4.9   | 3.8   | 5.3   | 3.8   | 47     | 733   | 898   | 499   | 440   | 246                 | 300       | 406   |
| 2.5      | 4.9   | 3.8   | 4.9   | 4.0   | 47     | 768   | 890   | 531   | 440   | 250                 | 228       | 406   |
| 26       | 7.7   | 4.0   | 3.5   | 4.2   | 38     | 726   | 842   | 550   | 428   | 264                 | 177       | 401   |
| .7       | 19    | 4.0   | 3.8   | 4.5   | 25     | 719   | 820   | 544   | 463   | 170                 | 148       | 401   |
| .8       | 19    | 4.2   | 3.8   | 4.5   | 24     | 740   | 805   | 538   | 475   | 272                 | 118       | 406   |
| .9       | 19    | 4.0   | 4.0   |       | 24     | 691   | 719   | 246   | 385   | 175                 | 118       | 390   |
| 0        | 18    | 4.0   | 4.0   |       | 24     | 628   | 768   | 307   | 355   | 228                 | 118       | 418   |
| 1        |       | 4.0   | 4.0   |       | 24     |       | 798   |       | 290   | 181                 |           | 428   |
| TOTAL    |       |       |       |       |        |       |       |       |       |                     |           |       |
| Sec. Ft. | 234.6 | 251.7 | 130.7 | 107.2 | 1140.5 | 27894 | 20612 | 17013 | 11252 | 8650                | 8189      | 9644  |
| Ac. Ft.  | 465   | 499   | 259   | 213   | 2260   | 55330 | 40880 | 33740 | 22320 | 17160               | 16240     | 19130 |
| ic. It.  | 40)   | 779   | 2,9   | 213   | 2200   | ,,330 | 40000 | 33/40 |       |                     | 08500 Ac. |       |

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

#### DEMANDS BY COLORADO FOR WATER

Report Year Ending October 31, 1950

| DAY      | NOV. | DEC. | JAN. | FEB. | MAR. | APR.        | MAY   | JUNE        | JULY  | AUG.         | SEPT.             | OCT.        |
|----------|------|------|------|------|------|-------------|-------|-------------|-------|--------------|-------------------|-------------|
| 1        | 0    | 15   | 0    | 0    | 0    | 500         | 470   | 465         | 470   | 250          | 175               | 125         |
| 2        | 0    | 15   | 0    | 0    | 0    | 700         | 470   | 470         | 370   | 230          | 210               | 140         |
| 3        | 0    | 20   | 0    | 0    | 0    | 700         | 460   | 470         | 120   | 205          | 225               | 145         |
| 4        | 0    | 25   | 0    | 0    | 0    | 700         | 460   | 470/        | 150   | 200          | 225               | 145         |
| 5        | 0    | 25   | 0    | 0    | 0    | 700         | 460   | 500         | 175   | 200          | 290               | 145         |
| 6        | 0    | 25   | 0    | 0    | 0    | 700         | 420   | 500         | 300   | 45           | 375               | 145         |
| 7        | 0    | 25   | 0    | 0    | 0    | 700         | 430   | 500         | 350   | 280          | 410               | 145         |
| 8        | 0    | 10   | 0    | 0    | 25   | 700         | 410   | 500         | 350   | 435          | 445               | 130         |
| 9        | 0    | 0    | 0    | 0    | 50   | 660         | 430   | 470         | 335   | 190          | 130               | 200         |
| 10       | 0    | 0    | 0    | 0    | 50   | 700         | 430   | 475         | 385   | 350          | 380               | <b>27</b> 0 |
| 11       | 0    | 0    | 0    | 0    | 50   | 635         | 430   | 450         | 385   | 375          | 415               | 300         |
| 12       | 0    | 0    | 0    | 0    | 50   | 600         | 435   | 475         | 365   | 430          | 425               | 300         |
| 13       | 0    | 0    | 0    | 0    | 50   | 600         | 435   | 500         | 385   | 450          | 425               | 325         |
| 14       | 0    | О    | 0    | О    | 50   | 575         | 435   | 495         | 385   | 475          | 420               | 390         |
| 15       | 0    | 0    | 0    | 0    | 50   | 575         | 430   | 490         | 385   | 490          | 410               | 440         |
| 16       | 0    | 0    | 0    | О    | 55   | 57 <b>5</b> | 440   | 490         | 400   | 490          | 0                 | 440         |
| 17       | 0    | 0    | 0    | 0    | 60   | 530         | 450   | 490         | 450   | 385          | 70                | 440         |
| 18       | 0    | 0    | О    | 0    | 60   | 570         | 450   | 490,        | 450   | 245          | 300               | 430         |
| 19       | 0    | 0    | 0    | 0    | 60   | 570         | 450   | 495)<br>265 | 430   | 245          | 325               | 415         |
| 20       | 0    | 0    | 0    | 0    | 60   | 570         | 450   | 265         | 285   | 245          | 325               | 415         |
| 21       | 0    | 0    | 0    | О    | 60   | 575         | 450   | 345         | 120   | 245          | 325               | 415         |
| 22       | 0    | 0    | 0    | 0    | 60   | 575         | 450   | 450         | 380   | 245          | 310               | 415         |
| 23       | 0    | 0    | 0    | 0    | 55   | 575         | 450   | 450         | 420   | 245          | 300               | 415         |
| 24       | 0    | 0    | 0    | 0    | 50   | 560         | 500   | 470         | 430   | 245          | 300               | 415         |
| 25       | 0    | 0    | 0    | 0    | 50   | 560         | 485   | 490         | 435   | 245          | 220               | 400         |
| 26       | 5    | 0    | 0    | 0    | 35   | 485         | 465   | 510         | 435   | 260          | 175               | <b>39</b> 0 |
| 27       | 15   | 0    | 0    | 0    | 25   | 485         | 465   | 520         | 445   | 170          | 145               | 390         |
| 28       | 15   | 0    | 0    | 0    | 25   | 485         | 470   | 520         | 445   | 240          | 125               | 390         |
| 29       | 15   | 0    | 0    |      | 25   | 475         | 470   | 190         | 400   | 1 <b>7</b> 0 | 125               | 390         |
| 30       | 15   | 0    | 0    |      | 25   | 475         | 465   | 345         | 350   | 200          | 125               | 405         |
| 31       |      | 0    | 0    |      | 25   |             | 465   |             | 285   | 175          |                   | 415         |
| TOTAL    |      |      |      |      | ,    |             |       |             |       |              |                   |             |
| Sec. Ft. | 65   | 160  | 0    | 0    | 1105 | 17810       | 13980 | 13750       | 11070 | 8655         | 8130              | 9925        |
| Ac. Ft.  | 130  | 315  | 0    | 0    | 2190 | 35325       | 27730 | 27275       | 21955 | 17165        | 16125<br>7895 Ac. | 19685       |

#### DEMANDS BY KANSAS FOR WATER

Report Year Ending October 31, 1950

| DAY               | NOV. | DEC. | JAN. | FEB. | MAR. | APR.  | MAY   | JUNE | JULY     | AUG.   | SEPT.         | OCT  |
|-------------------|------|------|------|------|------|-------|-------|------|----------|--------|---------------|------|
| 1                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 300  | 0        | 0      | 0             | (    |
| 2                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 300  | O        | 0      | O             | (    |
| 3                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 250  | 0        | 0      | 0             | (    |
| 4                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 250  | 0        | 0      | 0             | (    |
| 5                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 0    | 0        | O      | O             | (    |
| 6                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 0    | 0        | 0      | 0             | (    |
| 7                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 0    | 0        | 0      | 0             | (    |
| 8                 | 0    | 0    | 0    | 0    | O    | 500   | 300   | 0    | O        | 0      | O             | (    |
| 9                 | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 300  | 0        | • 0    | 0             | (    |
| 10                | 0    | 0    | O    | 0    | 0    | 500   | 300   | 300  | 0        | 0      | 0             | (    |
| 11                | 0    | 0    | O    | 0    | O    | 500   | 300   | 300  | O        | 0      | О             | (    |
| 12                | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 300  | 0        | 0      | O             | (    |
| 13                | 0    | 0    | O    | 0    | 0    | 500   | 300   | 300  | 0        | 0      | 0             | (    |
| 14                | 0    | 0    | 0    | 0    | 0    | 500   | 300   | 300  | 0        | 0      | 0             | (    |
| 15                | O    | 0    | O    | 0    | 0    | 500   | 300   | 300  | 0        | 0      | 0             | (    |
| 16                | 0    | 0    | O    | 0    | O    | 500   | 300   | 300  | 0        | 0      | 0             | (    |
| 17                | 0    | 0    | 0    | 0    | 0    | 400   | 300   | 300  | О        | 0      | 0             | (    |
| 18                | O    | O    | O    | 0    | 0    | 400   | 300   | 300  | 0        | 0      | 0             | (    |
| 19                | O    | O    | 0    | 0    | 0    | 400   | 300   | 300  | 0        | 0      | 0             | (    |
| 20                | O    | 0    | O    | 0    | O    | 400   | 400   | 0    | О        | 0      | 0             | (    |
| 21                | 0    | 0    | 0    | 0    | 0    | 400   | 400   | 0    | 0        | 0      | 0             | (    |
| 22                | 0    | 0    | O    | 0    | 0    | 400   | 400   | 0    | 0        | 0      | 0             | (    |
| 23                | 0    | 0    | 0    | 0    | 0    | 400   | 400   | 0    | 0        | 0      | 0             | (    |
| 24                | 0    | 0    | 0    | 0    | 0    | 400   | 400   | 0    | 0        | 0      | 0             | (    |
| 25                | O    | O    | О    | 0    | 0    | 400   | 400   | 0    | 0        | 0      | 0             | (    |
| 26                | 0    | 0    | 0    | 0    | 0    | 400   | 400   | 0    | 0        | 0      | 0             | (    |
| 27                | 0    | 0    | O    | 0    | 0    | 300   | 400   | 0    | 0        | 0      | 0             | (    |
| 28                | O    | 0    | O    | О    | О    | 300   | 400   | 0    | 0        | 0      | 0             | (    |
| 29                | 0    | 0    | 0    |      | 0    | 300   | 400   | 0    | 0        | 0      | 0             | (    |
| 30                | 0    | 0    | O    |      | 0    | 300   | 400   | 0    | 0        | 0      | 0             | (    |
| 31                | О    | 0    | 0    |      | 0    |       | 400   |      | 0        | 0      |               | (    |
| TOTAL<br>Sec. Ft. | 0    | 0    | 0    | 0    | 0    | 13200 | 10600 | 4400 | 0        | 0      | 0             | (    |
| Ac. Ft.           | Ö    | Ö    | O    | 0    | 0    | 26180 | 21020 | 8730 | 0<br>THE | VEAR 5 | 0<br>5930 Ac. | Et ( |

DEMANDS BY KANSAS FOR WATER

APPENDIX "D-9"

|   |   |   |   | POL | 1 Cui | Liionig  | 0000  | oc. 01, |    | , ,      |
|---|---|---|---|-----|-------|----------|-------|---------|----|----------|
| U | S | G | S | Rec | ords  | -Prelimi | nary, | Subject | to | Revision |

| DAY      | NOV. | DEC. | JAN. | FEB. | MAR. | APR.    | MAY    | JUNE   | JULY | AUG.   | SEPT.    | OCT. |
|----------|------|------|------|------|------|---------|--------|--------|------|--------|----------|------|
| 1        |      |      |      |      |      |         | 338.2  | 450.1  |      |        |          |      |
| 2        |      |      |      |      |      |         | 314    | 418    |      |        |          |      |
| 3        |      |      |      |      |      |         | 311    | 349    |      |        |          |      |
| 4        |      |      |      |      |      | 500     | 302    | 363    |      |        |          |      |
| 5        |      |      |      |      |      | 497.6   | 345.5  | 313    |      |        |          |      |
| 6        |      |      |      |      |      | 510.5   | 343.2  | 232    |      |        |          |      |
| 7        |      |      |      |      |      | 522.6   | 279    | 183    |      |        |          |      |
| 8        |      |      |      |      |      | 543.8   | 249    |        |      |        |          |      |
| 9        |      |      |      |      |      | 527     | 232    |        |      |        |          |      |
| 10       |      |      |      |      |      | 549     | 211    |        |      |        |          |      |
| 11       |      |      |      |      |      | 531     | 198    |        |      |        |          |      |
| 1 2      |      |      |      |      |      | 529.8   | 222    | 547    |      |        |          |      |
| 13       |      |      |      |      |      | 513     | 201    | 226    |      |        |          |      |
| 14       |      |      |      |      |      | 549     | 214    | 205    |      |        | 100      |      |
| 15       |      |      |      |      |      | 557     | 201    | 229    |      |        |          |      |
| 16       |      |      |      |      |      | 577.9   | 199    | 260    |      |        |          |      |
| 17       |      |      |      |      |      | 503.2   | 186    | 265    |      |        |          |      |
| 18       |      |      |      |      |      | 395     | 208    | 263    |      |        |          |      |
| 19       |      |      |      |      |      | 318.7   | 237    | 278.4  |      |        |          |      |
| 20       |      |      |      |      |      | 305     | 238    | 442    |      |        |          |      |
| 21       |      |      |      |      |      | 345     | 325    | 2774   |      |        |          |      |
| 22       |      |      |      |      |      | 359     | 367    | 530    |      |        |          |      |
| 23       |      |      |      |      |      | 362     | 334    |        |      |        |          |      |
| 24       |      |      |      |      |      | 322     | 352    |        |      |        |          |      |
| 25       |      |      |      |      |      | 309     | 403    |        |      |        |          |      |
| 26       |      |      |      |      |      | 338     | 468.7  |        |      |        |          |      |
| 27       |      |      |      |      |      | 388.2   | 420    |        |      |        |          |      |
| 28       |      |      |      |      |      | 397     | 448    |        |      |        |          |      |
| 29       |      |      |      |      |      | 378.1   | 629    |        |      |        |          |      |
| 30       |      |      |      |      |      | 387.2   | 552    |        |      |        |          |      |
| 31       |      |      |      |      |      |         | 409    |        |      |        |          |      |
| TOTAI    |      |      |      |      |      |         |        |        |      |        |          |      |
| Sec. Ft. |      |      |      |      |      | 12015.6 | 9736.6 | 8327.5 |      |        |          |      |
| Ac. Ft.  |      |      |      |      |      | 23790   | 19330  | 16490  |      |        |          |      |
|          |      |      |      |      |      |         |        |        | THE  | YEAR 5 | 9610 Ac. | Ft   |

<sup>\*</sup> Three days time is allowed for water in transit.

#### APPENDIX "D-11"

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

Report Year Ending October 31, 1950
(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. | ост.  | THE<br>YEAR |
|------------------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------------|
| Bessemer (River)       | 4,746 | 2,803 | 192   | 3,679 | 4,094 | 4,245 | 4,975 | 14,402 | 8,021  | 4,365 | 343   | 4,366 | 56,231      |
| Res. or Imported       | 0     | 0     | 0     | 0     | 0     | 228   | 714   | 0      | 0      | 1,726 | 179   | 0     | 2,847       |
| Total                  | 4,746 | 2,803 | 192   | 3,679 | 4,094 | 4,473 | 5,689 | 14,402 | 8,021  | 6,091 | 522   | 4,366 | 59,078      |
| West Pueblo (River)    | 2     | 0     | 0     | 0     | 87    | 179   | 184   | 244    | 184    | 184   | 179   | 184   | 1,427       |
| Booth (River)          | 873   | 639   | 79    | 803   | 1,107 | 1,071 | 1,107 | 1,071  | 942    | 833   | 383   | 553   | 9,461       |
| Excelsior (River)      | 153   | 182   | 538   | 264   | 0     | 0     | 133   | 510    | 601    | 0     | 83    | 0     | 2,464       |
| Res. or Imported       |       | 0     | 0     | 0     | 0     | 8     | 141   | 0      | 127    | 280   | 121   | 0     | 677         |
| Total                  | 153   | 182   | 538   | 264   | 0     | 8     | 274   | 510    | 728    | 280   | 204   | 0     | 3,141       |
| Colorado Canal (River) | 0     | 5,355 | 4,475 | 1,079 | 0     | 0     | 0     | 1,206  | 7,692  | 0     | 0     | 0     | 19,807      |
| Res. or Imported       |       | 0     | 0     | 0     | 1,081 | 5,520 | 6,167 | 10,334 | 7,339  | 7,194 | 6,484 | 0     | 44,119      |
| Total                  | 0     | 5,355 | 4,475 | 1,079 | 1,081 | 5,520 | 6,167 | 11,540 | 15,031 | 7,194 | 6,484 | 0     | 63,926      |
| High Line (River)      | 5,030 | 4,687 | 5,276 | 4,389 | 3,505 | 3,392 | 4,245 | 12,276 | 10,524 | 3,868 | 6,365 | 3,505 | 67,062      |
| Res. or Imported       | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 2,138 | 22    | 0     | 2,160       |
| Total                  | 5,030 | 4,687 | 5,276 | 4,389 | 3,505 | 3,392 | 4,245 | 12,276 | 10,524 | 6,006 | 6,387 | 3,505 | 69,222      |

(Continued Next Page)

APPENDIX "D-11"
(Continued)

DIVERSIONS BY DITCHES IN COLORADO WATER DISTRICTS 14 AND 17

|                          | NOV.   | DEC.   | JAN.   | FEB.   | MAR.   | APR.   | MAY    | JUNE    | JULY    | AUG.   | SEPT.  | OCT.   | THE<br>YEAR |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|-------------|
| Oxford (River)           | 3,047  | 1,952  | 1,486  | 2,305  | 805    | 811    | 3,100  | 6,555   | 6,238   | 1,436  | 2,394  | 815    | 30,944      |
| Otero (River)            | 0      | 690    | 1,115  | 111    | 0      | 0      | 0      | 1,129   | 1,428   | . 0    | 805    | 0      | 5,278       |
| Res. or Imported         |        | 0      | 0      | 0      | 0      | 780    | 2,340  | 910     | 1,339   | 1,091  | 0      | 0      | 6,460       |
| Total                    | 0      | 690    | 1,115  | 111    | 0      | 780    | 2,340  | 2,039   | 2,767   | 1,091  | 805    |        | 11,738      |
| Catlin (River)           | 9,086  | 5,395  | 3,185  | 7,240  | 6,262  | 1,978  | 10,334 | 14,352  | 12,962  | 3,124  | 5,111  | 1,038  | 80,067      |
| Res. or Imported         | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 1,950  | 44     | 543    | 2,537       |
| Total                    | 9,086  | 5,395  | 3,185  | 7,240  | 6,262  | 1,978  | 10,334 | 14,352  | 12,962  | 5,074  | 5,155  | 1,581  | 82,604      |
| Holbrook (River)         |        | 2,198  | 4,215  | 1,035  | . 0    | . 0    | 283    | 7,452   | 6,780   | 0      | 1,039  | 0      | 23,002      |
| Rocky Ford (River)       |        | 2,104  | 1,299  | 2,785  | 4,651  | 5,455  | 5,766  | 5,730   | 5,401   | 5,877  | 3,281  | 4,102  | 51,334      |
| Ft. Lyon Storage (River) | 0      | 736    | 0      | 0      | 0      | 0      | 0      | 996     | 3,995   | 0      | 805    | 0      | 6,532       |
| Ft. Lyon Canal (River)   | 25,117 | 15,330 | 13,018 | 11,532 | 8,918  | 8,751  | 17,623 | 42,246  | 41,732  | 10,179 | 15,473 | 8,936  | 218,855     |
| Las Animal Consol, River | 2,904  | 1,121  | 20     | 288    | 742    | 1,137  | 2,765  | 4,602   | 4,169   | 1,847  | 2,938  | 1,373  | 23,906      |
| Las Animas Town (Riv.)   | 845    | 220    | 0      | 0      | 268    | 1,634  | 1,432  | 1,503   | 1,732   | 1,589  | 1,172  | 922    | 11,317      |
| TOTAL                    |        |        |        |        |        |        |        |         |         |        |        |        |             |
| River                    | 56,686 | 43,412 | 34,898 | 35,510 | 30,439 | 28,653 | 51,947 | 114,274 | 112,401 | 33,302 | 40,371 | 25,794 | 607,687     |
| Res. or Imported         |        | 0      | 0      | 0      | 1,081  | 6,536  | 9,362  | 11,244  | 8,805   | 14,379 | 6,850  | 543    | 58,800      |
|                          | 56,686 | 43,412 | 34,898 | 35,510 | 31,520 | 35,189 | 61,309 | 125,518 | 121,206 | 47,681 | 47,221 | 26,337 | 666,487     |

#### APPENDIX "D-12"

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#### DIVERSIONS BY DITCHES IN COLORADO WATER DISTRICT 67

Report Year Ending October 31, 1950 (Acre Feet) Source of Information, A.V.D.A. Reports

|                      | NOV.  | DEC.  | JAN. | FEB. | MAR.  | APR.   | MAY    | JUNE   | JULY        | AUG.   | SEPT.  | OCT.   | THE<br>YEAR |
|----------------------|-------|-------|------|------|-------|--------|--------|--------|-------------|--------|--------|--------|-------------|
| Ft. Bent Canal       | 522   | 446   | 194  | 0    | 117   | 4,883  | 3,570  | 4,017  | 2,253       | 3,285  | 1,928  | 3,035  | 24,250      |
| Keesee Ditch         | 242   | 123   | O    | 0    | 133   | 748    | 787    | 601    | 801         | 577    | 454    | 627    | 5,093       |
| Amity Canal          | 145   | 0     | O    | 0    | 0     | 20,225 | 18,454 | 18,625 | 16,949      | 12,139 | 11,754 | 13,982 | 112,273     |
| Lamar Canal          | 1,817 | 619   | 0    | 0    | 2,085 | 6,964  | 5,585  | 6,657  | 4,340       | 4,407  | 4,967  | 3,096  | 40,537      |
| Hyde Ditch           | 119   | 123   | 67   | 0    | 48    | 292    | 188    | 248    | 307         | 331    | 232    | 123    | 2,078       |
| Manvel Canal         | 0     | 0     | 0    | 0    | 109   | 825    | 680    | 639    | 139         | 268    | 403    | 24     | 3,087       |
| X. Y. & Graham Canal | 0     | 0     | 0    | 0    | 0     | 1,597  | 1,567  | 1,150  | 40          | 910    | 1,448  | 793    | 7,505       |
| Buffalo Canal        | 1,071 | 286   | 0    | 0    | 50    | 2,319  | 2,271  | 1,997  | <b>69</b> 0 | 2,184  | 1,496  | 1,428  | 13,792      |
| TOTAL                | 3,916 | 1,597 | 261  | 0    | 2,542 | 37,853 | 33.102 | 33,934 | 25,519      | 24,101 | 22,682 | 23,108 | 208,615     |

#### APPENDIX "D-13"

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#### DIVERSIONS BY DITCHES IN KANSAS

Report Year Ending October 31, 1950 (Acre Feet) Division of Water Resources Records

| Ditch or Canal      | NOV.  | DEC. | JAN. | FEB.  | MAR.  | APR.   | MAY    | JUNE   | JULY   | AUG. | SEPT. | ост.  | THE<br>YEAR |
|---------------------|-------|------|------|-------|-------|--------|--------|--------|--------|------|-------|-------|-------------|
| Frontier Ditch      | 59    | 0    | 0    | 138   | 512   | 2,134  | 2,040  | 1,557  | 727    | 984  | 1,470 | 1,284 | 10,905      |
| Alamo Canal         | 13    | 0    | 0    | 30    | 110   | 607    | 438    | 397    | 103    | 0    | 0     | 0     | 1,698       |
| Ft. Aubrey Canal    | 34    | 0    | 0    | 82    | 303   | 839    | 1,862  | 1,315  | 52     | 0    | O     | 911   | 5,398       |
| Total Stateline to  |       |      |      |       |       |        |        |        |        |      |       |       |             |
| Syracuse            | 106   | 0    | 0    | 250   | 925   | 3,580  | 4,340  | 3,269  | 882    | 984  | 1,470 | 2,195 | 18,001      |
| Amazon Canal        | 0 -   | 0 -  | 0    | 0 -   | 2,432 | 3,187  | 1,676  | 3,894  | 1,180  | 0    | 861   | 676   | 13,906      |
| South Side Ditch    | 0     | 0    | 0    | 827   | 645   | 3,300  | 2,057  | 3,207  | 0      | 0    | 2,297 | 2,805 | 15,138      |
| Great Eastern Canal | 0     | 0    | 0    | 3,350 | 607   | 4,729  | 4,985  | 4,104  | 8,838  | 0    | . 0   | 897   | 27,460      |
| Farmers Ditch       | 674   | 63   | 0    | 1,660 | 1,620 | 3,076  | 3,890  | 1,900  | 0      | 0    | 819   | 557   | 14,259      |
| Garden City Canal   | 520   | 119  | 155  | 26    | 460   | 1,160  | 1,260  | 912    | 656    | 0    | 175   | 0     | 5,443       |
| Total Syracuse to   |       |      |      |       |       |        |        |        |        |      |       |       |             |
| Garden City         | 1,194 | 182  | 155  | 5,863 | 5,764 | 15,452 | 13,818 | 14,017 | 10,674 | 0    | 4,152 | 4,935 | 76,206      |
| Total Stateline to  | -     |      |      |       |       |        |        |        |        |      |       |       |             |
| Garden City         | 1,300 | 182  | 155  | 6,113 | 6,689 | 19,032 | 18,158 | 17,286 | 11,556 | 984  | 5,622 | 7,130 | 94,207      |

#### APPENDIX "E"

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# ARKANSAS-WHITE-RED BASINS INTER-AGENCY COMMITTEE CORRESPONDENCE

September 22, 1950.

Colonel Louis W. Prentiss, C.E., Chairman, Arkansas-White-Red Basins Inter-Agency Committee c/o Division Engineer, Southwestern Division Corps of Engineers 1114 Commerce Street, Dallas 2, Texas

#### My dear Colonel Prentiss:

Pursuant to your notice of joint public hearings in connection with the development of comprehensive, integrated plans of improvement for the Arkansas, White and Red River Basins, I submit on behalf of the Arkansas River Compact Administration the following statement for the consideration of your Committee. I am planning to attend the hearings pertaining to the Arkansas River which are scheduled to be held at Dodge City, Kansas, October 3; Pueblo, Colorado, October 5, and Little Rock, Arkansas, November 1 and 2, 1950, but in the event I am unable to appear in person, I would appreciate it if you would have this statement placed upon the official records of those hearings.

The primary interest of the Arkansas River Compact Administration in the development of the Arkansas River basin stems from Article IV-D of the Arkansas River Compact (Public Law 82, 81st Congress, 1st Session, approved May 31, 1949) which reads as follows:

"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."

In connection with the above provision of the Arkansas River Compact, your attention is invited to the following explanatory statement which is contained in my report, as Representative of the United States, to the Congress, April 6, 1949, which appears in the printed Congressional documents covering the committee hearings in the United States Senate and House of Representatives in the 81st Congress, 1st

Session, on bills then under consideration to grant the consent of the United States to the Arkansas River Compact:

"The above language was evolved from extensive consultation with the affected Federal agencies. It is intended to leave the door open—as it should be—for beneficial development of the Arkansas River basin in Colorado and Kansas by any and all proper ways and means. But such development, whatever form it may take, must fit into the framework of the proposed compact; it must not disrupt the relationships and rights established thereunder and must not affect adversely the interests of the States and their water users under the compact. Without such safeguards, the interstate controversy would soon be revived and the proposed compact would be wasted effort.

"It is to be presumed that Federal agencies will respect the above provisions as a matter of course in their development plans for the Arkansas River basin. It is also presumed by the compact negotiators that when such plans are submitted to the Governors of the affected States, pursuant to the provisions of the Flood Control Act of December 22, 1944, the Governors of Colorado and Kansas will be especially mindful of the protective provisions of Article IV-D in formulating their official views and recommendations."

I believe that the language of the Compact and the supplementary statement quoted above are self-explanatory. I trust that they will receive appropriate consideration by your Committee in making studies and formulating plans for the comprehensive development of the Arkansas River basin in Colorado and Kansas insofar as such development may affect the Arkansas River Compact. The Arkansas River Compact Administration is not presently advocating to you the adoption of any specific project or program, but the Administration does favor, as a matter of general principle, the adoption of any project or program either below or above John Martin Reservoir which would serve, within the framework of the Compact, to increase the usable quantity or availability of water to the water users in Colorado and Kansas.

As and when the report of your Committee approaches draft stage, or at any other time that you may find appropriate, it might be mutually helpful if an opportunity were afforded me to review and comment on it informally in the light of the Arkansas River Compact. If deemed advisable, I would be glad to confer with any of your subcommittees or staff as your studies with respect to the Arkansas River basin progress.

Respectfully yours,

#### HANS KRAMER

Chairman and Representative of the United States Arkansas River Compact Administration Brig. Gen. Hans Kramer, USA, Ret. Chairman Arkansas River Compact Administration 220 Bush Street San Francisco, California

My dear General Kramer:

Receipt is acknowledged of your letter of 22 September 1950 in which you inclosed a statement for consideration of the Arkansas-White-Red Basins Inter-Agency Committee. It is sincerely hoped that you can attend the hearings pertaining to the Arkansas River but if not you may be assured that your statement will be placed upon the official records of the hearings.

The matter of interstate rights and problems is of primary concern to the Inter-Agency Committee and the first task assigned the Hydrologic Subcommittee created at the initial meeting of the Committee was to prepare a report on availability of water at state boundaries and the jurisdictional rights and problems of the several states with respect to these waters. Every effort has been made to have the states participate in this study, particularly with regard to the jurisdictional aspects of the report.

The Governor of Colorado has appointed Mr. Clifford H. Stone as the coordinator of that state's activities on the Inter-Agency Committee and Mr. George S. Knapp has been acting in the same capacity for the State of Kansas. With their intimate knowledge of the problems as members of the Arkansas River Compact Administration they will be in an excellent position to safeguard the rights established by the compact. Mr. R. V. Smhra of Kansas and Mr. R. M. Gildersleeve of Colorado who are also familiar with the provisions of the compact are participating in the Hydrologic Subcommittee report mentioned above.

Your willingness to review the report and to confer with subcommittees and staff members is appreciated and will be brought to the attention of the Committee.

Sincerely yours,

s/Louis W. Prentiss
LOUIS W. PRENTISS
Colonel, CE, U. S. Army
Chairman, Arkansas-White-Red Basins
Inter-Agency Committee