

MINUTES OF THE
ARKANSAS RIVER COMPACT ADMINISTRATION

REGULAR ANNUAL MEETING
January 4, 1982
Cow Palace, Lamar, Colorado

The recessed regular annual meeting of the Arkansas River Compact Administration was held at the Cow Palace in Lamar, Colorado on January 4, 1982. The meeting was called to order at 10:00 a.m. (MST) by Mr. Frank G. Cooley, Chairman and United States representative. Mr. Cooley stated that the meeting was held pursuant to the Recording Secretary's notice (see Attachment A), which notice had been provided for want of a quorum on the annual meeting date provided for in the by-laws. Compact members in attendance were:

For Kansas: Carl E. Bentrup - Deerfield, Kansas
Guy E. Gibson - Topeka, Kansas
Ronald Olomon - Garden City, Kansas

For Colorado: Carl G. Genova - Pueblo, Colorado
Leo Idler - Lamar, Colorado
J. William McDonald - Denver, Colorado

Mr. Cooley introduced Mr. Genova, who had been appointed by the Governor of Colorado to replace Mr. Kent Reyher. Mr. Cooley also announced the reappointment of Mr. Idler by the Governor of Colorado.

Mr. Cooley asked if there were any changes to the agenda (Attachment B). Mr. McDonald asked that the following items be included on the agenda:

- 1) Approval of minutes of previous meetings,
- 2) Statement by Wayne Schroeder concerning operation of John Martin Reservoir,
- 3) Proposed amendments to by-laws concerning Recording Secretary,
- 4) Report of Chairman, and
- 5) Report of Recording Secretary.

Mr. McDonald moved, seconded by Mr. Genova, that the agenda as amended be accepted. The motion passed on the affirmative vote of both states.

The next order of business was the election of officers. Mr. McDonald nominated Mr. Bentrup for Vice-Chairman. Mr. Olomon moved, seconded by Mr. McDonald, that Mr. Bentrup be elected by acclamation. The motion was adopted on the affirmative vote of both states. Mr. Bob Jesse was nominated for Operations Secretary by Mr. Bentrup. Mr. McDonald moved, seconded by Mr. Genova, that Mr. Jesse be elected by acclamation. The motion passed on the affirmative vote of both states. Mr. Leo Idler was nominated by Mr. McDonald for Recording Secretary and Treasurer at his present salary. Mr. Genova moved, seconded by Mr. Olomon, that Mr. Idler be elected by acclamation. The motion was passed on the affirmative vote of both states.

The next item was the adoption of the minutes of the June 30, 1980, and December 9, 1980, meetings. Mr. McDonald stated that the minutes were as presented to the Administration at its August 6, 1981, special meeting except that a minor editorial change had been made to the June 30, 1980, minutes. With respect to the December 9, 1980 minutes, Mr. Reyher had made the recommendation at the August 6, 1981, meeting that the actual membership of the standing committees be recorded. This change was made. Mr. McDonald moved, seconded by Mr. Bentrup, that the minutes of both meetings be adopted. The motion was passed on the affirmative vote of both states.

Mr. McDonald recommended that starting with the minutes of the December 9, 1980, meeting, minutes should bear a certification of their approval so that it was clear when minutes had been acted upon. He also suggested that minutes should in the future appear in the annual report of the Administration. Both suggestions were agreed to.

The next item on the agenda was the appointment of committee members for the year. The following suggestions were made:

Administrative and Legal Committee -- Mr. McDonald, Chairman, and Mr. Bentrup to be the other member.

Engineering Committee -- Mr. McDonald requested that Mr. Genova represent Colorado. Kansas requested that Mr. Gibson be the Chairman.

Operations Committee -- Mr. Idler, Chairman, and Mr. Olomon to be the other member.

It was moved by Mr. Gibson, seconded by Mr. Olomon, that these nominations be accepted. The motion was passed on the affirmative vote of both states.

The next item on the agenda was committee reports. Mr. McDonald stated that the Administrative and Legal Committee had not met since the August 6, 1981, special meeting and therefore had no report.

Mr. Gibson called on Mr. Reyher, Chairman of the Engineering Committee prior to the expiration of his appointment, to present the committee's report. Mr. Reyher stated that since August 6, 1981, there had been telephonic meetings of the committee on August 24, August 25, and December 28, and that the meetings concerned the storage of winter water in Pueblo Reservoir. Mr. Reyher's written report is included as Attachment C.

Mr. Cooley called on Mr. Jesse to present his report, as Operations Secretary, on the operation of John Martin Reservoir during compact year 1981. Mr. Jesse stated that his written report had been sent to the Operations Committee in the form of a memorandum dated November 12, 1981, and had been presented by him at the Garden City meeting of the Operations Committee on December 17, 1981. He briefly described what is in that report. He also described the draft proposed report of the ad hoc committee on gaging stations, which committee he had chaired (this report is appended to the report of the Operations Committee, see Attachment D). Mr. McDonald moved, seconded by Mr. Olomon, that Mr. Jesse's November 12, 1981, report on the operations of John Martin Reservoir during compact year 1981 be accepted. The motion passed upon the affirmative vote of both states.

Mr. Cooley then called upon Mr. Idler for the report of the Operations Committee. Mr. Idler read his report (see Attachment D) and reviewed at some length the draft proposed report of the ad hoc committee on gaging stations. Mr. Cooley also called upon Mr. Jesse to further explain his draft proposed report on gaging stations.

Considerable discussion ensued concerning the gaging station network and the costs thereof. Cost savings of some \$4,200 which could be realized by reducing the readings at gages were identified by Mr. Jerry Hughes, U.S. Geological Survey, during the course of the discussion. The possibility of two new telemarks was also discussed. Mr. Howard Corrigan, Water Commissioner, Kansas State Board of Agriculture, registered his opposition to dropping monthly record computations at the Coolidge and Frontier Ditch gages.

After further discussion, Mr. Olomon moved, seconded by Mr. Idler, that the Chairman and Mr. Idler be authorized to execute a cooperative agreement with the U.S. Geological Survey for \$21,690, said agreement to provide for the Administration's share of costs in federal FY 82 as itemized in Exhibit A of the ad hoc committee's draft proposed report to the Operations Committee (see Attachment D), except that record computations at an annual cost of \$4,200 would be reduced as specified in the draft proposed report for all but the Coolidge and Frontier Ditch gage stations. There being no further discussion, the motion was passed on the affirmative votes of both states. It was further agreed that the Operations Committee should, with the assistance

of Mr. Jesse, determine and subsequently report to the Administration the costs of any new telemarks which it might deem appropriate.

At this time the meeting was recessed for approximately five minutes. Upon reconvening, Mr. Bentrup read a proposed resolution (Attachment E) regarding Trinidad Reservoir. He moved, seconded by Mr. Olomon, that the Administration adopt the resolution. Mr. McDonald noted that he respectfully disagreed with the resolution, that the Colorado State Engineer has and would continue to administer Trinidad Reservoir in conformance with the compact, and that Colorado had to reject the motion. The motion failed with Kansas voting yes and Colorado voting no.

Mr. Bentrup stated that Mr. Ed DeKeyser, representing Kansas ditches, wished to read a resolution into the record, which he then did (see Attachment F). Mr. McDonald noted that the resolution was apparently intended to set forth the views of the Kansas Associated Ditch System. Thus, it should not purport to represent findings of the Arkansas River Compact Administration. Mr. McDonald requested that the record reflect that the Administration had not made the findings asserted in the resolution read by Mr. DeKeyser.

A recess was requested at this time by Kansas to correct the resolution. Upon reconvening, Mr. Bentrup stated that Mr. DeKeyser would retract the original resolution and subsequently submit a corrected version. Mr. Cooley stated that the chair would accept a corrected resolution. Mr. McDonald requested that the resolution from Mr. DeKeyser be retyped for the record and submitted after the meeting. The corrected resolution of the Kansas Associated Ditch System is included herein as Attachment G.

The next item on the agenda was the John Martin Reservoir Operating Plan. Mr. McDonald stated that concerns had been raised by Colorado ditches both upstream and downstream of John Martin Reservoir regarding the transfer of water from the conservation pool into accounts. He noted that this matter was under discussion in Colorado and did not require action by the Administration.

With respect to the Kansas transit loss account, Mr. Bentrup stated that there were discrepancies between Mr. Corrigan's and Mr. Jesse's transit loss calculations. Mr. Jesse stated that if there were differences in the methodologies employed by Mr. Corrigan and he, this could account for the different results. Mr. Jesse noted that he had not previously seen Mr. Corrigan's data. Mr. Corrigan explained how he computed the transit loss. Mr. Jesse stated that they would need to discuss and agree on a methodology. It was agreed that Mr. Jesse and Mr. Corrigan would meet in an effort to resolve this problem.

At 12:10 p.m. the meeting was recessed for lunch. Mr. Cooley reconvened the meeting at 2:05 p.m.

At this time, Mr. Cooley called on Mr. Wayne Schroeder. Mr. Schroeder stated that he represented the Fort Lyon Canal Company, which company was of the opinion that it was being injured by the operation of John Martin Reservoir. Mr. Schroeder stated that the company had two main concerns: (1) the release rates into accounts, and (2) the date at which the releases start into the accounts. Mr. McDonald stated that Mr. Schroeder's comments would be duly noted and that every effort would be made to achieve a resolution of this matter.

The next item on the agenda was Pueblo Reservoir. Mr. Cooley called on Mr. McDonald, who explained that Kansas had provided a proposed resolution concerning Pueblo Reservoir to the Colorado delegation earlier in the day. This proposed resolution had been discussed by the states and modified during the lunch recess. With the leave of Mr. Bentrup, Mr. McDonald read the modified resolution for the audience's benefit, noting that Colorado and Kansas were not yet ready to discuss the resolution. Thereupon, Mr. McDonald requested that the Chairman recess the meeting, which Mr. Cooley did at 2:25 p.m.

The meeting was called back to order at 2:55 p.m. by Mr. Cooley. Mr. McDonald then recited and moved the adoption of a resolution concerning Pueblo Dam and Reservoir (the resolution, as orally presented, was typed after the meeting and appears as Attachment H). Mr. Gibson seconded the motion. There being no discussion, the motion was passed on the affirmative vote of both states.

[Note: The resolution, when reduced to typewritten form after the meeting, was sent to Mr. Cooley for execution (see Attachment I). Kansas subsequently objected to the resolution (see Attachment J). Colorado responded that it regarded the resolution as being in full force and effect (see Attachment K). The Chairman and Recording Secretary have not affixed their signatures to the resolution.]

The next item on the agenda was proposed amendments to the by-laws. Mr. McDonald stated that as a matter of housekeeping, references in the by-laws to the "Secretary" all needed to be changed to "Recording Secretary" to be consistent with the amendments adopted at the August 6, 1981, special meeting. Mr. McDonald's memo to the Administration regarding this matter, which memo served as the notice required by Article XI of the by-laws, is Attachment L. Mr. McDonald moved, seconded by Mr. Gibson, that the by-laws be amended accordingly. The motion passed on the affirmative vote of both states.

A proposed amendment to Article V of the by-laws with respect to committee meetings was distributed by Mr. McDonald

(Attachment M). Mr. McDonald moved, seconded by Mr. Olomon, the adoption of the proposed amendment as written except that the word "ten" was substituted for the word "five" in the third line of the text. The motion was adopted by the affirmative vote of both states.

The next items on the agenda were the Chairman's, Recording Secretary's, and Treasurer's reports. Mr. Cooley, as Chairman, stated that he had nothing to report. Mr. Idler distributed copies of his Recording Secretary's and Treasurer's reports (see Attachments N and O, respectively). Mr. McDonald moved that the Recording Secretary's and Treasurer's reports be accepted. Mr. Genova seconded the motion. Kansas and Colorado both voted yes. Mr. McDonald moved, seconded by Mr. Gibson, that the Administration accept and place the auditor's report for FY 80-81 (July 1, 1980, through June 30, 1981) in the record (Attachment P). Kansas and Colorado both voted yes.

Mr. Cooley stated that a proposed budget for FY 83-84 had been submitted. Discussion ensued regarding a data acquisition (stream gaging station) plan. It was agreed to provide no money for this item in the budget. Mr. McDonald requested that consideration be given to increasing the payment for Mr. Jesse's staff work with respect to record keeping on John Martin Reservoir. He said that this cost was originally estimated at \$5,000 per year, but it should be increased to \$6,100. After some discussion, it was decided to leave this item at \$5,000 for an initial trial period. There was discussion regarding the cooperative agreement line item of \$15,000 for gaging stations. The consensus was to leave the amount at \$15,000. Office supplies and printing were set at \$500 each.

Mr. McDonald moved adoption of the budget for FY 83-84 (see Attachment Q), seconded by Mr. Olomon. The budget for July 1, 1983 through June 30, 1984, was adopted on the affirmative vote of both states.

Mr. McDonald asked the Kansas delegation to consider \$2,500 for FY 81-82 and \$5,000 for FY 82-83, to be taken out of the current surplus, for services to be rendered by the Operations Secretary's staff on record keeping for John Martin Reservoir. After some discussion, Mr. McDonald moved that the Administration contract with Mr. Jesse's office in the amounts requested by him for the two specified fiscal years, said amounts to be paid from the Administration's unbudgeted surplus. The motion was seconded by Mr. Bentrup and was adopted upon the affirmative vote of both states.

Mr. Cooley then called upon representatives of the federal agencies to provide their reports. The U.S. Geological Survey (USGS) report was given by Mr. Jerry Hughes. He stated that a hydrologic model of the Arkansas River was being developed and might be operational by 1983. He also discussed the satellite

communication system in the Arkansas River Basin being developed by the Comsat Corp. after being discontinued by the USGS.

Mr. Tom Gibbens stated that the Bureau of Reclamation had no report. No questions were asked.

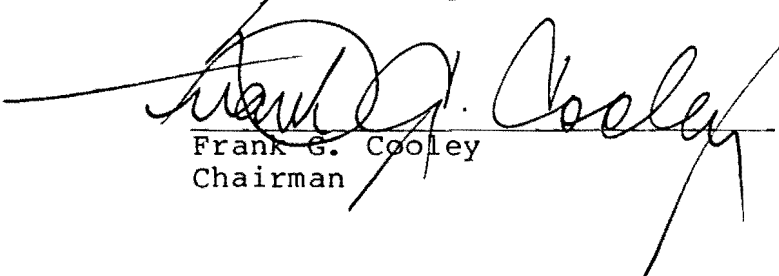
Mr. Michael J. Mocek, Albuquerque District, Corps of Engineers, briefly reported on the following items:

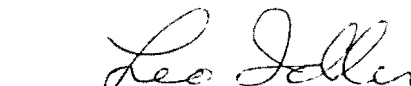
- a) Sedimentation rate for John Martin Reservoir was re-surveyed and new rating tables were published. Mr. Cooley suggested that the report that was part of the new tables should receive wider distribution.
- b) The District's boundaries had been changed to conform to state boundaries.
- c) The matter of sedimentation and growth in the channel between John Martin Reservoir and the state line was discussed. Mr. Mocek stated that channel clearing below John Martin Reservoir was not a high priority for the Corps. Mr. Cooley stated that he would write to appropriate authorities regarding channel clearing.

Mr. Bentrup stated that previous studies on the effect of winter storage in Pueblo Reservoir on John Martin Reservoir had not considered the unmeasured water that entered John Martin. He said there is some indication, based on studies done by Mr. Gerry Hilmes, that winter storage deprives Kansas of this unmeasured water. Mr. Bentrup said this should be taken into consideration in future studies.

There being no further business to come before the Administration, the meeting was adjourned at 4:15 p.m. (MST).

The foregoing minutes were adopted on December 14, 1982, at the annual meeting of the Administration held in Lamar, Colorado.



Frank G. Cooley
Chairman


Leo Idler
Recording Secretary

ATTACHMENT A

NOTICE

Pursuant to the by-laws of the Arkansas River Compact Administration, the 1981 annual meeting was called for Tuesday, December 8, 1981, at the Cow Palace Inn in Lamar, Colorado. Having arrived at the appointed hour and observing that a quorum was not present for the conduct of business, the meeting was recessed until 9:30 a.m. (MST), January 4, 1982.



Leo Idler
Recording Secretary

December 8, 1981
Date

CS

ATTACHMENT B

Recessed Annual Meeting
Arkansas River Compact Administration
9:30 a.m. (MST), January 4, 1981
Cow Palace Inn
Lamar, Colorado

1. Call to order
2. Filing of certificate of recessed annual meeting
3. Election of officers
 - A. Vice-President
 - B. Operations Secretary
 - C. Recording Secretary
 - D. Treasurer
4. Appointment of Committee members and chairmen
 - A. Administrative and Legal Committee
 - B. Engineering Committee
 - C. Operations Committee
5. Committee reports
 - A. Administrative and Legal Committee
 - B. Engineering Committee
 - C. Operations Committee
 - (1) Report of Operations Secretary
 - (2) Report on gaging station network
6. Trinidad Reservoir
7. John Martin Reservoir Operating Plan
8. Pueblo Reservoir
9. Proposed amendment to Article V of the By-Laws concerning notice for committee meetings
10. Treasurer's report
11. Budget matters, including FY 83-84 budget
12. Reports from federal agencies
 - A. U.S. Geological Survey
 - B. Bureau of Reclamation
 - C. Corps of Engineers
13. Adjournment

ATTACHMENT C

Arkansas River Compact Administration

Engineering Committee Report

January 4, 1982

Re: Pueblo Winter Storage--Effect on John Martin

Telephonic Meetings and Communications

August 24, 1981	Kent Reyher and Guy Gibson
August 25, 1981	Kent Reyher and Jerry Hilmes
December 28, 1981	Kent Reyher and Jerry Hilmes

The 8-24-81 conversation covered ways of collecting data to determine if there has been an effect on the waters to John Martin Reservoir by the operation of a Pueblo Winter Water Storage Program.

The 8-25-81 conversation covered the correspondence (attached) that had been made by concerned entities.

- a. Study by the U.S.G.S. Requested by Southeastern Colorado Water Conservancy District.
- b. Figures compiled by Jerry Hilmes
- c. Letter to Guy Gibson from Howard Corrigan formulating criteria needed for the study

The 12-28-81 conversation was for the purpose of confirming Kansas' concern on the subject and compiling the information for an engineering committee report for the annual meeting scheduled for January 4, 1982.

Kent Reyher





KANSAS STATE BOARD OF AGRICULTURE

A. W. DEUSMAN, Secretary

FIELD OFFICE DIVISION OF WATER RESOURCES
 HOWARD C. CORRIGAN, Water Commissioner
 1513 E. Fulton
 P. O. Box 618, GARDEN CITY, KANSAS 67846
 Telephone (316) 276-2901

GUY E. GIBSON, Chief Engineer
 DIVISION OF WATER RESOURCES
 TOPEKA • • • KANSAS

January 5, 1981

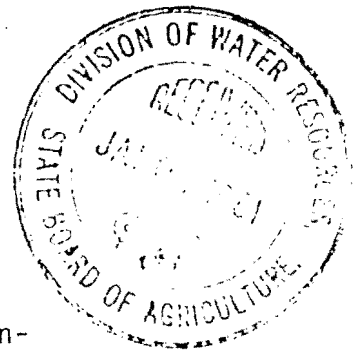
Mr. Guy E. Gibson, Chief Engineer-Director
 Kansas State Board of Agriculture
 State Division of Water Resources
 901 Kansas Avenue
 Topeka, Kansas 66612

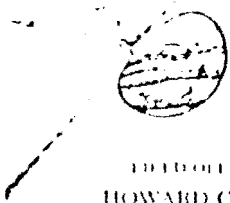
Dear Mr. Gibson:

In response to your verbal request on December 9, 1980 concerning criteria in reference to a proposed study to be made of river discharges, water releases and canal usage on the upper Arkansas River just upstream from the Pueblo Reservoir to the John Martin Reservoir. This being discussed at the annual meeting of the Arkansas River Compact Administration held at Lamar, Colorado on December 9, 1980.

On December 16, 1980 Mr. Carl Bentrup, Mr. Ed DeKeyser and myself met to formulate the criteria needed for the study. We have listed below as follows:

1. Compile the daily discharge readings of the Portland Gaging Station during the period of November 1 to March 31 for the 10 years prior to operation of Pueblo Dam and during the time of operation.
2. Compile daily records of diversions of all canals and ditches during the period from November 1 to March 31 for the last 10 years prior to and during the time of operation of the Pueblo Reservoir including sluicing quantites of the canals, if available. Also amounts stored in the Pueblo Reservoir.
3. Compile daily discharge records at Las Animas during the period from November 1 to March 31 for the last 10 years, prior to the operation of Pueblo Dam and during the time of operation.





KANSAS STATE BOARD OF AGRICULTURE

W. W. DUTSMA, Secretary

DIVISION OF WATER RESOURCES
HOWARD C. CORRIGAN, Water Commissioner
1513 E. Fulton
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Telephone (316) 276-2901

GUY E. GIBSON, Chief Engineer
DIVISION OF WATER RESOURCES
TOPEKA • • KANSAS

Mr. Guy E. Gibson,
Chief Engineer-Director

Page 2

January 5, 1981

4. Compile daily climatological records between Pueblo and Las Animas for the last 10 years prior to operation of Pueblo Dam and during operation. Determine what effect temperatures, winds, snow and rainfall have on canal diversions.

Yours truly,


Howard C. Corrigan
Water Commissioner

HCC:ss
cc: Mr. Carl Bentrup
cc: Mr. Ed DeKeyser



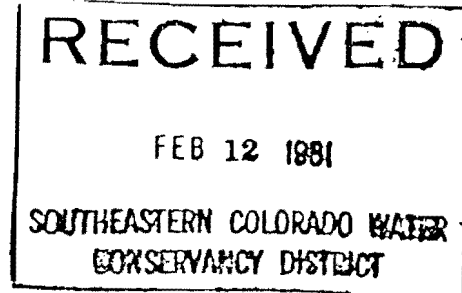
ATTACHMENT C

United States Department of the Interior

GEOLOGICAL SURVEY
Water Resources Division
P. O. Box 1524
Pueblo, Colorado 81002

February 10, 1981

Mr. Charles L. Thomson
General Manager
Southeastern Colorado Water
Conservancy District
905 Hwy 50 West
Pueblo, Colorado 81008



Dear Tommy,

At the annual meeting of the Arkansas River Compact in Lamar, Colorado on December 9, 1980, the Kansas delegation proposed that a study be initiated to evaluate any potential reduction of inflow to John Martin Reservoir resulting from winter storage of water in Pueblo Reservoir. Several members of the winter-water storage committee were present at the meeting and requested that I review available data and determine if a change in the volume of inflow to John Martin Reservoir from the Arkansas River has occurred and if so, the magnitude of the change. The review was performed under the technical assistance element of the cooperative program between the U.S. Geological Survey and the Southeastern Colorado Water Conservancy District and the results of the data evaluation follows.

In 1975, prior to initiating a program of winter storage in Pueblo Reservoir, the U.S. Geological Survey was asked to interrogate a previously developed mathematical model of the Arkansas River for possible impacts using a calibration period of 1972 through 1974. The model required some modifications before use including simulation of off-channel reservoir storage practices. Details of the modifications and results of the model interrogations are described in the enclosed letter to you from the U.S. Geological Survey dated March 7, 1975. Briefly, the model analysis indicated the water-management practices associated with winter-water storage program would increase flow of the Arkansas River to Kansas, increase available storage in surface reservoirs, and slightly decrease ground-water storage.

Although an excellent tool for extrapolation, models cannot replace the actual data obtained from the implementation of a change in water use. When the actual data matches the predicted effects of a model, the model is considered verified. In contrast, a model is calibrated when it can reproduce historic data. Either model can be used to predict hydrologic conditions, but a verified model is preferred and logically, very difficult to attain.

A brief review and evaluation of actual data collected since the winter-water storage program began tends to verify the earlier model predictions. The technique used to evaluate any potential impacts on inflow to John Martin Reservoir from the winter storage program was the Double-mass Curve (Searcy, J.K., and Hardman, C.H., 1960, Double-mass curves: Manual of Hydrology, Part 1 General Surface-water Techniques, U.S. Geol. Survey Water-Supply Paper 1541-B, 65 p.)

According to Searcy and Hardman (1960, pg. 32-33) "A double-mass curve is a plot on arithmetic cross-section paper of the cumulative figures of one variable against the cumulative figures of another variable, or against the cumulative computed values of the same variable for a concurrent period of time." "The theory of the double-mass curve is based on the fact that a graph of the cumulation of one quantity against the cumulation of another quantity during the same period will plot as a straight line so long as the data are proportional; the slope of the line will represent the constant of proportionality between the quantities. A break in the slope of the double-mass curve, means that a change in the constant of proportionality between the two variables has occurred" The double-mass curve is very sensitive to changes and would readily indicate any loss or gain of water between two points. The variables used in the analysis were the streamflow monitoring stations on the Arkansas River at Portland and Las Animas. The station at Portland represents the available flow into the system subject to storage by the winter program; the station at Las Animas represents the credited inflow to John Martin Reservoir from the Arkansas River.

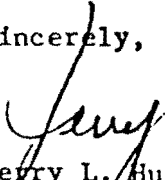
The results of the double-mass curve analyses are shown in figures 1 and 2. Both figures exhibit essentially straight lines which represent no long-term change in the accumulative rates of flow past the two gaging stations. Please note that the lines are referred to as "essentially straight" and slight bends can be defined if closely scrutinized. For example, line 1 on figure 1 represents the best fit straight line for all values and intersecting the zero intercept. Line 2 suggests a break from line 1 about 1969; line 3 parallels line 1 from 1969 to about 1975; line 4 shows a different slope beginning about 1974-1975. The slope of line 2 may represent the true base or long-term balance between the two stations with a skew of line 3 and 4 sequentially towards an increased flow at Las Animas related to 1) greater inflow from Fountain Creek (adding to the system below Portland gage) associated with the Homestake diversion to Colorado Springs, and 2) storage of winter water in Pueblo Reservoir. The latter is consistent with the model predictions.

The sensitivity of the double-mass curve to changes in streamflow is shown in the figure taken from a report of investigation I completed in 1976 entitled "Evaluation of Ground-water quality in the Santa Maria Valley, California (U.S. Geol. Survey Water-Resources Investigation 76-128, 72 p.). The figure compares accumulative discharge at streamflow monitoring stations on the Santa Maria River drainage above and below Twitchell Dam. The dam was installed to increase percolation to the downstream river alluvium by reducing loss of water to the ocean during flood events. As you will note, the double-mass curve breaks significantly away from the downstream gage at Guadalupe indicating a reduced flow at that gage by the flood-control practice.

In conclusion, evaluation of the comparative flow at Portland and Las Animas by the double-mass curve method does not indicate a reduced inflow to John Martin from the ARkansas River resulting from storage of winter water in Pueblo Reservoir. In contrast, the evaluation suggests a possible increase which tends to verify the earlier prediction of the digital model.

If you have questions regarding this evaluation or require additional assistance, please call.

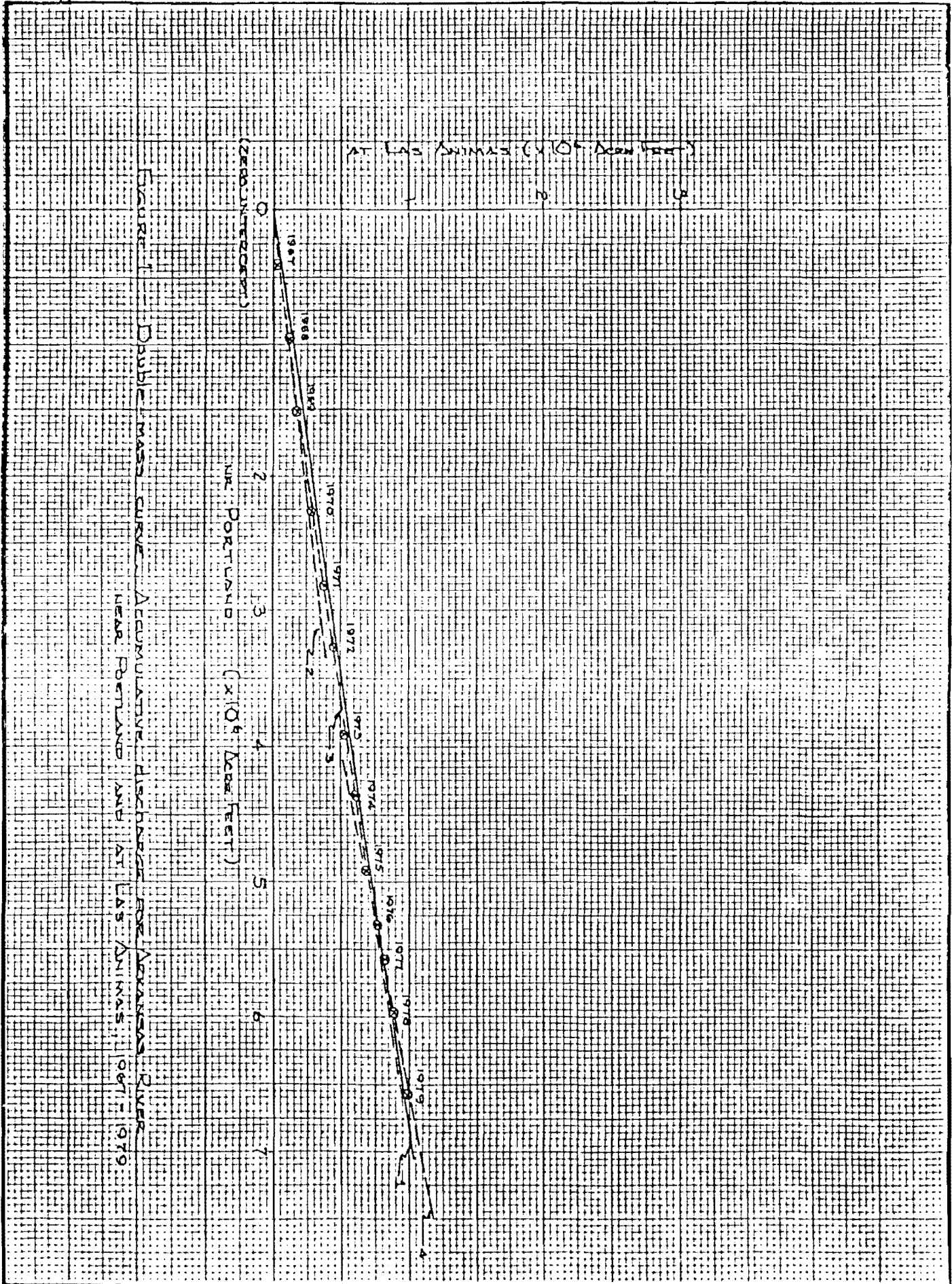
Sincerely,



Jerry L. Hughes
Pueblo Subdistrict Chief

Enclosure

cc: Frank Cooley, Arkansas River Compact Administration



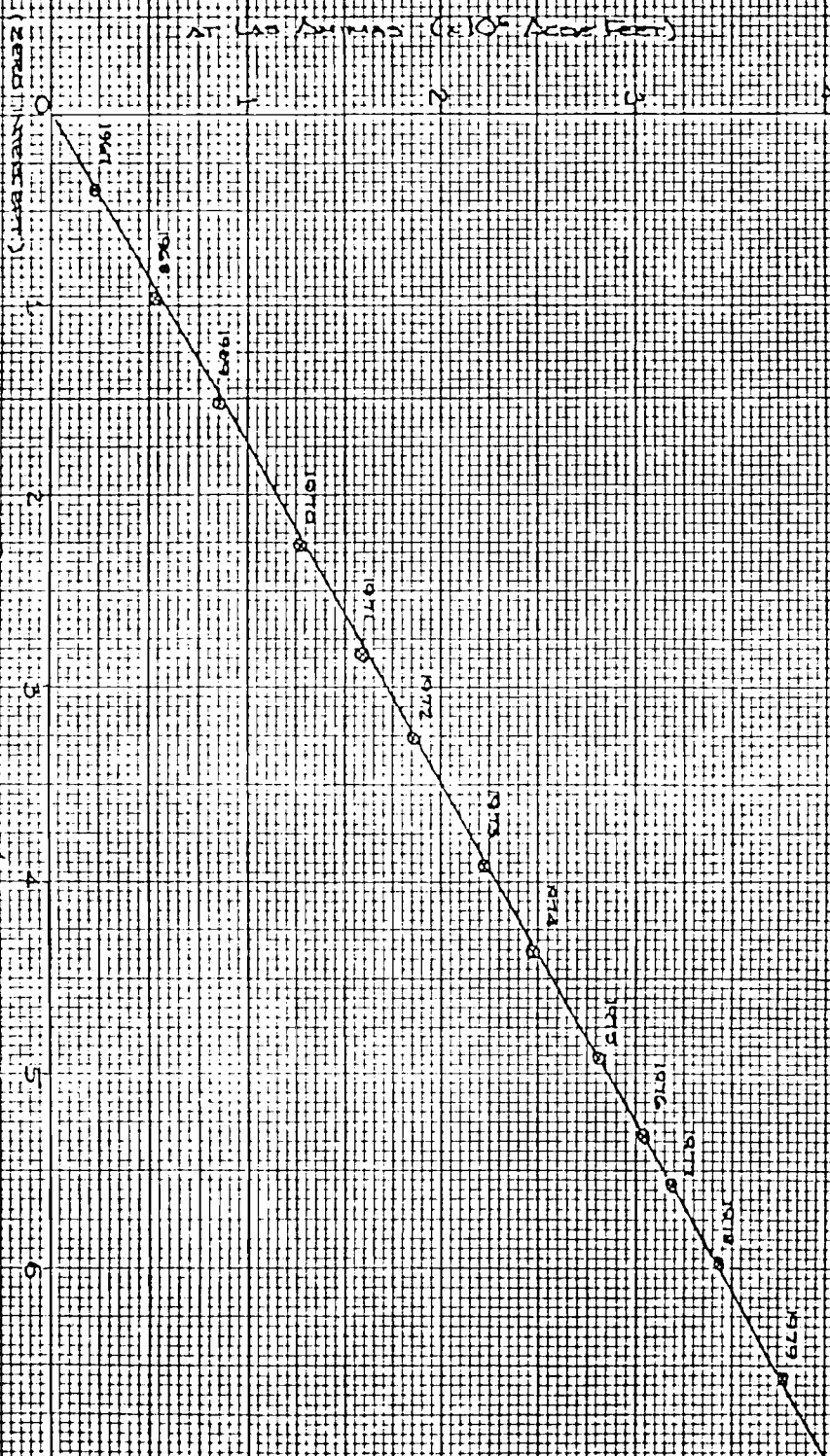


Figure 2. Double mass curve. Accumulative discharge for Arkansas River near Portland versus accumulative mean discharge for Arkansas River at Los Angeles, 1967-1979.

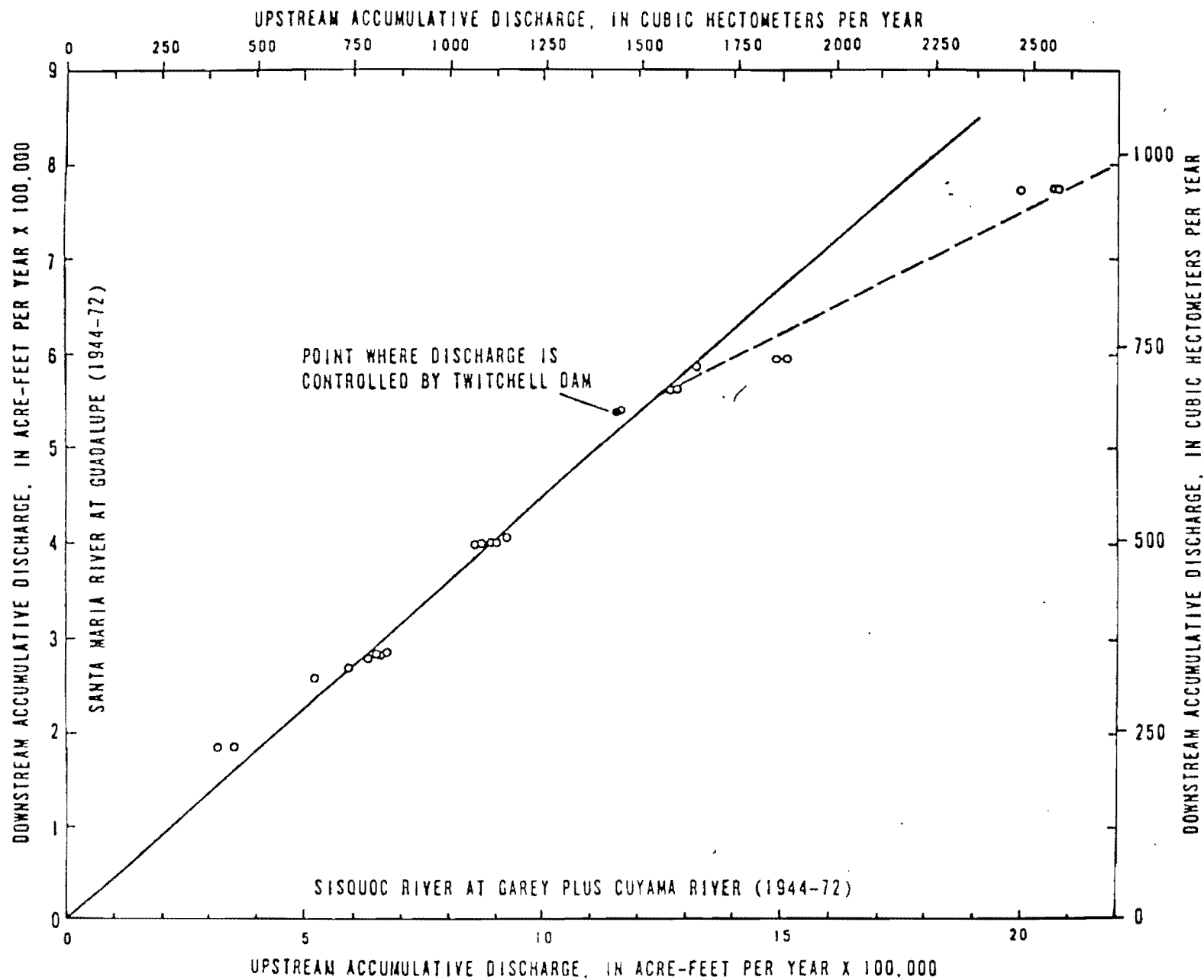


FIGURE 6.--Double-mass curve showing effect of Twitchell Dam on accumulative discharge in Santa Maria River system.



KANSAS STATE BOARD OF AGRICULTURE

DIVISION OF WATER RESOURCES
 GUY E. GIBSON, Chief Engineer—Director
 901 Kansas Avenue
 TOPEKA, KANSAS 66612
 (913) 296-3717

W. W. DUTSMAN
 Secretary

July 10, 1981

Mr. Carl Bentrup, Member
 Arkansas River Compact Adm.
 Rural Route
 Deerfield, Kansas 67838

Dear Carl:

I have compiled flow records (see attached tabulation) from the gaging stations at Portland, Pueblo and Las Animas for an evaluation of the effects Pueblo Reservoir may have on inflow to John Martin.

Annual gaged flow (compact report years, Nov. - Oct.) was compiled to compute the percentage of flow at Las Animas with respect to flow at Portland and Pueblo. The annual percentages were then averaged to show a comparison (see conclusions) of flow prior to and after operation of Pueblo Reservoir. According to U.S.G.S. data, Pueblo Reservoir was placed into operation on January 9, 1974.

The flow data were obtained from Compact Reports and U.S. Geological Survey Reports and include total flows gaged at each of the three stations. No reduction were made for transmountain diversions, upstream storage releases, diversions above stations for irrigation, etc.

Please note that comparative flow on a percentage basis indicates there has not been a reduced flow at the Las Animas gage with respect to Portland gage since operation of Pueblo Reservoir began.

If you should have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read "Gerald E. Hilmes", is written over a horizontal line.

Gerald E. Hilmes
 Hydrologist

GEH:cb
 Enclosures
 cc: Howard Corrigan

Ark. River Flow Data

Port Year	Discharge in Acre-feet			% Portland flows at Las Animas	% Pueblo flow at Las Animas
	At Portland	Near Pueblo	At Las Animas		
0	401,600	328,000	61,390	15	19
1	428,900	348,790	68,710	16	20
2	612,300	561,460	103,710	17	18
3		382,750	84,290		22
4	N	225,830	38,790		17
5	O	260,650	136,730		52
6		339,610	47,680		14
7	R	1,001,000	396,900		40
8	E	478,400	131,900		28
9	C	364,500	22,840		6
0	O	444,000	62,410		14
1	R	449,100	105,800		24
2	D	607,600	92,500		15
3		276,000	41,320		15
4		320,800	28,440		9
5	779,040	771,000	330,300	42	43
6	525,940	413,800	101,700	19	25
7	410,330	340,900	31,510	8	9
8	543,310	489,900	77,150	14	16
9	582,930	480,900	72,630	12	15
0	766,610	689,000	123,800	16	18
1	540,350	480,400	80,600	15	17
2	451,040	402,900	69,720	15	17
3	625,970	569,900	87,030	14	15
1974	433,950	359,200	61,890	14	17
1975	564,980	479,600	90,100	16	19
76	440,970	372,000	73,010	17	20
77	195,890	175,900	<u>3/</u> 39,850	20	23
78	407,740	348,640	68,020	17	20
79	575,920	517,300	<u>3/</u> 92,560	16	19
80	750,000	718,800	<u>3/</u> 264,610	35	37

1/ Pueblo Reservoir storage & operation began January 9.

2/ Portland gage moved upstream approximately 5 miles.

3/ Amity winter water passing Las Animas gaging station reduced from total flow.

SUMMARY

The Above Compilation Shows That:

1. Prior to 1974, the average annual gaged flow passing the Las Animas, Colorado, gage was 17% of the water gaged at Portland, Colorado.
2. After 1973, the average annual gaged flow passing the Las Animas, Colorado, gage was 19% of the water gaged at Portland, Colorado, an increase of 2 percent.
3. Prior to 1974, the average annual gaged flow passing the Las Animas, Colorado, gage was 20% of the water gaged at Pueblo, Colorado.
4. After 1973, the average annual gaged flow passing the Las Animas, Colorado, gage was 22% of the water gaged at Pueblo, Colorado, an increase of 2 percent.
5. Evaluation of the comparative flow at Portland, Pueblo, and Las Animas does not indicate a reduced flow into John Martin via the Arkansas River resulting from storage in Pueblo Reservoir.

ARKANSAS RIVER COMPACT ADMINISTRATION

Post Office Box 1156
LAMAR, COLORADO 81052

KANSAS

GUY E. GIBSON, Topeka
CARL E. BENTRUP, Deerfield
Vice Chairman
W. F. STOECKLY, Garden City

FRANK G. COOLEY

Chairman and Federal Representative
P.O. Box 98
Meeker, Colorado 81641

COLORADO

J. WILLIAM McDONALD, Denver
KENT A. REYHER, Las Animas
LEO IDLER, Lamar
Treasurer

OPERATION'S COMMITTEE REPORT

Mr. Robert Jesse met with the Operation's Committee at Garden city, Kansas December 17, 1981. He explained what his report contained, an actual day by day record of the various irrigation entities storing in John Martin Reservoir during the irrigation season. The amount of evaporation charged to each of these entities according to their proportionate share was included in the figures.

There was 46,760.49 acre feet of water stored in John Martin Reservoir during the winter storage season. Included in this amount was 27,106.34 acre feet that was stored in the accounts October 31, 1980. The permanent pool at John Martin Reservoir contained 8,234.66 acre feet October 31, 1980. During the irrigation season 80,475.94 acre was released to the state of Colorado ditches, 38,582.30 acre feet was released to Kansas ditches which included their agreement water and transit loss water. There was 13,712.81 acre feet stored in the reservoir when the winter storage season began November 1, 1981.

A new area capacity table was received and its use implemented August 12, 1981.

The Compact Chairman directed Mr. Jesse to call an ad hoc meeting in Lamar, Colorado August 27, 1981, to discuss gauging stations on the Arkansas River operated by the Compact and the U.S.G.S.

Various representatives from United Geological Survey, Army Corps of Engineers, Colorado Attorney General's Office, Colorado Water Conservation Board, Water Commissioners for Kansas, both Colorado Compact Commissioners and the Division Engineer from Colorado were present.

Various changes were proposed and were included in the resume Mr. Jesse sent to all who attended. There were two replies to the resume Mr. Jesse sent. Mr. Howard Corrigan, Kansas Water Commissioner from Kansas noted he would like to go on record against dropping the monthly record computations on the Arkansas River near Coolidge, Kansas and the Frontier Ditch at the State line. Mr. Perry of the Colorado Water Conservation Board replied that he approved the changes.

The proposed changes are appended here to.

Respectfully submitted,

Leo Idler *Frank Cooley*

Operation's Committee members

RICHARD D. LAMM
Governor



J.A. DANIELSON
State Engineer

DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES
ROBERT W. JESSE
IRRIGATION DIVISION ENGINEER
1906 W. NORTHERN AVENUE
PUEBLO, COLORADO 81004
OFFICE: 542-3368 HOME: 545-2873

September 23, 1981

MEMORANDUM

TO: Jeris Danielson, State Engineer
Howard Corrigan
Leo Idler
Kent Reyher
Jerry Hughes
Bill McDonald
Mike Mocek
Bill Howland
Dave Aschkinasi
Frank Cooley

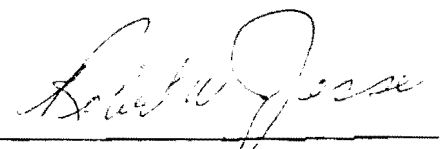
SUBJECT: August 22, 1981 Meeting

As directed by Mr. Cooley at the August Compact meeting, attached is my recommendations and perceptions of the August 27 meetings.

It looks like an increase in Compact cost to U.S.G.S.

If you have any further ideas, comments or want to add or delete anything, please get back to me as soon as possible so I can have a report ready for the Operations Committee.

RWJ/eg


Robert W. Jesse

(DRAFT)

PROPOSED REPORT TO A.R.C.A. OPERATIONS COMMITTEE

At the August meeting, the Compact asked the Division Engineer for Division 2 to act as Chairman of an ad hoc committee to report on the gauge stations operated by the Compact. A meeting was held at 2:00 p.m. on August 27, 1981 in Lamar (notice attached).

Present were representatives from the U.S.G.S., Army Corps of Engineers, Attorney General's Office, C.W.C.B., Water Commissioner for Kansas, both Colorado Compact Commissioners and the Division Engineer from Colorado.

Recommendations to Operations Committee:

0712400 Arkansas River at Las Animas

Should drop requirement of monthly computation of records (see Note C, Exhibit "A"), and request 4 instead of 8 extra measurements, and retain the 3 flood measurements. Should have telephone accessible telemark installed.

08130500 Arkansas below John Martin

Should drop monthly computation of records (see Note C, Exhibit "A"), and request 4 instead of 8 extra measurements, and retain the 3 flood measurements. Should have telephone telemark installed.

Arkansas at Granada

Should have 4 extra measurements and 3 flood measurements. No monthly computations.

07128500 Purgatoire R. near Las Animas

Should drop requirement of monthly computation of records (see Note C, Exhibit "A"), and request 4 instead of 8 extra measurements, and retain the 3 flood measurements. Should have telephone accessible telemark installed.

John Martin Reservoir

No change.

Radio Relay Stations (3 in Colorado)

Telemarks should be operated for Water Year 1982 with these radios. And, if Telemeters are superior, evaluate radio network in Colorado in December 1982.

KANSAS DISTRICT

07137500 Arkansas near Coolidge

Drop monthly record computations.

07137000 Frontier Ditch

Drop monthly record computations.

Radio Relay Stations (5 in Kansas)

Telemarks should be operated in Water Year 1982 with these radios. And, if telemeters are superior, evaluate radio network in Kansas in December 1982.

It is further felt that telephone telemarks should be installed in the State of Colorado operated gages at Nine Mile on the Purgatoire and the La Junta gage on the Arkansas.

It is further felt that a report and inquiry such as this be submitted each year to the Operations Committee.

Comsat Program as demonstrated should be watched closely, as it seems to be the ultimate answer to all data collection and, if implemented and within Compact budget capabilities, would replace all radio, telephone and data computation systems.

EXHIBIT "A"

FY 1982 (October 1981 - September 1982)

SUMMARY OF PROGRAM

USGS/Arkansas River Compact Administration

Station number	Station Name	Coop. or Support	Notes	Funds
Colorado District				
07124000	Arkansas R. at Las Animas	Federal	A	\$ 4,050
		Compact	B,C	2,440
07130500	Arkansas R. below John Martin Reservoir	Federal	A	4,050
		Compact	B,C,D	3,240
07133000	Arkansas River at Lamar	Federal	A	4,050
		Compact	B,C	2,440
	Arkansas R. at Granada	Compact	A,B,C,D	6,440
07128500	Purgatoire R. near Las Animas	Federal	A	4,050
		Compact	B,C	2,440
	John Martin Reservoir	Compact	D	800
	Radio relay stations (3 in CO)	Compact	E	1,600
	Compact Net Total, Colorado District			\$19,400
Kansas District				
07137500	Arkansas R. near Coolidge	Federal	A	4,800
		Compact	B,C	3,260
07137000	Frontier Ditch	Federal	F	2,600
		Compact	C	700
	Radio relay stations (5 in KS)	Compact	E	2,530
	Compact Net Total, Kansas District			\$ 6,490
	COMPACT GRAND TOTAL			\$25,890

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 \$800 for maintenance of telemark.

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

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



KANSAS STATE BOARD OF AGRICULTURE

W. W. DUTSMAN, Secretary

FIELD OFFICE, DIVISION OF WATER RESOURCES
HOWARD C. CORRIGAN, Water Commissioner
1513 E. Fulton
P. O. Box 618, GARDEN CITY, KANSAS 67846
Telephone (316) 276-2901

GUY E. GIBSON, Chief Engineer
DIVISION OF WATER RESOURCES
TOPEKA • • KANSAS

September 28, 1981

Mr. Robert W. Jesse
Irrigation Division Engineer
Division of Water Resources
1906 W. Northern Avenue
Pueblo, Colorado 81004

Dear Mr. Jesse:

I am in receipt of your letter dated September 23, 1981 concerning your recommendations and perceptions of the August 27 meeting held as directed by Mr. Cooley at the August Compact meeting in reference of investigation of the gauge stations operated by the Compact.

I would like to go on record as opposing any drop in monthly record computations on either the Arkansas River near Coolidge or the Frontier Ditch at the Stateline. These records are used constantly by this office. Also I find nowhere in your letter the concern in the operating cost differences by the U.S.G.S. in operating the Kansas gauge stations as to the Colorado gauge stations.

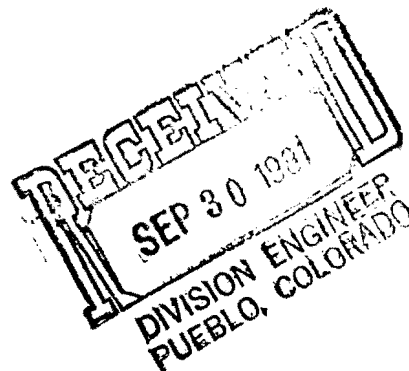
It should be noted that I have no Exhibit "A" attached to my letter.

Yours truly,


Howard C. Corrigan
Water Commissioner

HCC:ss

cc: Jeris Danielson, State Engineer
cc: Leo Idler
cc: Kent Reyher
cc: Jerry Hughes
cc: Bill McDonald
cc: Bill Howland
cc: Frank Cooley
cc: Carl Bentrup
cc: Ronald Olomon
cc: Guy E. Gibson



RESOLUTION CONCERNING TRINIDAD RESERVOIR

WHEREAS, the Arkansas River Compact Administration has reviewed reports and the Findings of Fact Relative to Trinidad Reservoir adopted by the Administration on September 25, 1980;

NOW THEREFORE, BE IT RESOLVED that the Administration finds that Article IV D of the Compact and Condition #3 of the Kansas Amendments to the Operating Principles Trinidad Dam and Reservoir Project were violated when the State Engineer allowed the District (Trinidad) to store 18,290 acre-feet of water in Trinidad Reservoir during water year 1979 under authority of the Model Storage Right and to store 20,000 acre-feet during water year 1980 under the Model Storage Right behind Trinidad Dam without physically moving 18,290 acre-feet stored in 1979 under the Model Right from behind Trinidad Dam;

BE IT FURTHER RESOLVED that the Administration requests that the State Engineer of Colorado immediately order the release of all waters in excess of the 6200 acre-feet which is stored under the Model account and prohibit the District from emptying the account by any method other than physically moving the water from behind Trinidad Dam and further that the State Engineer protect such releases from diversion until the water is impounded in John Martin Reservoir.

Entered this 8th day of December, 1981, at the annual meeting of the Administration held in Lamar, Colorado.

Frank Cooley, Chairman
Arkansas River Compact
Administration

Leo Idler, Secretary
Arkansas River Compact
Administration

RESOLUTION CONCERNING TRINIDAD RESERVOIR

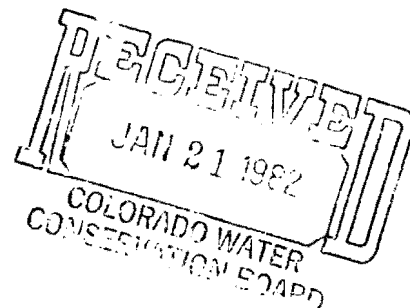
WHEREAS, the Arkansas River Compact Administration has reviewed reports and the Findings of Fact Relative to Trinidad Reservoir adopted by the Administration on September 25, 1980;

NOW THEREFORE, BE IT RESOLVED that the Administration finds that Article IV D of the Compact and Condition #3 of the Kansas Amendments to the Operating Principles Trinidad Dam and Reservoir Project were violated when the State Engineer allowed the Purgatoire River Water Conservancy District to store 18,290 acre-feet of water in Trinidad Reservoir during water year 1979 under authority of the Model Storage Right and to store 20,000 acre-feet during water year 1980 under the Model Storage Right behind Trinidad Dam without physically moving 18,290 acre-feet stored in 1979 under the Model Right from behind Trinidad Dam;

BE IT FURTHER RESOLVED that the Kansas Ditches that divert water from the Arkansas River in Hamilton, Kearny and Finney Counties requests that the State Engineer of Colorado immediately order the release of 40% of the water in excess of the 6200 acre-feet which is stored under the Model account and prohibit the District from emptying the account by any method other than physically moving the water from behind Trinidad Dam and further that the State Engineer protect such releases from diversion until the water is impounded in the Kansas storage account located in the John Martin Reservoir.

Entered this _____ day of _____, at the annual meeting of the Administration held in Lamar, Colorado.

Henry Gillan, Jr., President
Kansas Associated Ditch System



January 15, 1982

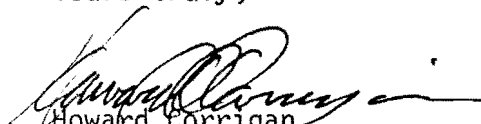
Mr. Bill McDonald
Colorado Water Conservation Board
823 State Centennial Building
1313 Sherman Street
Denver, Colorado 80203

Dear Mr. McDonald;

On behalf of Mr. Ed Dekeyser, spokesman for the Kansas Associated Ditch System, I am sending a revised Resolution, pertaining to the Trinidad Reservoir.

The Resolution as submitted to the Arkansas River Compact Commission held at Lamar, Colorado on January 4, 1982, should be withdrawn and replaced with this revised Resolution.

Yours truly,


Howard Corrigan,
Water Commissioner

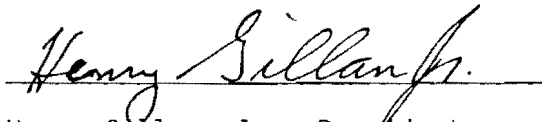
cc. Carl Bentrup
cc. Ed Dekeyser

RESOLUTION CONCERNING TRINIDAD RESERVOIR

WHEREAS, the Arkansas River Compact Administration has reviewed reports and the Findings of Fact Relative to Trinidad Reservoir adopted by the Administration on September 25, 1980;

BE IT RESOLVED that the Kansas Ditches that divert water from the Arkansas River in Hamilton, Kearny, and Finney Counties request that the State Engineer of Colorado immediately order the release of 40% of the water in excess of the 6200 acre-feet which is stored under the Model account and prohibit the District from emptying the account by any method other than physically moving the water from behind Trinidad Dam and further that the State Engineer protect such releases from diversion until the water is impounded in the Kansas storage account located in the John Martin Reservoir.

Entered this 4th day of January 1982, at the annual meeting of the Administration held in Lamar, Colorado.

A handwritten signature in cursive script, reading "Henry Gillan, Jr.", is written over a horizontal line.

Henry Gillan, Jr., President
Kansas Associated Ditch System

ATTACHMENT H

RESOLUTION
CONCERNING
PUEBLO DAM AND RESERVOIR

WHEREAS, the regulation of "waters of the Arkansas River" (as that term is defined in Article III of the Arkansas River Compact) is of major concern to the Arkansas River Compact Administration; and

WHEREAS, Pueblo Dam and Reservoir in Colorado, a feature of the Fryingpan-Arkansas Project, has been constructed with a capacity sufficient to permit regulation of waters of the Arkansas River; and

WHEREAS, the resolution approved by this Administration at Lamar, Colorado, on July 24, 1951, provides that:

3. The re-regulation of native waters of the Arkansas River (native waters being as above mentioned) concerns the Arkansas River Compact Administration and both Colorado and Kansas in complying with the provisions of the Arkansas River Compact and maintaining the benefits and obligations of the two states under that compact. To that end, it is recommended to the governors of Colorado and Kansas, and expressed as a policy of the Arkansas River Compact Administration, that the Initial Development, Gunnison-Arkansas Project, Roaring Fork Diversion, Colorado, as set forth in Project Planning Report No. 7-8a.49-1 of the Bureau of Reclamation, be approved; provided, however, that there shall be no re-regulation of native waters of the Arkansas River as proposed in such report until a plan of operation, rules, regulations, procedures and agreements in the furtherance thereof, including any 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.

; and

WHEREAS, the State of Colorado in a document entitled "Official Comments and Recommendations of the State of Colorado on the Initial Development, Gunnison-Arkansas Project, Roaring Fork Divison, Colorado," dated August 7, 1951, which was signed by the Governor of the State of Colorado and the Director of the Colorado Water Conservation Board, acknowledged in comment

STATE OF COLORADO

COLORADO WATER CONSERVATION BOARD

Department of Natural Resources

822 State Centennial Building

1313 Sherman Street

Denver, Colorado 80203

Phone: (303) 839-3441

Richard D. Lamm
GovernorJ. William McDonald
DirectorDavid Walker
Deputy DirectorM E M O R A N D U M

TO: Members, Arkansas River Compact Administration

FROM: Bill McDonald *McDonald*

DATE: January 11, 1982

SUBJECT: Resolution Concerning Pueblo Dam and Reservoir

1. Please find attached the final copy of the resolution which was read into the record and passed at the annual meeting on January 4.
2. I am providing this to you in order that you might review it for its accuracy.
3. Concurrently herewith, I have transmitted the originally typed copy of the resolution to Frank Cooley for his signature. May I suggest that if Frank receives no comment to the contrary from any member of the Administration on or before Friday, January 29, then he should execute the original and forward it to Leo Idler.
4. Upon receipt of the originally executed resolution from Frank, I would request Leo to also execute the resolution and proceed to distribute it as follows:
 - a. Make zerox copies of the executed resolution to send to all members of the Administration and to Bob Jesse.
 - b. Make zerox copies of the resolution to transmit to the U.S. Bureau of Reclamation (Mr. B.E. Martin, Regional Director, Lower Missouri Region, U.S. Bureau of Reclamation, Denver Federal Center, Denver, Colorado 80225) and to the Southeastern Colorado Water Conservancy District as provided for by the resolution.

c. Finally, return the originally executed copy of the resolution to me so that I can attach it to the minutes, which, when they are approved by the Administration, will be returned to Leo for disposition in the official files in Lamar.

5. Unless I hear to the contrary, I will assume that this procedure is satisfactory. Thank you for taking the time to review this for its accuracy.

JWM/gl

Encl: as stated

cc: Bob Jesse, Operations Secretary

bcc: Tommy Thomson, Southeastern Colo. WCD (Resolution only)

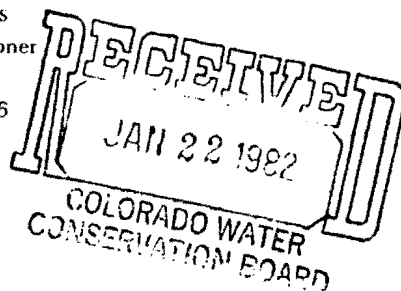


KANSAS STATE BOARD OF AGRICULTURE

W. W. DUTSMAN, Secretary

FIELD OFFICE, DIVISION OF WATER RESOURCES
 HOWARD C. CORRIGAN, Water Commissioner
 1513 E. Fulton
 P. O. Box 618, GARDEN CITY, KANSAS 67846
 Telephone (316) 276-2901

GUY E. GIBSON, Chief Engineer
 DIVISION OF WATER RESOURCES
 TOPEKA • • KANSAS



January 20, 1982

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

Dear Mr. Cooley:

On January 4, 1982 Kansas submitted a written Resolution to the Arkansas River Compact Administration concerning operation of the Pueblo Dam and Reservoir. This Resolution was then re-written and given approval by both States based on a verbal reading of this change. After reviewing the written Resolution of January 11, 1982, we find that the third paragraph from the bottom does not comply with the Resolution passed by the Administration on July 24, 1951 and approved by both States. The Resolution states that the operating plan should be approved by the Arkansas River Compact Administration. We propose to substitute the following Resolution:

"Now therefore be it resolved, that there shall be no re-regulation of native waters of the Arkansas River as proposed in planning report No. 7-8a. 49-1 after November 1, 1982, unless an operating plan, rules, regulations, procedures and agreements in the furtherance thereof, including any pertinent agreements between the Corps of Engineers and Bureau of Reclamation, shall have been submitted to and approved by the Arkansas River Compact Administration and the affected water users."

Yours truly,

cc: Bill McDonald ✓

Carl E. Bentrup
 Carl E. Bentrup
 Compact Member

Ronald Olmon
 Ronald Olmon
 Compact Member

March 24, 1982

Mr. Carl Bentrup
Deerfield, KS 67838

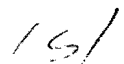
Dear Carl:

Please excuse this delayed response to the January 20, 1982, letter which you and Ron Olomon sent to Frank Cooley with regard to the resolution concerning Pueblo Reservoir which was considered by the Compact Administration at its January 4, 1982, annual meeting. I did not respond during February since you were on vacation. Then time simply slipped by me this month before I got back to it.

I have listened to the tapes for the January 4 meeting and find that the resolution which I forwarded to the members of the Compact Administration under cover of a memo dated January 11 is exactly what was read into the record and approved by both states. If you would like me to send you the tapes, I would be glad to do so.

Under the circumstances, I regard the resolution which I transmitted on January 11 as being in full force and effect. Please let me know how you would like to proceed to dispose of this matter.

Sincerely,



J. William McDonald
Director

cc: Frank Cooley
Guy Gibson
Ron Olomon
Leo Idler
Carl Genova
Bob Jesse

bcc: Dennis Montgomery
Tommy Thomson

ed
cb/

ATTACHMENT L

M E M O R A N D U M

TO: Members, Arkansas River Compact Administration

FROM: Bill McDonald *McD.*

SUBJECT: Notice of Addition of an Item to the Agenda for
the Recessed Annual Meeting

DATE: December 30, 1981

1. At the August 6, 1981, special meeting, the by-laws were amended to create the office of Recording Secretary (Article II).
2. We forgot, however, to amend other articles in the by-laws to change all references to the "Secretary" to the new "Recording Secretary".
3. Article XI of the by-laws requires that proposed amendments "shall have been given in the notice of the meeting". Since the agenda initially sent out did not provide such notice, I am sending out this supplementary notice to the agenda. I will have the necessary changes identified for your consideration at the January 4th meeting.

BM/eg

M E M O R A N D U M

TO: Members, Arkansas River Compact Administration

FROM: Bill McDonald *MD*

SUBJECT: Proposed Amendment to Article V of the By-Laws

DATE: December 30, 1981

1. The subject amendment has been duly noticed in the agenda for the January 4th recessed Annual Meeting.
2. I propose adding a new paragraph to Article V to read as follows:
 - "7. Written notice of meetings of standing committees and of special committees shall be given to all officers and members of the Administration at least five days prior to the date for any such committee meetings, said written notice to specify the time, date, location, and agenda for such meetings. A standing committee or special committee may waive such notice requirement if all members of a committee agree that circumstances so warrant. In the event of such a waiver, the chairman of a committee shall make every reasonable effort to inform all officers and members of the Administration of the time, date, location and agenda for a committee meeting."

BM/eg

ARKANSAS RIVER COMPACT ADMINISTRATION

Post Office Box 1156
LAMAR, COLORADO 81052

KANSAS

GUY E. GIBSON, Topeka
CARL E. BENTRUP, Deerfield
Vice Chairman
W. F. STOECKLY, Garden City

FRANK G. COOLEY
Chairman and Federal Representative
P.O. Box 98
Meeker, Colorado 81641

COLORADO

J. WILLIAM McDONALD, Denver
KENT A. REYHER, Las Animas
LEO IDLER, Lamar
Treasurer

SECRETARY'S REPORT

The irrigation season for 1981 was opposite to that of 1980. The 1980 season began with a rainy period in April and May, then tapered off to a dry fall. The 1981 season started out with very little snow in the mountains, then a dry spring and early summer. There was a rainy period on the Purgatoire River in the late summer which turned a bleak year into a fairly good one, irrigation wise.

The account system we have been using the last two years has proved successful under these completely different conditions. It has given the irrigators the prerogative of using their proportional share of water when they needed it.

The Compact Administration continues to update the gauging of water flowing into and out of John Martin Reservoir. My experience as a Compact member is that it is not easy to keep a close account of water flowing in a stream or river for long periods of time. No matter what you design nature redesigns, so constant supervision is needed to keep an accurate account of flowing water wherever it is.

I hope the new Comsat Program stands the test of time as we continue to try new methods of measuring water.

Respectfully submitted,

Leo Idler
Recording Secretary

July 1, 1980 thru June 30, 1981

Cash on hand July 1, 1980

\$22,760

Receipts:

Revenue from Assessments:

Colorado

12,237

Kansas

8,158

Interest

1,312

TOTAL RECEIPTS

21,707

DISBURSEMENTS:

Insurance

100

Geological Survey

5,714

Equipment

94

Professional Fees

200

Office Supplies

235

Printing Annual Report

680

Secretary's Salary-Net

3,371

Payroll Taxes

530

Telephone

1,540

Typing and Mailing

235

Travel and Meetings

226

TOTAL DISBURSEMENTS

12,913

EXCESS OF RECEIPTS OVER DISBURSEMENTS

8,794

CASH BALANCE, JUNE 30, 1981

31,554

BALANCE SHEET

July 1, 1981 thru December 30, 1981

Cash on hand July 1, 1981

31,554.21

Receipts:

Revenue from Assessments:

Colorado

13,614

Kansas

9,076

Miscellaneous

2

Interest

1,063

TOTAL RECEIPTS

23,755

TOTAL FUNDS AVAILABLE

55,309.21

DISBURSEMENTS:

Insurance

100

Geological Survey

10,300

Equipment

Professional Fees

250

Office Supplies

17.10

Printing Annual Report

1,146.04

Secretary's Salary-Net

1,680.30

Payroll Taxes

239.40

Telephone

589.88

Typing and Mailing

112.41

Travel and Meetings

96.82

TOTAL DISBURSEMENTS

14,532.45

EXCESS OF RECEIPTS OVER DISBURSEMENTS

40,776.76

Checking Account

309.76

Savings Account

40,467.00

CASH BALANCE, DECEMBER 30, 1981

40,776.76\$40,776.76

ARKANSAS RIVER COMPACT ADMINISTRATION

Post Office Box 1156
LAMAR, COLORADO 81052

KANSAS
GUY E. GIBSON, Topeka
CARL E. BENTRUP, Deerfield
Vice Chairman
W. F. STOECKLY, Garden City

FRANK G. COOLEY
Chairman and Federal Representative
P.O. Box 98
Meeker, Colorado 81641

COLORADO
J. WILLIAM McDONALD, Denver
KENT A. REYHER, Las Animas
LEO IDLER, Lamar
Treasurer

CHECKS WRITTEN SINCE JULY 1, 1981

Date	Check Number	To	For	Amount \$
July 6	477	Federal Reserve	Social Security	39.90
July 6	478	Leo Idler	Salary-Postage-Supplies	299.55
July 6	479	Mountain Bell	Telephone	90.88
Aug 5	480	Mountain Bell	Telephone	87.45
Aug 5	481	Federal Reserve	Social Security	39.90
Aug 5	482	Leo Idler	Salary-Postage	287.82
Aug 6	483	Void	Typing Mistake	
Aug 6	484	Wheatland Convention Center	Meeting Room	96.82
Sept 4	485	Mountain Bell	Telephone	143.39
Sept 4	486	Federal Reserve	Social Security	39.90
Sept 4	487	Leo Idler	Salary	280.05
Sept 10	488	Crimond, Farmer & Co.	Audit & Copies	291.37
Sept 10	489	U. S. G. S.	Cooperative Agreement	5,700.00
Sept 10	490	Void	Typing Mistake	
Sept 10	491	Guaranty Abstract Co.	Treasure's Bond	100.00
Sept 10	492	U. S. G. S.	Install Granada Station	4,600.00
Oct 5	493	Mountain Bell	Telephone	112.04
Oct 5	494	Federal Reserve	Social Security	39.90
Oct 5	495	Leo Idler	Salary-Postage-Supplies	299.26
Nov 5	496	Mountain Bell	Telephone	74.64
Nov 5	497	Federal Reserve	Social Security	39.90
Nov 5	498	Leo Idler	Postage-Salary	300.24
Nov 5	499	Mountain Bell	Telephone	81.48
Dec 5	500	Betz Publishing Co.	Print 32nd Annual Report	1,146.04
Dec 5	501	Federal Reserve	Social Security	39.90
Dec 5	502	Leo Idler	Postage-Salary	302.02
				<u>\$14,532.45</u>

ATTACHMENT P

ARKANSAS RIVER COMPACT ADMINISTRATION

CASH BASIS FINANCIAL STATEMENTS

JUNE 30, 1981

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
INDEX TO CASH BASIS FINANCIAL STATEMENTS
JUNE 30, 1981

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STATEMENT OF CASH RECEIPTS & DISBURSEMENTS WITH BUDGET	C	4
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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, 1981, 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, 1981. 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, Exhibits A, B & C present fairly the Assets and Liabilities Arising from Cash Transactions of the Arkansas River Compact Administration as of June 30, 1981, and the results of Cash Transactions for the year then ended on a basis consistent with the previous year.



Certified Public Accountants

August 11, 1981
Lamar, Colorado

EXHIBIT A

ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF ASSETS & LIABILITIES ARISING FROM CASH TRANSACTIONS
JUNE 30, 1981

ASSETS:

Cash & Savings	\$ 31,554
Equipment	2,501
Concrete Control	<u>8,000</u>
TOTAL ASSETS	<u><u>42,055</u></u>

LIABILITIES

CASH BASIS EQUITY:

Expended:

Equipment	2,501
Concrete Control	8,000

Unexpended:

TOTAL CASH BASIS EQUITY - NOTE 1a	<u>42,055</u>
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TOTAL LIABILITIES & CASH BASIS EQUITY	<u><u>\$ 42,055</u></u>
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The accompanying notes are an integral
part of the financial statements.

EXHIBIT B

ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS & DISBURSEMENTS & CHANGES IN CASH BALANCE
FOR YEAR ENDED JUNE 30, 1981

CASH BALANCE, JULY 1, 1980	\$ 22,760
RECEIPTS:	
Revenue from Assessments:	
Colorado	12,237
Kansas	8,158
Interest	<u>1,312</u>
TOTAL RECEIPTS	21,707
DISBURSEMENTS:	
Insurance	100
Geological Survey	5,714
Equipment	94
Professional Fees	200
Office Supplies	223
Printing	680
Secretary's Salary - Net	3,371
Payroll Taxes	530
Telephone	1,540
Typing & Mailing	235
Travel & Meetings	<u>226</u>
TOTAL DISBURSEMENTS	<u>12,913</u>
EXCESS OF RECEIPTS OVER DISBURSEMENTS	<u>8,794</u>
CASH BALANCE, JUNE 30, 1981	<u>\$ 31,554</u>

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

EXHIBIT C

ARKANSAS RIVER COMPACT ADMINISTRATION
STATEMENT OF CASH RECEIPTS & DISBURSEMENTS WITH BUDGET COMPARISON
FOR THE BUDGET YEAR JULY 1, 1980 TO JUNE 30, 1981

	BUDGET	ACTUAL	ACTUAL OVER/UNDER
CASH BALANCE, JULY 1, 1980	\$ ---	\$ 22,760	\$ 22,760
RECEIPTS:			
Revenue from Assessments:			
Colorado - 60%	12,237	12,237	---
Kansas - 40%	8,158	8,158	---
Interest	---	1,312	1,312
TOTAL RECEIPTS	20,395	21,707	1,312
TOTAL TO ACCOUNT FOR	20,395	44,467	24,072
DISBURSEMENTS:			
U S Geological Survey	4,900	5,714	814
Secretary's Salary - Net	3,600	3,371	(229)
Bond & Insurance	75	100	25
Telephone	1,000	1,540	540
Payroll Taxes	220	530	310
Typing & Mailing	---	235	235
Travel & Meetings	1,350	226	(1,124)
Professional Fees	750	200	(550)
Office Supplies	500	223	(277)
Printing	1,000	680	(320)
Contingency	2,000	---	(2,000)
Office Equipment	---	94	94
Data Acquisition Improvement Plan	5,000	---	(5,000)
TOTAL DISBURSEMENTS	20,395	12,913	(7,482)
CASH BALANCE, JUNE 30, 1981	\$ ---	\$ 31,554	\$ 31,554

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

ARKANSAS RIVER COMPACT ADMINISTRATION
NOTES TO CASH BASIS STATEMENTS
JUNE 30, 1981

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.

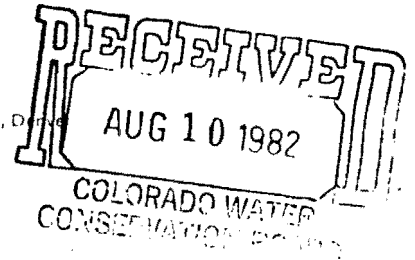
ARKANSAS RIVER COMPACT ADMINISTRATION

1001 S. Main Street
LAMAR, COLORADO 81052

KANSAS
GUY E. GIBSON, Topeka
CARL E. BENTRUP, Deerfield
Vice Chairman
RUTH OLIMON, Garden City

FRANK G. COOLEY
Chairman and Federal Representative
P.O. Box 98
Meeker, Colorado 81641

COLORADO
J. WILLIAM McDONALD, Denver
CARL GI NOVA, Pueblo
LEO IDLER, Lamar
Treasurer



BUDGET

Fiscal Year July 1, 1983 - June 30, 1984

A. SALARIES:		<u>8,841.20</u>
1. Recording Secretary	<u>3,600</u>	
2. Operation Secretary	<u>5,000</u>	
3. Social Security	<u>241.20</u>	
B. GUAGING STATIONS:		<u>15,500</u>
1. Maintenance and Operation		
A. Cooperative Agreement	<u>15,000</u>	
B. Telemark Telephone		
John Martin Dam		
Granada Guage	<u>500</u>	
C. OPERATING EXPENSE:		<u>4,650</u>
1. Treasurer's Bond	<u>100</u>	
2. Annual Report	<u>1,500</u>	
3. Office Expense		
A. Telephone	<u>1,500</u>	
B. Supplies	<u>500</u>	
C. Printing	<u>500</u>	
4. Travel and Meetings	<u>250</u>	
5. Audit	<u>300</u>	
D. CONTINGENCY:		<u>2,000</u>
E. TOTAL BUDGET:		<u>\$30,991.20</u>
COLORADO (60%)	<u>\$18,594.72</u>	
KANSAS (40%)	<u>\$12,396.48</u>	