

Thirty-fifth Annual Report

Arkansas River Compact Administration

(1983)

**For The Report-Year
November 1, 1982 to October 31, 1983**

**LAMAR, COLORADO
May 1, 1984**

THE ADMINISTRATION

FRANK G. COOLEY
Chairman and Representative of the United States

LEO IDLER, CARL G. GENOVA
and **J. WILLIAM McDONALD**
for Colorado

CARL E. BENTRUP, GUY E. GIBSON/DAVID POPE,
and **RONALD OLOMON**
for Kansas

1000 South Main Street
Lamar, Colorado 81052

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Annual Report Of
ARKANSAS RIVER COMPACT
ADMINISTRATION
1983

Report-Year November 1, 1982 to October 31, 1983

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

Sirs:

Pursuant to Article VIII of the Arkansas River Compact, the Arkansas River Compact Administration submits its report for the Report-year November 1, 1982 through October 31, 1983, as follows:

1. Members of the Administration

Representative of the United States:

Frank G. Cooley

Colorado Representatives:

Leo Idler, Lamar
Carl G. Genova, Pueblo
J. William McDonald, Denver

Kansas Representatives:

Carl E. Bentrup, Deerfield
Guy E. Gibson/David Pope*, Topeka
Ronald Olomon, Garden City

2. Officers of the Administration

Chairman:

Frank G. Cooley

Vice Chairman:

Carl E. Bentrup

*Mr. David Pope became the new member of the Kansas delegation at the March 25, 1983 meeting upon the retirement of Mr. Guy Gibson.

Recording Secretary:

Leo Idler

Operations Secretary:

Robert Jesse

Treasurer:

Leo Idler

3. Standing Committees:

Administrative and Legal Committee:

J. William McDonald (Chairman)
Carl E Bentrup

Engineering Committee:

Guy E. Gibson/David Pope
Carl G. Genova (Chairman)

Operations Committee:

Leo Idler (Chairman)
Ronald Olomon

The Representative of the United States is an ex-officio member of all standing committees.

4. Meetings:

December 14, 1982

February 1, 1983

February 1, 1983

February 2, 1983

March 25, 1983

August 26, 1983

Annual Meeting

Lamar, Colorado

Special Meeting (cancelled)

Special Telephonic Meeting

Special Meeting (cancelled)

Special Meeting

Garden City, Kansas

Special Meeting

Denver, Colorado

The minutes of these meetings are included in Appendices "C-1", "C-2", "C-3" and "C-4".

5. Fiscal:

TREASURER'S REPORT

July 1, 1982 through June 30, 1983

CASH BALANCE, JULY 1, 1982 \$37,799.00

RECEIPTS:

Revenue from Assessments:

Colorado—60% \$11,608.00

Kansas—40% 7,736.00

Interest 2,803.00

TOTAL RECEIPTS \$22,147.00

DISBURSEMENTS:

Insurance 100.00

Geological Survey 10,845.00

Equipment 2,483.00

Professional Fees 250.00

Office Supplies 550.00

Printing Annual Report 1,849.00

Secretary's Salary—Net 3,359.00

Payroll Taxes 482.00

Telephone 1,336.00

Typing and Mailing 326.00

Bank Charges 12.00

Travel and Meetings 73.00

Secretarial 1,927.00

TOTAL DISBURSEMENTS 23,592.00

EXCESS OF RECEIPTS UNDER DISBURSEMENTS (1,445.00)

CASH BALANCE, JUNE 30, 1983 \$36,354

BALANCE SHEET

July 1, 1983 thru December 10, 1983

CASH BALANCE, JULY 1, 1983 \$36,354.68

RECEIPTS:

Revenue from Assessments:

Colorado—60% \$17,454.72

Kansas—40% 11,636.48

Interest 2,082.36

TOTAL RECEIPTS 31,173.56

DISBURSEMENTS:

Insurance 100.00

U.S. Geological Survey 11,995.00

Professional Fees 300.00

Office Supplies 90.82

Printing Annual Report 1,679.40

Secretary's Salary Net 241.20

Payroll Taxes 747.50

Telephone 87.14

Typing & Mailing 87.14

Travel & Meetings 87.14

Operations Secretary

Office Expense	1,512.10	
Bank Charges	10.00	
TOTAL DISBURSEMENTS		16,763.16
EXCESS OF RECEIPTS OVER DISBURSEMENTS		14,410.40
CASH BALANCE DECEMBER 10, 1983		50,765.08
Checking Account	\$ 74.11	
Savings Account	50,690.97	
	\$50,765.08	\$50,765.08

(a) Pursuant to provisions of the Compact (Article VIII-E(3)) and of the By-Laws of the Administration (Article VII(5)), the receipts and disbursements of the Administration during the compact year have been audited, and the report of the audit is hereto attached as Appendix "A."

BUDGET

Fiscal Year July 1, 1984-June 30, 1985

A. SALARIES		\$ 9,941.20
1. Recording Secretary	\$ 3,600.00	
2. Operations Secretary	6,100.00	
3. Payroll Taxes	241.20	
B. GAUGING STATIONS:		16,250.00
1. Maintenance and Operation		
A. Cooperative-changed to Dec. 13, 1983 Agreement	\$15,750.00	
B. Telemark Telephone		
John Martin Dam		
Granada Gauge	500.00	
C. OPERATING EXPENSE:		4,600.00
1. Treasurer's Bond	100.00	
2. Annual Report	1,650.00	
3. Office Expense		
A. Telephone	1,600.00	
B. Supplies	350.00	
C. Printing	350.00	
4. Travel and Meetings	200.00	
5. Audit	350.00	
D. CONTINGENCY:		1,000.00
E. TOTAL BUDGET		\$31,791.20
Colorado (60%)	\$16,824.72	
Kansas (40%)	\$11,216.48	

Budgeted expenditures in excess of assessments will come out of surplus. This was adopted Dec. 13, 1983.

6. Facts about the John Martin Project:

The John Martin Reservoir Project was built by the Corps of Engineers, United States Army. The project was authorized by Congress in the Flood Control Act of June 22, 1936, when the federal responsibility for flood control throughout the country was assigned to the Corps of Engineers. It is located on the Arkansas River, 58 miles upstream from the Colorado-Kansas stateline and 18 miles upstream from the city of Lamar, Colorado. Construction of the project began in the fall of 1939, but work was suspended by World War II from the spring of 1943 to the spring of 1946. The project was completed in October 1948 at a cost of about \$15 million. The War Department Civil Appropriation Act of June 24, 1940, changed the name of the project from Caddoa Reservoir Project to John Martin Reservoir Project, in honor of the late Congressman John A. Martin of Colorado. It is operated by the United States Army Engineer District, Albuquerque, New Mexico. Mr. Russell Smith has been the resident superintendent of the project since October, 1976.

The John Martin Reservoir Project is part of the comprehensive plan for the control of floods and the development of the water resources of the entire Arkansas River basin. The reservoir provides 270,375 acre-feet of storage capacity for flood control. It protects the fertile Arkansas River Valley below the dam. It provides 350,951 acre-feet of storage space for conservation and recreation. John Martin Reservoir supplies water to the irrigated lands below the dam as far as Garden City, Kansas. The top of the conservation pool is 3,851 feet above mean sea level, which provides 350,951 acre-feet of storage for irrigation. The release of stored flood waters in excess of the conservation and recreation pools and above elevation 3,851 feet is planned so that, when combined with flows originating downstream from the dam, the capacity of the channel will not be exceeded. Upon request of the Arkansas River Compact Administration, irrigation water for downstream water users is released through the outlet works in the base of the dam. Downstream flood damages prevented by John Martin dam already exceed the cost of the project. Benefits have already passed the \$92 million mark.

Recreation and favorable fish and wildlife habitats are derived from this project. With reservoir lands open to all, there are many attractive public use areas for outdoor recreation, water sports, fishing and boating, or just relaxed living. During construction some embankment material was obtained from a 75-acre tract of land immediately downstream of the dam. This excavated area, averaging 12 feet deep, filled with water and formed Lake Hasty, the center of year-round recreation.

John Martin Dam consists of a concrete gravity structure 1,644 feet long and 120 feet high, and an earthfill structure 2,600 feet long. The concrete gravity structure contains a gated spillway provided with sixteen 30 feet by 64 feet tainter gates with their operating machinery. There are earthen wing dams on either side of the main dam. The north wing dam is 3,890 feet long, connecting to the earthfill structure of the main dam at the north abutment. The south wing dam is 5,807 feet long and connects to the south end of the concrete structure of the

main dam. A bituminous-surfaced roadway, 21 feet wide, extends along the crest of the north wing dam, main dam, and south wing dam. The overall length of the structure is 2.6 miles. Detailed project data are shown below.

DAM

Total length, feet	13,945
Maximum height above streambed, feet	118
Width of roadway on dam, feet	21

SPILLWAY

Total length, including piers, feet	1,174
Crest gates, 30' x 64'	16
Discharge capacity, cubic feet per second	639,200

OUTLET WORKS

Sluicing conduits, 6' x 7½'	4
Regulating conduits, 4' x 4'	2

RESERVOIR

Capacity, acre-feet	621,326
Flood control storage, acre-feet	270,375
Conservation (irrigation) and recreation, storage, acre-feet	350,951
Water surface at spillway crest, acres	8,960
Water surface at top of conservation pool, acres	11,655
Water surface at top of flood control pool, acres	17,630
Drainage area, square miles	18,915

A ½-mile of the historic Santa Fe Trail north of the reservoir has been enclosed by a fence. An appropriate sign perpetuates this bit of Americana for posterity.

7. Cooperative Studies and Activities:

(a) Article VIII G (1) of 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 in their respective States, and with the Federal agencies in systematically determining and correlating the facts pertaining to the flow and diversion of the water of the Arkansas River and to the operation and siltation of John Martin Reservoir and other related structures. Article VIII G (2) requests the Director of the United States Geological Survey, the Commissioner of the United States Bureau of Reclamation, and the Chief of the Engineers, United States Army, to cooperate and collaborate with the Administration and with appropriate State officials in such determinations and correlations of stream flow and related data. Under the By-Laws of the Administration, these cooperative studies and activities are assigned to the Engineering Committee of the Administration.

(b) During the year covered by this report the Administration has received excellent cooperation from all agencies referred to in the foregoing provisions of the Compact. The United States Geological Survey has continued the operation of the compact

gaging stations and the analysis and compilation of the hydrologic data presented in this report and used in the administration of the Compact.

- (g) The Corps of Engineers continued to operate the conservation pool of John Martin Reservoir in accordance with the terms of the Compact and the orders of the Administration. A new area capacity table for John Martin Reservoir was issued by the Army Corps of Engineers and put into effect August 12, 1981.

8. Water Supply, Reservoir Operations and Hydrologic Data:

The 1983 Arkansas River Compact year and the winter storage season for John Martin Reservoir began at 0001 hours November 1, 1982 with 12,241.0 acre-feet in the reservoir distributed as follows:

Agreement Accounts = 8,866.8 a.f.

Permanent Pool = 3,374.2 a.f.

Winter Storage ended at 1636 hours on May 18, 1983 with a total of 114,516.47 a.f. stored during this period in the following accounts:

Compact Water 90,539.47 a.f.

Amity Winter Water 23,977.00 a.f.

Following the transfer of the stored inflows to John Martin Reservoir into the agreement accounts in accordance with the Operating Plan, adopted April 24, 1980, the allocation of the reservoir contents at 2400 hours May 18, 1983 were as follows:

Agreement Accounts*	91,661.95 a.f.**
Compact Water	0 a.f.
Amity Winter Water	0 a.f.
Permanent Pool	3,006.42 a.f.

94,668.37 a.f.

Summer storage period began at 1636 hours May 18, 1983. At that time the Conservation Pool was empty. During the summer season inflow to the Conservation Pool totalled 210,438.72 a.f. This total, minus evaporation losses, was all released into accounts in accordance with the Operating Plan, adopted April 24, 1980. The Conservation Pool was empty at 2400 hours, October 31, 1983. The summer operations of the Conservation Pool are tabulated as follows:

	Contents, A.F. Beginning Date	Inflow A.F.	Evaporation A.F.	Release A.F.	Contents, A.F. End of Month
	Shown				
May 18	0	3,262.20	0	2,852.92	409.28
June 1	409.28	113,016.59	574.94	69,563.51	43,287.42
July 1	43,287.42	77,428.18	1,964.57	76,860.78	41,890.25
Aug. 1	41,890.25	16,731.75	556.43	58,065.57	0
Sept. 1	0	0	0	0	0
Oct. 1	0	0	0	0	0
TOTALS		210,438.72	3,095.94	207,342.78	

*includes:

Kansas Account

Kansas Transit Loss Account

Colorado Ditches Accounts

**includes carryover from previous year

During the summer storage period two major purchases of trans-
mountain water were made by the Colorado Division of Wildlife and
delivered to the John Martin Reservoir Permanent Pool. These were:

July 1, 1983 13,311.87 a.f.
October 1, 1983 4,215.15 a.f.
At the close of the compact year at 2400 hours October 31, 1983 the
status of the contents of John Martin Reservoir were as follows:

Conservation Pool	0 a.f.
Kansas Agreement Account	15,112.19 a.f.
Kansas Transit Loss Account	1,486.65 a.f.
Colorado Agreement Accounts	4,438.78 a.f.
Permanent	11,970.97 a.f.
Total	67,443.59 a.f.

The technical data for this section was compiled by the Colorado
Water Conservation Board staff using data from the Operations
Secretary, Arkansas River Compact Administration, the U.S.
Geological Survey, Colorado Division of Water Resources and the
minutes and correspondence of the Arkansas River Compact
Administration.

Following the transfer of the stored inflows to John Martin
Reservoir into the agreement accounts in accordance with the
Operating Plan, adopted April 24, 1980, the situation at the close of
the compact year May 18, 1983 was as follows:

In general, streamflow records of satisfactory accuracy were ob-
tained at the Compact stations. Emphasis was again placed on ob-
taining more field data, particularly in the form of discharge
measurements at various stages of flow. Several more measurements
were made at each site than are required under agreement with the
Compact. Measurements made by personnel of the Colorado State
Engineer were incorporated into the records.

During part of the 1983 water year, computations of discharge were
made at many of the Compact sites using data transmitted by satellite
communication and computer software designed by the U.S. Geological
Survey and personnel of Environmental Resource and Technology, Inc.
The methods of computation proved beneficial in providing real-time
data at the sites as well as in identifying problems. Data transmission
at the sites was discontinued by February 1983.

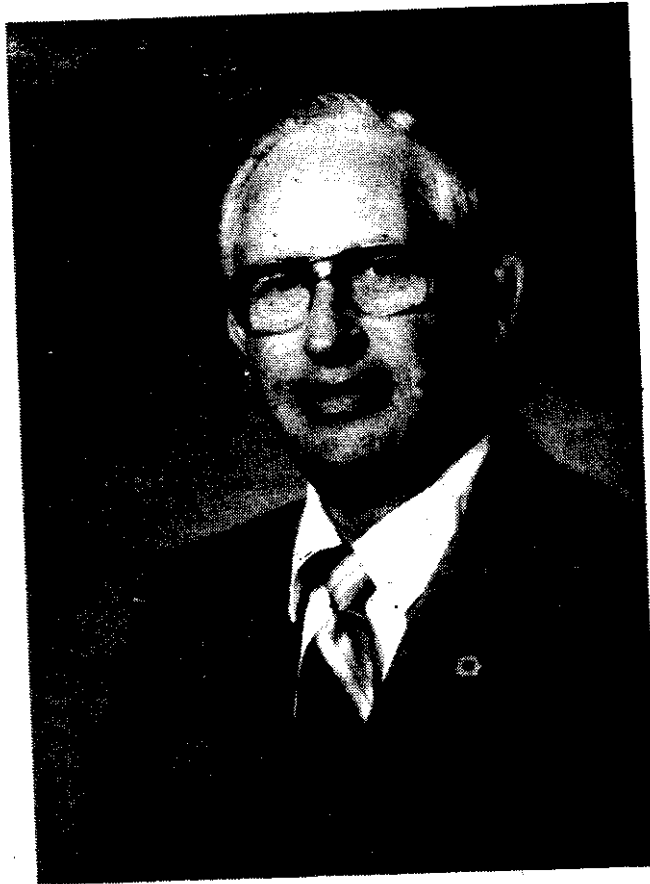
There were no critical problems at the stations during the year,
with the exception of the continuing unstable channels and controls.

The administration approved a cooperative agreement with the U.S.
Geological Survey for the fiscal year October 1, 1982, to September 30,
1983, in the amount of \$16,850 - \$8,425 for each party. These funds are
for supplemental measurements at the sites; the operation of one
station, Arkansas River near Granada, Colorado; maintenance of radio
equipment, and the preparation of records for the annual report.

10. Findings of Fact by the Administration

There were no findings of fact made by the Administration during
Compact Year 1983.

*Contents of Kansas Transit Loss Account were transferred to
other Agreement Accounts at 0001 hours, November 1, 1983.



GUY E. GIBSON

Mr. Guy E. Gibson retired on August 23, 1983, after serving as a representative of the State of Kansas on the Arkansas River Compact Administration since 1972 and as Chief Engineer Director, Division of Water Resources Kansas State Board of Agriculture.

Mr. Gibson served in World War II as First Lieutenant, U.S. Air Force Pilot and Engineer in charge of building and grounds at air base in China; Distinguished Flying Cross, Air Medal with Oak Leaf Cluster, three battle stars, theatre ribbons and received the British R.A.F. Wings as a pilot.

His many years of outstanding contribution to the Arkansas River Compact Administration have been appreciated by both Kansas and Colorado.

This appreciation has been expressed in a resolution adopted by the Administration at its Special Meeting on March 25, 1983.

APPENDICES FOR ANNUAL REPORT OF THE ARKANSAS RIVER COMPACT ADMINISTRATION

For the Report-Year
November 1, 1982, to October 31, 1983

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Plate I	Inflow, Outflow and Contents of John Martin Reservoir and Stateline Flow Inside Back Cover

APPENDIX "A-1"

Auditors' Report

Crimond, Farmer & Co.

CERTIFIED PUBLIC ACCOUNTANTS

203 East Oak

Lamar, Colorado 81052

Richard P. Crimond, C.P.A.

Ronny R. Farmer, C.P.A.

To the Representatives
Arkansas River Compact Administration
Lamar, Colorado 81052

We have examined the Statement of Assets and Liabilities Arising from Cash Transactions of the Arkansas River Compact Administration as of June 30, 1983, and the Statement of Cash Receipts and Disbursements, Changes in Cash Balance and the Statement of Cash Receipts and Disbursements with Budget Comparison for the year ended June 30, 1983. Our examination was conducted in accordance with generally accepted auditing standards, and accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As described in Note 1 of the Notes to Financial Statements, the accompanying statements are prepared on the cash basis of accounting and accordingly they are not intended to be presented in conformity with generally accepted accounting principles.

In our opinion, the financial statements present fairly the Assets and Liabilities Arising from Cash Transactions of the Arkansas River Compact Administration as of June 30, 1983, and the results of Cash Transactions for the year then ended on a basis consistent with the previous year.

Crimond, Farmer & Co.
Certified Public Accountants

August 8, 1983
Lamar, Colorado.

EXHIBIT A

**ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF ASSETS AND LIABILITIES
ARISING FROM CASH TRANSACTIONS
JUNE 30, 1983**

ASSETS:

Cash and Savings	\$36,354
Equipment	9,584
Concrete Control	8,000
TOTAL ASSETS	\$53,938

LIABILITIES:

CASH BASIS EQUITY:

Expended:

Equipment	\$ 9,584
Concrete Control	8,000
Unexpended	\$36,354

TOTAL CASH BASIS EQUITY — NOTE 1a **\$53,938**

TOTAL LIABILITIES AND CASH BASIS EQUITY **\$53,938**

The accompanying notes are an integral part of the financial statements.

EXHIBIT B

**ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
AND CHANGES IN CASH BALANCE
FOR YEAR ENDED JUNE 30, 1983**

CASH BALANCE, JULY 1, 1982	\$37,799
RECEIPTS:	
Revenue from Assessments:	
Colorado	\$11,608
Kansas	7,736
Interest	2,803
Miscellaneous	
TOTAL RECEIPTS	22,147
DISBURSEMENTS:	
Insurance	100
Geological Survey	10,845
Equipment	2,483
Professional Fees	250
Office Supplies	550
Printing	1,849
Secretary's Salary—Net	3,359
Payroll Taxes	482
Telephone	1,336
Typing and Mailing	326
Bank Charges	12
Travel and Meetings	73
Secretarial	1,927
TOTAL DISBURSEMENTS	\$23,592
EXCESS OF RECEIPTS OVER (UNDER)	
DISBURSEMENTS	(1,445)
BALANCE, JUNE 30, 1983	\$36,354

The accompanying notes are an integral part of the financial statements.

EXHIBIT C

ARKANSAS RIVER COMPACT ADMINISTRATION STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS WITH BUDGET COMPARISON FOR THE BUDGET YEAR JULY 1, 1982 TO JUNE 30, 1983

		BUDGET	ACTUAL (UNDER)	ACTUAL OVER
CASH BALANCE, JULY 1, 1982.....	\$	\$37,799	\$37,799	
RECEIPTS:				
Revenue from Assessments:				
Colorado — 60%	11,605	11,608		3
Kansas — 40%	7,736	7,736		
Interest		2,803		2,803
TOTAL RECEIPTS	19,341	22,147		2,806
TOTAL TO ACCOUNT FOR	19,341	59,946		40,605
DISBURSEMENTS:				
U.S. Geological Survey	8,500	10,845		2,345
Secretary's Salary—Net	3,600	3,359		(241)
Bond and Insurance	100	100		
Telephone	1,500	1,336		(164)
Payroll Taxes	241	482		241
Typing and Mailing		325		325
Travel and Meetings	1,000	73		(927)
Professional Fees	650	2,177		1,527
Office Supplies	500	551		51
Printing	1,250	1,849		599
Contingency	2,000	2,483		483
Bank Charges		12		12
TOTAL DISBURSEMENTS	\$19,341	\$23,592		(4,251)
CASH BALANCE, JUNE 30, 1983	\$	\$36,354		\$36,354

The accompanying notes are an integral part of the financial statements.

ARKANSAS RIVER COMPACT ADMINISTRATION NOTES TO CASH BASIS STATEMENTS JUNE 30, 1983

Note 1 — Summary of significant accounting policies:

- a. The Administration maintains financial records using the cash basis of accounting. By using the cash basis of accounting certain key accounts needed to present financial position and results of operations are omitted; examples of these accounts are accounts receivable and accounts payable.

EXHIBIT D

CRIMOND, FARMER & COMPANY
Richard P. Crimond, C.P.A.
Ronny R. Farmer, C.P.A.
203 East Oak
Lamar, CO 81052
September 8, 1983

Arkansas River Compact Administration
Lamar, Colorado 81052

Gentlemen:

This letter is being written at your request to explain the variance in Colorado assessment on the report submitted for the year ended June 30, 1983, and the budget amount as set by the Compact.

There was included on a deposit slip with the Colorado contribution, a miscellaneous reimbursement item in the amount of \$3.71, which erroneously was included as part of the Colorado assessment. When rounded to whole dollars this caused a \$3 variance between actual and budget which in fact does not exist but was the result of a very minor misclassification of a receipt. We regret any inconvenience caused you by this and trust our explanation will suffice to clear the item.

Respectfully submitted,
Crimond, Farmer & Co.

/s/ Richard P. Crimond

RPC/lk

APPENDIX "B-1" ARKANSAS RIVER ABOVE PUEBLO, COLORADO

Report Year ending October 31, 1983
USGS Records—Provisional, Subject to Revision
USGS Gaging Station #0709400

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	274	79	84	94	99	205	432	1680	4960	1360	1360	506
2	282	76	87	92	97	226	422	1560	5040	2000	1180	739
3	302	78	87	92	96	313	422	1630	5260	2490	1030	901
4	299	78	89	94	99	324	580	1440	5250	2690	1240	1060
5	302	78	87	94	101	362	540	1270	5320	1910	1360	1080
6	302	79	87	94	99	368	476	1440	5470	3410	1300	1050
7	302	81	84	94	99	404	468	1650	5550	2820	1310	988
8	302	79	86	94	99	382	495	1790	5640	2900	1060	925
9	306	81	86	94	99	356	530	2030	5640	2440	750	871
10	328	82	84	94	99	313	586	2260	4630	2170	712	778
11	328	82	84	96	101	316	728	2470	3120	2070	728	734
12	400	82	84	96	99	382	853	2750	3280	1940	744	690
13	472	82	84	96	99	409	919	3430	3430	1840	783	428
14	472	82	86	96	131	472	871	3300	3280	1960	686	340
15	115	84	86	96	324	466	706	2390	2220	2080	380	376
16	86	84	86	96	286	445	717	2160	1820	1920	380	400
17	86	84	86	96	302	414	620	2510	1560	1860	380	414
18	86	86	86	94	302	436	510	3130	1350	2100	385	380
19	86	87	89	96	324	458	480	3690	1300	2110	439	352
20	86	87	89	96	344	630	560	4350	1560	1650	445	352
21	89	86	89	96	344	1160	520	5020	2210	1000	454	392
22	89	87	89	94	376	1020	580	4960	2670	1660	450	418
23	89	82	89	94	386	783	690	3830	3160	1570	472	396
24	89	79	89	94	352	630	750	304	2980	1450	427	380
25	89	82	89	96	336	625	700	4340	1860	1450	386	356
26	89	82	89	94	332	662	651	5260	1860	1410	332	360
27	89	82	89	97	324	712	823	5110	1960	1310	292	392
28	89	82	89	97	218	783	1080	5000	1980	1470	299	368
29	89	82	89	97	178	728	1480	4900	1870	1540	288	356
30	89	86	89	94	205	630	1320	5000	1560	1620	274	356
31		86	94		220		1510		1400	1440		356
TOTAL												
sec. ft.	6156	2546	2710	2659	6602	15464	22018	90744	98310	59870	29328	17504
ac. ft.	12210	5050	5380	5270	13100	30670	43670	180000	197000	118600	40320	34720
THE YEAR 698,190 acre-feet												

Report-Year ending October 31, 1963
USGS Records--Provisional, Subject to Revision
USGS Gaging Station #0712400
MAY APR MAD JUN

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APPENDIX "B-3" **PURGATOIRE RIVER NEAR** **LAS ANIMAS, COLORADO**

Report Year ending October 31, 1983
USGS Records--Provisional, Subject to Revision
USGS Gaging Station #07128500

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	37	40	26	47	79	93	957	940	522	12	22	34
2	38	38	29	55	76	117	882	1080	406	10	19	33
3	35	32	28	54	67	208	732	834	316	9.1	19	33
4	35	35	25	44	55	196	700	760	216	6.9	15	32
5	41	35	33	39	46	211	569	705	119	8.8	19	29
6	45	35	35	44	54	188	500	613	72	210	15	27
7	43	34	40	38	66	154	480	2100	45	138	14	28
8	33	28	45	41	82	144	417	1590	67	95	12	27
9	30	27	47	45	87	151	360	1350	67	228	9.3	27
10	25	45	48	47	70	145	459	1250	98	176	7.4	32
11	33	44	47	46	61	134	511	975	94	117	8.3	25
12	47	33	51	43	59	125	483	803	80	83	9.5	24
13	41	40	53	45	54	157	409	715	91	46	11	27
14	38	43	51	45	61	217	366	706	98	251	9.5	29
15	45	36	51	45	95	177	313	791	116	84	8.7	33
16	41	36	49	44	104	158	276	718	106	45	7.9	36
17	42	40	53	45	89	146	219	583	77	55	8.0	39
18	33	40	64	47	108	183	342	458	57	32	6.9	38
19	33	33	63	47	98	207	263	358	50	20	8.3	37
20	34	35	60	50	96	234	201	271	33	17	10	31
21	33	40	44	44	92	375	106	264	34	35	12	31
22	14	33	43	40	92	637	118	287	24	30	12	31
23	32	31	39	42	104	1070	227	355	17	20	11	32
24	33	31	58	46	110	875	136	480	23	10	20	32
25	36	13	57	50	78	772	129	469	12	8.4	40	32
26	27	14	50	56	78	834	127	314	7.6	7.1	36	31
27	30	15	51	60	103	1290	96	295	6.5	7.0	30	29
28	35	17	50	60	117	1190	76	378	8.3	10	31	30
29	32	20	52	66	1240	1100	644	644	7.6	22	32	32
30	35	21	49	75	983	202	649	15	55	36	36	32
31	23	23	48	64	64	777	777	8.4	31	31	32	32
TOTAL												
Sec. ft.	1075	985	1435	1309	2515	13551	11578	21735	2875.4	1879.3	489.8	965
ac. ft.	2130	1960	2850	2690	4890	24690	23960	43110	5700	3730	991	1910
THE YEAR 117,811 acre-feet												

APPENDIX "B-4" RIVER FLOW INTO JOHN MARTIN RESERVOIR

Report Year ending October 31, 1963
USGS Records—Provisional, Subject to Revision

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	174	212	214	191	242	185	995	1719	4522	95	137	104
2	156	190	267	197	238	187	896	1886	4246	256	237	103
3	123	176	254	198	228	261	792	1413	4766	42.1	90	125
4	108	160	265	190	220	258	755	1273	4806	31.9	87	322
5	101	201	273	197	206	261	622	1387	5339	73.8	92	322
6	101	202	267	178	247	290	536	1513	4892	252	76	400
7	95	193	266	186	254	244	507	4090	4892	183	67	429
8	81	172	267	189	256	204	440	3410	3335	441	59	404
9	79	175	267	169	249	283	381	3300	3675	334	55.3	419
10	77	195	263	175	227	174	461	2790	3675	256	133.4	428
11	69	199	263	178	222	164	533	2155	3844	167	137.3	388
12	102	190	229	178	221	197	517	2043	1830	144	66.5	351
13	104	196	231	178	217	270	431	2085	882	132	49	331
14	123	194	238	182	217	256	368	2136	1206	221	45.7	324
15	144	185	203	190	250	258	346	2201	1067	157	44.9	307
16	138	188	194	186	274	208	267	1818	688	279	45	307
17	128	185	191	189	484	198	266	1113	386	279	40.9	308
18	105	185	215	183	435	222	301	946	239	265	39.3	265
19	238	189	203	183	442	247	315	1282	317	250	39	265
20	254	185	200	191	265	271	275	1421	85	263	48	269
21	242	185	194	186	246	382	410	1250	70	382	57	263
22	205	181	191	186	267	941	296	1507	49	291	78	266
23	217	178	184	191	297	2180	367	2015	178	319	85	316
24	204	183	190	191	206	1004	278	2480	146	319	146	358
25	208	175	184	208	156	633	264	1389	486	278.4	205	329
26	200	188	180	222	138	883	266	1434	302.6	260.1	184	306
27	203	177	182	225	200	1283	196	2595	78.5	260	184	314
28	206	209	183	232	226	1231	240	3688	44.3	343	135	337
29	212	209	196	232	173	1303	606	4344	38.6	363	104	323
30	222	209	193	149	149	1085	769	4459	41	265	106	330
31	206	206	190	119	119	1085	1386	4459	33.4	187		
TOTAL	4644	5885	6911	5254	7439	15462	15223	64882	55735.4	7745.3	2734.8	9463
ac. ft.	9210	11670	13710	10450	14780	30670	30190	126680	110550	15360	5420	18680

THE YEAR 399,340 acre-feet

The Riverflow into JMR is the sum of the daily flows of the Arkansas River near Las Animas (Appendix B-2) and the Purgatoire River near Las Animas (Appendix B-3).

APPENDIX "B-5"

CONTENTS OF

JOHN MARTIN RESERVOIR

Report: Year ending October 31, 1963
Corps of Engineers Records—Provisional. Subject to Revision
(Midnight contents in acre-feet from capacity table based on April/June 1960 hydrographic surveys and November 1960 aerial photographs used since August 12, 1961)

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	13217	23564	35752	50158	60866	77270	104857	91012	181035	177916	116005	81403
2	13817	23957	36187	50544	61115	77401	106075	93390	186876	179587	114575	80952
3	13977	24378	36559	50965	61538	78088	107068	93598	192452	179616	113997	80148
4	14237	24834	36932	51351	61953	78796	108175	94006	197635	171228	111025	79668
5	14557	25311	37397	51771	62374	79583	109375	94502	202467	168910	108321	78983
6	14817	25689	37865	51992	62810	80017	109952	94783	205557	168922	107932	78534
7	15037	26019	38515	52371	63443	80547	109906	94875	206310	164677	106337	77066
8	15324	26397	39147	52773	64080	80953	107798	110743	210320	163344	104314	75747
9	15529	26683	39780	53092	64518	81403	106868	115562	213965	161081	102965	74376
10	15755	27371	40339	53321	64915	81763	105314	120193	215735	159012	101157	73048
11	16002	27911	40952	53613	65312	82168	104153	123259	217890	156734	98614	71890
12	16187	28196	41435	54051	65789	82438	102758	126467	218331	154316	96103	70532
13	16414	28636	41855	54417	66147	82844	101674	129714	217387	152062	93306	69880
14	16660	28965	42412	54709	66584	83294	100383	132945	216253	150301	94759	68796
15	16908	29350	42910	55110	67458	83789	99001	136398	215863	148235	93068	68671
16	17246	29735	43342	55476	68167	84149	97904	139133	214221	145963	91894	68420
17	17536	30100	43841	55878	68793	84555	96506	141420	213965	143673	91109	68294
18	17848	30539	44339	56288	69621	84985	94659	142879	213506	141686	90187	68169
19	18160	30871	44737	56688	70940	85340	93195	143679	209894	139447	88274	68044
20	18629	31157	45268	57301	71551	85809	92370	144337	208559	137843	86337	68876
21	19098	31615	45740	57676	72105	86370	91355	145730	204500	135947	87400	68751
22	19562	32015	46113	58051	72652	87035	90138	147339	201979	133978	86444	68543
23	20014	32359	46452	58351	73176	87595	89040	149613	198875	132004	86688	68376
24	20511	32678	46859	58658	73695	88094	88394	152161	196882	129964	85069	68250
25	21106	33067	47265	59026	74890	88609	88009	153908	194677	128065	84465	68167
26	21532	33387	47637	59476	74890	89007	87889	153383	192829	126304	83924	68083
27	21829	33696	48078	59862	75105	89703	87541	153067	190476	124951	83474	67958
28	22171	34464	48417	60274	75492	89908	87166	152979	188142	124467	83024	67832
29	22643	34914	48790	60874	75893	90308	87025	150536	185426	120724	82483	67707
30	23117	35153	49211	61337	76405	90378	87400	149652	182481	118267	81898	67623
31		35393	49702		76834		88069		180350	117657		67540

APPENDIX "B-5a" CONTENTS OF JOHN MARTIN RESERVOIR CONSERVATION POOL

Contents of John Martin Reservoir Conservation Pool

(Contents at 2400 hours)

Report: Year ending October 31, 1963

Source: Operations Secretary, Arkansas River Compact Administration

(Rounded to the nearest acre-foot)

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	DAY
1	866	8820	15126	22559	29464	43967	17023	1453	48309	39725	0	0	1
2	1396	9016	15365	22771	28711	43112	16422	2930	52873	38038	0	0	2
3	1764	9252	15437	23015	28965	43824	15636	3667	56875	35929	0	0	3
4	2033	9532	15552	23219	29715	44532	14915	3864	61082	33887	0	0	4
5	2362	9720	15746	23466	29964	45113	14090	4461	64729	31499	0	0	5
6	2632	9970	15961	23518	30102	45775	13178	4947	67677	29640	0	0	6
7	2861	10107	16265	23749	30364	46464	12153	9464	70546	27724	0	0	7
8	3157	10278	16590	23997	30606	46997	10833	13677	72871	26328	0	0	8
9	3371	10445	16867	24243	30862	47472	9815	17291	75060	24308	0	0	9
10	3606	10660	17158	24398	31063	47947	8588	20459	76886	22464	0	0	10
11	3860	10860	17464	24686	31327	48472	7842	21677	78940	20530	0	0	11
12	4054	11063	17689	24895	31627	48947	6850	23020	80940	18764	0	0	12
13	4288	11263	17873	24995	31801	49226	5655	24404	82914	17321	0	0	13
14	4543	11456	18195	25029	32057	49441	4441	25804	84916	16313	0	0	14
15	4859	11656	18458	25072	32255	49699	3130	27555	86940	15038	0	0	15
16	5145	11847	18683	25470	32450	50150	1865	28736	88972	13448	0	0	16
17	5443	12047	18883	25704	32696	50412	902	29470	90972	12205	0	0	17
18	5762	12223	19093	25960	32940	50690	0	27409	92972	10769	0	0	18
19	6083	12362	19283	26407	33186	50977	0	27210	94972	9405	0	0	19
20	6422	12532	19491	26852	33436	51264	0	27051	96972	8275	0	0	20
21	6612	12699	20112	27053	33677	51554	0	26897	98972	6954	0	0	21
22	6836	12865	20294	27191	33920	51844	0	26740	100972	5779	0	0	22
23	7010	13006	20426	27326	34164	52134	0	26583	102972	4604	0	0	23
24	7278	13159	20539	27451	34409	52424	0	26426	104972	3132	0	0	24
25	7539	13322	20672	27576	34654	52714	0	26269	106972	1816	0	0	25
26	7673	13467	21077	27799	34904	53004	0	26114	108972	617	0	0	26
27	7855	14167	21357	28029	35154	53254	0	25957	110972	0	0	0	27
28	8080	14474	21527	28224	35404	53504	0	25800	112972	0	0	0	28
29	8335	14692	21733	28424	35654	53754	0	25643	114972	0	0	0	29
30	8586	14817	21964	28624	35904	54004	0	25486	116972	0	0	0	30
31		14942	22272		42516	17394	409	43287	41890				31

APPENDIX "B-6" **OUTFLOW FROM JOHN MARTIN RESERVOIR** **ARKANSAS RIVER BELOW** **JOHN MARTIN RESERVOIR**

Report Year ending October 31, 1983
USGS Records—Provisional, Subject to Revision
USGS Gaging Station #07130500

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	3.2	1.5	1.4	1.4	1.4	1.5	57	439	480	1360	970	398
2	2.6	1.5	1.4	1.4	1.4	1.5	63	444	480	1350	966	398
3	2.4	1.5	1.4	1.4	1.4	1.5	70	448	480	1340	961	390
4	2.2	1.5	1.4	1.4	1.4	1.5	83	452	484	1300	961	373
5	1.8	1.5	1.4	1.4	1.4	1.5	73	452	686	1280	966	369
6	1.6	1.5	1.4	1.4	1.4	1.5	341	434	1080	1280	952	745
7	1.5	1.5	1.4	1.4	1.4	1.5	740	396	1150	1260	907	1050
8	1.5	1.5	1.4	1.4	1.4	1.5	736	398	1200	1280	894	1080
9	1.5	1.5	1.4	1.4	1.4	1.5	845	335	1200	1200	894	1080
10	1.5	1.5	1.4	1.4	1.4	1.5	1100	289	1180	1340	894	997
11	1.5	1.5	1.4	1.4	1.4	1.5	1080	253	1310	1350	889	956
12	1.5	1.5	1.4	1.4	1.4	1.5	1070	241	1480	1350	888	902
13	1.5	1.5	1.4	1.4	1.4	1.5	1060	265	1470	1360	902	648
14	1.5	1.5	1.4	1.4	1.4	1.5	1040	309	1440	1360	889	648
15	1.5	1.5	1.4	1.4	1.4	1.5	1040	321	1450	1350	880	373
16	1.5	1.5	1.4	1.4	1.4	1.5	1080	337	1300	1320	649	373
17	1.5	1.5	1.4	1.4	1.4	1.5	1080	335	1300	1320	452	369
18	1.5	1.5	1.4	1.4	1.4	1.5	1060	337	1250	1280	448	369
19	1.5	1.5	1.4	1.4	1.4	1.5	1050	341	1280	1280	444	369
20	1.5	1.5	1.4	1.4	1.4	1.5	1020	346	1340	1280	462	362
21	1.5	1.5	1.4	1.4	1.4	1.5	979	357	1370	1280	470	365
22	1.5	1.4	1.4	1.4	1.4	1.5	974	408	1410	1290	470	369
23	1.5	1.4	1.4	1.4	1.4	1.5	946	434	1410	1280	448	369
24	1.5	1.4	1.4	1.4	1.4	1.5	721	507	1400	1270	434	369
25	1.5	1.4	1.4	1.4	1.4	1.5	498	552	1410	1230	430	369
26	1.5	1.4	1.4	1.4	1.4	1.5	480	547	1420	1220	428	369
27	1.5	1.4	1.4	1.4	1.4	1.5	468	516	1400	1220	408	369
28	1.5	1.4	1.4	1.4	1.4	1.5	468	483	1380	1220	403	369
29	1.5	1.4	1.4	1.4	1.4	1.5	470	468	1370	1200	398	369
30	1.5	1.4	1.4	1.4	1.4	1.5	468	464	1370	1090	398	369
31	1.4	1.4	1.4	1.4	1.4	1.5	448	484	1370	961	398	369
TOTAL												
sec. ft.	49.8	45.4	43.4	39.2	44.0	231.5	21677	11961	37300	39601	20553	16029
ac. ft.	99	90	86	78	87	459	43000	23720	73880	78550	40770	31790
THE YEAR 292,709 acre-feet												

APPENDIX "B-7" ARKANSAS RIVER AT LAMAR, COLORADO

Report-Year ending October 31, 1983
USGS Records—Provisional, Subject to Revision
USGS Gaging Station #07133000

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	15	14	16	18	23	19	8.4	10	56	711	422	31
2	13	12	17	18	22	19	7.4	6.6	55	704	420	33
3	13	11	16	18	22	19	7.5	6.3	53	692	418	38
4	13	11	18	18	22	23	7.5	7.3	50	646	415	28
5	13	11	19	18	23	22	7.5	12	48	603	425	19
6	13	10	19	18	23	22	8.0	17	366	600	415	96
7	11	10	27	19	23	22	100	12	463	603	378	497
8	11	9.8	28	20	23	20	500	9.4	514	609	375	582
9	11	9.5	29	21	23	18	526	5.0	543	624	362	613
10	11	10	27	21	23	17	528	3.8	548	631	362	618
11	10	10	25	23	23	16	485	3.3	577	638	368	571
12	10	9.0	22	24	23	16	483	3.4	831	661	368	554
13	10	10	22	24	23	16	490	5.1	818	666	376	490
14	13	10	22	24	23	16	490	17	735	645	457	60
15	13	10	21	23	25	5.5	440	23	690	648	407	19
16	17	10	22	25	25	5.2	430	40	690	636	373	19
17	17	23	22	25	36	5.2	433	50	680	669	93	19
18	15	28	21	25	31	4.9	409	49	660	617	53	19
19	15	30	21	25	27	3.8	424	50	651	584	38	19
20	15	29	20	25	27	4.0	490	51	644	588	32	19
21	15	32	20	25	24	4.1	441	46	666	582	33	19
22	15	33	20	26	25	6.1	432	42	711	588	33	19
23	14	34	19	26	25	5.9	419	33	732	610	42	19
24	13	35	19	25	27	5.5	376	25	736	606	57	19
25	13	36	19	22	27	5.5	64	23	801	609	63	19
26	14	36	19	22	24	6.3	37	48	739	591	60	19
27	14	35	19	22	23	5.5	29	73	734	585	56	19
28	14	30	19	22	23	5.2	22	70	728	577	51	19
29	14	20	18	21	21	12	13	66	735	573	49	19
30	14	17	18	19	19	8.1	16	63	715	598	44	19
31	14	17	18	18	18	17	17		713	440		19
TOTAL	402.0	625.3	646	638	746	336.2	8130.3	872.2	17667	19164	7045	4564
sec. ft.	707	1240	1280	1270	1400	647	16110	1730	35040	38010	13970	9050
ac. ft.												
THE YEAR 1980, 694 acre feet												

APPENDIX "B-8" ARKANSAS RIVER NEAR GRANADA, COLORADO

Report Year ending October 31, 1953
USGS Records—Provisional, Subject to Revision
USGS Gaging Station #07134180

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	33	33	80	97	82	79	65	59	16	679	491	84
2	34	36	84	96	81	75	41	46	16	663	477	81
3	13	64	86	90	79	75	18	36	15	669	463	81
4	14	77	85	87	79	77	8.9	34	15	628	457	83
5	22	76	87	85	80	79	5.4	32	15	589	457	76
6	30	77	92	85	78	78	5.2	31	250	575	449	67
7	29	76	96	86	79	77	103	31	450	573	413	225
8	29	80	100	88	78	75	413	35	480	575	393	480
9	29	80	101	88	78	68	486	26	510	578	397	578
10	29	81	97	88	76	71	501	23	540	599	370	605
11	35	81	97	86	75	74	485	16	570	594	366	578
12	40	78	94	89	76	75	457	13	640	599	359	558
13	36	77	94	91	76	72	472	9.2	713	615	375	538
14	37	74	96	89	77	68	483	6.8	702	631	410	348
15	45	74	96	89	79	69	500	5.8	715	639	440	173
16	49	81	95	87	82	72	487	5.8	703	616	409	130
17	33	83	93	90	80	71	478	8.3	676	627	291	105
18	31	84	94	90	80	69	397	9.1	701	656	183	92
19	35	83	91	92	80	69	433	8.1	671	593	146	78
20	35	80	93	93	85	69	517	6.4	613	598	119	71
21	33	80	93	96	89	67	545	6.1	607	591	106	68
22	30	84	89	97	89	78	486	5.5	634	578	99	69
23	48	83	86	93	81	94	468	5.5	683	594	91	65
24	46	88	91	91	91	86	435	5.5	674	596	90	62
25	46	86	93	96	95	80	425	8.4	680	601	89	60
26	44	86	93	96	95	79	272	36	715	596	90	60
27	46	95	93	93	97	79	138	29	678	599	86	67
28	50	90	95	88	91	73	106	22	683	608	87	64
29	48	85	96	87	87	48	77	19	690	623	80	59
30	48	80	96	80	80	66	65	17	691	622	83	58
31	80	80	94	79	79	66	62	17	689	567	83	60
TOTAL												
sec. ft.	1186	2450	2884	2637	2610	2207	9102.5	5385.5	16414	18823	8356	5799
ac. ft.	2305	4980	5690	5010	5180	4380	18069	11180	32960	37340	16370	11320
THE YEAR 144,480 acre-feet												

APPENDIX "B-9" ARKANSAS RIVER AT THE COLORADO-KANSAS STATELINE

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	DAY
1	84	90	90	105	107	114	94	113	113	705	546	145	1
2	104	91	90	96	109	102	90	136	98	700	469	138	2
3	75	101	90	96	110	101	77	114	127	732	478	132	3
4	68	101	100	97	111	102	69	102	131	683	475	136	4
5	78	101	100	100	112	104	69	90	121	681	467	138	5
6	80	101	100	102	109	103	58	106	92	562	494	133	6
7	81	106	110	104	108	102	53	119	142	580	462	139	7
8	78	101	113	108	103	102	391	131	152	578	450	310	8
9	70	111	119	106	100	102	336	140	253	574	426	479	9
10	66	111	114	108	100	102	380	144	303	593	411	580	10
11	80	115	110	108	98	91	397	120	378	593	389	609	11
12	101	112	109	107	98	96	432	85	431	593	382	557	12
13	87	120	111	112	98	98	433	81	562	625	385	535	13
14	100	109	111	111	100	91	456	86	630	661	426	475	14
15	97	103	111	108	101	87	452	78	630	688	474	300	15
16	83	110	111	116	109	90	438	73	667	678	426	233	16
17	86	110	111	116	115	87	434	64	685	636	382	223	17
18	88	105	100	120	116	86	386	77	645	652	275	210	18
19	83	107	95	114	117	81	456	74	685	666	248	194	19
20	91	107	97	114	117	84	488	63	591	636	227	177	20
21	92	106	100	118	118	89	488	63	546	631	219	179	21
22	87	115	108	121	122	114	469	54	547	633	216	164	22
23	87	115	108	121	122	114	469	54	547	633	216	164	23
24	91	110	110	118	127	111	469	54	547	633	216	164	24
25	89	106	110	118	127	111	469	54	547	633	216	164	25
26	88	96	112	109	122	104	382	55	644	640	187	158	26
27	88	96	112	109	122	104	382	55	644	640	187	158	27
28	88	90	117	109	119	103	253	231	664	660	179	159	28
29	88	90	117	109	119	103	253	231	664	660	179	159	29
30	87	90	117	109	118	104	159	125	685	683	158	153	30
31		90	112	114	114		159		689	684		153	31
TOTAL	2568	3210	3354	3062	3457	2956	9103	4018	14556	20966	10213	7606	
sec. ft.	5090	6370	6650	6070	6980	5960	18080	7970	28870	39600	20280	15090	
ac. ft.													

Report Year ending October 31, 1963
USGS Records—Provisional, Subject to Revision

THE YEAR 1884, 960 acre-feet

The daily discharges are the sum of the flows of the Arkansas River near Coolidge, Kansas, USGS Gaging Station #07137500 and the Frontier Ditch, USGS Gaging Station #0713700.

APPENDIX "B-10" TRANSFER OF COMPACT WATER FROM THE JOHN MARTIN RESERVOIR CONSERVATION POOL INTO AGREEMENT ACCOUNTS

Transfer of Compact Water from the John Martin Reservoir Conservation Pool
Into Agreement Accounts 1/
Source: Operations Secretary, Arkansas River Compact Administration
(Acre-feet)

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	DAY
1	0	0	0	0	0	0	1984	1984	2479	2479	0	0	1
2	0	0	0	0	0	0	1984	1984	2479	2479	0	0	2
3	0	0	0	0	0	0	1984	1984	2479	2479	0	0	3
4	0	0	0	0	0	0	1984	1984	2479	2479	0	0	4
5	0	0	0	0	0	0	1984	1984	2479	2479	0	0	5
6	0	0	0	0	0	0	1984	1984	2479	2479	0	0	6
7	0	0	0	0	0	0	1984	1984	2479	2479	0	0	7
8	0	0	0	0	0	1653	1984	1984	2479	2479	0	0	8
9	0	0	0	0	0	2479	1984	1984	2479	2479	0	0	9
10	0	0	0	0	0	2479	1984	2124	2479	2479	0	0	10
11	0	0	0	0	0	2479	1984	2479	2479	2479	0	0	11
12	0	0	0	0	0	2479	1984	2479	2479	2102	0	0	12
13	0	0	0	0	0	2479	1984	2479	2479	1984	0	0	13
14	0	0	0	0	0	2479	1984	2479	2479	1984	0	0	14
15	0	0	0	0	0	2479	1984	2479	2479	1984	0	0	15
16	0	0	0	0	0	2479	1984	2479	2479	1984	0	0	16
17	0	0	0	0	0	2479	1984	2479	2479	1984	0	0	17
18	0	0	0	0	0	2479	1352	2479	2479	1984	0	0	18
19	0	0	0	0	0	2479	0	2479	2479	1984	0	0	19
20	0	0	0	0	0	2003	0	2479	2479	1984	0	0	20
21	0	0	0	0	0	1984	0	2479	2479	1984	0	0	21
22	0	0	0	0	0	1984	0	2479	2479	1984	0	0	22
23	0	0	0	0	0	1984	0	2479	2479	1984	0	0	23
24	0	0	0	0	0	1984	0	2479	2479	1984	0	0	24
25	0	0	0	0	0	1984	0	2479	2479	1984	0	0	25
26	0	0	0	0	0	1984	0	2479	2479	1984	0	0	26
27	0	0	0	0	0	1984	0	2479	2479	922	0	0	27
28	0	0	0	0	0	1984	0	2479	2479	0	0	0	28
29	0	0	0	0	0	1984	0	2479	2479	0	0	0	29
30	0	0	0	0	0	1984	869	2479	2479	0	0	0	30
31	0	0	0	0	0	1984	1984	2479	2479	0	0	0	31
TOTAL	0	0	0	0	0	5324	37933	65680	76949	50069	0	0	
THE YEAR 235,655 acre-feet													

1/ All conservation pool water was apportioned as follows into Colorado and Kansas Accounts:
40% to Kansas and 60% to Colorado, as described in the 1980 Colorado-Kansas Storage Resolution, and 35% of all "other water"
delivered to John Martin Reservoir to the Kansas transit loss account.

APPENDIX "B-11" DEMANDS BY COLORADO FOR AGREEMENT ACCOUNT WATER IN JOHN MARTIN RESERVOIR

Demands by Colorado for Agreement Account Water in John Martin Reservoir
Report-Year ending October 31, 1963
Source: Operations Secretary, Arkansas River Compact Administration

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	DAY
1	0	0	0	0	0	0	99	874	980	1429	668	456	1
2	0	0	0	0	0	0	113	867	979	1429	630	456	2
3	0	0	0	0	0	0	121	864	979	1395	606	506	3
4	0	0	0	0	0	0	121	864	979	1290	606	496	4
5	0	0	0	0	0	0	152	864	1078	1241	608	119	5
6	0	0	0	0	0	0	262	852	1221	1241	626	667	6
7	0	0	0	0	0	0	370	820	1233	1241	660	741	7
8	0	0	0	0	0	0	782	755	1338	1297	745	748	8
9	0	0	0	0	0	0	1114	650	1355	1367	792	748	9
10	0	0	0	0	0	0	1142	588	1355	1408	792	577	10
11	0	0	0	0	0	0	1142	526	1340	1432	431	473	11
12	0	0	0	0	0	0	1142	488	1331	1439	743	396	12
13	0	0	0	0	0	0	1142	610	1377	1439	834	331	13
14	0	0	0	0	0	0	1142	671	1398	1439	842	331	14
15	0	0	0	0	0	0	1157	663	1323	1423	827	320	15
16	0	0	0	0	0	0	1275	663	1226	1388	802	308	16
17	0	0	0	0	0	0	1316	663	1206	1373	802	308	17
18	0	0	0	0	0	0	1218	663	1325	1360	802	246	18
19	0	0	0	0	0	0	686	663	1374	1353	804	140	19
20	0	0	0	0	0	0	0	675	1374	1353	832	99	20
21	0	0	0	0	0	0	203	700	1422	1353	812	99	21
22	0	0	0	0	0	0	218	802	1469	1371	799	99	22
23	0	0	0	0	0	0	223	868	1477	1382	711	99	23
24	0	0	0	0	0	0	218	1012	1477	1333	612	68	24
25	0	0	0	0	0	0	223	1107	1469	1259	550	50	25
26	0	0	0	0	0	0	185	1094	1509	1232	501	50	26
27	0	0	0	0	0	0	140	1016	1516	1181	363	50	27
28	0	0	0	0	0	0	164	953	1454	1137	285	50	28
29	0	0	0	0	0	124	164	966	1425	1010	388	50	29
30	0	0	0	0	0	136	164	981	1429	914	454	50	30
31	0	0	0	0	0	99	894		1429	761		50	31
TOTAL	0	0	0	0	0	339	16896	23782	40781	40270	19625	9220	

THE YEAR 191,233 acre-feet

APPENDIX "B-12" **DEMANDS BY KANSAS** **FOR AGREEMENT ACCOUNT WATER IN** **JOHN MARTIN RESERVOIR**

Demands by Kansas for Agreement Account Water in John Martin Reservoir
 (Not including transit loss releases)
 Report-year ending October 31, 1983

Source: Annual Report of the Operations Secretary, 1983
 (Acre-feet)

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	DAY
1	0	0	0	0	0	0	0	0	0	1190	793	0	1
2	0	0	0	0	0	0	0	0	0	1190	793	0	2
3	0	0	0	0	0	0	0	0	0	1190	793	0	3
4	0	0	0	0	0	0	0	0	0	1190	793	0	4
5	0	0	0	0	0	0	0	0	0	1190	793	0	5
6	0	0	0	0	0	0	0	0	0	1190	793	0	6
7	0	0	0	0	0	0	384	0	793	1190	793	620	7
8	0	0	0	0	0	0	793	0	793	1190	793	992	8
9	0	0	0	0	0	0	793	0	793	1190	793	992	9
10	0	0	0	0	0	0	793	0	793	1190	793	992	10
11	0	0	0	0	0	0	793	0	659	1190	793	990	11
12	0	0	0	0	0	0	793	0	1190	1190	793	992	12
13	0	0	0	0	0	0	793	0	1190	1190	793	496	13
14	0	0	0	0	0	0	793	0	1190	1190	793	0	14
15	0	0	0	0	0	0	793	0	1190	1190	793	0	15
16	0	0	0	0	0	0	793	0	1190	1190	793	0	16
17	0	0	0	0	0	0	793	0	1190	1190	364	0	17
18	0	0	0	0	0	0	793	0	1190	1190	0	0	18
19	0	0	0	0	0	0	793	0	1190	1190	0	0	19
20	0	0	0	0	0	0	793	0	1190	1190	0	0	20
21	0	0	0	0	0	0	793	0	1190	1190	0	0	21
22	0	0	0	0	0	0	793	0	1190	1190	0	0	22
23	0	0	0	0	0	0	793	0	1190	1190	0	0	23
24	0	0	0	0	0	0	430	0	1190	1190	0	0	24
25	0	0	0	0	0	0	0	0	1190	1190	0	0	25
26	0	0	0	0	0	0	0	0	1190	1190	0	0	26
27	0	0	0	0	0	0	0	0	1190	1190	0	0	27
28	0	0	0	0	0	0	0	0	1190	1190	0	0	28
29	0	0	0	0	0	0	0	0	1190	1190	0	0	29
30	0	0	0	0	0	0	0	0	1190	1041	0	0	30
31	0	0	0	0	0	0	0	0	1190	793	0	0	31
TOTAL	0	0	0	0	0	0	14275	0	29022	36344	12259	7066	
THE YEAR	98,966	acre-feet											

APPENDIX "B-13" STATELINE FLOWS OF DAYS OF KANSAS DEMANDS

Arkansas River at the State Line
Stateline Flows of Days of Kansas Demands
Report-Year ending October 31, 1963
(Cubic feet per second)

DAY	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	DAY
1	-	-	-	-	-	-	-	-	-	705	565	-	1
2	-	-	-	-	-	-	-	-	-	700	489	-	2
3	-	-	-	-	-	-	-	-	-	732	478	-	3
4	-	-	-	-	-	-	-	-	-	683	475	-	4
5	-	-	-	-	-	-	-	-	-	631	487	-	5
6	-	-	-	-	-	-	-	-	-	592	494	-	6
7	-	-	-	-	-	-	-	-	142	590	482	-	7
8	-	-	-	-	-	-	191	-	252	578	450	298	8
9	-	-	-	-	-	-	336	-	303	574	426	526	9
10	-	-	-	-	-	-	380	-	337	583	411	639	10
11	-	-	-	-	-	-	397	-	378	583	389	685	11
12	-	-	-	-	-	-	432	-	451	583	382	639	12
13	-	-	-	-	-	-	433	-	542	625	345	585	13
14	-	-	-	-	-	-	456	-	630	661	426	539	14
15	-	-	-	-	-	-	452	-	688	474	426	343	15
16	-	-	-	-	-	-	438	-	687	426	292	292	16
17	-	-	-	-	-	-	436	-	635	636	382	228	17
18	-	-	-	-	-	-	434	-	645	682	283	216	18
19	-	-	-	-	-	-	398	-	685	686	281	191	19
20	-	-	-	-	-	-	455	-	591	626	244	179	20
21	-	-	-	-	-	-	539	-	546	631	238	-	21
22	-	-	-	-	-	-	488	-	547	633	238	-	22
23	-	-	-	-	-	-	453	-	584	632	232	-	23
24	-	-	-	-	-	-	409	-	624	648	-	-	24
25	-	-	-	-	-	-	382	-	644	640	-	-	25
26	-	-	-	-	-	-	253	-	683	661	-	-	26
27	-	-	-	-	-	-	210	-	684	660	-	-	27
28	-	-	-	-	-	-	180	-	647	675	-	-	28
29	-	-	-	-	-	-	159	-	683	683	-	-	29
30	-	-	-	-	-	-	180	-	686	683	-	-	30
31	-	-	-	-	-	-	189	-	689	684	-	-	31
TOTAL	-	-	-	-	-	-	8601	-	13884	20066	9088	5380	
sec. ft.	-	-	-	-	-	-	17040	-	27590	38600	18950	10630	
ac. ft.	-	-	-	-	-	-	-	-	-	-	-	-	

The daily discharges are the sum of the flows of the Arkansas River near Coolidge, Kansas and the Frontier Ditch.

APPENDIX "B-14a" **DIVERSION BY DITCHES** **IN COLORADO WATER DISTRICT 14**

Diversion by Ditches in Colorado
 Water District 14
 Report-Year ending October 31, 1983
 Source: Water Commissioner's Monthly Reports
 (Acre-feet)

NAME OF CANAL	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	YEAR
Bessemer (River)	2061	0	0	0	0	6017	9544	12207	17414	14658	6330	4308	74661
Res. or Imported	0	0	0	0	0	792	873	208	215	1908	2980	35	6811
Total Bessemer	2061	0	0	0	0	6809	10217	12415	17629	16566	9310	4343	81472
Minnequa-Ft. Union	7179	7504	7482	6156	6272	7134	7263	4639	5463	3907	7338	5724	76201
West Pueblo (River)	0	0	0	0	0	0	37	279	248	182	13	0	759
Excelator (River)	0	0	0	0	0	0	0	0	95	0	0	0	95
Res. or Imported	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: Excelator	0	0	0	0	0	0	0	0	95	0	0	0	95
Collier	0	0	0	0	0	0	0	0	0	0	0	0	0
Colorado Canal (River)	0	0	0	0	12335	8732	22010	21699	29116	7775	1028	0	102895
Res. or Imported	0	0	0	6225	3430	1376	6861	0	1578	17466	9263	5716	51914
Total: Colo. Canal	0	0	0	6225	15765	10108	28871	21699	30694	25241	10290	5716	154609
Highline (River)	3172	0	0	0	3172	7114	12116	14569	22558	15294	8448	10278	98709
Res. or Imported	0	0	0	0	238	2239	1872	1738	2125	7258	4758	0	20226
Total: Highline	3172	0	0	0	3410	9353	13988	16307	24683	22542	13204	10278	118935
Oxford Farmers (River)	996	0	0	0	974	3875	4511	4269	7261	7657	6073	1043	36705
Res. or Imported	0	0	0	0	0	0	0	0	0	0	54	15	71
Total: Oxford Farmers	996	0	0	0	974	3875	4511	4269	7261	7657	6126	1058	36776
Native District #14	13408	7504	7482	12391	28459	29783	57223	59828	94495	68550	45690	27159	441941
Import District #14	0	0	0	0	73	383	7004	0	1578	7545	580	0	17783
Total: District #14	13408	7504	7482	12391	28532	30166	64227	59828	96073	76095	46270	27159	459704

APPENDIX "B-14b"

DIVERSION BY DITCHES

IN COLORADO WATER DISTRICT 17

Diversion by Ditches in Colorado
Water District 17
Report Year ending October 31, 1983
Source: Water Commissioner's Monthly Reports
(Acre-feet)

NAME OF CANAL	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	YEAR
Otero	0	0	0	0	0	0	1321	3067	2802	1321	0	463	9174
Res. or Imported	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: Otero	0	0	0	0	0	0	1321	3067	2802	1321	0	463	9174
Cadlin Canal (River)	4235	0	0	0	2026	7869	10547	13011	18343	17735	12577	8867	95200
Res. or Imported	0	0	0	0	0	0	0	0	0	2278	2768	2811	7957
Total: Cadlin	4235	0	0	0	2026	7869	10547	13011	18343	20013	15345	11668	103057
Holbrook (River)	1697	0	0	0	1273	7005	6598	20683	13062	13638	3485	0	67421
Res. or Imported	0	0	0	0	0	616	526	0	646	2887	2481	3002	10158
Total: Holbrook	1697	0	0	0	1273	7621	7124	20683	13708	16525	5946	3002	77579
Rocky Ford	3356	1406	139	699	2228	3287	4746	5194	5635	5439	4926	4176	41231
Ft. Lyon (storage)	10364	19039	17554	14461	4754	3282	4103	0	0	5830	0	0	79387
Ft. Lyon (Riv.)	23299	0	0	0	5502	24474	48771	90316	77153	58529	21117	10187	359298
Res. or Imported	0	0	0	0	0	0	0	0	1040	0	0	0	1040
Kicking Bird*	0	0	0	0	0	0	0	23703	17634	1742	800	0	43679
Total: Ft. Lyon-K.B.	33613	19039	17554	14461	10256	27756	52874	114019	95827	66101	21717	10187	483404
Las Animas Consol.	1279	0	0	0	582	2875	3582	3378	7071	6880	4083	2326	32038
Native—District #17	44180	20445	17693	15160	16345	49406	80194	158552	143386	116479	52017	31824	746483
Import—District #17	0	0	0	0	0	0	0	0	0	0	0	0	0
Total District #17	44180	20445	17693	15160	16345	49406	80194	158552	143386	116479	52017	31824	746483
Native Dist. #14-#17	57588	27949	25175	27541	44804	79170	137417	219180	227881	185029	97707	58983	1188424
Import Dist. #14-#17	0	0	0	73	383	383	7604	0	1578	7545	590	0	17763
Total Dist. #14-#17	57588	27949	25175	27541	44877	79553	145021	219180	229459	192574	98297	58983	1206187
*Bifurcation from Fort Lyon													GRAND TOTAL 1206187

APPENDIX "B-15" **DIVERSION BY DITCHES IN** **COLORADO WATER DISTRICT 67**

Diversion by Ditches in Colorado Water District 67
 Report Year ending October 31, 1983
 Source: Water Commissioners Monthly Reports
 (Acre-feet)

NAME OF CANAL	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	YEAR
Fort Bent	206	119	32	0	0	0	2574	1450	4392	5180	3360	1887	19170
Kansas Ditch	387	40	0	0	0	40	818	814	1004	949	840	323	5134
Amity	0	0	0	0	0	0	14426	13135	20866	27857	18231	10868	111577
Lamar	2461	1099	774	675	733	1317	5700	6888	9126	10654	8796	5772	53794
Ryde	0	0	0	0	0	0	0	0	0	0	136	59	217
Manvel	0	0	0	0	0	0	0	0	0	0	1509	0	1509
X. Y. & Graham	156	0	0	0	0	0	1475	1556	1837	2057	1570	942	9865
Buffalo	2820	178	0	0	12	71	3336	3701	4582	4780	2944	2388	24632
TOTAL: District 67	5752	1436	806	675	745	1428	28331	27314	41939	51506	37487	28279	225696
Trans Min. Diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	5752	1436	806	675	745	1428	28331	27314	41939	51506	37487	28279	225696

APPENDIX "B-16" **DIVERSION BY DITCHES IN KANSAS** **STATELINE TO GARDEN CITY**

Diversions by Ditches in Kansas
Report Year ending October 31, 1963
(Acre-feet)
Source: Frontier Ditch: USGS Records
Other Ditches: Kansas Division of Water Resources Records

	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	THE YEAR
Frontier Ditch	0	387	0	0	0	0	32	2259	1261	1856	2352	405	8552*
Ft. Aubrey Canal	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Stateline To Syracuse	0	387	0	0	0	0	32	2259	1261	1856	2352	405	8552
Amazon Canal	0	0	0	0	0	0	0	3718	1620	4233	5224	2818	20641
Great Eastern Canal	0	0	0	0	0	0	4005	5162	3338	5251	7263	5550	32467
South Side Ditch	944	2089	0	0	0	0	0	0	1409	2741	5758	3541	19412
Farmers Ditch	1302	864	0	139	2056	0	3170	0	0	1615	5679	4091	22776
Garden City Canal	414	130	0	0	0	0	0	0	0	210	802	640	2612
Total Syracuse To Garden City	2660	3063	0	139	2056	4005	12050	6967	14050	24746	10640	11532	97928
Total Stateline To Garden City	2660	3470	0	139	2056	4007	14309	8226	15906	27086	17045	11532	106480

*2647 acre-feet returned directly to the river.

APPENDIX "B-17"

TRANSMOUNTAIN DIVERSIONS

Transmountain Diversions October 1, 1982 to October 31, 1983 Source: Division Engineer Colorado Water Division #2 (Acre-feet)														TOTAL 2/
	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	
Columbine Ditch	34.3	0	0	0	0	0	0	40.3	1451	806	228	64.9	0	2590.2
Ewing Ditch	23.2	0	0	0	0	0	0	104	1023	518	230	106	0	1982
Wurts Ditch	7.3	0	0	0	0	0	0	140	2388	719	280	75	0	3602
Larkspur Ditch	14.5	0	0	0	0	0	0	0	174	181	103	0	0	458
Homestake Tunnel	0	0	0	6513	6944	7651	1602	0	0	0	0	0	0	22710
Twin Lake Tunnel	1068	786	433	175	122	103	89	1822	25401	21317	6639	1274	744	59105
Bousted Tunnel	0	0	0	0	0	0	0	3158	38813	32191	12425	765	0	87351
Buck-Ivanhoe Tunnel	508	0	0	0	0	0	0	115	3361	4190	1228	201	160	9255
Blue River Project	1128	68	0	0	0	0	0	274	3238	715	1353	709	1874	8231
TOTAL	2803.3	854	433	6688	7066	7754	1691	5633.3	75847	60637	22686	3196.9	2778	195284.2

1/ Table includes transmountain diversions for October 1, 1982 to October 31, 1983

2/ Total includes only Compact Year total from November 1, 1982 to October 31, 1983

APPENDIX "B-18"

SUMMARY TABULATION

Summary Tabulation Report-Year 1983 November 1, 1982 to October 31, 1983													
	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	YEAR
Arkansas River at Las Animas, Colorado—cfs —a.f.	3569 7080	4900 9720	5476 10880	3945 7820	4924 9770	2911 5770	3645 7220	43147 85580	52860 104850	5986 11640	2235 4430	8458 16780	281530
Purgatoire River near Las Animas, Colorado—cfs —a.f.	1075 2130	965 1960	1436 2850	1309 2600	2515 4990	12551 24890	11578 22960	21735 43110	2875 5700	1879 3730	500 991	985 1910	117811
River Flow into John Martin Reservoir—cfs —a.f.	4644 9210	5985 11670	6911 13710	5254 10420	7439 14760	15462 30670	15223 30190	64882 128690	55735 110650	7745 15360	2735 5420	9423 18690	399340.
Contents of John Martin Reservoir at end of Month—a.f.	23117	55393	49702	60274	76834	103378	86899	174682	180350	117657	81898	67540	
Net Change in Reservoir contents—a.f.	+10353	+12276	+14309	+10672	+10560	+26544	-14479	+85763	+5688	-62983	-35759	-14358	
Outflow from John Martin Reservoir—cfs —a.f.	49.8 99	45.4 90	43.4 86	39.2 78	44.0 87	231.5 459	21677 43000	11961 23720	37300 73980	39601 78550	20553 40770	16029 31790	
Diversion in District 67, Colorado—a.f.	5810	1442	814	680	752	1428	28331	27285	41939	51500	23862	28279	212122
Arkansas River at Colorado- Kansas Stateline—a.f.	5094	6367	6850	6070	6880	5863	18060	7970	28880	39780	20254	15086	166934
Diversion by Ditches in Kansas Stateline to Garden City—a.f.	2660	3470	0	139	2056	4037	14309	8228	15906	27088	17045	11532	106480

APPENDIX "C-1"

MINUTES OF THE ARKANSAS RIVER COMPACT ADMINISTRATION REGULAR ANNUAL MEETING

December 14, 1982
Cow Palace Inn, Lamar, Colorado

The regular annual meeting of the Arkansas River Compact Administration was held at the Cow Palace Inn in Lamar, Colorado, on December 14, 1982. The meeting was called to order at 9:50 a.m. (MST) by Mr. Frank G. Cooley, Chairman and United States representative. Other members in attendance were:

For Kansas:

Carl E. Bentrup — Deerfield, Kansas
Guy E. Gibson — Topeka, Kansas
Ronald Olomon — Garden City, Kansas

For Colorado:

Carl Genova — Pueblo, Colorado
Leo Idler — Lamar, Colorado
J. William McDonald — Denver, Colorado

Mr. Bentrup introduced the Kansas members of the Administration, Mr. John Campbell from the office of the Kansas Attorney General, and persons in the audience from Kansas. Mr. McDonald introduced the Colorado members of the Administration, members of his staff, and Mr. William Paddock from the office of the Colorado Attorney General.

Mr. Cooley asked if there were any changes to the agenda for the meeting (see Attachment A). There being none, Mr. Olomon moved, seconded by Mr. McDonald, that the agenda be approved without change. There being no discussion, the motion passed upon the affirmative vote of both states.

With respect to agenda item 3, the approval of minutes was deferred until after the noon recess in order to give the members of the Administration an opportunity to review the minutes which had just been provided to them.

Under agenda item 4, the reports of officers, Mr. Cooley indicated that he had no report to make. Mr. Idler, Recording Secretary, presented his written report (see Attachment B). After brief discussion, Mr. Genova moved, seconded by Mr. Bentrup, that the report be approved and received into the record. There being no further discussion, the motion passed upon the affirmative vote of both states.

With respect to the Treasurer's report, Mr. Idler presented balance

sheets for FY 1981-1982 and for the period July 1, 1982, through December 10, 1982 (see Attachment C), and a list of checks written since July 1, 1982 (see Attachment D). In light of the cash balance on hand in the Administration's savings account, investment of that surplus so as to gain a higher rate of return than that from a passbook savings account was discussed. After this discussion, Mr. Gibson moved, seconded by Mr. Olomon, that Mr. Idler, Mr. Bentrup, and Mr. Genova be appointed by the administration as a temporary, ad hoc committee responsible for investing the Administration's surplus in interest bearing bank paper insured by the Federal Depository Insurance Corporation within the next 10 days. There being no further discussion, the motion was passed upon the affirmative vote of both states and the chairman instructed Messrs. Bentrup, Genova, and Idler to proceed accordingly. Mr. McDonald then moved, seconded by Mr. Gibson, that the Treasurer's report, in the form of Attachments C and D, be approved and received into the record. There being no further discussion, the motion was passed upon the affirmative vote of both states.

Finally, Mr. Cooley called upon Mr. Bob Jesse to make the Operations Secretary's report. Mr. Jesse indicated that, in his capacity as Colorado Division Engineer for Division 2, he had provided an accounting of the operation of John Martin Reservoir for compact year 1982 to the Operations Committee on November 12, 1982, as required by Section VII. A of the operation plan for John Martin Reservoir. Mr. Jesse very briefly summarized the contents of his report and highlighted the operations of John Martin Reservoir. Mr. Bentrup asked how transit losses for deliveries to Kansas were to be computed for 1983. Mr. McDonald noted that for 1982, Mr. Howard Corrigan, the Kansas Water Commissioner, and Mr. Jesse had agreed upon a means of determining transit losses as provided for in Section II. E(4) of the operating plan for John Martin Reservoir. Mr. McDonald indicated that he assumed that Mr. Jesse and Mr. Corrigan would likewise develop procedures for 1983. After brief discussion it was agreed that Mr. Corrigan and Mr. Jesse should again determine the means by which transit losses would be calculated during 1983 and report their agreement to the Administration.

With respect to agenda item 5, Mr. Idler noted that the audit of the Administration's financial records had been completed by Crimond, Farmer & Company, transmitted to him under cover of a letter dated July 22, 1982, and subsequently distributed by him to members of the Administration. Mr. McDonald then moved, seconded by Mr. Genova, that the audit report be approved and ordered printed in the 1982 annual report. There being no further discussion, the motion was agreed upon the affirmative vote of both states.

With respect to committee reports, Mr. Cooley called upon Mr. McDonald as chairman of the Administrative and Legal Committee. Mr. McDonald indicated that the committee had not held any meetings during compact year 1982 and therefore had no report to make. Mr. Cooley then called upon Mr. Gibson in his capacity as chairman of the Engineering Committee. Mr. Gibson indicated that the committee had likewise held no meetings during compact year 1982 and therefore had nothing to report.

Mr. Idler, in his capacity as chairman of the Operations Committee, was asked by Mr. Cooley to provide that committee's report. Mr. Idler submitted a written report, including Mr. Jesse's November 12 accounting of the operations of John Martin Reservoir (see Attachment E, which reflects Mr. Jesse's report as originally submitted; a subsequent amendment to the report is set forth later in these minutes). Mr. Gibson noted that the committee's report indicated that 38,006 acre-feet of water were released from John Martin Reservoir to Kansas. He asked what actual deliveries at the state line were, as opposed to the releases from John Martin. Mr. Jesse noted that the 38,006 acre-foot figure was composed of 32,769 acre-feet of Kansas account water and 5,237 acre-feet for transit losses (see Table IX in the November 12 report). Mr. Jesse indicated that 36,030 acre-feet of the water released from John Martin Reservoir reached the state line, which is the sum of the "total combined delivery" entries under the four Kansas delivery events in his November 12 report to the Operations Committee. He stated that the 36,030 acre-feet was an "over delivery" relative to the 32,769 acre-feet of Kansas account water which was released, which "over delivery" was caused by rain storms below John Martin Reservoir which occurred during the course of two different reservoir runs.

Mr. Bentrup questioned Mr. Jesse's characterization of the 36,030 acre-feet as an "over delivery," noting that it was his view that Kansas should benefit from precipitation which occurred below John Martin Reservoir during a release from the Kansas account. Discussion ensued among the members of the Administration and Mr. Jesse concerning the difference between the 38,006 acre-foot and 36,030 acre-foot figures, the fact that actual state line flows were over 40,000 acre-feet, and whether there was an "over delivery." It was eventually agreed that the discussion of this item would be laid over until after the lunch recess so that Mr. Jesse could consult with Mr. Corrigan. Action on the report of the Operations Committee was likewise deferred.

Mr. Cooley then called for the election of officers for compact year 1983. Mr. McDonald nominated Mr. Bentrup as Vice-Chairman. Mr. Gibson moved, seconded by Mr. McDonald, that the Chairman be instructed to close the nominations and cast a unanimous ballot in favor of Mr. Bentrup. There being no discussion, the motion was passed upon the affirmative vote of both states. Mr. McDonald then nominated Mr. Idler as Recording Secretary. At this point Mr. Bentrup suggested that all remaining officers be reelected for compact year 1983, whereupon Mr. McDonald withdrew his nomination of Mr. Idler. Mr. Bentrup then moved, seconded by Mr. McDonald, that the persons serving as Recording Secretary, Operations Secretary, and Treasurer during compact year 1982 be reelected for compact year 1983 (i.e., Mr. Idler as Recording Secretary and Treasurer and Mr. Jesse as Operations Secretary). There being no discussion, the motion was passed upon the affirmative vote of both states.

Mr. Cooley asked Mr. McDonald to advise the Administration of the status of the annual report for compact year 1981. Mr. McDonald reminded the members of the Administration that the draft 1981 Annual Report had been distributed to them under cover of a Sep-

tember 15, 1982, memorandum from Mr. Eugene Jencsok of his staff. Final corrections to the draft report had been provided in a December 7, 1982, memorandum to the members of the Administration from Mr. Jencsok. Mr. McDonald indicated that the only other correction which needed to be added to those listed in the December 7, 1982, memorandum was the addition of the minutes of the August 6, 1981, special meeting of the Administration, assuming their approval later in this meeting. Mr. Genova moved, seconded by Mr. McDonald, that the 1981 Annual Report be approved for printing and public distribution with the changes itemized in Mr. Jencsok's December 7, 1982, memorandum and with the addition of the minutes for the August 6, 1981, special meeting of the Administration subject to their approval. There being no discussion, the motion was passed upon the affirmative vote of both states.

Mr. Cooley then turned to agenda item 10 for the reports of Federal agencies. He called first upon Mr. Jerry Hughes, Pueblo Subdistrict Chief, U.S. Geological Survey. Mr. Hughes briefly commented on the work performed by the Geological Survey during federal FY 1982 pursuant to the cooperative agreement between the Geological Survey and the Administration for the operation and maintenance of certain stream gaging stations. His report included information on the number of readings taken and the other elements of activity required of the Geological Survey by the cooperative agreement. A few questions were asked of Mr. Hughes by members of the Administration and brief discussion ensued. Mr. Hughes called upon Mr. Russ Livingston, Kansas State Office, U.S. Geological Survey, to report on that office's activities with respect to the gaging stations located in Kansas.

Mr. Cooley then asked Mr. Mike Mocek, Southern Colorado Project Engineer, Albuquerque District, to report for the Corps of Engineers. Mr. Mocek provided a brief oral report on the Corps' activities on the Arkansas River from Great Bend to John Martin Reservoir under the authority of a previously enacted Congressional study resolution. He also reported briefly on the Corps' ongoing analysis of the potential for a small-scale hydropower facility on John Martin Reservoir. With respect to the channelization of the Arkansas River from John Martin Reservoir to the state line, a matter about which the Administration had expressed interest, Mr. Mocek reported that it did not appear that such a project would be economically justified under federal planning criteria. Finally, Mr. Mocek indicated that the Corps expected to commence a flood control study in the Lamar area at the request of local interests.

Mr. Cooley called upon Mr. Bill Fraser, Project Engineer, Fryingpan-Arkansas Project, to report on behalf of the Bureau of Reclamation. Mr. Fraser indicated that he had no particular items upon which to report. Members of the Administration asked a few brief questions of Mr. Fraser concerning a variety of matters.

Mr. Cooley then asked Mr. John Kaliszewski, a representative of the COMSAT Corporation, to report on that company's satellite monitoring network of stream gaging stations in Colorado on the Arkansas River. Mr. Kaliszewski gave a brief oral report concerning the satellite monitoring network, the status of the installation of the necessary

equipment, and the kind of information which could be derived from this communication system. A number of questions were asked of Mr. Kaliszewski concerning the costs of individual stations and the funding problems which COMSAT was encountering. Mr. Kaliszewski was not able to provide a breakout of the costs of the individual stations in which the Administration might be interested. Mr. Cooley indicated that the Administration would follow with interest the efforts of water users in the Arkansas River basin and throughout Colorado to obtain funding for the permanent implementation of a satellite monitoring network.

With respect to agenda item 12, Mr. Cooley asked what action was needed on the review of the expenditures for FY 1982-1983. Mr. McDonald pointed out that the Administration's expenditures for FY 1982-1983 would be in excess of the budget approved by the Administration at its December 9, 1980, regular annual meeting. This would happen because the contract between the Administration and Mr. Jesse's office for the secretarial support services required for Mr. Jesse in his capacity as the Administration's Operations Secretary was an expense not considered until the Administration's January 4, 1982, regular annual meeting. Mr. McDonald reminded the Administration that at the January 4, 1982, meeting it was agreed that the expense of the contract with Mr. Jesse's office for FY 82-83 would be taken from the Administration's surplus. Mr. McDonald noted that he merely wanted to be sure that the members of the Administration recalled that we would be over budget in FY 1982-1983 as a result. All agreed that this was the case and that no further action was needed.

With respect to the FY 1983-1984 budget, Mr. McDonald reminded the Administration that it had been adopted at the January 4, 1982, regular annual meeting. Since that time, Mr. McDonald indicated that two matters had arisen which he believed deserved further consideration: (1) questions concerning the amount budgeted for the cooperative agreement with the U.S. Geological Survey for the maintenance and operation of gaging stations and (2) the need to budget an expenditure for the contract between the Administration and Mr. Jesse's office to provide the support he needs in his capacity as the Administration's Operations Secretary.

Concerning the matter of the cooperative agreement with the Geological Survey, Mr. Cooley called for discussion. The discussion continued at some length without arriving at any conclusions, whereupon Mr. Cooley recessed the meeting for the lunch hour at 12:15 p.m.

The meeting was reconvened at 1:30 p.m., at which time Mr. Cooley asked that the Administration return to the approval of the minutes of previous meetings under agenda item 3. Mr. Olomon moved, seconded by Mr. Genova, that the minutes of the August 6, 1981, special meeting, the January 4, 1982, regular annual meeting, and the January 29, 1982, special telephonic meeting be approved as printed and distributed, with the exception that the marked up draft materials following Attachment H of the January 4, 1982, minutes, which had inadvertently been included by Mr. McDonald's office when the minutes were mailed out, be deleted. There being no discussion, the motion was passed upon the

affirmative vote of both states. Thereupon, the certification of adoption at the end of each set of minutes was executed by Mr. Cooley and Mr. Idler.

Mr. Cooley then requested that the Administration return to the report of the Operations Committee. Mr. Cooley suggested that a sentence be added to the Operations Committee report which referenced Table IX in Mr. Jesse's November 12, 1982, report on the operation of John Martin Reservoir. Discussion ensued during which it was concluded that Mr. Jesse would draft a brief sentence for the Administration's consideration later in the meeting.

Mr. Cooley then came back to agenda item 12.b, the budget for FY 1983-1984. Mr. McDonald moved, seconded by Mr. Gibson, that the previously approved budget for the cooperative agreement between the Administration and the U.S. Geological Survey for the maintenance and operation of gaging stations be reduced from \$15,000 to \$12,000 and the subtotals and totals adjusted accordingly. After brief discussion, the motion was passed upon the affirmative vote of both states. Mr. McDonald then moved, seconded by Mr. Gibson, that the previously approved budget for the Operations Secretary be increased from \$5,000 to \$6,100 and the subtotals and totals adjusted accordingly. There being no discussion, the motion was passed upon the affirmative vote of both states. Mr. Cooley then asked that the amended budget for FY 1983-1984 be retyped and included in the record (see Attachment F).

Mr. Cooley called the Administration's attention to the proposed budget for FY 1984-1985. Mr. McDonald requested that the amount budgeted for the Operations Secretary be increased from \$5,000 to \$6,100. With respect to the cooperative agreement between the Administration and the U.S. Geological Survey for the maintenance and operation of gaging stations, discussion ensued concerning the necessity of having supplemental measurements taken at both Colorado and Kansas gaging stations. It was ultimately decided that the amount for the cooperative agreement should be decreased from \$16,500 to \$12,000. Finally, Mr. Idler suggested that the amount for the annual audit of the Administration's financial records be increased from \$300 to \$350. Subject to the changes identified above, Mr. Olomon moved, seconded by Mr. McDonald, the adoption of the budget for FY 1984-1985. Mr. Cooley directed that the approved budget be included in the record (see attachment G).

With respect to agenda item 13, Mr. Cooley called upon Mr. Duane Helton, consulting engineer to the Highland and Ninemile Canal Companies, to present a proposal on their behalf for the storage of winter water in John Martin Reservoir. Mr. Helton indicated that while the companies had forwarded their request to Mr. McDonald for consideration, they were not asking the Administration to act on their request at this time due to the fact that some additional information was needed. Mr. Helton briefly explained what it was the companies would seek to do and asked that the Administration consider the companies' request at a later date. At the conclusion of Mr. Helton's comments, Mr. McDonald acknowledged that a request had been forwarded to him by the companies and stated that Colorado would

expect to bring this matter before the Administration at a later date.

Mr. Cooley again returned to the report of the Operations Committee and called upon Mr. Jesse to suggest language which would clarify the distinction between actual state line flows and the releases of water from the Kansas account in John Martin Reservoir. Mr. Jesse suggested that beneath Table IX in his November 12, 1982 report, which table is entitled "Releases to State of Kansas, A.Ft.," the following sentence be inserted:

During various periods when Kansas demanded release of water from John Martin Reservoir, a total of 32,769.35 acre-feet was released and a total of 40,104 acre-feet from all sources arrived at the Coolidge gage during the above periods.

Mr. Olomon moved, seconded by Mr. Genova, that this sentence be added to Mr. Jesse's report at the indicated location. There being no discussion, the motion passed upon the affirmative vote of both states. Mr. Gibson then moved, seconded by Mr. Genova, that the Administration approve and receive into the record the report of the Operations Committee, including Mr. Jesse's November 12, 1982, report as amended by the preceding motion. There being no discussion, the motion passed upon the affirmative vote of both states.

Mr. Cooley then asked that the Administration turn to agenda item 14 concerning Trinidad Reservoir. Mr. Bentrup indicated that Kansas wished to offer a resolution concerning Trinidad Reservoir, whereupon he asked Mr. Campbell to read the proposed resolution into the record (see Attachment H). Upon the completion of the reading of the proposed resolution, Mr. Bentrup moved, seconded by Mr. Olomon, the adoption of the resolution.

Mr. McDonald indicated at this point that he had a substitute motion to offer in the way of an alternative resolution to that presented by Kansas. He passed out this resolution (see Attachment I) and briefly summarized its contents, whereupon he moved, seconded by Mr. Genova, as a substitute motion for the motion before the administration the adoption of Colorado's resolution concerning Trinidad Reservoir (i.e., Attachment I). Mr. McDonald then read the proposed Colorado resolution in full.

Discussion ensued at length about the Colorado resolution. Mr. Gibson noted that the third whereas clause in the proposed Colorado resolution was not, in his opinion, a true statement. He asked that the record so reflect. Mr. Bentrup indicated that Kansas' fundamental concern with the operation of Trinidad Reservoir since 1979 had been that it violated the Five Kansas Conditions of 1967 in that no more than 20,000 acre-feet of water could be stored under the Model Decree in Trinidad Reservoir at any given time.

Mr. McDonald responded by noting that there had been no showing by Kansas that the waters of the Arkansas River had at any time been materially depleted in usable quantity or availability for use to the water users in Colorado and Kansas. He also noted that Kansas had thus far presented no facts which contradicted any of the information which Colorado officials had provided to the Administration or to Kansas state officials. Finally, Mr. McDonald observed that to the

extent the proposed Kansas resolution purported to reach conclusions about a decree of a Colorado water court, the Administration had no authority to reach conclusions about such a decree.

With respect to the process for dealing with the issues concerning the operation of Trinidad Reservoir, Mr. McDonald indicated that it had been his understanding that when the proposed resolution concerning Trinidad Reservoir offered by Kansas at the January 4, 1982, annual meeting of the Administration failed to pass (see Attachment E to the minutes of that meeting), Kansas considered the matter to be out of the hands of the Administration. Mr. McDonald further noted that he understood this matter to be in the hands of the Attorneys General of Kansas and Colorado in light of the meeting which the Kansas Attorney General had requested with the Colorado Attorney General in August, 1982, in Denver. Finally, Mr. McDonald noted that the retiring Colorado Attorney General had not had the opportunity to respond to the Kansas Attorney General because he wished to consult with the Colorado Attorney General-elect, which he had not yet had the opportunity to do.

Mr. Cooley asked at this point where the exchange of correspondence between the Kansas and Colorado Attorneys General stood. Mr. Campbell indicated that Kansas Attorney General Stephan had not received a response to his initial October 12, 1982, letter to Colorado Attorney General MacFarlane. Mr. Paddock reiterated that Mr. MacFarlane wished to consult with the Attorney General-elect before responding to Mr. Stephan's letter.

Considerable discussion then ensued among the members of the Administration, Mr. Campbell, and Mr. Paddock concerning various allegations and statements in the resolutions proposed by Colorado and Kansas. There was also a lengthy discussion between Mr. Campbell and Mr. Paddock concerning what were questions of fact, whether Kansas had or had not presented information contradicting that presented by Colorado, and how the two Attorneys General expected to proceed. At 3:05 p.m. Mr. Cooley called for a recess.

At 3:50 p.m. the meeting was reconvened by Mr. Cooley. Some additional discussion concerning the substitute motion was had, after which Mr. McDonald called for the question on the substitute motion. The question having been called for, Colorado voted yes and Kansas voted no, whereupon the substitute motion was declared lost. Mr. Cooley then advised that the original motion was now before the Administration. There being no further discussion, Colorado voted no and Kansas voted yes, whereupon the original motion was declared lost.

Mr. Olomon then moved, seconded by Mr. Genova, that the Administration instruct Mr. Cooley to write to the Attorneys General of Colorado and Kansas and ask them to communicate with each other on the issues concerning the operation of Trinidad Reservoir and report their discussions at a special meeting of the Administration to be held on February 1, 1983. There being no discussion, the motion was passed upon the affirmative vote of both states. The letter which Mr. Cooley subsequently sent is included as Attachment J.

Mr. McDonald then moved, seconded by Mr. Bentrup, that the Administration ask the Administrative and Legal Committee to meet

and consider the development of procedures which would implement the provision of Article VIII. D of the Arkansas River Compact pertaining to the arbitration of any matter within the purview of the Administration, with the committee to report on the development of such procedures at the next special meeting of the Administration. After brief discussion, the motion was passed upon the affirmative vote of both states.

Mr. Cooley then asked that the Administration turn its attention to agenda item 15 concerning Pueblo Reservoir. Mr. McDonald advised that the winter storage problem for 1982-1983 had commenced on November 15 and that, as in the past, water which had historically been used for winter direct flow irrigation would be stored in Pueblo Reservoir as well as other reservoirs. Mr. McDonald indicated that except for this brief informational item on Colorado's behalf, this agenda item had been included at the request of Mr. Bentrup.

Mr. Bentrup called upon Mr. Olomon to read a proposed resolution concerning a Pueblo Reservoir operating plan, which Mr. Olomon proceeded to do (see Attachment K). At Mr. McDonald's request, the Chairman called a recess at 4:05 p.m. Mr. Cooley reconvened the meeting at 4:20 p.m. Mr. McDonald provided a proposed letter to the Colorado State Engineer, Dr. Jeris Danielson, for the Administration's consideration (see Attachment L). After brief discussion, Mr. McDonald moved, seconded by Mr. Bentrup, that the chairman be directed to send the proposed letter to Dr. Danielson and that the matter of Pueblo Reservoir be on the agenda for the February 1, 1983, special meeting. There being no further discussion, the motion passed upon the affirmative vote of both states.

In light of the just passed motion, Mr. Bentrup indicated that Kansas would not move the adoption of the resolution concerning a Pueblo Reservoir operating plan which Mr. Olomon had previously read into the record. Mr. Bentrup indicated that Kansas would expect the matter to be acted upon at the special meeting now scheduled for February 1, 1983.

Mr. Gibson asked the leave of the chairman to make a few personal comments. He indicated that he would be retiring from state government and anticipated that this would be his last meeting as a member of the Administration. He expressed his appreciation for the opportunity to serve on the Administration. He suggested that provision be made to fill the chairmanship of the Engineering Committee which he would vacate upon his retirement. It was agreed that Mr. Genova would automatically assume the chairmanship of the Engineering Committee when Mr. Gibson retired and that the person replacing Mr. Gibson for Kansas would become the new member of the Engineering Committee.

There being no further business to come before the Administration, Mr. Cooley adjourned the meeting at 4:30 p.m.

The foregoing minutes were adopted on August 26, 1983, at the special meeting of the Administration held in Denver, Colorado.

/s/ Frank G. Cooley
Chairman

/s/ Leo Idler
Recording Secretary

ATTACHMENT A

**ANNUAL MEETING
ARKANSAS RIVER COMPACT ADMINISTRATION
December 14, 1982
Cow Palace, Lamar, Colorado
9:30 a.m. (MST)**

1. Call to order and introductions
2. Approval of agenda
3. Approval of minutes
 - a. August 6, 1981 (special meeting)
 - b. January 4, 1982 (recessed annual meeting)
 - c. January 29, 1982 (special telephonic meeting)
4. Reports of officers
 - a. Chairman
 - b. Recording Secretary
 - c. Treasurer
 - d. Operations Secretary
5. Auditor's report for FY 81-82
6. Committee reports
 - a. Administrative and Legal
 - b. Engineering
 - c. Operations
7. Election of officers for compact year 1983
 - a. Vice-Chairman
 - b. Recording Secretary
 - c. Operations Secretary
 - d. Treasurer
8. Appointment of committee members for compact year 1983
 - a. Administrative and Legal
 - b. Engineering
 - c. Operations
9. Approval of annual report for compact year 1981
10. Reports of federal agencies
 - a. Geological Survey
 - b. Corps of Engineers
 - c. Bureau of Reclamation
11. Presentation of COMSAT gage station monitoring network
12. Budget matters
 - a. Review FY 82-83 expenditures
 - b. Review previously adopted FY 83-84 budget
 - c. Prepare and adopt FY 84-85 budget
13. Requests to store winter water in John Martin Reservoir
14. Trinidad Reservoir
15. Pueblo Reservoir
16. Adjournment

ATTACHMENT B

RECORDING SECRETARY'S REPORT

We had an above average rainfall this year. It followed a different pattern than it usually does. It fell close to the mountains and not very many heavy thunderstorms fell on the plains above John Martin Reservoir. The snowpack was also above average last winter.

The Account system using conservation pool water stored in John Martin Reservoir that we have been using the last three years required some adjustments this year. These were made before the start of the irrigation season, April 1, 1982.

We will probably have a decision from the Colorado Water Court this next year on Amity Canal's proposed change of their Great Plains water into John Martin Reservoir. This change will, I believe, make more water available for all the irrigators below John Martin Reservoir.

As we continue to work on our account system and make water available to irrigators at more opportune times, thru the use of reservoirs on the Arkansas River, I believe that we can keep our irrigation system viable.

Respectfully submitted,
/s/ Leo Idler

Dec. 14-'82

ATTACHMENT C

TREASURER'S REPORT

July 1, 1981, thru June 30, 1982

CASH BALANCE, JULY 1, 1982	\$31,554.00
RECEIPTS:	
Revenue from Assessments:	
Colorado—60%	\$13,614.00
Kansas—40%	9,076.00
Interest	2,273.00
Miscellaneous	2.00
TOTAL RECEIPTS	24,965.00
TOTAL TO ACCOUNT FOR	56,519.00
DISBURSEMENTS:	
Insurance	100.00
U.S. Geological Survey	5,700.00
Equipment	4,600.00
Professional Fees	1,348.00
Office Supplies	155.00
Printing Annual Report	1,146.00
Secretary's Salary Net	3,357.00
Payroll Taxes	480.00
Telephone	1,570.00
Typing and Mailing	167.00

Travel and Meetings	97.00	
TOTAL DISBURSEMENTS		18,720.00
EXCESS OF RECEIPTS OVER DISBURSEMENTS		6,245.00
CASH BALANCE, JUNE 30, 1982		\$37,799.00

BALANCE SHEET
July 1, 1982 thru December 10, 1982

CASH BALANCE, JULY 1, 1982		\$37,798.62
RECEIPTS:		
Revenue from Assessments:		
Colorado—60%	\$11,604.72	
Kansas—40%		
Interest	561.89	
Miscellaneous	3.71	
TOTAL RECEIPTS		12,170.32
TOTAL TO ACCOUNT FOR		49,968.94
DISBURSEMENTS:		
Insurance	100.00	
U.S. Geological Survey	10,845.00	
Equipment		
Professional Fees	250.00	
Office Supplies	82.69	
Printing Annual Report		
Secretary's Salary Net	1,679.40	
Payroll Taxes	241.20	
Telephone	635.73	
Typing and Mailing	138.56	
Travel and Meetings		
Robert Jesse-Secretary—		
Salary and Supplies	2,272.52	
TOTAL DISBURSEMENTS		16,245.10
EXCESS OF RECEIPTS OVER DISBURSEMENTS		33,723.84
Checking Account	\$ 143.13	
Savings Account	33,580.71	
	\$33,723.84	\$33,723.84

ATTACHMENT D

CHECKS WRITTEN SINCE JULY 1, 1982

Check		To—For	Amount \$
Date	Number		
July 5	527	Leo Idler—Salary, Postage, Supplies	304.27
July 5	528	Federal Reserve—Payroll Taxes	40.20
July 5	529	Mountain Bell—Telephone	137.47
July 5	530	Helen Bever—Robert Jesse, Secretary	952.00
July 5	531	Lewan & Associates—Supplies	58.70
July 5	532	Lewan & Associates—Supplies	260.95
Aug 5	533	Mountain Bell—Telephone	96.53
Aug 5	534	Guaranty Abstract—Bond	100.00
Aug 5	535	Helen Bever—Robert Jesse, Secretary	975.00
Aug 5	536	U.S.G.S.—Cooperative Agreement	811.00
Aug 5	537	Federal Reserve—Payroll Taxes	40.20
Aug 5	538	Leo Idler—Salary, Postage, Supplies	303.58
Sept 5	539	Mountain Bell—Telephone	97.75
Sept 5	540	Federal Reserve—Payroll Taxes	40.20
Sept 5	541	U.S.G.S.—Cooperative Agreement	7,600.00
Sept 5	542	Crimond & Farmer—Audit & Coping	350.79
Sept 5	543	Leo Idler—Salary, Postage, Supplies	286.67
Oct 5	544	Mountain Bell—Telephone	130.91
Oct 5	545	Federal Reserve—Payroll Taxes	40.20
Oct 5	546	Leo Idler—Salary, Postage, Supplies	288.39
Nov 5	547	Mountain Bell—Telephone	83.54
Nov 5	548	Federal Reserve—Payroll Taxes	40.20
Nov 5	549	Leo Idler—Salary, Postage, Supplies	300.32
Dec 2	550	Void	
Dec 2	551	Mountain Bell—Telephone	89.53
Dec 2	552	Sir Speedy No. 2024—Supplies	25.87
Dec 2	553	U.S.G.S.—Cooperative Agreement	2,434.00
Dec 2	554	Federal Reserve—Payroll Taxes	40.20
Dec 2	555	Leo Idler—Salary, Postage, Supplies	316.63
			\$16,245.10

ATTACHMENT E

OPERATION COMMITTEE REPORT

The irrigation season for 1982 started when the first call for water came on April 4th. This triggered the start of the account system we have been using at John Martin Reservoir for the last three years. Kansas didn't call for any water for their irrigators till June 21st, 1982. This, we believe, is one of the advantages of the account system; that one state doesn't have to call when the other does for self protection.

During the irrigation season there was 38,006.03 acre feet of water released from John Martin conservation pool for Kansas irrigators. There was 58,952.51 acre feet of water released from the conservation

pool for the irrigators in District 67 of Colorado. At the end of the irrigation season there was 8,866.80 acre feet of water in the various accounts. The permanent pool had 3,374.20 acre feet of water in its account on November 1, 1982. During the summer season there was 62,250.23 acre feet of water stored in the conservation pool.

There was 5,336.08 acre feet of water added to Kansas's 40% share of water from the conservation pool from the transit loss accounts. Also, during the time Kansas irrigators were calling for water, the Lower Arkansas River Pump Association was pumping into the Buffalo Canal (in District 67 of Colorado) thereby releasing that much water at their headgate to get Kansas's 40% share to the state line. The Association delivered 2,219.77 acre feet of water during the time Kansas was calling.

All figures used above came from our secretary, Robert Jesse's report, except those for the pump association which came from the water commissioner for District 67, Lane Hackett's records.

Respectfully submitted,
/s/ Leo Idler — /s/ Robert Olomon
Operation Committee Members

Enc: 11/12/82 Report

REPORT OF THE COLORADO DIVISION ENGINEER November 12, 1982 Delivery of Water to Kansas, 1982

I

Release began at John Martin Reservoir	6-21-82	1100 Hr.
Release ended at John Martin	7- 5-82	1744 Hr.
Kansas Account	14,281.03	A. Ft.
Transit Loss Account	1,628.08	A. Ft.
Other	0	A. Ft.
TOTAL	15,909.11	A. Ft.
Arrived at Frontier Ditch Headgate	6-23-82	0001 Hr.
Arrived at Coolidge Gage	6-23-82	0300 Hr.
Runout ended at Coolidge Gage	7-12-82	1744 Hr. #
Total Delivered at Frontier	1,296	A. Ft.
Total Delivered at Coolidge Gage	15,305	A. Ft.
Total Combined Delivery	16,601	A.Ft.*

II

Release began at John Martin Reservoir	8- 4-82	1000 Hr.
Release Ended at John Martin Reservoir	8-14-82	2011 Hr.

Kansas Account.....	8,659.03 A. Ft.
Transit Loss Account.....	1,808.3 A. Ft.
Other.....	336.96 A. Ft.
TOTAL.....	10,804.32 A. Ft.

Arrived at Frontier Ditch Headgate	8- 5-82	1900 Hr.
Arrived at Coolidge Gage	8- 5-82	2200 Hr.
Runout Ended at Coolidge Gage	8-20-82	2011 Hr. #

(Compound Release. Only 6 Day
Runout taken.)

Total Delivered at Frontier.....	949 A. Ft.
Total Delivered at Coolidge Gage.....	7,761 A. Ft.
Total Combined Delivery.....	8,710 A. Ft.

Runout ends seven days after end of release at John Martin.
(Agreement of 3-12-82)

* No credit taken for flow total over 500 cfs.

III

Release Began at John Martin Reservoir	8-25-82	1200 Hr.
Release Ended at John Martin Reservoir	9- 1-82	1319 Hr.
Kansas Account.....	7,054.89 A. Ft.	
Transit Loss Account.....	1,293.28 A. Ft.	
Other.....	270.03 A. Ft.	
TOTAL.....	8,518.20 A. Ft.	

Arrived at Frontier Ditch Headgate	8-26-82	2200 Hr.
Arrived at Coolidge Gage	8-27-82	0100 Hr.
Runout Ended at Coolidge Gage	9- 8-82	1319 Hr. #
Total Delivered at Frontier.....	663 A. Ft.	
Total Delivered at Coolidge Gage.....	6,455 A. Ft.	
Total Combined Delivery.....	7,118 A. Ft.*	

IV

Release began at John Martin Reservoir	9-14-82	1000 Hr.
Release ended at John Martin Reservoir	9-17-82	2114 Hr.
Kansas Account.....	2,774.40 A. Ft.	
Transit Loss Account.....	0 A. Ft.	
Other.....	0 A. Ft.	
TOTAL.....	2,774.40 A. Ft.	

Arrived at Frontier Headgate	9-15-82	1700 Hr.
Arrived at Coolidge Gage.....	9-15-82	2000 Hr.
Runout Ended at Coolidge Gage	9-24-82	2114 Hr. #
Total Delivered at Frontier (to 0700 Hr. 9-23).....	318 A. Ft.	

Total Delivered at Coolidge Gage
 (to 0700 Hr. 9-23) 3,283 A. Ft.
 Total Combined Delivery
 (to 0700 Hr. 9-23) 3,601 A. Ft.*

(NOTE: Deliveries for releases No. I, II & III calculated from USGS Flow Sheets. Delivery for release No. IV calculated from COMSAT data.)

Runout ends seven days after end of release at John Martin.
 (Agreement of 3-12-82)

* No credit taken for flow over 500 cfs for release No. III nor over 400 cfs for Release No. IV.

OPERATION OF JOHN MARTIN RESERVOIR DURING COMPACT WATER YEAR 1982

WINTER STORAGE IN JOHN MARTIN RESERVOIR NOVEMBER 1, 1981-APRIL 17, 1982

Winter storage in John Martin Reservoir began at 0001 Hour, November 1, 1981. At that time the Conservaton Pool was empty. The Reservoir contained 13,712.89 A.F. This water was distributed as follows: 8,152.25 A.F. in Agreement Accounts and 5,560.64 A.F. in the Recreation Pool. Winter storage ended at 1428 Hour, April 17, 1982. During this period a total of 44,426.80 A.F. was stored. This water was allocated to various accounts as specified in the Operation Plan, adopted by the Arkansas River Compact Administration on April 24, 1980. The following tables reflect the status of various accounts during Winter Storage.

TABLE I
 COMPACT WATER

	Contents Beg. of Month A. Ft.	Inflow A. Ft.	Evaporation A. Ft.	Releases A. Ft.	Contents End of Month A. Ft.
November	0	4,750.25	62.77	0	4,687.48
December	4,687.48	4,734.00	113.81	0	9,307.67
January	9,307.67	5,389.00	153.44	0	14,543.23
February	14,543.23	4,321.00	296.05	0	18,568.18
March	18,568.18	5,555.00	558.18	0	23,565.00
April 1-17	23,565.00	2,064.55	312.34	25,317.21	2400 Hrs. 4/17 0
TOTALS		26,813.80	1,496.59	25,317.21	

TABLE II
AMITY CANAL WINTER WATER

	Contents Beg. of Month A. Ft.	Inflow A. Ft.	Evaporation A. Ft.	Releases A. Ft.	Contents End of Month A. Ft.
November	0	0	0	0	0
December	0	4,743.00	37.42	0	4,705.58
January	4,705.58	5,027.00	91.27	0	9,641.31
February	9,641.31	5,122.00	209.98	0	14,553.33
March	14,553.33	2,721.00	433.69	0	16,840.64
April 1-17	16,840.64	0	14.09	16,826.55	(2400 Hrs. 4/17) 0
TOTALS		17,613.00	786.45	16,826.55	

TABLE III
AGREEMENT WATER

	Contents Beg. of Month A. Ft.	Inflow A. Ft.	Evaporation A. Ft.	Releases A. Ft.	Contents End of Month A. Ft.
November	8,152.25	0	212.13	192.14	7,747.98
December	7,747.98	0	124.67	0	7,623.31
January	7,623.31	0	100.25	0	7,523.06
February	7,523.06	0	134.21	0	7,388.85
March	7,388.85	0	193.78	0	7,195.07
April 1-17	7,195.07	42,143.76	637.12	3,749.55	(2400 Hrs. 4/17) 44,952.16
TOTALS		42,143.76	1,402.16	3,941.69	

TABLE IV
PERMANENT RECREATION POOL

	Contents Beg. of Month A. Ft.	Inflow A. Ft.	Evaporation A. Ft.	Releases A. Ft.	Contents End of Month A. Ft.
November	5,560.64	0	148.10	0	5,412.54
December	5,412.54	0	87.10	0	5,325.44
January	5,325.44	0	70.04	0	5,255.40
February	5,255.40	0	93.76	0	5,161.64
March	5,161.64	0	135.35	0	5,026.29
April 1-17	5,026.29	0	101.45	0	(2400 Hrs. 4/17) 4,924.84
TOTALS		0	635.80	0	

TABLE V
ALLOCATION OF RESERVOIR CONTENTS
IN ACRE FEET
At 2400 Hr. April 17, 1982

Total Contents	Agreement Water	Compact Water	Amity Water	Winter Water	Permanent Pool Water
49,877.00	44,952.16	0	0	0	4,924.84

SUMMER STORAGE IN JOHN MARTIN RESERVOIR
APRIL 17, 1982-OCTOBER 31, 1982
CONSERVATION POOL

Summer storage began at 1428 Hour, April 17, 1982. At that time the Conservation Pool was empty. During the summer season, storage in the Conservation Pool totalled 62,250.23 A. Ft. This was all released into accounts in accordance with the Operating Plan, adopted April 24, 1980. The Conservation Pool was empty at 2400 Hour, October 31, 1982.

TABLE VI
SUMMER OPERATIONS OF CONSERVATION POOL

	Contents, A. Ft. Beginning Date Shown	Inflow A. Ft.	Evaporation A. Ft.	Release A. Ft.	Contents A. Ft. End of Month
April 17	0	0	0	0	0
May 1	0	0	0	0	0
June 1	0	12,064.32	8.56	12,055.76	0
July 1	0	9,991.11	4.10	4,000.00	5,987.01
Aug. 1	5,987.01	29,781.21	187.61	35,580.61	0
Sept. 1	0	6,944.43	7.77	6,936.66	0
Oct. 1	0	3,469.16	1.01	3,468.15	0
TOTALS		62,250.23	209.05	62,041.18	

TABLE VII
STORAGE IN AND RELEASES FROM CONSERVATION POOL

Beginning of Storage		Ending of Storage		Beginning of Release		Ending of Release	
Hour	Day	Hour	Day	Hour	Day	Hour	Day
1330	June 3	0628	June 6	1330	June 3	0628	June 6
0900	June 19	1124	June 22	0900	June 19	1124	June 19
1000	June 27	1040	June 28	1000	June 27	1040	June 28
2400	July 29	0953	Aug. 8	2400	July 29	0953	Aug. 8
0001	Aug. 12	1229	Aug. 13	0001	Aug. 12	1229	Aug. 13
0900	Aug. 22	0536	Aug. 31	0900	Aug. 22	0536	Aug. 31
0800	Sept. 14	1914	Sept. 17	0800	Sept. 14	1914	Sept. 17
0930	Oct. 1	0916	Oct. 3	0930	Oct. 1	0916	Oct. 3

TABLE VIII
SUMMER OPERATION OF PERMANENT RECREATION POOL

	Contents, A. Ft. Beginning Date Shown	Inflow A. Ft.	Evaporation A. Ft.	Release A. Ft.	Contents, A. Ft. End of Month
April 18	4,924.84	0	72.12	0	4,852.72
May 1	4,852.72	0	241.14	0	4,611.58
June 1	4,611.58	103.28	234.03	0	4,480.83
July 1	4,480.83	0	370.69	0	4,110.14
Aug. 1	4,110.14	0	330.26	0	3,779.88
Sept. 1	3,779.88	22.99	265.76	0	3,537.11
Oct. 1	3,537.11	0	162.91	0	3,374.20
TOTALS		126.27	1,676.91	0	

RELEASES FOR IRRIGATION

All waters stored in the Conservation Pool were first transferred to Agreement Accounts in accordance with the Operating Plan, dated April 24, 1980. Water was then released upon order by the Operations Secretary of the Compact Administration.

STATE OF KANSAS

Releases to the State of Kansas were made upon request from their account. In addition, releases were made from both the Transit Loss Account and the Sisson Ditch Account to assist delivery of the Kansas demand to Coolidge, Kansas.

TABLE IX
RELEASES TO STATE OF KANSAS, A. Ft.

	Kansas Agreement Account	Kansas Transit Loss Account	Sisson Ditch Account	Total Release to Kansas
April	0	0	0	0
May	0	0	0	0
June	9,541.67	1,291.66	0	10,833.33
July	4,739.36	336.42	0	5,075.78
August	15,159.03	3,101.61	506.99	18,767.63
September	3,329.29	0	0	3,329.29
October	0	0	0	0
TOTALS	32,769.35	4,729.69	506.99	38,006.03

STATE OF COLORADO

Releases to the State of Colorado were made upon individual request of the various ditches in Colorado. Orders were placed with Water Commissioners who then transmitted them to the Operations Secretary. Appropriate transit losses using U.S.G.S. transit loss data for Reach 6 were deducted from diversions.

TABLE X
RELEASES TO STATE OF COLORADO

Month	Acre-Feet
April	16,171.54
May	11,672.93
June	4,319.61
July	3,081.56
August	19,316.79
September	3,575.42
October	814.66
TOTAL	58,952.51

TABLE XI
ALLOCATION OF CONTENTS AT 2400 HOUR, OCT. 31, 1982

Conservation Pool	Agreement Accounts	Permanent Pool	Total
0	8,866.80	3,374.20	12,241.00
Other Water	Kansas	Colorado Ditches	
0	1,326.83	7,539.97	

PRECIPITATION IN INCHES

	Leadville	Salida	Pueblo	Trinidad	Las Animas	Lamar	Garden City Kansas
Nov. 1981	0.87	0.03	0.04	0.38	0.13	0.53	
Dec.	2.41	0.17	0.67	0.44	0.48	0.38	
Jan. 1982	1.65	0.09	0.54	0.20	Trace	0.04	
Feb.	0.38	0.07	0.31	0.68	0.91	0.60	
Mar.	1.66	Buena Vista 0.26	0.33	0.44	0.46	0.51	
April	0.82	0.34	0.13	0.28	0.30	0.45	
May	1.16	1.48	2.28	3.14	1.71	3.96	
June	Sugar Loaf 0.88	0.70	1.75	2.77	4.81	3.11	
July	2.41	1.68	2.71	1.80	2.03	2.78	
Aug.	3.36	2.55	4.35	2.73	0.68	0.87	
Sept.	Leadville 1.77	2.12	2.24	2.97	1.47	1.47	
Oct.	Not Available	Not Available	0.37	Not Available	Not Available	Not Available	

JOHN MARTIN RESERVOIR
Computed Inflow A.F.

	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1	112	237	397	493	384	194	5	1,128	1,199	3,999	1,241	1,305
2	200	394	374	337	248	250	0	858	1,091	1,780	1,174	1,066
3	152	372	401	182	181	98	62	2,730	1,133	801	1,048	1,029
4	176	394	401	152	316	325	141	2,194	1,109	308	1,109	886
5	131	320	290	120	384	0	59	1,226	987	738	1,090	953
6	96	368	289	213	113	155	39	600	1,010	343	7,026	865
7	144	363	318	214	45	162	77	725	1,204	609	1,060	762
8	84	386	235	277	723	49	38	771	1,156	693	779	726
9	177	364	317	281	419	35	0	733	1,324	776	974	705
10	159	314	184	318	487	201	167	531	1,142	952	1,104	628
11	139	315	187	350	913	70	94	855	1,318	1,411	1,123	727
12	161	340	215	330	432	97	223	814	1,294	2,587	1,315	794
13	142	358	215	288	46	157	219	951	1,232	806	2,356	835
14	142	331	272	352	81	201	73	836	985	652	2,840	703
15	123	279	330	611	969	125	200	877	992	1,020	1,244	583
16	122	305	272	416	188	98	445	947	907	1,394	1,150	679
17	327	332	301	678	187	64	386	1,032	1,063	1,565	837	642
18	346	252	300	562	328	26	318	1,737	1,043	1,237	886	661
19	164	331	444	463	117	152	383	1,408	1,027	1,210	975	652
20	184	305	449	230	82	25	286	1,048	1,082	994	1,073	668
21	164	334	345	330	187	90	319	1,860	978	1,375	1,223	990
22	123	366	375	430	223	96	296	966	1,020	3,796	1,211	968
23	143	366	256	286	118	126	314	1,338	832	5,910	1,239	980
24	143	151	345	364	83	94	276	1,230	672	3,856	1,249	906
25	168	70	376	230	153	6	330	1,404	578	1,917	1,255	978
26	87	231	465	363	186	203	360	1,219	554	724	886	896
27	220	313	465	297	119	135	418	1,639	583	617	760	825
28	154	312	346	368	153	21	830	1,325	544	614	713	768
29	199	232	573	337	337	258	797	700	1,158	478	854	769
30	131	238	388	121	121	0	1,007	1,376	2,702	267	1,230	731
31		285	358		85		958		6,369	739		614
TOTAL	4,814	9,800	10,482	9,533	8,400	3,453	9,130	35,090	38,228	44,168	41,136	25,314

ATTACHMENT F

BUDGET

Fiscal Year July, 1983-June 30, 1984

A. SALARIES:		\$ 9,941.20
1. Recording Secretary	\$ 3,600.00	
2. Operations Secretary	6,100.00	
3. Payroll Taxes	241.20	
B. GAUGING STATIONS:		12,500.00
1. Maintenance and Operation		
A. Cooperative Agreement	\$12,000.00	
B. Telemark Telephone		
John Martin Dam		
Granada	500.00	
C. OPERATING EXPENSE:		4,650.00
1. Treasurer's Bond	100.00	
2. Annual Report	1,500.00	
3. Office Expense		
A. Telephone	\$ 1,500.00	
B. Supplies	500.00	
C. Printing	500.00	
4. Travel and Meetings	250.00	
5. Audit	300.00	
D. Contingency:	2,000.00	
E. Total Budget		\$29,091.20
Colorado (60%)	\$17,454.72	
Kansas (40%)	\$11,636.48	

ATTACHMENT G

BUDGET

Fiscal Year July 1, 1984-June 30, 1985

A. SALARIES:		\$ 9,941.20
1. Recording Secretary	\$ 3,600.00	
2. Operating Secretary	6,100.00	
3. Payroll Taxes	241.20	
B. GAUGING STATIONS:	12,500.00	
1. Maintenance and Operation		
A. Cooperative Agreement	\$12,000.00	
B. Telemark Telephone		
John Martin Dam		
Granada Gauge	500.00	
C. OPERATING EXPENSES:		4,600.00
1. Treasurer's Bond	100.00	
2. Annual Report	1,650.00	
3. Office Expense		
A. Telephone	1,600.00	
B. Supplies	350.00	
C. Printing	350.00	
4. Travel and Meetings	200.00	
5. Audit	350.00	
D. Contingency:	1,000.00	
E. TOTAL BUDGET:		\$28,041.20
COLORADO (60%)	\$16,824.72	
KANSAS (40%)	\$11,216.48	

ATTACHMENT H

RESOLUTION CONCERNING OPERATION OF TRINIDAD RESERVOIR

WHEREAS, on the 30th day of June, 1980, the Arkansas River Compact Administration found as follows:

1. It has come to the attention of the Arkansas River Compact Administration that 18,290 acre-feet of water stored under the Model Reservoir Water Right in Trinidad Reservoir during Compact Year 1979 was transferred to the joint use pool on September 28, 1979, by action of the Board of Directors of the Purgatoire River Water Conservancy District without objection from the Division Engineer for Division II, Colorado Division of Water Resources;
2. An additional 20,000 acre-feet was stored in Trinidad Reservoir under the Model Reservoir Right during Compact Year 1980;
3. The State of Kansas has questioned whether or not these actions are in conformity with the operating principles for Trinidad Reservoir; and

WHEREAS, pursuant to the above, the Compact Administration resolved that pursuant to Article VII, ¶ H of the Arkansas River

Compact, the Compact Administration should cause an investigation to be made of these circumstances; and

WHEREAS, pursuant to the above, the Compact Administration further resolved that this investigation should be accomplished on behalf of the Compact Administration by the Colorado Water Conservation Board and the Kansas Division of Water Resources, which entities should conduct said investigation as promptly as possible and report their determinations to the Compact Administration as soon as possible after the adoption of this resolution; and

WHEREAS, a report was submitted by Mr. Guy E. Gibson, Chief Engineer/Director, Division of Water Resources, Kansas State Board of Agriculture, and J. William McDonald, Director, Colorado Water Conservation Board, on the 25th day of September, 1980, pursuant to the Compact Administration's resolution of the 30th day of June, 1980; and

WHEREAS, said report found in part that 18,290 acre-feet of water was stored by the Purgatoire River Water Conservancy District under the Model Storage Right in Trinidad Reservoir in priority between April 15, 1979, and September 28, 1979; that the Purgatoire River Water Conservancy District transferred this amount of water into the joint use pool of Trinidad Reservoir by resolution on September 28, 1979, thereby leaving the Model Storage account empty, and that this water was still physically located behind Trinidad Dam on June 30, 1980; and

WHEREAS, said report further found, in part, that 20,000 acre-feet of water was stored by the District under the Model Storage Right in Trinidad Reservoir in priority during the period April 16, 1980, through May 17, 1980. This water was physically stored behind Trinidad Dam and in the Model Reservoir account as of June 30, 1980;

NOW, THEREFORE, BE IT RESOLVED, that pursuant to Article VIII, § H of the Arkansas River Compact, the Compact Administration finds as follows:

1. The transfer of 18,290 acre-feet of water stored by the Purgatoire River Water Conservancy District under the Model Storage Right in Trinidad Reservoir in priority between April 15, 1979, and September 28, 1979, by resolution of the Purgatoire River Water Conservancy District Board on September 28, 1979, into the joint use pool of Trinidad Reservoir deprived Colorado and Kansas downstream water users of their equitable share of the waters of the Arkansas River, as defined in Article III, § B of the Arkansas River Compact and, therefore, violates Article IV, § D of the Arkansas River Compact, which provides: "(T)he waters of the Arkansas River, as defined in Article III, shall not be materially depleted in usable quantity or availability for the use to the water users in Kansas and Colorado under this contract by future development or construction." Said action also violates Condition 3 of the Kansas Conditions to the Operating Procedures of Trinidad Dam and Reservoir Project, which provides that "there will be no significant increase in water use which would result in the depletion of water yield to other Colorado and Kansas users."

2. The storage of 20,000 acre-feet of water by the District under the Model Storage Right in Trinidad Reservoir in priority during the period April 16, 1980, through May 17, 1980, was in violation of the court decree

of the District Court in and for the County of Las Animas, Colorado, Civil Action No. 19793, dated April 15, 1965, which states in part: "The petitioners may store out of the waters of the Purgatoire or Las Animas Rivers in Trinidad Reservoir under priority No. 10, appropriation priority No. 168, and water district No. 19, and the date of the appropriation January 22, 1980, up to 20,000 acre-feet of water in Trinidad Reservoir...."

3. The joint use capacity in Trinidad Reservoir was never intended by the Congress of the United States nor the State of Kansas to provide additional storage space under the Model Reservoir Right and, in practice, has been turned into such, in violation of the laws of the United States, the Arkansas River Compact, the District Court of Las Animas County, Colorado's, order of April 15, 1965, in Case No. 19793, the conditions of operations of the Trinidad Dam and Reservoir Project prescribed by House Document No. 325, 84th Congress, Second Session, January 30, 1956, as implemented by Article IV of the "Operating Principles of Trinidad Dam and Reservoir Project" which is appended to Volume 1 of the United States Bureau of Reclamations' Irrigation Report on said Project (revised September, 1964), as well as the five operating principles approved by the State of Kansas and attached to the Operating Principles, Trinidad Dam and Reservoir Project.

BE IT FURTHER RESOLVED, that the Compact Administration recommends to the chief official of the State of Colorado charged with the administration of water rights in the State of Colorado that he issue an order for the release of 18,290 acre-feet of water from the Joint Use Pool of Trinidad Reservoir in such a manner as to be most beneficial to downstream Colorado and Kansas users, with such release being completed no later than the 1st day of April, 1983.

BE IT FURTHER RESOLVED, that the Compact Administration recommends to the chief official of the State of Colorado charged with the administration of water rights in the State of Colorado that prior to the implementation of any future sale, change, transfer, or regulation of the waters of the Arkansas River, as defined in article III, ¶ B of the Arkansas River Compact, that may affect the flow of water into the John Martin Reservoir, the Arkansas River Compact Administration, established under Article VIII of the Arkansas River Compact, shall be consulted and the approval shall be obtained for said sale, exchange, transfer, or regulation.

ENTERED this 14th day of December, 1982, at the annual meeting of the Compact Administration held in Lamar, Colorado.

Frank Cooley, Chairman
Arkansas River Compact Administration

Leo Idler, Secretary
Arkansas River Compact Administration

ATTACHMENT I

RESOLUTION CONCERNING THE OPERATION OF TRINIDAD RESERVOIR

WHEREAS, by resolution dated September 25, 1980, the Arkansas River Compact Administration (Administration) went on record recognizing that the operation of Trinidad Reservoir in 1979 and 1980 raised a question as to whether the waters of the Arkansas River had been materially depleted in usable quantity or availability for use to the water users in Colorado and Kansas, and therefore recommending that the Chief Engineer, Kansas Division of Water Resources (Kansas Chief Engineer) confer with the Colorado State Engineer to make further inquiries into this question as expeditiously as possible; and

WHEREAS, by letter dated June 12, 1981, the Colorado State Engineer furnished to the Kansas Chief Engineer preliminary records for the Thatcher gauge on the Purgatoire River, Colorado, for the years 1969 through 1981 to assist the Kansas Chief Engineer in his inquiries into the operation of Trinidad Reservoir; and

WHEREAS, a meeting was held on July 1, 1981, in Topeka, Kansas, between the Kansas Chief Engineer and the Colorado State Engineer to discuss the operation of Trinidad Reservoir during the years 1979 and 1980, at which meeting the Kansas Chief Engineer stated that if Colorado could demonstrate that the Model Reservoir and Ditch water right had historically diverted more than 38,000 acre-feet in any two-year period, then Kansas would no longer contend that the 1979-1980 operations of Trinidad Reservoir violated article IV, paragraph D, of the Arkansas River Compact (Compact); and

WHEREAS, by letter dated July 29, 1981, the Colorado State Engineer provided the Kansas Chief Engineer with records of the annual diversions by the Model Reservoir and Ditch water right for the period 1925 through 1976, which records demonstrated that the storage of 38,290 acre-feet in 1979 and 1980 was not anomalous in any way and had occurred in six previous two year periods; and

WHEREAS, as the August 6, 1981, special meeting of the Administration the commissioners from Kansas stated that they would, within the next several weeks, request additional information from the Colorado State Engineer on the administration of Trinidad Reservoir; and

WHEREAS, no request for additional information was thereafter made by the State of Kansas; and

WHEREAS, on August 30, 1982, at the request of the Kansas Attorney General, a meeting was held in Denver, Colorado, between the Colorado Attorney General, the Kansas Attorney General, the state members of the Administration, and the responsible water officials of both Kansas and Colorado, at which meeting the Colorado State Engineer gave an extensive presentation on the manner of administration of the Trinidad Reservoir and the Trinidad Project, and explained how the strict manner of administration of that project insured that the waters of the Arkansas River had not been and would not be materially depleted in usable quantity and availability; and

WHEREAS, the Colorado Attorney General requested the Kansas

Attorney General to review all of the factual data and to provide Colorado with any factual information which would show that, by the operation of Trinidad Reservoir, the waters of the Arkansas River had been materially depleted in usable quantity or availability for use to users in Colorado and Kansas; and

WHEREAS, the State of Kansas, through its responsible officials, has not provided to either the State of Colorado or the Administration any factual data to support the claim that the 1979 and 1980 operation of the Trinidad Reservoir has violated Article IV, paragraph D, of the Compact.

NOW, THEREFORE, BE IT RESOLVED that the Arkansas River Compact Administration shall not consider further the allegations of the State of Kansas that the 1979 and 1980 administration of Trinidad Reservoir violated Article IV, paragraph D, of the Arkansas River Compact because the State of Kansas has failed to provide any factual evidence in support of its claims.

Entered this 14th day of December, 1982, at the regular annual meeting of the Arkansas River Compact Administration held in Lamar, Colorado.

Frank G. Cooley
Chairman

Leo Idler
Recording Secretary

ATTACHMENT J

The following letter is as directed to be sent by unanimous action of the Arkansas River Compact Administration at its annual meeting held in Lamar, Colorado, on December 14, 1982

December 15, 1982

The Honorable J. D. McFarlane
Attorney General
State of Colorado
State Office Building
1525 Sherman Street
Denver, Colorado 80203

The Honorable Robert T. Stephan
Attorney General
State of Kansas
2nd Floor, Kansas Judicial Center
Topeka, Kansas 66612

The Honorable L. Duane Woodard
Attorney General Elect
State of Colorado
State Office Building
1525 Sherman Street
Denver, Colorado 80203

Gentlemen:

At the annual meeting of the Arkansas River Compact Administration held at Lamar, Colorado, on December 14, 1982, the Compact Administration, i.e., the State of Colorado and the State of Kansas, directed me to make the following request: The attorneys general of the States of Colorado and Kansas are requested to communicate with each other and confer as they may be advised concerning the dispute over the storage of water in Trinidad Reservoir and to report on their discussions to a special meeting of the Compact Administration to be held on February 1, 1983. The meeting has been scheduled to receive the reports and the advice of the attorneys general of the two states.

Sincerely yours,
Arkansas River Compact Administration
/s/ Frank G. Cooley, Chairman

FGC:th

cc: Office of Management and Budget
State Engineer, State of Colorado
Compact Administration Members

ATTACHMENT K

RESOLUTION
CONCERNING THE PUEBLO RESERVOIR
OPERATING PLAN

WHEREAS, on July 24, 1951, prior to the construction of Pueblo Reservoir, the following Resolution was adopted by the Arkansas River Compact Administration which stated in part:

"There shall be no re-regulation of the native waters of the Arkansas River as proposed in such report until a plan of operation, rules, regulations, procedures and agreements in furtherance thereof, including all pertinent agreements between the Corps of Engineers and the Bureau of Reclamation, shall have been submitted to, and approved by the Arkansas River Compact Administration and the affected water users."

WHEREAS, no such plan of operation, rules, regulations or procedures and agreements have ever been submitted to the Arkansas River Compact Administration for approval and no such operating plan has ever been approved.

NOW, THEREFORE, be it resolved that a draft of the operating plan, as described above, shall be represented by the State of Colorado Compact members to the Arkansas River Compact Administration for approval no later than April 1, 1983.

FURTHER, Be it resolved that the plan of operation shall include, but not be limited to, the following provisions:

1. That there shall be an annual review of the actual operation of Pueblo Reservoir to determine if any water was impounded in Pueblo Reservoir that would have reached John Martin Reservoir if Pueblo Reservoir had not existed.
2. That this review shall be made by a representative of the Division of Water Resources of the Kansas State Board of Agriculture and a representative of the Colorado State Engineer's office.
3. That this review shall begin no later than April 1 of each year and shall be completed no later than the following May 31st.
4. That the findings of this review shall be submitted to this Administration upon completion.
5. That if it is found that water was stored in Pueblo Reservoir that would have reached John Martin Reservoir, then this amount of water shall be released from Pueblo Reservoir and protected down to John Martin Reservoir no later than August 1.

ATTACHMENT L

Draft
Dec. 14, 1982

Dear Mr. Jeris A. Danielson
Colorado State Engineer
Colorado Division of Water Resources
1313 Sherman, Room 818
Denver, Colorado 80203

Dear Dr. Danielson:

At the regular annual meeting of the Arkansas River Compact Administration held in Lamar, Colorado, on December 14, 1982, the Administration directed me to request that you furnish to the Administration, pursuant to Article VIII, paragraph G, of the Arkansas River Compact, pertinent factual data concerning the operation of Pueblo Reservoir since it began operation through compact year 1982, to include information concerning the storage of water therein, the procedures utilized in operating the reservoir, and the status of water rights stored therein. A response to this request prior to February 1, 1983, would be appreciated.

Sincerely,
Frank G. Cooley
Chairman

cc: Members, Arkansas Compact Administration
Bob Jesse

APPENDIX "C-2"

MINUTES OF THE ARKANSAS RIVER COMPACT ADMINISTRATION

SPECIAL TELEPHONIC MEETING

February 1, 1983

A special telephonic meeting of the Arkansas River Compact Administration was held on February 1, 1983, in lieu of the special meeting which had been scheduled for Garden City, Kansas, on the same date (see attachment A). This scheduled meeting was cancelled due to inclement weather conditions.

The special telephonic meeting, held by conference call, was called to order at 7:50 a.m. (MST) by Mr. Frank G. Cooley, Chairman and United States representative. Other members participating in the conference call were:

For Kansas:

Carl E. Bentrup — Deerfield, Kansas

Ronald Olomon — Garden City, Kansas

For Colorado:

Carl G. Genova — Pueblo, Colorado

Leo Idler — Lamar, Colorado

J. William McDonald — Denver, Colorado

Mr. McDonald moved, seconded by Mr. Bentrup, the adoption of a resolution concerning the John Martin Reservoir operating plan (see Attachment B). There being no discussion, Mr. Cooley called for a vote. The resolution was passed upon the affirmative vote of both states.

The rescheduling of the cancelled special meeting was briefly discussed. It was tentatively agreed that a special meeting would be held on Friday, March 11, or March 18, 1983, subject to the availability of the Attorneys General of Colorado and Kansas. It was agreed that an effort would be made to finalize the rescheduled date for the special meeting as soon as possible.

There being no further business to come before the Administration, Mr. Cooley adjourned the meeting at 8 a.m. (MST).

The foregoing minutes were approved on March 25, 1983, at a special meeting of the Administration held in Garden City, Kansas.

/s/ Frank G. Cooley
Chairman

/s/ Leo Idler
Recording Secretary

RESOLUTION

BE IT RESOLVED BY THE ARKANSAS RIVER COMPACT ADMINISTRATION

WHEREAS, Guy E. Gibson, Chief Engineer-Director, Division of Water Resources, Kansas State Board of Agriculture, has served as a Representative of the State of Kansas on the Arkansas River Compact Administration since 1972; and

WHEREAS, Mr. Gibson has voluntarily elected to retire from the office of Chief Engineer-Director, Division of Water Resources, and from the Arkansas River Compact Administration; and

WHEREAS, Mr. Gibson has contributed his professional knowledge, ability and services to the Arkansas River Compact Administration;

NOW THEREFORE, BE IT RESOLVED, that the Arkansas River Compact Administration does hereby acknowledge the outstanding contribution of Guy E. Gibson to this Administration and to the States of Colorado and Kansas and express appreciation to Mr. Gibson and extend to him the best wishes of each member of this Administration for continued good health and happiness in all his future endeavors.

BE IT FURTHER RESOLVED, that this resolution be entered into the records of this Administration and that the Secretary be instructed to send a copy to Mr. Gibson.

Entered this 25th day of March, 1983 at a special meeting of the Arkansas River Compact Administration in Garden City, Kansas.

**/s/ Frank G. Cooley
Chairman**

**/s/ Leo Idler
Recording Secretary**

APPENDIX "C-3"

MINUTES OF THE ARKANSAS RIVER COMPACT ADMINISTRATION

SPECIAL MEETING

March 25, 1983
Hilton Hotel, Garden City, Kansas

A special meeting of the Arkansas River Compact Administration was held at the Hilton Hotel in Garden City, Kansas, on March 25, 1983. The agenda for the meeting is included as Attachment A. The meeting was called after the special meeting originally scheduled for February 1, 1983, had to be cancelled due to inclement weather.

The meeting was called to order at 10:30 a.m. (CDT) by Mr. Carl Bentrup, Vice-Chairman, in the absence of the Chairman and United States representative, Mr. Frank Cooley, who was unable to attend. Administration members in attendance were:

For Kansas:

Carl E. Bentrup — Deerfield, Kansas
Ronald Olomon — Garden City, Kansas
David Pope — Topeka, Kansas

For Colorado:

Carl Genova — Pueblo, Colorado
Leo Idler — Lamar, Colorado
J. William McDonald — Denver, Colorado

Mr. Bentrup advised that the Attorneys General of Kansas and Colorado could not fly to the meeting due to inclement weather that morning. He asked that the exchange of correspondence between them concerning Trinidad Reservoir be included in the minutes of the meeting. There being no objections, it was so ordered (see Attachments B, C, D, E, F, G, and H).

Mr. Bentrup introduced the members of the Administration. Mr. Pope, a new member of the Kansas delegation, presented his credentials. Mr. Pope serves *ex officio*, having been appointed Chief Engineer of the Kansas Division of Water Resources following the retirement of Mr. Guy Gibson.

Mr. Bentrup asked Mr. McDonald to present the report of the Administrative and Legal Committee. Mr. McDonald advised that the Administrative and Legal Committee, composed of Mr. Bentrup and himself, had met earlier that morning to discuss draft rules of arbitration, which had been prepared by the staff of the Kansas Attorney General's office. The rules, if adopted, would implement Article VIII. D of the Arkansas River Compact. Mr. McDonald stated that no decisions were reached nor any actions taken and that the committee

had no recommendations to make to the Administration at this time with respect to the proposed rules. There was no discussion of nor comment on Mr. McDonald's report.

The next item on the agenda was Trinidad Reservoir. Mr. Pope moved the adoption of an "Amended Resolution Concerning Operation of Trinidad Reservoir" (see Attachment I). Mr. Olomon seconded the motion. In response to a question from Mr. McDonald, Mr. Bentrup indicated that this resolution was "amended" in the sense that it differed from the resolution presented by Kansas at the December 14, 1982, annual meeting of the Administration (see Attachment H to the minutes of the annual meeting).

Mr. McDonald noted that this amended resolution included allegations with respect to storage events in 1981 and 1982, as well as allegations of excessive use of water by the Purgatoire Water Conservancy District, not previously raised by Kansas. He asked Mr. Bob Jesse, Colorado Division Engineer for Division 2, to comment on these matters.

Mr. Jesse stated that the storage amounts for 1981 and 1982 shown in the amended resolution differed from the amounts shown in his records. He asked Mr. Howard Corrigan, Kansas Water Commissioner, to explain how the amounts in the amended resolution had been determined.

Mr. Corrigan indicated that storage had been determined by taking the difference between total reservoir inflows and all reservoirs outflows. Considerable discussion ensued among Administration members, Mr. Jesse, and Mr. Corrigan on how storage in Trinidad Reservoir is accounted for. Mr. Jesse noted that simple inflow-outflow calculations do not accurately reflect changes in the storage of water because they do not distinguish between releases of stored water and releases of inflows nor take into consideration transfers between accounts. Mr. Jesse indicated that he would like to discuss Mr. Corrigan's calculations with him and that he would provide his daily reservoir accounting sheets to Kansas. Mr. Corrigan indicated his willingness to discuss these data with Mr. Jesse.

Mr. Bentrup stated that storage of more than 20,000 acre-feet in Trinidad Reservoir was, in Kansas' opinion, a violation of the operating principles for Trinidad Reservoir and that Kansas does not recognize paper transfers among accounts in the reservoir. Mr. Bentrup further stated that Kansas does not recognize the joint use pool in Trinidad Reservoir as additional storage space for Colorado's use. He stated that it was Kansas' view that the joint use pool could be used for storage only when John Martin Reservoir was spilling or by the acquisition of water rights in addition to the Model decree.

Mr. McDonald indicated that he disagreed with Kansas' view that the operating principles for Trinidad Reservoir govern Colorado's obligations to Kansas with respect to the operation of the reservoir. He stated that it was Colorado's view that the provision of the Arkansas River Compact which refers to material depletion is what governs. He noted that there appear to be significant differences between Colorado and Kansas both with respect to the factual data concerning storage as

well as with respect to the legal interpretation of what standard governs Colorado's obligations.

After there was further discussion of storage in Trinidad Reservoir, Mr. McDonald indicated that he would also like to explore Kansas' allegations in the proposed amended resolution concerning water application per acre of land. Specifically, Mr. McDonald noted that records available to Colorado did not support the 4.3 and 4.7 acre-foot per acre application rates set forth in the amended resolution.

Mr. Corrigan explained how he had calculated the amount of water used for irrigation in the Purgatoire Water Conservancy District in 1979 and 1980. Mr. Jesse stated that he did not think the procedures and data used by Mr. Corrigan were adequate. Considerable discussion ensued. The discussion concluded with Kansas agreeing to provide the data and the methods of calculation which Mr. Corrigan had used to Mr. Jesse for review.

Mr. McDonald then moved, seconded by Mr. Genova, to table the motion to adopt the amended resolution until after Colorado had had an opportunity to review the data submitted by Kansas. This motion to table was passed upon the affirmative vote of both states.

Mr. Bentrup then turned to the agenda item concerning Pueblo Reservoir. Mr. McDonald noted that the Administration, at its December 14, 1982, meeting, had directed Mr. Cooley to write a letter to the Colorado State Engineer, Dr. Jeris Danielson, requesting data regarding the operation of Pueblo Reservoir. Mr. McDonald indicated that Mr. Jesse had compiled the requested information on behalf of Dr. Danielson and had brought it with him to present to and discuss with the Administration.

Mr. Bentrup indicated that his recollection of the situation was different than Mr. McDonald's. He stated that Kansas had received adequate information on the past operation of Pueblo Reservoir and was not requesting more information. Rather, Mr. Bentrup said that Kansas' concern was that a plan of operation as referred to in the Administration's July 24, 1951, resolution had not yet been provided to the Administration for approval. He indicated that he thought that requests for further information were only a delaying tactic.

Mr. McDonald responded by noting that Mr. Cooley's letter to Dr. Danielson requesting information was sent at the direction of the Administration. He reiterated that Colorado wished to have Mr. Jesse provide the information requested by the Administration through Mr. Cooley's letter.

Mr. Jesse then provided a large number of records in response to Mr. Cooley's letter. The index of the materials provided is included herein as Attachment J. He explained in general terms how storage of both winter water and summer flood events in Pueblo Reservoir is handled.

Considerable discussion ensued among the members of the Administration and Mr. Jesse concerning various aspects of the reservoir's operation, how storage and release decisions are made, and which stations are used when gaging summer flood events. Several times during the course of the discussion Mr. Bentrup emphasized that Kansas' concern was not with a lack of information but with the lack of

a written plan of operation which would guide the decisions to be made for storing water.

Following this discussion Mr. Pope distributed and moved the adoption of a "Resolution Concerning the Pueblo Reservoir Operating Plan" (see Attachment K). The motion was seconded by Mr. Olomon. Mr. McDonald requested a recess to discuss the resolution with his Colorado colleagues, which recess was granted by Mr. Bentrup. After several minutes, Mr. McDonald requested additional time, whereupon Mr. Bentrup continued the recess through the lunch hour.

The meeting was reconvened at 1:30 p.m., at which time Mr. McDonald offered as a substitute motion to the motion before the Administration the adoption of a different resolution concerning the Pueblo Reservoir (see Attachment L). Mr. Genova seconded the substitute motion. There being no discussion, Mr. Bentrup called for a vote on the substitute motion. Kansas voted no and Colorado voted yes, whereupon the substitute motion was declared lost.

The original motion by Mr. Pope was then put before the Administration. There being no further discussion, Mr. Bentrup called for a vote. Kansas voted yes and Colorado voted no, whereupon the motion was declared lost.

The next item on the agenda was the John Martin Reservoir operating plan. Mr. McDonald reported that Colorado ditches had resolved their internal problems and were ready to continue with the operating plan for another year. With respect to the transit loss account agreement for 1983 reached between Mr. Corrigan and Mr. Jesse pursuant to Section II. E(4) of the operating plan (see Attachment M), Mr. McDonald moved, seconded by Mr. Olomon, that the Administration approve that agreement. The motion passed on the affirmative vote of both states.

Mr. McDonald indicated that Colorado had some problems with the handling of transit losses in the operating plan and would probably propose revisions for 1984. Mr. Bentrup indicated that Kansas would be willing to listen to any suggestions for changes and improvements.

With respect to the next agenda item, Mr. Bentrup read a proposed resolution (see Attachment N) honoring Mr. Guy Gibson and moved adoption of the resolution. Mr. McDonald seconded the motion. The motion was adopted upon the affirmative vote of both states.

The minutes of the February 1, 1983, special telephonic meeting were then distributed. Mr. McDonald moved their adoption as printed. Mr. Genova seconded. The minutes were approved upon the affirmative vote of both states.

There being no further business to come before the Administration, Mr. Bentrup adjourned the meeting at 2:30 p.m.

The foregoing minutes were adopted on August 26, 1983, at the special meeting of the Administration held in Denver, Colorado.

/s/ Frank G. Cooley
Chairman

/s/ Leo Idler
Recording Secretary

ATTACHMENT A

**SPECIAL MEETING
ARKANSAS RIVER COMPACT ADMINISTRATION**

**March 25, 1983
Hilton Hotel
Garden City, Kansas
10 a.m. (CST)**

1. Call to order and introductions
2. Approval of agenda
3. Report of Attorney General Duane Woodard
4. Report of Attorney General Robert Stephan
5. Report of Administrative and Legal Committee concerning the arbitration of Art. VIII D of the Compact
6. Trinidad Reservoir
7. Pueblo Reservoir
8. John Martin Operating Plan
9. Resolution honoring Guy E. Gibson
10. Remarks from the audience
11. Adjournment

ATTACHMENT B

July 21, 1982

**The Honorable Robert T. Stephan
Attorney General of Kansas
Judicial Center, Second Floor
Topeka, Kansas 66612
Attention: Ms. Pat Clark**

Subject: Trinidad Reservoir

Dear General Stephan:

I am writing to confirm our plans for the August 31, 1982 meeting of representatives from Kansas and Colorado to discuss the Trinidad Reservoir and your concerns that its operation is resulting in diminution of Kansas compact water. The meeting has been set for 2:00 p.m. on Tuesday, August 31 at the Rodeway Inn, Greenwood Village, 511 South Valley Highway, Englewood, Colorado. Please note the new location.

Bill McDonald of the Colorado Water Conservation Board has made arrangements to meet your party at the Arapahoe Airport at 1:30 p.m.

and transport you to the Rodeway Inn.

If you have any questions concerning these arrangements, please do not hesitate to contact either me or Bill McDonald.

Very truly yours,
/s/ J. D. MacFarlane
Attorney General

JDM: kl
cc: Bill Paddock
Bill McDonald
Jerry Danielson

ATTACHMENT C

October 12, 1982

The Honorable J. D. MacFarlane
Attorney General of Colorado
1525 Sherman Street — Third Floor
Denver, Colorado 80203

Dear General MacFarlane:

Re: Operations of Trinidad Reservoir

I want to take this opportunity to thank you and other Colorado officials for meeting with me and Kansas water officials on August 31, 1982, in Denver, Colorado. At that meeting, I announced I would formally present the requests of the State of Kansas with regard to the present and future operation of the Trinidad Reservoir located on the Purgatoire River, a tributary of the Arkansas River. After consultation with the various agencies of the State of Kansas charged with the protection of Kansas water rights, on behalf of the State of Kansas, I hereby make the following requests:

1. Prior to the implementation of any future sale, change, transfer, or regulation of the waters of the Arkansas River, as defined in Article III, Section B of the Arkansas Compact that may affect the flow of water into the John Martin Reservoir, the Arkansas River Compact Administration, established under Article VIII of the Arkansas River Compact, shall be consulted and their approval shall be obtained for said sale, exchange, transfer, or regulation.
2. The State of Colorado will agree that the emptying of water from "irrigation capacity" in Trinidad Reservoir, defined in Article I, Section 4, of the operating principles of Trinidad Dam and Reservoir Project, by making a paper transfer of the water in 1979 to the "joint use capacity" in Trinidad Reservoir as defined in Article I, Section 4, of the Operating Principles and allowing more than 20,000 acre-feet of the Operating Principles and

allowing more than 20,000 acre-feet of water to be stored under the Model Reservoir right, in Trinidad Reservoir deprives Kansas water users of their equitable share of the waters of the Arkansas River, and, therefore, violates Article IV, Section D of the Arkansas River Compact which provides: "(T)he waters of the Arkansas River, as defined in Article III, shall not be materially depleted in usable quantity or availability for the use to the water users in Kansas and Colorado under this contract by future development or construction." Said action also violates condition 3 of the Kansas Conditions to the Operating Procedures, Trinidad Dam and Reservoir Project, which provides that "there will be no significant increase in water use which would result in the depletion of water yield to other Colorado and Kansas users."

3. The State of Colorado will agree that storage of more than 20,000 acre-feet in Trinidad Reservoir under the Model Reservoir right is in violation of the court decree of the District Court in and for the County of Las Animas, Colorado, Civil Action No. 19793, dated April 15, 1965, which states in part: "The petitioners may store out of the waters of the Purgatoire or Las Animas Rivers in Trinidad Reservoir under priority No. 10, appropriation priority No. 168, and water district No. 19, and the date of the appropriation January 22, 1908, up to 20,000 acre feet of water in Trinidad Reservoir...."
4. The State of Colorado will agree that the joint use capacity in Trinidad Reservoir was never intended by the Congress of the United States nor the State of Kansas to provide additional storage space under the Model Reservoir right and, in practice, has been turned into such, in violation of the laws of the United States, the Arkansas River Compact, the District Court of Las Animas County, Colorado's, order of April 15, 1965, in Case No. 19793, the conditions of operations of the Trinidad Dam and Reservoir Project prescribed by House Document No. 325, 84th Congress, Second Session, January 30, 1956, as implemented by Article IV of the "Operating Principles of Trinidad Dam and Reservoir Project" which is appended to Volume 1 of the United States Bureau of Reclamations' Irrigation Report on said Project (revised September, 1964), as well as the five operating principles approved by the State of Kansas and attached to the Operating Principles, Trinidad Dam and Reservoir Project.
5. The State of Colorado will agree that the water laws of the State of Colorado are subordinate to the provisions of the Arkansas River Compact.
6. The State of Colorado will agree that the questions of law and fact concerning the waters of the Arkansas River as defined in Article III, Section B of the Arkansas River Compact are the proper subject of arbitration, pursuant to Article VIII, Section D of the Arkansas River Compact.

As Attorney General, I feel it is of vital importance that the arbitration procedures provided for in the Arkansas River Compact be fully utilized by our States. I will look forward to hearing from you in

the hope that there will be an agreement to arbitrate any areas of disagreement.

I am confident you surely realize I will do all in my power to defend the full rights of Kansans to the benefits of the Arkansas River. As well, I feel my journey evidenced the fact I seek to reach an amicable and out-of-court solution to the current crisis we face.

I hope your response to this letter will be such as to initiate a new era in the resolution of disputes concerning the Arkansas River, an era in which our two States, and not the federal courts, decide the fate of one of our most precious natural resource, the Arkansas River.

Sincerely,
/s/ Robert T. Stephan
Attorney General

MC

ATTACHMENT D

November 3, 1962

Hon. Robert T. Stephan
Attorney General
State of Kansas
2d Floor, Kansas Judicial Center
Topeka, Kansas 66612

Dear General Bob Stephan:

In response to your letter of October 12th concerning operations of the Trinidad Reservoir, I have taken the matter under study and will respond to you in detail in the near future.

Very truly yours,
/s/ J. D. MacFarlane
Attorney General
State of Colorado

JDM/irh
cc: Bill Paddock
Jeris A. Danielson State Engineer
William McDonald, Director, Water Conservation Board
Enc:

ATTACHMENT E

December 15, 1982

The Honorable J. D. McFarlane
Attorney General of Colorado
1525 Sherman Street, Third Floor
Denver, Colorado 80203

Dear General McFarlane:

Re: Operations of Trinidad Reservoir

As you are undoubtedly aware, on December 14, 1982, the Arkansas River Compact Administration passed a resolution which, in part, requests that our two offices maintain an effort to resolve the current crisis concerning the Trinidad Reservoir.

As you recall, I presented the Kansas position in a letter dated October 12, 1982, which you later informed me you had received and were studying.

When I realize you will be leaving public office, I am requesting that you and your staff give this matter the utmost consideration. In addition, I believe any involvement on the part of the Attorney General-elect concerning this situation would be of the utmost help. If I can be of any assistance in your study of this issue, or in clarification of the Kansas position, please contact me immediately.

Very truly yours,
/s/ Robert T. Stephan
Attorney General

MC

ATTACHMENT F

January 10, 1983

The Honorable Robert T. Stephan
Attorney General of Kansas
Kansas Judicial Center, 2d Floor
Topeka, Kansas 66612

RE: Operation of Trinidad Reservoir
AG Alpha No. NR WC FBHD
AG File No. CNR8300024/MZ

Dear Bob:

I am writing this letter in response to your letters of October 12, 1982 and December 15, 1982. As you know, I am retiring from public office and I desired to consult fully with my successor, Duane Woodward, prior to responding to your letters. That process has now been completed and I am now in a position to respond.

As you recall, our first meeting on this matter was held August 31,

1982 in Denver. Also present at that meeting were all of the relevant water officials of the State of Colorado and the State of Kansas. That meeting was held for the purpose of discussing the operation of Trinidad Reservoir in hopes of defining and resolving the concerns of the State of Kansas.

At the August 31, 1982 meeting, Dr. Jeris Danielson, the Colorado state engineer, provided a detailed discussion of the history of and the manner of administration of the Trinidad Reservoir. In particular, he explained that the Trinidad Reservoir is operated under conditions which insure that the waters of the Arkansas River will not be materially depleted in usable quantity or availability for use to water users in Colorado and Kansas. The administrative conditions which prevent material depletion include *inter alia*, a reduction in irrigated acreage in Trinidad area by the project ditches from nearly 40,000 acres to 19,717 acres, the cessation of the practice of winter irrigation, and the regulation of storage in Trinidad Reservoir in such a manner that the quantity of water leaving the Trinidad area in the Purgatoire River, as measured at the Thatcher gauge, will remain and be the same during any consecutive ten year period reckoned in a continuous progressive series, as it would have been had the Model Reservoir storage right not been transferred to Trinidad Reservoir. The combination of these and other operating conditions insure that the operation of Trinidad Reservoir does not materially deplete the flows of the Arkansas River.

In addition, Dr. Danielson made at least three other important observations. First, he stated the State of Colorado was vitally interested in insuring that operation of the reservoir does not materially deplete the waters of the Arkansas River because any such depletion would injure Colorado water users as well as Kansas water users. Second, Mr. Danielson stated that all available records indicated that the operation of Trinidad Reservoir has not materially depleted the waters of the Arkansas River in usable quantity or availability to water users in Colorado and Kansas. Finally, Dr. Danielson stated that many of these records had already been made available to Kansas water officials for their review and analysis and that additional information desired by Kansas could be furnished upon request.

Following Dr. Danielson's presentation I explained to you that it was Colorado's view that the Arkansas River Compact was not intended to impede or prevent the future beneficial development of the Arkansas River Basin in Colorado provided that the waters of the Arkansas River were not materially depleted by such development in usable quantity or availability for use to water users in Colorado and Kansas. I also informed you that the State of Colorado was most willing to sit down with officials of the State of Kansas and discuss any evidence which tended to show that the manner of administration of Trinidad Reservoir had materially depleted the waters of the Arkansas River in violation of Art. IV D of the Arkansas River Compact.

After the presentations by the officials of the State of Colorado the floor was turned over to the officials of the State of Kansas. At that time the Kansas officials expressed concern about the storage of water in Trinidad under the Model Reservoir storage right in two consecutive years without first releasing the amount stored in the first year. After

some discussion it was determined that the officials State of Kansas would consider the matter further, define both their legal and factual concerns about the operation of Trinidad Reservoir and report the same to the State of Colorado. As the meeting thus concluded, I had high hopes that the State of Kansas would respond with detailed factual claims regarding material depletion to the Arkansas River by operation of the Trinidad Reservoir and provide a detailed legal justification of the Kansas position. It was my belief that if Kansas were to perform on this undertaking then areas of substantial dispute, if any, could be readily identified. Thereafter a proper manner of dispute resolution, including the potential for arbitration, could be agreed upon.

You apparently do not share my understanding of what Kansas agreed to undertake as a result of our August 31, 1982 meeting. Instead, in your October 12, 1982 letter to me you stated:

At that meeting, I announced I would formally present the requests of the State of Kansas with regard to the present and future operation of the Trinidad Reservoir located on the Purgatoire River, a tributary of the Arkansas River. After consultation with the various agencies of the State of Kansas charged with the protection of Kansas water rights, on behalf of the State of Kansas, I hereby make the following requests:.....

What followed was a series of six demands about not only operation of Trinidad Reservoir, but also the future administration of all water rights in the Arkansas River Basin in Colorado. Each demand contained only a conclusory statement of its legal and factual justification. You then concluded your letter by reminding me that you would do all in your power to defend the full rights of Kansas to the benefits of the Arkansas River but that you desired to reach an out-of-court solution.

While I do not doubt the desire of Kansas to avoid the time and expense of litigation over this matter, I do question whether your current approach to this matter can be productive. I say this because I do not find a letter of six demands on the State of Colorado containing only conclusory factual and legal justifications conducive to amicable dispute resolution. However, I believe a frank exchange of views is required in order to resolve this dispute. Thus, in an attempt to move our discussions in a more productive direction, I will attempt to provide a detailed response to your October 12, 1982 letter that, if fully answered by you, will help refine areas of dispute. It is my hope that through this process you will be able to more precisely identify the basis of the concerns of the State of Kansas and we can then jointly work toward the amicable resolution we both desire.

In paragraph No.1 of your October 12, 1982 letter you demand that approval of the Arkansas River Compact Administration be obtained prior to any future sale, change, transfer or regulation of the waters of the Arkansas River which may affect the flow of water to John Martin Reservoir. First, I am surprised by this demand because it has no relation to our discussion of the operation of Trinidad Reservoir. Moreover, there is no justification in the Arkansas River Compact for such a demand. Particularly, art. VI A(2) of the compact states:

Except as otherwise provided, nothing in this compact shall be

construed as supplanting the administration by Colorado of the rights of appropriators of waters of the Arkansas River in said state as decreed to said appropriators by the courts of Colorado, nor as interfering with the distribution among said 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.

(emphasis supplied). This provision properly recognizes the substantial interests of the State of Colorado in controlling the use and administration of waters equitably apportioned to it under the compact. It expressly reserves to the Colorado its unquestionable authority to administer and regulate water and water rights within the State of Colorado.

Only in art. V H does the compact confer upon the Arkansas River Compact Administration any authority to require prior approval of any change in water use practices in Colorado by Colorado water users. That provision is limited to a very specific class of water rights and use. In no other situations does the compact contemplate or require prior approval by the administration of any sale, exchange, transfer or regulation of waters of the Arkansas River. Therefore, on behalf of the State of Colorado I cannot agree to the demand in paragraph No. 1 of your letter.

Paragraph Nos. 2, 3 and 4 of your October 12, 1982 letter do deal with administration of Trinidad Reservoir. From reading these demands I conclude that it is the position of Kansas that the unsedimented portion of the joint use capacity of Trinidad Reservoir may never be used to store water for irrigation purposes if such water is stored pursuant to the transferred Model Reservoir storage right. You apparently contend that under no circumstances may more than 20,000 acre-feet of water be stored in Trinidad Reservoir pursuant to the transferred Model Reservoir storage right.

In paragraph No. 2 you assert that such an occurrence violates both art. IV D of the Arkansas River Compact and condition 3 of the Kansas conditions to the "Operating Procedures, Trinidad Dam and Reservoir Project (operating principles)." However, the art. IV D can only be violated if a material depletion in usable quantity and availability of waters of the Arkansas River has resulted. Similarly, Kansas condition No. 3 only relates to significant increases in water use which result in depletion of water yield to other Colorado and Kansas users. In both instances the question is one of material depletion, and as I have previously emphasized to you, depletion is a question of fact. Kansas has simply failed to come forward with any factual basis to support its claims. On the other hand, Colorado has shown that from the available records there is no evidence of material depletion of the waters of the Arkansas River in usable quantities or availability to water users in Colorado and Kansas by virtue of the current storage of water in Trinidad Reservoir.

In paragraph No. 3 in your October 12, 1982 letter you demand that Colorado agree that the storage of more than 20,000 acre-feet in Trinidad Reservoir under the Model Reservoir storage right violates the decree in Civil Action No. 19793, District Court, Las Animas County, Colorado (Model Transfer Decree). You apparently read that

decree to impose a maximum storage limitation. Your conclusion is based on a misunderstanding of Colorado water law which permits reservoirs one annual filing. In addition, the Model transfer decree expressly requires that the storage of water in Trinidad Reservoir under the Model Reservoir storage right be conducted in accordance with *inter alia*, the conditions of operations of the Trinidad Dam and Reservoir Project prescribed by House Document 325, 84th Congress, 2d Session, January 30, 1956 (House Document 325) as implemented by art. IV of the operating principles. Those conditions for operation expressly contemplate that at certain times more than 20,000 acre-feet may be stored in Trinidad Reservoir pursuant to the Model Reservoir storage right without materially depleting the waters of the Arkansas River.

However, the Model transfer decree does include conditions which prevent injury to downstream water users, including Colorado's obligations under the Arkansas River Compact. Chief among these conditions is the requirement that the storage of water in the Trinidad Reservoir under the Model Reservoir storage right be regulated in such a manner that the quantity and quality of water occurring in the Purgatoire River at the Thatcher gauge below the project area remain and be the same, as determined by the state engineer, during any period of ten years reckoned in a continuous progressive series, as it would have been had the Model Reservoir storage right not be transferred to the Trinidad Reservoir. As you were informed by the state engineer at our August 31, 1982 meeting, based on the best available information, this and the other operating conditions have been complied with. Thus, there is simply no basis for asserting a violation of the terms of the Model transfer decree.

Finally, the courts of the State of Colorado, not the Arkansas River Compact Administration, are the entities responsible for determining compliance with Colorado's judicial decrees. The Arkansas River Compact Administration has been specifically denied that authority by art. VI A of the compact. Thus, inquiry into the compliance with the Model Transfer decree is simply not germane. Rather, the matter at hand requires a determination of whether the operation of the Trinidad Reservoir has materially depleted the waters of the Arkansas River in usable quantity or availability for use to the water users in Colorado and Kansas.

In paragraph No. 4 of your October 12, 1982 letter you demand that Colorado agree that the joint use capacity in Trinidad Reservoir was never intended by the Congress of the United States nor the State of Kansas to provide additional storage space under the Model Reservoir storage right. I fail to see how either of these claims are germane to the question of material depletion of the waters of the Arkansas River. Even if germane, I am unable to determine what the intentions of the State of Kansas were at that time because you have provided me no information from which that intent can be ascertained. However, I do believe that the Trinidad Dam and Reservoir Project as described by House Document 325, as implemented by the operating principles, did contemplate storage in excess of 20,000 acre-feet could occur in Trinidad Reservoir pursuant to the Model Reservoir storage right.

One of the purposes of the project was to provide an improved water

supply to a reduced acreage by preventing winter irrigation practices and by storage of water. The United States Bureau of Reclamation's Irrigation Report on said project expressly contemplated that in some year there would be carry over storage in excess of 20,000 acre-feet without restriction on the amount of storage in the unused sediment capacity in the following year. The operating principles make provision for this by allowing storage for irrigation purposes in the unsedimented portion of the joint-use capacity under the district storage right. The Bureau of Reclamation's Irrigation reports and House Document 325 also expressly contemplated that this practice could occur without materially depleting the waters of the Arkansas River. For these reasons, I do not believe that storage of water in the joint use capacity of Trinidad Reservoir under the Model Reservoir storage right violates the laws of the United States, the Arkansas River Compact, the Model Transfer decree, the conditions of House Document 325 or the operating principles.

There has also been no violation of the five Kansas conditions to the operating principles because those conditions simply do not address storage of water in the joint use capacity of Trinidad Reservoir under the Model Reservoir storage right. To the extent that the State of Kansas believes this was the intent of those conditions, its remedy lies in seeking an amendment to the operating principles, not in accusing Colorado of compact violations.

In paragraph No. 5 you demand that Colorado agree that the water laws of the State of Colorado are subordinate to the provisions of the Arkansas River Compact. I believe this is an overly broad and inaccurate statement of law. The Arkansas River Compact simply apportions the waters of the Arkansas River between Colorado and Kansas but, as shown *inter alia* by Art. VI A (2), does not make Colorado water law subordinate to all its provisions.

In paragraph No. 6 of your letter you demand that Colorado agree that the questions of law and fact concerning the waters of the Arkansas River as defined in art. III B of the compact are the proper subject of arbitration pursuant to art. VIII D of the compact. This is an inaccurate statement of what art. VIII D of the compact provides. Arbitration under art. VIII D is limited to matters within the purview of the Arkansas River Compact Administration. Simply because a question of law or fact involves the waters of the Arkansas River it does not mean it is within the purview of the Arkansas River Compact Administration. Therefore, I am unable to agree with the demand contained in said paragraph No. 6.

In concluding your letter you stress your belief in the importance of utilizing the arbitration procedures of the compact and express your "hope that there will be an agreement to arbitrate any areas of disagreement." As I told you at our August 31, 1982 meeting, before there can be any agreement to arbitration there must first be something to arbitrate. At this point Kansas has simply failed to establish any factual basis supporting a claim of material depletion of the waters of the Arkansas River by the operation of Trinidad Reservoir. Moreover, were such a factual basis established for arbitration Colorado would insist that such arbitration also include Colorado's substantial concerns regarding the use of the waters of the

Arkansas River by Kansas water users.

In conclusion, it is my belief that an amicable resolution of this current controversy will only be possible through a full and frank exchange of views, and not by exchange of unwarranted demands supported only by conclusory justifications. I am, by this letter, again attempting to commence the process of a frank exchange of views. I request the State of Kansas to move forward in this same spirit by providing my successor, Duane Woodard, with a detailed response to the views expressed in this letter. If the current dispute cannot be amicably resolved, then the State of Colorado will take all appropriate action to protect her interests from this most recent challenge by the State of Kansas. I sincerely hope that your response to this letter will be such as to avoid the need for renewed litigation over this river we share.

Sincerely,
/s/ J. D. MacFarlane
Attorney General

JDM:9478:wp

cc: Duane Woodward
J. William McDonald
Jeris A. Danielson
Frank Cooley
Carl Genova
Leo Idler

ATTACHMENT G

January 24, 1983

The Honorable Duane Woodward
Attorney General of Colorado
State Services Building
1525 Sherman Street, Third Floor
Denver, Colorado 80203

Dear General Woodward:

Re: Operation of Trinidad Reservoir

This letter is in response to your predecessor's January 10, 1983, reply to my letters of October 12, 1982, and December 15, 1982, concerning the controversy surrounding the operation of Trinidad Reservoir. I hope this will be the beginning of a meaningful dialogue between our offices concerning this and the other problems of administering the interstate waters we share.

I wish to emphasize in this letter a point I feel was perhaps lost with General MacFarlane. Our two states have differing views concerning the operation of Trinidad Reservoir. Certain members of the Kansas government, as well as members of Kansas agribusiness economy, hold deep convictions concerning the Arkansas River and its

development. Neither the assurances of Dr. Danielson nor General MacFarlane can readily dissuade these convictions.

With the above in mind, I ask you join with this office in a request to the Compact Administration for the arbitration of the Trinidad issue. General MacFarlane indicated he felt more information was needed before any call for arbitration could be heeded. I now present the following information which I feel is extremely relevant.

Persons of good faith and conscious, both in government and the farm community, believe the Trinidad Reservoir at Trinidad, Colorado, has been operated in such a manner as to deprive the downstream users, both in Kansas and Colorado, of their rightful share of water. In Colorado, we find people who believe Trinidad is not being used in such a manner. I believe this is the exact type of situation which calls for the use of neutral third party deliberations. An arbitration panel, consisting of a representative from each of our States and chaired by a neutral third party, would provide the forum necessary for the presentation and resolution of the Trinidad controversy.

While I fully recognize and respect Colorado's right of sovereignty, it is a fact that we share the Arkansas River. This precious resource so vital to our States is one which should, and must, be administered for the benefit of all. Through arbitration, both our States would be given a full and equal opportunity to present their beliefs, facts, and convictions concerning the Arkansas River. It is an opportunity for interstate cooperation which should not be abandoned.

Therefore, I respectfully request that you join with me on February 1, 1963, in Garden City, Kansas, at the special meeting of the Arkansas River Compact Administration in our request for arbitration concerning Trinidad Reservoir. I will be sending a representative to this meeting with instructions to do all he can to seek an amicable resolution to the Trinidad issue. I firmly believe at this time the very most I can do for our States is to seek the enactment of a resolution calling for the arbitration of our current dispute. I sincerely hope you will join with me in that request.

Very truly yours,
/s/ Robert T. Stephan
Attorney General

MC

ATTACHMENT H

March 23, 1983

Honorable Robert T. Stephan
Attorney General of Kansas
Kansas Judicial Center, 2d Floor
Topeka, Kansas 66612

Re: Operation of Trinidad Reservoir

Dear General Stephan:

I am writing in response to your letter of January 24, 1983. In that letter you advised me that certain members of Kansas government as well as members of Kansas farm communities believe that Trinidad Reservoir at Trinidad, Colorado had been operated in such a manner as to deprive the downstream users in both Kansas and Colorado of their rightful share of water. Neither in your letter nor at any other time have you explained the factual basis for this belief. Yet, on the basis of this belief alone, you asked me to join with you at the Arkansas River Compact Administration meeting to request arbitration concerning Trinidad Reservoir.

It is, of course, a factual question whether, by the operation of Trinidad Reservoir, the waters of the Arkansas River have been materially depleted in usable quantity or availability for use to water users in Colorado and Kansas. Throughout this controversy it has been the view of the State of Colorado, based on the factual information known to it, that no water users in Colorado and Kansas have been deprived of water to which they are legally entitled by virtue of the operation of Trinidad Reservoir. The factual basis for this view has been explained to the government officials of the State of Kansas and factual data supporting this view has been supplied to the proper Kansas officials. The State of Colorado hoped that by so doing the State of Kansas would, either by use of the data provided or with information known to Kansas, identify and explain to Colorado the factual basis for its claims. To aid in this process this office, by letter dated January 10, 1983, provided you with a detailed written explanation of the views of Colorado and invited a similarly detailed response. Through this process Colorado had hoped to encourage a full and frank exchange of views and information which would lead to an amicable resolution of this dispute. Unfortunately, to date the State of Kansas has not responded with any explanation of the factual basis for its claims.

For a matter to be subject to arbitration under the Arkansas River Compact, it must be a matter within the purview of the administration. Arkansas River Compact, Art. VIII D. Due to the failure of the State of Kansas to identify the underlying factual basis for its claims, I am unable to determine whether arbitration is an appropriate method for dispute resolution. For these reasons, I will not join your request to the Arkansas River Compact Administration for arbitration concerning the operation of Trinidad Reservoir. Instead, I sincerely hope you will

encourage the appropriate officials of the State of Kansas to identify and explain to Colorado the factual basis for the claims of the State of Kansas. When Kansas has done so, the precise basis of the dispute can be defined and the proper method for its resolution can be chosen.

Very truly yours,
/s/ Duane Woodard
Attorney General

DW:mb

cc: J. Wm. McDonald
Jeris A. Danielson
Frank Cooley
Carl Genova
Leo Idler

bcc: Robert W. Jesse
Charles B. Howe
Joel W. Cantrick
Janet Miller
Clyde Martz, Esq.

ATTACHMENT I

AMENDED RESOLUTION CONCERNING OPERATION OF TRINIDAD RESERVOIR

I

WHEREAS, on the 30th day of June, 1980, the Arkansas River Compact Administration found as follows:

1. It has come to the attention of the Arkansas River Compact Administration that 18,290 acre-feet of water stored under the Model Reservoir water right in Trinidad Reservoir during Compact Year 1979 was transferred to the joint use pool on September 28, 1979, by action of the Board of Directors of the Purgatoire River Water Conservancy District without objection from the Division Engineer for Division II, Colorado Division of Water Resources;
2. An additional 20,000 acre-feet was stored in Trinidad Reservoir under the Model Storage Right during Compact Year 1980;
3. The State of Kansas has questioned whether or not these actions are in conformity with the operating principles for Trinidad Reservoir; and

WHEREAS, pursuant to the above, the Compact Administration resolved that pursuant to Article VIII, § H of the Arkansas River Compact, the Compact Administration should cause an investigation to be made of these circumstances; and

WHEREAS, pursuant to the above, the Compact Administration further resolved that this investigation should be accomplished on behalf of the Compact Administration by the Colorado Water Con-

servation Board and the Kansas Division of Water Resources, which entities should conduct said investigation as promptly as possible and report their determinations to the Compact Administration as soon as possible after the adoption of this resolution; and

WHEREAS, a report was submitted by Mr. Guy E. Gibson, Chief Engineer/Director, Division of Water Resources, Kansas State Board of Agriculture, and J. William McDonald, Director, Colorado Water Conservation Board, on the 25th day of September, 1980, pursuant to the Compact Administration's resolution of the 30th day of June, 1980; and

WHEREAS, said report found in part that 18,290 acre-feet of water was stored by the Purgatoire River Water Conservancy District under the Model Storage Right in Trinidad Reservoir in priority between April 15, 1979, and September 28, 1979; that the Purgatoire River Water Conservancy District transferred this amount of water into the joint use pool of Trinidad Reservoir by resolution on September 28, 1979, thereby leaving the Model Storage account empty, and that this water was still physically located behind Trinidad Dam on June 30, 1980; and

WHEREAS, said report further found in part, that 20,000 acre-feet of water was stored by the District under the Model Storage Right in Trinidad Reservoir in priority during the period April 16, 1980, through May 17, 1980. This water was physically stored behind Trinidad Dam and in the Model Reservoir accounts of June 30, 1980;

WHEREAS, subsequent investigation by Howard Corrigan, Water Commissioner, Garden City, Kansas, Division of Water Resources, Kansas Board of Agriculture, has shown that during irrigation year beginning April 15, 1981, and ending October 14, 1981, an additional quantity of 28,310 acre-feet of water was stored in Trinidad Reservoir by the District under the Model Storage Right.

WHEREAS, subsequent investigation by Howard Corrigan, Water Commissioner, Garden City, Kansas, Division of Water Resources, Kansas Board of Agriculture, has shown that during the irrigation year beginning April 23, 1982, and ending October 14, 1982, an additional quantity of 11,914 acre-feet of water was stored in Trinidad Reservoir by the District under the Model Storage Right.

II.

WHEREAS, the United States Department of the Interior, Bureau of Reclamation, Region 7, Denver, Colorado's Irrigation Report on the Trinidad Project, Colorado, A Corps of Engineers Project, Upper Arkansas River Basin, Volume 1, July, 1964 (Revised September, 1964), states in part:

All waters delivered to the 19,717 acres of District irrigable area will be limited during the irrigation season to the irrigation requirements of the farm headgate as determined by the District. Allowance for canal and lateral losses on the individual ditch system will also be determined by the District. (Article IV, ¶ B(2).)

WHEREAS, the water requirements as determined under Part IV (Page 13) Table 3 indicate the computed average water

requirements for the Trinidad Project at 3.10 acre-feet of water per acre of land; and

WHEREAS, the total water applied for lands irrigated by the Trinidad Project in 1979 was 4.3 acre-feet of water per acre of land, and in 1980 was 4.7 acre-feet of water per acre of land; and

WHEREAS, such excessive uses of water by the Purgatoire Water Conservancy District deprived downstream Kansas and Colorado water users of 6,963 acre-feet of water in 1979 and 14,278 acre-feet of water in 1980;

III.

NOW, THEREFORE, BE IT RESOLVED, that pursuant to Article VIII, ¶ H of the Arkansas River Compact, the Compact Administration finds as follows:

1. The transfer of 18,290 acre-feet of water stored by the Purgatoire River Water Conservancy District under the Model Storage Right in Trinidad Reservoir in priority between April 15, 1979, and September 28, 1979, by resolution of the Purgatoire River Water Conservancy District Board on September 28, 1979, into the joint use pool of Trinidad Reservoir deprived Colorado and Kansas downstream water users of their equitable share of the waters of the Arkansas River, as defined in Article III, ¶ B of the Arkansas River Compact and, therefore, violates Article IV, ¶ D of the Arkansas River Compact which provides: "(T)he waters of the Arkansas River, as defined in Article III, shall not be materially depleted in usable quantity or availability for the use to the water users in Kansas and Colorado under this contract by future development or construction." Said action also violates Condition 3 of the Kansas Conditions to the Operating Procedures of Trinidad Dam and Reservoir Project, which provides that "there will be no significant increase in water use which would result in the depletion of water yield to other Colorado and Kansas users."
2. The storage of 18,290 acre-feet of water of the total 20,000 acre-feet of water stored by the district under the Model Storage Right in Trinidad Reservoir in priority during the period April 16, 1980, through May 17, 1980, was in violation of the court decree of the District Court in and for the County of Las Animas, Colorado, Civil Action No. 19793, dated April 15, 1965, which states in part: "The petitioners may store out of the waters of the Purgatoire or Las Animas Rivers in Trinidad Reservoir under priority No. 10, appropriation priority No. 168, and water district No. 19, and the date of the appropriation January 22, 1908, up to 20,000 acre-feet of water in Trinidad Reservoir...."; Article IV, ¶ D of the Arkansas River Compact, and Condition 3 of the Kansas Conditions to the Operating Procedures of Trinidad Dam and Reservoir Project.
3. The storage of 28,310 acre-feet of water by the District under the Model Storage Right in Trinidad Reservoir during the period April 15, 1981, through October 14, 1981, was in violation of the court decree of the District Court in and for the County of Las Animas, Colorado, Civil Action No. 19793, dated April 16, 1965; Article IV, ¶ D of the Arkansas River Compact, and Condition 3 of the Kansas Conditions to the Operating Procedures of Trinidad Dam and Reservoir Project.

4. The storage of 11,914 acre-feet of water by the District under the Model Storage Right in Trinidad Reservoir during the period April 23, 1982, through October 14, 1982, was in violation of the court decree of the District Court in and for the County of Las Animas, Colorado, Civil Action No. 19793, dated April 16, 1965; Article IV, ¶ D of the Arkansas River Compact and Condition 3 of the Kansas Conditions to the Operating Procedures of Trinidad Dam and Reservoir Project.

5. The joint use capacity in Trinidad Reservoir was never intended by the Congress of the United States nor the State of Kansas to provide additional storage space under the Model Storage Right and, in practice, has been turned into such, in violation of the laws of the United States, the Arkansas River Compact, the District Court of Las Animas County, Colorado's, order of April 15, 1965, in Case No. 19793, the conditions of operations of the Trinidad Dam and Reservoir Project prescribed by House Document No. 325, 84th Congress, Second Session, January 30, 1956, as implemented by Article IV of the "Operating Principles of Trinidad Dam and Reservoir Project" which is appended to Volume 1 of the United States Bureau of Reclamations' Irrigation Report on said Project (revised September, 1964), as well as the five operating principles approved by the State of Kansas and attached to the Operating Principles, Trinidad Dam and Reservoir Project.

6. The Purgatoire Water Conservancy District is in violation of Part IV (Page 13) Table 3 of the Operating Principles established under the United States Department of the Interior, Bureau of Reclamation, Region 7, Denver, Colorado's Irrigation Report on the Trinidad Project, Colorado, a Corps of Engineers Project, Upper Arkansas River Basin, Volume 1, July, 1964 (Revised September, 1964, and Article IV, ¶ D of the Arkansas River Compact which provides:

The waters of the Arkansas River as defined in Article III shall not be materially depleted in usable quantity or availability for the use to the water users in Kansas and Colorado under this Compact by future development or construction, and Condition 3 of the Kansas Conditions to the Operating Procedures of Trinidad Dam and Reservoir Project.

BE IT FURTHER RESOLVED, that the Compact Administration recommends to the chief official of the State of Colorado charged with the administration of water rights in the State of Colorado that he issue an order for the release of 58,514 acre-feet of water from the Trinidad Reservoir in such a manner as to be most beneficial to downstream Colorado and Kansas users, with such release beginning no later than the 1st day of April, 1983.

BE IT FURTHER RESOLVED, that the Compact Administration recommends to the chief official of the State of Colorado charged with the administration of water rights in the State of Colorado that prior to the implementation of any future sale, exchange, transfer, or regulation of the waters of the Arkansas River, as defined in Article III, ¶ B of the Arkansas River Compact, that may affect the flow of water into the John Martin Reservoir, the Arkansas River Compact Administration, established under Article VIII of the Arkansas River Compact, shall be consulted and the approval shall be obtained for said sale, exchange, transfer, or regulation.

ATTACHMENT J

1. Pueblo Reservoir Operation Orders for the following canal companies:
 - CF&I Steel Corporation
 - Bessemer Irr. Ditch Co.
 - West Pueblo Ditch Co.
 - Hamp-Bell
 - Comanche Power Plant
 - Riverside Dairy
 - City of Pueblo
 - Excelsior
 - Collier
 - The Colorado Canal Co.
 - High Line Canal Co.
 - Oxford Farmers Ditch Co.
 - Otero
 - Catlin Canal Co.
 - Holbrook Canal Co.
 - Rocky Ford Ditch Co.
 - Las Animas Canal Co.
 - St. Charles Mesa
 - Pueblo West
 - Beaver Park
 - Lamar Canal
 - Town of Olney Springs
 - Fort Lyon Canal Co.
2. Pueblo Reservoir Interim Accounting Sheets
June 1975-December 1982
3. Winter Water Accounts
March 1976-September 1977
March 1979-December 1982
4. Compilation reports of Winter Water Storage in Pueblo Reservoir
1975-76, 1976-77, 1978-79, 1979-80, 1980-81 and 1981-82

ATTACHMENT K

RESOLUTION CONCERNING THE PUEBLO RESERVOIR OPERATING PLAN

WHEREAS, on July 24, 1951, prior to the construction of Pueblo Reservoir, the following Resolution was adopted by the Arkansas River Compact Administration which stated in part:

"There shall be no re-regulation of the native waters of the Arkansas River as proposed in such report until a plan of operation, rules, regulations, procedures and agreements in

furtherance thereof, including all pertinent agreements between the Corps of Engineers and the Bureau of Reclamation, shall have been submitted to, and approved by the Arkansas River Compact Administration and the affected water users."

WHEREAS, no such plan of operation, rules, regulations or procedures and agreement have ever been submitted to the Arkansas River Compact Administration for approval and no such operating plan has ever been approved.

NOW, THEREFORE, be it resolved that a draft of the operating plan, as described above, shall be presented by the State of Colorado Compact members to the Arkansas River Compact Administration for approval no later than May 1, 1983.

FURTHER, Be it resolved that the plan of operations shall include, but not be limited to, the following provisions:

1. That there shall be an annual review of the actual operation of Pueblo Reservoir to determine if any water was impounded in Pueblo Reservoir that would have reached John Martin Reservoir if Pueblo Reservoir had not existed.
2. That this review shall be made by a representative of the Division of Water Resources of the Kansas State Board of Agriculture and a representative of the Colorado State Engineer's office.
3. That this review shall begin no later than April 1 of each year and shall be completed no later than the following May 31st.
4. That the findings of this review shall be submitted to this Administration upon completion.
5. That if it is found that water was stored in Pueblo Reservoir that would have reached John Martin Reservoir, then this amount of water shall be released from Pueblo Reservoir and protected down to John Martin Reservoir no later than August 1 following the improper storage.

ATTACHMENT L

RESOLUTION CONCERNING THE PUEBLO RESERVOIR OPERATING PLAN

WHEREAS, on July 24, 1951, prior to the construction of Pueblo Reservoir, the following Resolution was adopted by the Arkansas River Compact Administration which stated in part:

"There shall be no re-regulation of the native waters of the Arkansas River as proposed in such report until a plan of operation, rules, regulations, procedures and agreements in furtherance thereof, including all pertinent agreements between the Corps of Engineers and the Bureau of Reclamation,

shall have been submitted to, and approved by the Arkansas River Compact Administration and the affected water users."

WHEREAS, no such plan of operation, rules, regulations or procedures and agreements have never been submitted to the Arkansas River Compact Administration.

NOW, THEREFORE, be it resolved that the Administration requests the State of Colorado to submit an operating plan for Pueblo Dam and Reservoir to the Administration in order that the Administration can review the plan for compliance with Article IV. D. of the Arkansas River Compact.

ATTACHMENT M
February 28, 1983
AGREEMENT

1. This agreement will expire November 1, 1983.
2. Colorado and Kansas will cooperate in all release rates to secure the most efficient delivery of water to the Stateline and to Kansas water users.
3. Credit for delivery to Kansas will stop at the Stateline 7 days after the end of the run at John Martin Reservoir. No credit for over delivery will be carried forward to any subsequent run.
4. 35% of all "other water" will be transferred into Kansas transit loss account. In the event that water in Kansas transit loss account exceeds the transit loss at the end of the irrigation year, the excess balance will be transferred into the Kansas and Colorado storage accounts.

/s/ Howard C. Corrigan, Hydrologist
Kansas State Board of Agriculture
Division of Water Resources

/s/ Robert W. Jesse
Colorado Division Engineer

ATTACHMENT N

RESOLUTION

BE IT RESOLVED BY THE ARKANSAS RIVER COMPACT ADMINISTRATION

WHEREAS, Guy E. Gibson, Chief Engineer-Director, Division of Water Resources, Kansas State Board of Agriculture, has served as a Representative of the State of Kansas on the Arkansas River Compact Administration since 1972; and

WHEREAS, Mr. Gibson has voluntarily elected to retire from the office of Chief Engineer-Director, Division of Water Resources, and from the Arkansas River Compact Administration; and

WHEREAS, Mr. Gibson has contributed his professional knowledge, ability and services to the Arkansas River Compact Administration;

NOW THEREFORE, BE IT RESOLVED, that the Arkansas River Compact Administration does hereby acknowledge the outstanding contribution of Guy E. Gibson to this Administration and to the States of Colorado and Kansas and express appreciation to Mr. Gibson and extend to him the best wishes of each member of this Administration for continued good health and happiness in all his future endeavors.

BE IT FURTHER RESOLVED, that this resolution be entered into the records of this Administration and that the Secretary be instructed to send a copy to Mr. Gibson.

Entered this 25th day of March, 1983 at a special meeting of the Arkansas River Compact Administration in Garden City, Kansas.

/s/ Frank G. Cooley
Chairman

/s/ Leo Idler
Recording Secretary

APPENDIX "C-4"

MINUTES OF THE ARKANSAS RIVER COMPACT ADMINISTRATION

SPECIAL MEETING

August 26, 1983
Denver Federal Center
Denver, Colorado

A special meeting of the Arkansas River Compact Administration was held at the Denver Federal Center in Denver, Colorado, on August 26, 1983. The agenda for the meeting is included as Attachment A.

The meeting was called to order at 9:00 (MDT) by Mr. Frank Cooley, Chairman and United States representative. Administration members in attendance were:

For Kansas:

Carl E. Bentrup — Deerfield, Kansas
Ronald Olomon — Garden City, Kansas
David Pope — Topeka, Kansas

For Colorado:

Carl Genova — Pueblo, Colorado
Leo Idler — Lamar, Colorado
J. William McDonald — Denver, Colorado

After the introduction of Administration members, Agenda Item #4 was corrected to read "Report of the Treasurer." The agenda as corrected was approved.

The next item was the approval of Minutes of the December 14, 1982 meeting. Mr. McDonald advised that there was a change to the draft minutes. The correction was on page 8, paragraph 4. The concluding 3 words should read "any given time," rather than "any given year." An editorial change recommended by Mr. McDonald to Attachment E was the inclusion of the following title to the first sheet after the Operations Committee Report: "Report of the Colorado Division Engineer, November 12, 1982." The minutes, with these two changes, were approved and signed by Mr. Cooley.

There were no corrections to the Minutes of the Special Meeting of March 25, 1983. These were also approved and signed by Mr. Cooley.

The next item was the disposition of the tape recordings made of the Administration's meetings. After a general discussion, it was concluded that the official records of the meetings are the written minutes as approved by the Administration. However, it was agreed that the tapes would be preserved by the Administration until a decision was reached on their final disposition.

The next item, Agenda Item #4, was a brief presentation of the

Treasurer's Report by Mr. Idler. Mr. Idler submitted a copy of the audit for the fiscal year ending June 30, 1983 (Attachment B), a copy of checks written since December 14, 1982 (Attachment C), a copy of the most recent bank statement (Attachment D), a copy of the most recent savings account statement (Attachment E), and copies of the Administration's F.Y. 83-84 and F.Y. 84-85 budgets (Attachments F & G).

Mr. McDonald noted that the audit report reflected that the assessment paid by Colorado was about \$3.70 more than was actually paid by Colorado. He requested that Mr. Idler ask for a letter of clarification from the auditors about this error.

The next item was a review of the previously approved F.Y. 1983-84 and F.Y. 1984-85 budgets.

Mr. McDonald stated that Colorado's assessment for 1983-84 had been paid but that there may be problems next year. Mr. Pope stated that Kansas had also paid its 1983-84 assessment. Mr. Jim Blakey, U.S.G.S., stated that the 1983-84 Cooperative Agreement for \$12,000 was satisfactory. It was concluded that there were no changes required in the F.Y. 1983-1984 budget as previously adopted.

Mr. McDonald then stated that the 1984-85 budget had been previously approved and was presented for review to see if any changes were required. Mr. Hughes presented a brief discussion of U.S.G.S. activities in Colorado to be funded by the cooperative agreement. A copy of a letter from Mr. Jerry Hughes to Mr. Cooley detailing the U.S.G.S. program in Colorado is included as Attachment H. Mr. Livingston then briefly outlined the U.S.G.S. program in Kansas for F.Y. 1984-85 (Attachment I). The Administration concluded that the U.S.G.S. program was consistent with the budget and that no changes were required in the budget.

At this time, several persons from Kansas and Colorado were introduced and the meeting was then recessed from 9:50 a.m. to 10:25 a.m.

After recess, Agenda Item #6, Report of Operations Secretary, was postponed and Mr. Cooley went to Agenda Item #7, Reports of the Federal Agencies. Mr. Bentrup then read two statements (Attachment J and K) into the record concerning Trinidad Reservoir and Pueblo Reservoir.

Mr. Cooley then invited Colorado to respond to Mr. Bentrup's statements. Mr. William Paddock, First Assistant Attorney General, Colorado Department of Law, stated that Kansas was misinterpreting the operating principles for Trinidad Reservoir as well as the authority of the Administration under the Arkansas River Compact. He noted that the operating principles for Trinidad Reservoir were fully explained to Kansas at the time they were being developed and that Kansas give its accent to them subject to five conditions. The project contemplated a reduction in the then irrigated acreage, which has in fact occurred, to provide a full water supply to the project lands. Necessarily, the project contemplated carryover storage and contemplated storage in the reservoir in excess of 20,000 acre-feet.

Mr. Paddock stated that it is the position of the State of Colorado that the operating criteria have been complied with each and every year and that no more water than the Purgatoire Water Conservancy

District was entitled to store under its various water rights had been stored. He also stated that under the Arkansas River Compact construction of dams and reservoirs is permitted so long as the waters of the Arkansas River are not materially depleted thereby. He stated that it is the position of the State of Colorado that the Trinidad project has caused no such material depletion to the waters of the Arkansas River.

With respect to the Fryingpan-Arkansas Project, Mr. Paddock asserted that Kansas misinterpreted the Arkansas River Compact and the authority of the Administration. He pointed out that in paragraph number 3 of the full resolution adopted by the Administration in 1951, the following statement appears:

... that regulation of the native waters of the Arkansas concerns the Arkansas River Compact Administration and both Colorado and Kansas in complying with the provisions of the Arkansas River Compact in maintaining the benefits and obligations of the two states under that compact. To that end it is recommended to the governors of Kansas and Colorado and expressed as a policy of the Arkansas River Compact Administration that there be no reregulation of native waters.

Mr. Paddock stated that that paragraph makes clear that the Administration understood at that time, as it should understand now, that it does not administer water rights in Colorado and that in 1951 it was only making a policy statement and recommendation to the Governors of the states, and did not purport to bind them. Mr. Paddock concluded that Kansas' interpretation of the effect of the Administration's 1951 resolution is erroneous.

The next item on the agenda was the presentation by the Corps of Engineers. Mr. Cooley requested that Col. Emory Pylant, Albuquerque District, make his presentation. Col. Pylant read a prepared statement into the record. This statement is included as Attachment L.

Considerable discussion then ensued among members of the Administration, Corps personnel, and Mr. Bob Jesse, Colorado Division Engineer, concerning the flood control space in Trinidad Reservoir and the operation of the reservoir to temporarily detain inflows which exceed downstream channel capacity. Questions concerning the Corps' role in flood control operations vis-a-vis that of the Division Engineer were also discussed. There was also a discussion of the channel capacity below Trinidad.

Mr. McDonald then asked Col. Pylant whether his two main conclusions — that there was no action of which the Corps was aware that had violated either the Compact or federal law and that the current differences between Kansas and Colorado were not ones into which the Corps should be interjected — were made with respect to the operation of both Trinidad and Pueblo Reservoirs. The Colonel responded that his conclusions were made with respect to both reservoirs. He added that the Corps had complied with state law as well as the Compact and federal law.

Mr. Howard Corrigan, Kansas Water Commissioner, then brought up what appear to be discrepancies between Corps and U.S.G.S. storage records on Trinidad Reservoir. Mr. John Cunico, Albuquerque District, stated that the Madrid gage is a poorly located gage and gives a poor record. He noted that the Corps uses the change in storage and

outflow, rather than an inflow-outflow relationship, to determine what is happening. Mr. Hughes agreed that the Madrid gage was poor. He stated that the USGS operates two gaging stations above and two stations below Trinidad, as well as a stage recorder at Trinidad. However, he could not say which of the records were more accurate. Mr. Cooley requested that the Corps and the U.S.G.S. look into this matter and report to the Administration. A letter to the Administration dated September 28, 1983 was subsequently received from Mr. Hughes and is included herein as Attachment M.

Mr. Cooley then requested that Mr. Bill Martin make the presentation for the Bureau of Reclamation. After a general presentation on the Bureau's responsibilities, Mr. Martin asked that Mr. Ray Wilms, project manager, Fryingpan-Arkansas Project, to explain the operation of the project.

Mr. Wilms explained that the Bureau planned, constructed, and now operates the Fryingpan-Arkansas Project. The project's primary purpose is to divert water from the Colorado River basin to the Arkansas River basin for irrigation, municipal and industrial purposes. The project authorization also recognized the possibility of a winter storage program whereby decreed rights could be stored and used in a more effective manner. Mr. Wilms then described the physical facilities on the east and west slopes. With respect to Pueblo Reservoir, the Corps of Engineers sets the flood control criteria and the Colorado Division Engineer and the Bureau operate the system in accordance with these criteria. The present flood control criteria is that a flow of no more than 6000 cfs is to be maintained at the Avondale gage.

With respect to Trinidad Reservoir, Mr. Wilms noted that the Bureau planned the use of the conservation storage, prepared a report to Congress, drafted the operating criteria, and negotiated with the conservancy district. The Corps now operates the project.

Mr. Bentrup stated that it is Kansas' position that the Administration has an interest in securing a plan of operation for Pueblo Reservoir. A brief discussion on the authorizing legislation for the Fryingpan-Arkansas project ensued. There followed a brief discussion on whether the Administration's 1951 Resolution, which applied to the then proposed Gummison-Arkansas project, was applicable to the Fryingpan-Arkansas project.

The meeting was then recessed for lunch at 11:55 a.m. and reconvened at 1:20 p.m.

Messrs. Bentrup and Pope reiterated Kansas' position that the 1951 Resolution applied to the operation of Pueblo Reservoir. Mr. Pope stated that the federal government has an obligation to operate the reservoir in compliance with the Compact as well as state law. Mr. Martin responded that the Bureau believes that it is operating in compliance with the Compact because it assumes that the directions it receives from the Colorado Division Engineer for operation of the gates are not inconsistent with the Compact. Kansas restated its position that an operating plan for Pueblo Reservoir should be submitted to the Administration for its approval as per the 1951 Resolution.

Mr. Cooley then requested that Mr. Charles Thompson, general manager, Southeastern Colorado Water Conservancy District, explain the operation of Pueblo Reservoir under the winter storage program.

Mr. Thomson briefly reviewed the voluntary winter storage program and stated that Kansas had been on the mailing list since the beginning of the winter storage program and had been advised on a regular basis.

Mr. Bentrup acknowledged that they had been kept informed, but stated again that the Administration should have input into the operation of Pueblo Reservoir both with respect to winter storage, as well as flood flows originating above the reservoir.

Mr. Pope asked if Mr. Thomson objected to submitting an operating plan to the Administration for its consideration. Mr. Thomson stated that he could do that. Mr. McDonald stated that he wanted the record to be clear that Colorado has no objection to the Administration discussing, reviewing, and commenting on any such plan. However, it is Colorado's position that the Administration has no authority to approve any such plan or prevent its implementation if it does not like the plan.

There followed a further discussion of storage in Trinidad Reservoir. Mr. Bentrup reiterated Kansas' objection to the storage of more than 20,000 acre-feet under the Model Storage decree at any given time. In Kansas' view this violates the five Kansas conditions. He asserted that Kansas would not have approved the operating principles if storage pursuant to the Model decree had not been limited to 20,000 acre-feet. Mr. Pope added that it was the Bureau that developed the project and that it was on the Bureau's assurances that certain conditions would be met that Kansas agreed. Now, he stated, these conditions were not being met.

Mr. Tom Gibbons, Bureau of Reclamation, stated that there are provisions in the operating principles that prevent depletions greater than those that occurred historically. The Thatcher gage is the location at which depletions are measured.

Mr. Cooley asked Mr. Clyde Martz, legal counsel to the Purgatoire Water Conservancy District, to comment on this matter. Mr. Martz stated that the Bureau had made extensive studies during the project's formulation and that these studies contemplated carryover storage from year to year to cover uses in dry years and avoid surpluses in wet years. The Bureau's studies did not, he asserted, limit storage under the Model decree beyond limitations required under Colorado law and Colorado law permits the carryover of water from year to year. He said that this was in the report presented to Kansas and that it was on the basis of that report that the Water Resources Board of Kansas advised Colorado that the proposed Trinidad Reservoir would not materially deplete the water supply of the Purgatoire River provided that the five Kansas conditions were met. He stated that it was the District's position that Trinidad Reservoir is in strict compliance with each of those conditions, as well as the operating principles.

Mr. Bentrup asked Mr. Martz to comment on the limits of water use (application per acre). Mr. Martz stated that the 3.2 acre-foot per acre figure used by the Bureau was developed for repayment calculations only and did not necessarily represent the diversion rights of the ditches involved.

Mr. McDonald at this time left the meeting.

Mr. Cooley requested Mr. Blakey to make the presentation for the

U.S.G.S. Mr. Blakey stated that the purpose of the U.S.G.S. was to provide basic data, information, analyses and reports to help in the administration of the Compact. He then called on Mr. Hughes to give a brief summary of the present and future activities of the U.S.G.S.

Mr. Hughes stated that the U.S.G.S. collects data at 53 surface water stations and numerous groundwater wells throughout the Arkansas River Basin and that this data is available from WATSTORE, in a computerized data storage system, and a book called "Data for Colorado." The Survey has also prepared and published numerous surface and groundwater studies and investigations. At the present the Survey is preparing a comprehensive water quality and water quantity model for the Arkansas from Leadville to the Colorado-Kansas stateline. There followed several general questions on the U.S.G.S. program.

The next item, Agenda Item #6, was Mr. Jesse's report as the Operations Secretary. Mr. Jesse briefly reviewed the activities of the Operations Secretary. His comments and financial statement are attached (Attachment N).

Mr. Jesse reported that at the height of the 1983 spring runoff out of Pueblo Reservoir, a sewer line ruptured in the Arkansas River channel in the City of Pueblo. Consequently, reservoir releases were reduced from about 5,000 cfs to 200 cfs for a short period. Of the 10,000 acre-feet stored about 7,000 belonged to the intervening ditches and the other 3,000 belonged to John Martin Reservoir. After repair of the sewer line, the 3,000 acre-feet was delivered to John Martin Reservoir.

Also, about 25,000 acre-feet was stored in Pueblo Reservoir to prevent the flow at the Avondale gage from exceeding 6,000 cfs. This water was later delivered to the appropriate persons or locations as soon as flows went below 6000 cfs.

Mr. Pope questioned Mr. Jesse on the quantities of water used per acre on the Trinidad project lands. He said that Kansas' figures indicated as much use as 16 acre-feet per acre. Mr. Jesse responded that his jurisdiction extends only to the headgate and that he was not specifically advised of any waste of water, did not notice any flagrant waste, and had not made any specific investigations.

Mr. Cooley asked if Mr. Jesse had an opinion regarding the accuracy of the U.S.G.S.'s and the Corps' Trinidad Reservoir storage data. Mr. Jesse stated that he did not. Because the state calculates storage each day in concert with the Corps, he did not know how the U.S.G.S. did it. The state's records and data sheets are identical to the Corps'.

Mr. Bentrup again raised the issue of crop water requirements and alleged excessive water application on the Trinidad project lands. He felt that more water was used than needed and this prevented water from coming down the river to John Martin Reservoir.

Mr. Cooley asked Mr. Leo Pollart to speak to the Amity Canal Company's 50,000 acre-feet transfer to John Martin Reservoir. Mr. Pollart responded that they would like to see the Amity's account separated from the general accounts system under the resolution for the John Martin Reservoir operating plan. Mr. Cooley stated that

Amity's attorney should send a letter to the Administration on this matter.

There being no further business to come before the Administration, Mr. Cooley adjourned the meeting at 3:45 p.m.

The foregoing minutes were adopted on May 10, 1984, at a Special Meeting of the Administration held in Las Animas, Colorado.

/s/ Carl E. Bentrup
Vice Chairman
for Frank Cooley
Chairman

/s/ Leo Idler
Recording Secretary

ATTACHMENT A

Special Meeting
of the
Arkansas Compact Administration
9 a.m. (MDT)
Friday, August 26, 1983
Room E2411, Building 20
Lower Missouri Region, Bureau of Reclamation
Denver Federal Center
(West 6th Avenue & Kipling)
Denver, Colorado

1. Call to order
2. Approval of agenda
3. Approval of minutes
 - a. December 14, 1982, annual meeting
 - b. March 25, 1983, special meeting
 - c. Disposition of tape recordings of meetings
4. Report of Recording Secretary
5. Budget matters
 - a. Review of previously approved FY 83-84 assessments and budget
 - b. Review of previously approved FY 84-85 assessments and budget
6. Report of Operations Secretary
7. Reports from federal agencies on Trinidad and Pueblo Reservoirs
 - a. Bureau of Reclamation
 - b. Corps of Engineers
 - c. Geological Survey
8. Adjournment

ATTACHMENT B

**ARKANSAS RIVER COMPACT ADMINISTRATION
CASH BASIS FINANCIAL STATEMENTS
JUNE 30, 1983
with
REPORT OF INDEPENDENT
CERTIFIED PUBLIC ACCOUNTANTS**

**Crimond, Farmer & Company
Certified Public Accountants
203 East Oak, P.O. Box 1173, Lamar, CO 81052**

**ARKANSAS RIVER COMPACT ADMINISTRATION
CASH BASIS FINANCIAL STATEMENTS
JUNE 30, 1983**

**ARKANSAS RIVER COMPACT ADMINISTRATION
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JUNE 30, 1983**

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**Crimond, Farmer & Company
Certified Public Accountants**

**To the Representatives
Arkansas River Compact Administration
Lamar, Colorado 81052**

We have examined the Statement of Assets & Liabilities Arising from Cash Transactions of the Arkansas River Compact Administration as of June 30, 1983, and the Statement of Cash Receipts and Disbursements, Changes in Cash Balance and the Statement of Cash Receipts and Disbursements with Budget Comparison for the year ended June 30, 1983. Our examination was conducted in accordance with generally accepted auditing standards, and accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As described in Note 1 of the Notes to Financial Statements, the

accompanying statements are prepared on the cash basis of accounting and accordingly they are not intended to be presented in conformity with generally accepted accounting principles.

In our opinion, the financial statements present fairly the Assets & Liabilities Arising from Cash Transactions of the Arkansas River Compact Administration as of June 30, 1983, and the results of Cash Transactions for the year then ended on a basis consistent with the previous year.

Crimond, Farmer & Co.
Certified Public Accountants

August 8, 1983
Lamar, Colorado

**ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF ASSETS & LIABILITIES
ARISING FROM CASH TRANSACTIONS
JUNE 30, 1983**

ASSETS:	
Cash & Savings	\$36,354
Equipment	9,584
Concrete Control	8,000
TOTAL ASSETS	53,938
LIABILITIES	
CASH BASIS EQUITY:	
Expended:	
Equipment	9,584
Concrete Control	8,000
Unexpended:	36,354
TOTAL CASH BASIS EQUITY — Note 1a	53,938
TOTAL LIABILITIES & CASH BASIS EQUITY	\$53,938

The accompanying notes are an integral part of the financial statements.

**ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS & DISBURSEMENTS
& CHANGES IN CASH BALANCE
FOR YEAR ENDED JUNE 30, 1983**

CASH BALANCE, JULY 1, 1982	\$37,799
RECEIPTS:	
Revenue from Assessments:	
Colorado	11,608
Kansas	7,736
Interest	2,803
Miscellaneous	
TOTAL RECEIPTS	22,147
DISBURSEMENTS:	
Insurance	100
Geological Survey	10,845
	105

Equipment.....	2,483
Professional Fees.....	250
Office Supplies.....	550
Printing.....	1,849
Secretary's Salary—Net.....	3,359
Payroll Taxes.....	482
Telephone.....	1,336
Typing & Mailing.....	326
Bank Charges.....	12
Travel & Meetings.....	73
Secretarial.....	1,927
TOTAL DISBURSEMENTS	23,592
EXCESS OF RECEIPTS OVER (UNDER)	
DISBURSEMENTS	(1,445)
CASH BALANCE, JUNE 30, 1983	\$36,354

The accompanying notes are an integral part of the financial statements.

**ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
WITH BUDGET COMPARISON FOR THE BUDGET YEAR
JULY 1, 1982 TO JUNE 30, 1983**

	BUDGET	ACTUAL	ACTUAL OVER (UNDER)
CASH IN BANK, JULY 1, 1982.....	\$ —	\$37,799	\$37,799
RECEIPTS:			
Revenue from Assessments:			
Colorado — 60%.....	11,605	11,608	3
Kansas — 40%.....	7,736	7,736	—
Interest.....	—	2,803	2,803
TOTAL RECEIPTS	19,341	22,147	2,806
TOTAL TO ACCOUNT FOR	19,341	59,946	40,605
DISBURSEMENTS:			
U.S. Geological Survey.....	8,500	10,845	2,345
Secretary's Salary—Net.....	3,600	3,359	(241)
Bond and Insurance.....	100	100	—
Telephone.....	1,500	1,336	(164)
Payroll Taxes.....	241	482	241
Typing and Mailing.....	—	325	325
Travel and Meetings.....	1,000	73	(927)
Professional Fees.....	650	2,177	1,527
Office Supplies.....	500	551	51
Printing.....	1,250	1,849	599
Contingency.....	2,000	2,483	483
Bank Charges.....	—	12	12
TOTAL DISBURSEMENTS	\$19,341	\$23,592	4,251
CASH BALANCE, JUNE 30, 1983	\$ —	\$36,354	\$36,354

The accompanying notes are an integral part of the financial statements.

ARKANSAS RIVER COMPACT ADMINISTRATION
NOTES TO CASH BASIS STATEMENTS
JUNE 30, 1983

Note 1 — Summary of significant accounting policies:

- a. The Administration maintains financial records using the cash basis of accounting. By using the cash basis of accounting certain key accounts needed to present financial position and results of operations are omitted; examples of these accounts are accounts receivable and accounts payable.

ATTACHMENT C

CHECKS WRITTEN SINCE DECEMBER 14, 1982

Date	Check Number	To — For	Amount \$
Jan	5 556	Mountain Bell—Telephone	\$ 122.90
Jan	5 557	Federal Reserve—Payroll Taxes	40.20
Jan	5 558	Kings Kitchen Center—Computer Equip.	91.00
Jan	5 559	Gobin's—Supplies	37.83
Jan	5 560	Leo Idler—Salary & Supplies	333.70
Feb	4 561	Betz Publishing Co.—Ream of Paper	39.20
Feb	4 562	Leo Idler—Salary & Supplies-Postage	287.46
Feb	4 563	Federal Reserve—Payroll Taxes	40.20
Feb	4 564	Mountain Bell—Telephone	148.98
Mar	8 565	Mountain Bell—Telephone	144.20
Mar	8 566	Federal Reserve—Payroll	40.20
Mar	8 567	Leo Idler—Salary & Postage	304.36
Mar	30 568	Garden City Hilton Inn—Meeting Hall	72.80
Apr	5 569	Mountain Bell—Telephone	107.06
Apr	5 570	Federal Reserve—Payroll Taxes	40.20
Apr	5 571	Leo Idler—Salary & Postage	314.45
May	5 572	Mountain Bell—Telephone	93.98
May	5 573	Federal Reserve—Payroll Taxes	40.20
May	5 574	Void—Typing Mistake	
May	5 575	Leo Idler—Salary-Supplies-Postage	297.90
Jun	6 576	Crimond, Farmer & Co.—Copying	90.02
Jun	6 577	Mountain Bell—Telephone	83.25
Jun	6 578	Void	
Jun	6 579	Betz Publishing Co.—Printing Annual Report (1981)	1,822.66
Jun	6 580	The Xerox Store—Computer, Robert Jesse-Supplies	2,391.95
Jun	6 581	Federal Reserve—Payroll Taxes	40.20
Jun	6 582	Leo Idler—Salary-Postage	310.74
Jul	8 583	Video Concepts—Computer Supplies	1,309.30
Jul	8 584	Void	
Jul	8 585	Leo Idler—Salary-Supplies-Postage	293.98
Jul	8 586	Lewan & Associates—Robert Jesse-Supplies	202.80

Jul	8	587	Federal Reserve—Payroll Taxes	40.20
July	8	588	Mountain Bell—Telephone	182.24
Aug	5	589	Guaranty Abstract Co.—Treasurer's Bond	100.00
Aug	5	590	Void	
Aug	5	591	Leo Idler—Salary-Supplies-Postage	308.00
Aug	5	592	Mountain Bell—Telephone	144.96
Aug	5	593	Federal Reserve—Payroll Taxes	40.20

ATTACHMENT D

STATEMENT OF ACCOUNT

FIRST NATIONAL BANK in LAMAR
200 South Main • Lamar, Colorado 81052 • 303/336-4351

ARKANSAS RIVER 31
COMPACT ADMINISTRATION
c/o LEO IDLER
ROUTE 2
LAMAR, CO 81052

Account Number 00-025-4

Statement Date 07/29/83

Beginning Balance	No. of Checks	Total Amount of Checks Paid	Service Charge
114.69	4	719.22	.00

No. of Deposits	Total Amount of Deposits	Average Balance
1	2,028.32	661.00

Date	Check	Deposit	Balance
07/20	293.98	2,028.32	1,849.03
07/21	40.20		1,808.83
07/26	182.24		1,626.59
07/28	202.80		1,423.79

ATTACHMENT E

STATEMENT OF ACCOUNT

FIRST NATIONAL BANK in LAMAR
200 South Main • Lamar, Colorado 81052 • 303/336-4351

ARKANSAS RIVER 31
COMPACT ADMINISTRATION
COUNTY BLDG. ANNEX
1001 SOUTH MAIN STREET
LAMAR, CO 81052

Account Number 07-544-0

Statement Date 07/29/83

*9.000 PERCENT IN EFFECT THIS STATEMENT PERIOD

Beginning
Balance
36,279.71

Service
Charge
2.00

Date Check
07/20 2,028.32
07/28
07/29 2.00 SC

Deposit Balance
11,636.48 34,251.39
263.78 IN 45,887.87
46,149.65

No. of
Checks
1

Total Amount
of Checks Paid
2,028.32

No. of
Deposits
1

Total Amount
of Deposits
11,636.48

Average
Balance
36,382.00

ATTACHMENT F

BUDGET

Fiscal Year July, 1983-June 30, 1984

		\$ 9,941.20
A. SALARIES:		
1. Recording Secretary	\$ 3,600.00	
2. Operations Secretary	6,100	
3. Payroll Taxes	241.20	12,500.00
B. GAUGING STATIONS:		
1. Maintenance and Operation		
A. Cooperative		
Agreement	\$12,000.00	
B. Telemark Telephone		
John Martin Dam		
Granada	500	4,650.00
C. OPERATING EXPENSE:		
1. Treasurer's Bond	100.00	
2. Annual Report	1,500.00	
3. Office Expense		
A. Telephone	1,500.00	
B. Supplies	500.00	
C. Printing	500.00	
4. Travel and Meetings	250.00	
5. Audit	300.00	2,000.00
D. CONTINGENCY:		\$29,091.20
E. TOTAL BUDGET		
COLORADO (60%)	\$17,454.72	
KANSAS (40%)	\$11,636.48	

ATTACHMENT G

BUDGET

Fiscal Year July 1, 1984-June 30, 1985

A. SALARIES:		
1. Recording Secretary		\$ 9,941.20
2. Operation Secretary	\$ 3,600	
3. Payroll Taxes	6,100	
	241.20	
B. GAUGING STATIONS:		12,500.00
1. Maintenance and Operation		
A. Cooperative Agreement	\$12,000.00	
B. Telemark Telephone		
John Martin Dam		
Granada Gauge	500.00	
C. OPERATING EXPENSES:		4,600.00
1. Treasurer's Bond	100.00	
2. Annual Report	1,650.00	
3. Office Expense		
A. Telephone	1,600.00	
B. Supplies	350.00	
C. Printing	350.00	
4. Travel and Meetings	200.00	
5. Audit	350.00	
D. CONTINGENCY:		1,000.00
E. TOTAL BUDGET:		\$28,041.20
COLORADO (60%)	\$16,824.72	
KANSAS (40%)	\$11,216.48	

ATTACHMENT H

August 23, 1983

Mr. Frank Cooley, Administrator
Arkansas River Compact Administration
P.O. Box 98
Meeker, Colorado 81641

Dear Frank,

Enclosed is the program of hydrologic data collection by the U.S. Geological Survey, Water Resources Division (WRD), Colorado District, for the Arkansas River Compact Administration in Fiscal Year 1984 (FY 83) — October 1, 1983 to September 30, 1984. The program includes those data-collection activities recommended by the Compact for continuation in FY 84.

Assuming the program is acceptable, a joint-funding agreement will be forwarded to Compact secretary from our District office in Lakewood, Colorado in the amount of \$16,500; \$8,250 from the Arkansas River Compact Administration and \$8,250 in Federal matching funds provided by the U.S. Geological Survey, WRD, Colorado District. A separate program and joint-funding agreement will be issued by the Kansas District of the WRD for work performed by them.

Should you have any questions or want to discuss the program, please call me at (303) 544-7155.

Sincerely,
Jerry L. Hughes
Subdistrict Chief

Enclosure

cc: Leo Idler, Secretary, Arkansas River Compact Administration

JLHughes:ps:8-24-83

bcc: Blakey (w/enclosure)
Steger, Hughes w/enclosure
file 0010

WATER RESOURCE PROGRAM
Arkansas River Valley, Colorado
FISCAL YEAR 1984 — October 1, 1983 to September 30, 1984
U.S. Geological Survey,
Water Resources Division, Colorado District
in cooperation with
Arkansas River Compact Administration

This proposal is for continuing hydrologic-data collection in the Arkansas River Valley, Colorado. The funding shown in the table reflects the contribution from the Arkansas River Compact Administration which will be matched equally by the U.S. Geological Survey upon mutual acceptance of the program. The funding and

activity is for Fiscal Year 1984 — October 1, 1983 through September 30, 1984.

Surface-water station

		Funding	
07124000	Arkansas River at Las Animas 1		
	1. Supplemental discharge measurements	\$750	2
07128500	Purgatoire River near Las Animas 1		
	1. Supplemental discharge measurements	750	2
07130000	John Martin Reservoir		
	1. Maintenance of telemark	475	
07130500	Arkansas River below John Martin Reservoir 1		
	1. Supplemental discharge measurements	750	2
	2. Maintenance of telemark	475	
07133000	Arkansas River at Lamar 1		
	1. Supplemental discharge measurements	750	2
07134500	Arkansas River at Granada		
	1. Operation and maintenance	2,150	3
	2. Supplemental discharge measurements	750	2
	3. Maintenance of telemark	475	
	Radio relay stations		
	1. Operation and maintenance	925	4
		TOTAL: \$8,250	

1 Operation and maintenance of station funded by U.S. Geological Survey and includes about 12 discharge measurements per year plus computation of record.

2 Provides for six additional discharge measurements per year during the period April to November.

3 Provides for operation and maintenance of station and includes about 12 discharge measurements per year plus computation of record.

4 Provides for operation and maintenance of three relay stations in Colorado; repair or replacement of radio antennas, Texas Instruments Silent 700 computer terminal, and DARDC units.

ATTACHMENT I

Water Resources Division
1950 Constant Avenue — Campus West
University of Kansas
Lawrence, Kansas 66044-3897

August 22, 1983

Mr. Frank Cooley, Administrator
Arkansas River Compact Administration
P.O. Box 98
Meeker, Colorado 81641

Dear Frank:

The attached table summarizes the activities and related costs for FY 1984 (October 1983-September 1984) for the operation, maintenance, etc., of gaging stations and other related facilities under the joint-funding agreement between the Arkansas River Compact Administration and U.S. Geological Survey, Kansas District. Note that for your information the table also includes direct federal funding that is provided to support these activities as part of our Collection of Basic Record (CBR) program. For FY 1984, the total cost of the joint-funding agreement will be \$7,500, of which \$3,750 is repay funds from the Administration.

There has been considerable discussion about the cost of additional discharge measurements and possibly reducing the number partially funded through the Administration budget. The program proposal herein includes 11 additional measurements at the station, Arkansas River near Coolidge, resulting in a total of about 23 measurements during each water year. As briefly discussed during the Compact meeting of December 14, 1982, the Kansas District is completing an intensive evaluation of its entire surface-water data program. The attached figure illustrates one component of this evaluation: the uncertainty function for a streamflow gaging station. Based on a statistical analysis of historical discharge measurements, this uncertainty is represented by the relation between standard error of instantaneous discharge and number of measurements made during the year. For example, this figure shows, for the Arkansas River near Coolidge gage, that 12 measurements result in an error of about 22 percent while the additional 11 measurements (23 total measurements) reduce this error to about 14 percent. Because of the shape of the uncertainty function, considerable improvement in the quality of record is realized with each additional discharge measurement when 20-25 or fewer total measurements are made during the year. The above example showed an 8 percent reduction in standard error with the 11 additional measurements; to reduce the error another 8 percent could require more than 80 additional measurements.

The foregoing discussion is perhaps somewhat confusing, but provides important information that has not previously been available to the Administration. We have long recognized the general importance of discharge measurements as they influence the quality of final

streamflow records. It is only recently, however, that a technique has been available to quantify this relationship, even though the quantification is statistical and therefore inherently subject to error and interpretation. I would be glad to provide you additional explanation or information concerning the technique or its application to data networks.

Sincerely yours,
Russell K. Livingston
Associate District Chief

cc: Mr. David Pope, Chief Engineer/Director
Division of Water Resources, Kansas
Mr. J. Williams McDonald, Director,
CWCB, Colorado
Mr. Leo Idler, Secretary, Arkansas River
Compact Administration

FY 1984 (October 1983-September 1984)
SUMMARY OF PROGRAM
 U.S. Geological Survey (Kansas District)/
 Arkansas River Compact Administration
 and
 U.S. Geological Survey, Collection of Basic Records

Station number		Notes	Funds
07137500	Arkansas R. near Coolidge	A	\$5,500
		B	2,770
		C	1,000
07137000	Frontier Ditch	D	2,900
		C	310
	Radio relay stations (5 in KS)	E	2,920
	Federal OBR Program Total		\$ 8,400
	Cooperative Program Total		7,500
	TOTAL PROGRAM		\$15,900

Note A. Funding includes basic station O&M with about 12 discharge measurements per year.

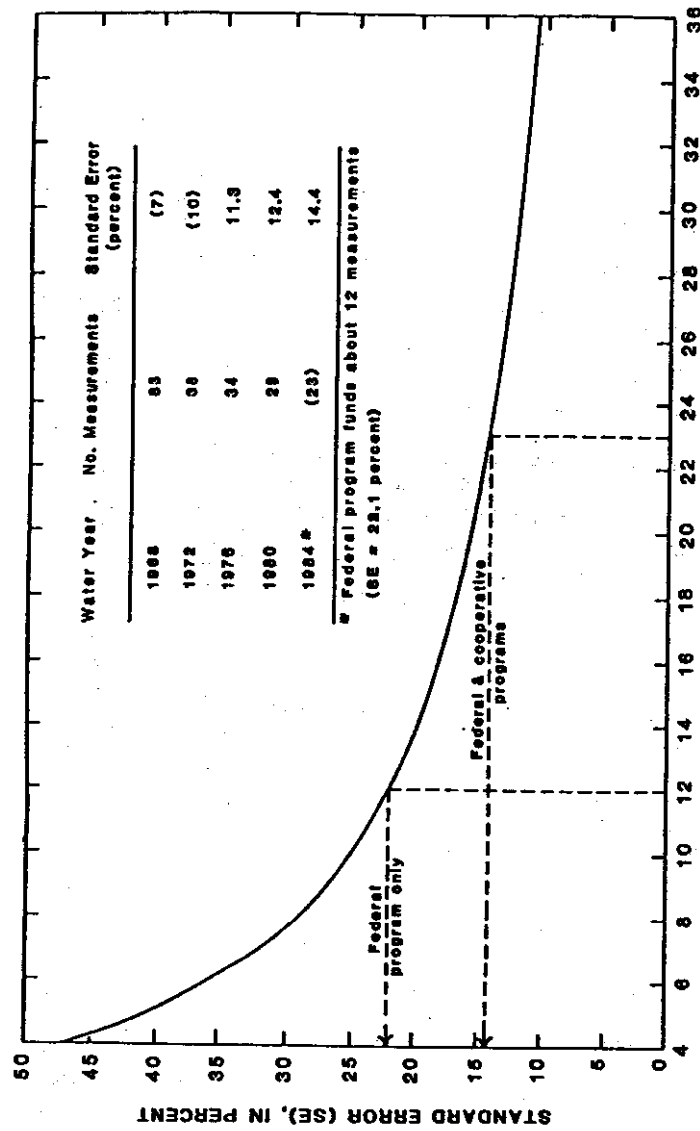
Note B. Funding includes about 8 additional routine discharge measurements per year (March-November) and about 3 flood measurements per year.

Note C. Funding includes monthly (current) record processing.

Note D. Funding includes only check discharge measurements (no routine measurements are made).

Note E. Funding includes maintenance, repair or replacement of radio antennas, Texas Instruments Silent 700, and DARDC's.

Support program
 Federal CBR program
 USGS/Compact Coop program
 USGS/Compact Coop program
 Federal CBR program
 USGS/Compact Coop program
 USGS/Compact Coop program



ATTACHMENT J

August 24, 1983

I would like to review the events leading up to the present controversy over the operation of Trinidad Reservoir.

At a meeting of the administration on June 8, 1966, Mr. Ogilvie of the Bureau of Reclamation reviewed in detail the proposed operating principles of the Trinidad Project. He was assisted by Mr. Saunders, Attorney for the Conservancy District and Mr. Sparks of the Colorado Water Conservation Board. To quote from the minutes of the meeting held June 8, 1966:

"Mr. Ogilvie said that he would be glad to answer questions and review the operating principles but to facilitate matters he had with him a screen and projector and would like to project the principles upon the screen and discuss them in this manner. Mr. Ogilvie then showed some charts on the reservoir illustrating how the 114,000 acre-foot reservoir would be distributed into flood control, conservation, sediment and recreation space. Other charts were shown to illustrate water utilization with and without the project, crop requirements, shortages and reduction of shortages. Other graphs showed that with historic distribution of the water crop requirements were over supplied in the early part of the irrigation season and under supplied in the late season but with storage the crop requirements could be met most of the time."

It was offered and accepted that Mr. Ogilvie and Mr. Saunders meet with the Kansas water users at Lakin, Kansas for a presentation of the operating principles. At the Lakin meeting we again reviewed and assurances were given that 1). The Model storage space was limited to 20,000 acre-feet. 2). The Joint Use Pool would not be used for any additional storage other than that provided under Article IV, Paragraph A, 2 b which states that "such other rights to store water in the reservoir as the District may lawfully acquire by appropriation or purchase." Or when John Martin Reservoir is spilling.

After this meeting the Kansas ditches with the exception of the Kearny County Irrigation Association agreed to the construction of Trinidad Dam. The Arkansas River Compact approved the Trinidad project on June 6, 1967.

One of the main concerns was the transfer of the Model Storage Right. We were assured that Model Storage could never contain more than 20,000 acre-feet. Trinidad Project Report Vol. 1 July 1964 Rev. 9/64 under Plan of Development, Page 2, states that water rights for the 20,000 A.F. Irrigation Pool will be provided by transfer of the storage decree from the existing Model Reservoir to the Trinidad Reservoir. In the District Court in and before the County of Las Animas under Civil Action No. 19,793 ordered, adjudged, and decreed by the Court (Page 10) that the petitioners may store out of the waters of the Purgatoire or Las Animas River in the Trinidad Reservoir, under Reservoir Priority No. 10, Appropriation Priority No. 168 in Water District No. 19 and date

of appropriation of January 22, 1968 up to 20,000 acre-feet of water.

In June, 1980 Kansas became aware that 59,000 acre-feet of water was stored in Trinidad Reservoir and has exceeded the 20,000 acre-feet limit since 1979. It was also pointed out that the operating principles limited the Conservancy District to a given number of acres and the amount of water that could be used on each acre. The irrigable land was set to be 19,717 acres, broken down by individual ditches as to acres irrigated. The Trinidad Project Report Vol. I July, 1964 Rev. 9/64 under Operations Principles and Criteria, Page 24, Paragraph 4, state that deliveries, except for 1,500 acre-feet of stockwater are to be made only during the irrigation season and are to be restricted to crop requirement for the 19,717 acres of irrigable land which constitute the service area. Computations show that the total quantities used in excess of crop requirements (discounting the 1,500 acre-feet stockwater) should have been allowed to flow through the Purgatoire River to John Martin Reservoir are 1979 = 15,849 A.F., 1980 = 21,656 A.F., 1981 = 20,516 A.F., 1982 = 21,793 A.F. Total for the four years equals 79,814 A.F.

Also during the irrigation years 1981 and 1982 there was 55,850 acre-feet of water stored in excess of the 20,000 acre-feet storage limit. This in addition to the 79,814 acre-feet of water used in excess of crop requirements makes a total depletion of 135,664 acre-feet to the Purgatoire River.

Since the Bureau of Reclamation was very active in securing the consent of the State of Kansas and the Kansas water users to the Trinidad Project, we feel the Bureau as a promotor and signee also has a responsibility toward the enforcement of the operating principles.

Sincerely,

Carl E. Bentrup

CEB/jah

ATTACHMENT K

August 24, 1983

On July 24, 1951, prior to construction of the Pueblo Dam, the following resolution was adopted by the Arkansas River Compact Administration which states in part:

"There shall be no re-regulation of the native waters of the Arkansas River as proposed in such report until a plan of operation, rules, regulations, procedures and agreements in furtherance thereof, including all pertinent agreements between the Corps of Engineers and the Bureau of Reclamation, shall have been submitted to, and approved by the Arkansas River Compact Administration and the affected water users.

On March 25, 1983 at a special meeting of the Arkansas River Compact Administration, a resolution requesting the State of Colorado comply with its commitments of 1951 was submitted to the Administration and vetoed by the delegates of the State of Colorado.

The delegates from Colorado admitted the existence of said resolution, but refused to observe the provisions of said resolution.

Inasmuch as no plan of operations, rules, regulations, procedures, and agreements have ever been submitted to the Arkansas River Compact Administration for approval, I now, on behalf of the State of Kansas, request that the United States Bureau of Reclamation refuse to impound any water other than that water brought into the Arkansas River Basin through the Frying Pan-Gunnison Project.

Sincerely,
Carl E. Bentrup

CEB/jah

ATTACHMENT 1

ALBUQUERQUE DISTRICT STATEMENT TO ARKANSAS RIVER COMPACT ADMINISTRATION AUGUST 22, 1982

HISTORICAL PERSPECTIVE

I think it would be appropriate to begin my remarks today with a brief review of the history of the U.S. Army Corps of Engineers, particularly as it concerns the evolution of our role in the development of water resources. With such a review, I hope to provide adequate background for more specific discussion on our responsibilities and authorities in the Arkansas River Basin.

Our "primary" mission has always been to provide combat support to the fighting Army. That is why the Continental Congress provided for the establishment of Army engineers in 1775. That is also why, in 1802, the Corps of Engineers was directed to conduct a military academy at West Point, New York. For nearly a quarter of a century, this United States Military Academy was the only engineering school in the nation.

As the Revolutionary War ended, our new nation was in need of roads, railroads, lighthouses, bridges, and other engineering works to support economic development. The Corps of Engineers, the only available organized engineering force, was called upon to design and build them. In the 1800's the Corps became heavily involved with surveys for western expansion with the exploration of such engineers as Stephen H. Harkness and John Fremont.

The Corps began work in the development of the Nation's water resources in 1824 when Congress assigned it the job of clearing channels and sandbars from the Ohio and Mississippi Rivers to facilitate navigation. In 1879, the Corps' role on the Mississippi River was expanded to include flood control with the creation of the Mississippi River Commission. In the ensuing years, nationwide interest in flood control and water resources development grew. Then, in 1897, Congress authorized the Corps of Engineers to prepare a series of comprehensive reports, commonly known as "303 reports," to address the

need for water resources development for purposes of navigation, flood control, and hydropower. Many of these "308 reports" recommended the construction of projects. Most of the projects recommended in the "308 reports" were authorized for construction in the Flood Control Act of 1936. This act is recognized as the initiator of nationwide water resources developed by the Corps of Engineers.

With this background, let me become more specific about the development and operation of projects that are used to help you manage your water.

AUTHORIZATION AND CONSTRUCTION OF JOHN MARTIN DAM AND RESERVOIR

One of the projects recommended in a "308" report and later authorized in the 1936 Flood Control Act was Caddoa Reservoir, to be later known as John Martin Dam and Reservoir. The project was authorized for flood control and irrigation purposes. Construction began in August 1940. The project was completed in October 1948 after some delay due to the war effort. The original project authorization was modified by the Flood Control Act of 1965 to "authorize and direct" the Corps to use up to 10,000 acre-feet of reservoir flood control storage for fish and wildlife and recreation purposes.

Operating procedures for John Martin Dam are described in the Water Control Manual, which was originally printed in 1963 and was updated in February 1983. We have a limited supply of these manuals available for anyone who needs a copy but has not already received one.

AUTHORIZATION AND CONSTRUCTION OF TRINIDAD DAM AND LAKE

The original authorization for a project on the Purgatoire River at Trinidad is contained in the Flood Control Act of 1944. The project plan was essentially a channel and levee system. However, in 1945 the House Committee on Flood Control requested the Corps to review that plan to determine if changes should be made in order to provide flood control for Trinidad and at the same time make more water readily available for agricultural and industrial uses. That review resulted in House Document 325 which recommended the construction of Trinidad Lake, primarily for the purposes of flood control and irrigation. The project was authorized in the Flood Control Act of 1958. In the Flood Control Act of 1965 the City of Trinidad was relieved of its obligation to make a cash contribution toward the project cost. Instead, the city agreed to maintain a Purgatoire River channel capacity of 15,000 cfs through the city.

Construction on Trinidad Lake began in May 1968. Deliberate impoundment began in August 1977. As with John Martin, operating procedures at Trinidad are described in the Water Control Manual dated July 1978. A limited number of copies of this manual are also available.

I should point out that our water control manuals are developed for use in the District Office and by the project operation staff. The manuals are general in nature on the day-to-day operation of a project,

and concentrates more on how the project should be operated during a flood event.

PROJECT OPERATION

We in the Corps of Engineers were somewhat surprised by the letter, dated June 2, 1983, from Attorney General Stephens of Kansas to General Bratton, Chief of Engineers. I suppose our surprise was more from the lack of knowledge of Kansas' concern than the allegations of wrongdoing by the Corps in the operation of our Trinidad Project. To set the record straight, the Corps did not construct and does not operate Pueblo Dam as alleged in Attorney General Stephan's letter; we do, however, prescribe the flood control operating criteria for the project. Furthermore, we are not aware of any action on our part that is a violation of the Arkansas River Compact or any other federal or state law.

We have known of the disagreement between the states of Colorado and Kansas over the operation of Trinidad Dam and have furnished the State of Kansas various data on the operation of the project. However, to my knowledge, prior to receipt of Attorney General Stephan's letter, no one from Kansas had alleged to me or my staff any wrongdoing or violation of the Arkansas River Compact. I would have liked to have been given the opportunity to solve the problem at the District level, in lieu of the problem having been escalated immediately to the Chief of Engineers.

Be that as it may, it is our position that the dispute over the storage and release of water from Trinidad, other than for flood control operation, is between the States of Kansas and Colorado, and in no way should the Corps of Engineers be interjected into the dispute. If Kansas and/or Colorado has documentation that indicates the Corps of Engineers' operation of the flood storage at Trinidad is in violation of the Arkansas River Compact or other federal or state laws, we will be more than happy to meet with the states to resolve these issues.

The Albuquerque District Corps of Engineers physically operates the Trinidad Lake project and as such, except for flood control operations, responds to requests of the Colorado State Engineer's Office to store or release water at the project. The allegation that the flood pool at Trinidad Lake has been misoperated is somewhat puzzling, however, considering the project has not been operated for flood control since it went into operation in 1979.

ATTACHMENT M

United States Department of the Interior
Geological Survey
Water Resources Division
P.O. Box 1524
Pueblo, Colorado 81002-1524

September 28, 1983

Mr. Frank Cooley, Chairman
Arkansas River Compact Administration
Box 98
Meeker, Colorado 81641

Dear Frank,

At the special meeting of the Arkansas River Compact Administration in Lakewood, Colorado on August 26, 1983, the Corps of Engineers and U.S. Geological Survey, Water Resources Division, were asked to explain the disparity between storage content of Trinidad Reservoir computed by the two agencies at comparable times.

Some of the discrepancies result from the Corps using reservoir stage data recorded at 0800 hours to compute daily contents while the Survey uses 2400 hours as their index for computation. The State of Colorado distributes water based on an 0800 hour reading. During the time differential many factors could affect instantaneous storage including storm events, evaporation, release of water, and a skewing of the lake surface by wind. Unfortunately, these factors are probably not the main reason for the observed differences. Apparently the Corps began using a new area-capacity table for computation of storage in the reservoir in July 1981 but the Survey was not provided a copy and was incorrectly using a table dated 1976. The State has been using the table provided by the Corps in 1981. Therefore, the contents records of Trinidad Reservoir published by the Survey for the Corps during the period 1981 to present must and will be corrected in the Water Year 1983 publication.

Please call me at (303) 544-7155 if you have any additional questions or require clarification of this explanation. Also, note that distribution of this letter did not include Compact members or other possibly, interested parties. That remains for your discretion.

Sincerely yours,
/s/ Jerry L. Hughes
Subdistrict Chief

ATTACHMENT N

OPERATIONS SECRETARY'S COMMENTS

1982 was above average in snow pack as well as summer precipitation. A table of precipitation is enclosed in this Report.

No significant problems in administration were encountered during

the year. The COMSAT Program was used extensively and was found to be quite valuable, although some improvement is still needed in communicating the latest shifts to the COMSAT.

All deliveries to Kansas were made on schedule, and the Secretary had excellent cooperation from Kansas Water Resources in Garden City.

During the year, State hydrographers made a total of 32 stream measurements on the Compact gauges and a total of 323 visits or personal gauge readings to verify gauge heights or make estimates of ice affected flows.

Also enclosed in this Report is a table showing the computed inflow to John Martin. This is a computation and includes all measured as well as un-measured inflow using the Daily Change in Contents.

FINANCIAL STATUS OF OPERATIONS SECRETARY

1962 Contract between Colorado State Engineer Jeris Danielson and Arkansas River Compact Administration.

Salary for Secretary:	\$ 952.00
May	952.00
June	
Office Supplies:	\$ 260.95
Calculators (2)	58.70
Misc. Supplies	
Telephone:	
Installation of	
COMSAT Terminal Jack	\$ 270.65
TOTAL	\$2,494.30

Contract allocated \$2500 to the Operations Secretary. All invoices and a copy of the Contract are hereto attached.

INVOICE

M. Helen Bever
1914 Sherwood Lane
Pueblo, Colorado 81005

Secretary, Month of May \$952.00

INVOICE

M. Helen Bever
1914 Sherwood Lane
Pueblo, Colorado 81005

Secretary, Month of June \$952.00

/s/ M. Helen Bever

CONTRACT

THIS AGREEMENT is made this 3rd day of May, 1982, by and between the State Engineer of the State of Colorado for the use and benefit of the Colorado Division of Water Resources (State Engineer), 1313 Sherman Street, Room 818, Denver, Colorado 80203, and the Arkansas River Compact Administration, 1001 South Main, Lamar, Colorado 81052.

WHEREAS, the Division Engineer, Water Division II in the Colorado Division of Water Resources serves as Operations Secretary for the Arkansas River Compact Administration; and

WHEREAS, the Arkansas River Compact Administration has previously approved of the use of up to \$2,500.00 of its funds for the maintenance of the office of the Operations Secretary for the six month period ending June 30, 1982.

NOW THEREFORE, it is hereby agreed that:

1. The Division Engineer, in his capacity as the Operations Secretary, shall:
 - A. Regulate the gates of John Martin Reservoir in accordance with the Arkansas River Compact and any operating plans or procedures adopted thereunder; and
 - B. Keep accurate daily records on the water stored in John Martin Reservoir, including all matters appurtenant thereto such as the amount of water residing in or being transferred to special reservoir accounts, evaporation of water from the reservoir which is to be prorated among such accounts, and the determination of transit losses and the procedures for computing such

- in all matters regarding water being transferred to or from said reservoir and accounts therein; and
- C. Prepare accurate reports of deliveries of water which reports shall be presented to the Administration's operations committee.
2. In consideration of the services to be performed by the Division Engineer as Operations Secretary, the Arkansas River Compact Administration shall:
- A. Pay a secretary for the office of the Operation's Secretary at a rate of \$952.00 per month for the months of May and June, 1982; and
- B. Pay \$596.00 for the installation of a telephone, computer access, and incidental office expenses; and
- C. Make all disbursements upon receipt of a properly prepared invoice from the Operations Secretary.

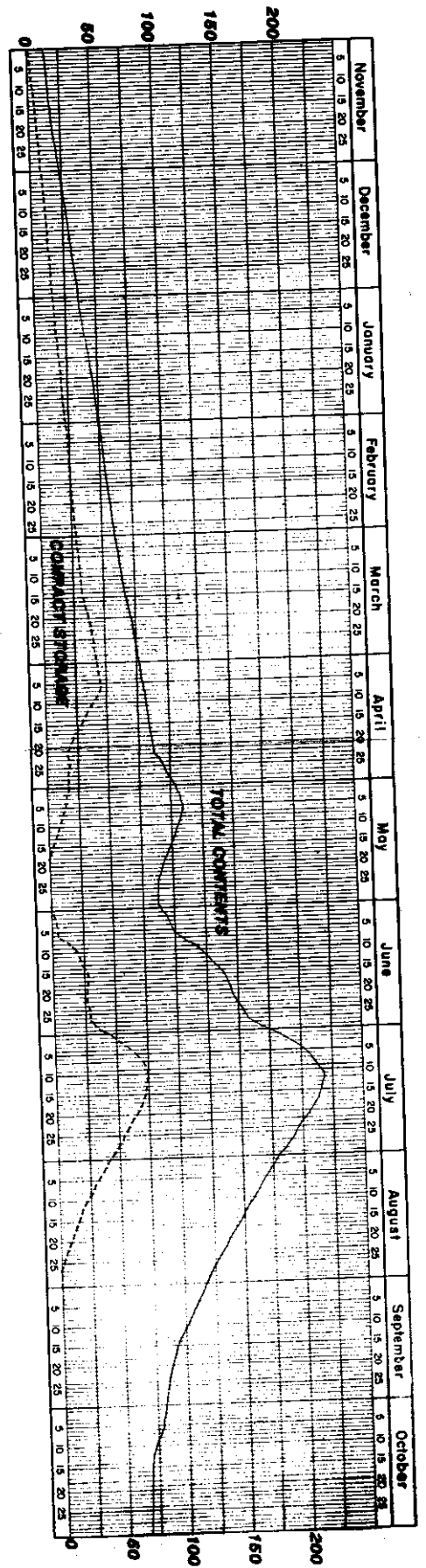
Colorado Division of Water Resources

By /s/ Jeris A. Danielson,
State Engineer

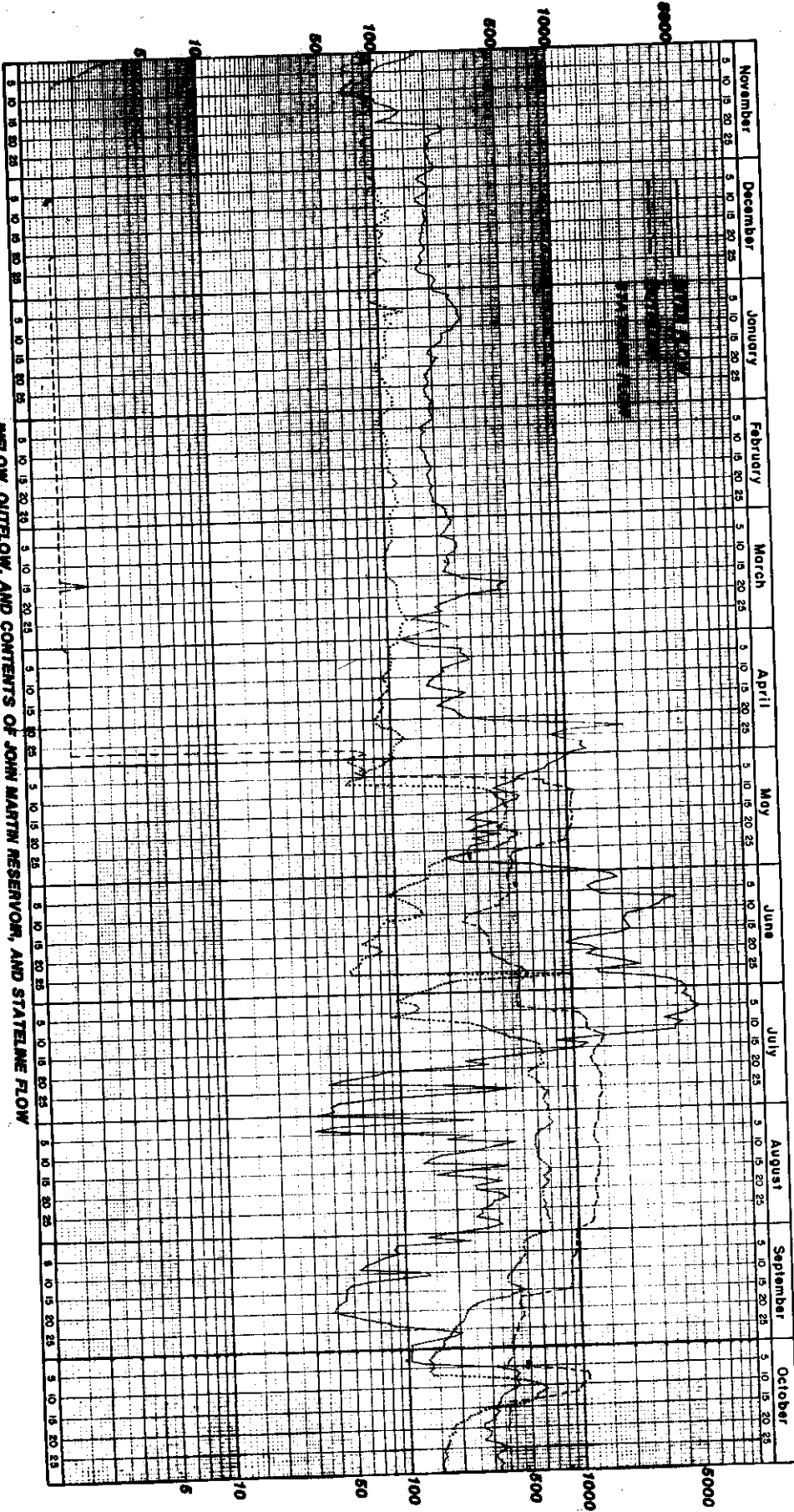
Arkansas River Compact Administration

By /s/ Frank Cooley,
Chairman

THOUSANDS OF ACRE FEET



SECOND FEET



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

COMPACT YEAR 1963

NOVEMBER 1, 1962 TO OCTOBER 31, 1963