

MINUTES OF
ARKANSAS RIVER COMPACT ADMINISTRATION
SPECIAL MEETING
July 8, 1958
COURT HOUSE
Lamar, Colorado

Attendance:

For Colorado:

David Jenkins, Las Animas
Hacket Smartt, Lamar

For Kansas:

Logan N. Green, Vice Chairman, Garden City
Carl E. Bentrup, Deerfield
R. V. Smrha, Topeka

Absent:

R. M. Gildersleeve, Denver, Colorado
Carl G. Paulsen, Washington, D. C.

Others Attending:

Edward J. Tripp	U.S.G.S. Sur.Water	Denver, Colo.
Wallace T. Miller	U.S.G.S. Sur.Water	Denver, Colo.
John T. Martin	Corps of Engineers	Albuquerque, N. Mex.
Guy M. Vincent	Water Comm. Kansas	Garden City, Kansas
William Pattie	Amity Mutual Irr.Co.	Holly, Colo.
Ross W. Moor	U.S.G.S.	Lamar, Colo.
Sisto Guidotti	Amity Canal	Bristol, Colo.
Robert A. Buchhagen	Corps of Engineers	John Martin Dam
R. J. McGrath	Water Comm. #67	Lamar, Colo.
Harry C. Nevius	Amity Canal	Lamar, Colo.
Felix L. Sparks	Colo.Water Cons. Bd.	Denver, Colo.
Fred L. Boydston, Jr.	Colo.Water Cons. Bd.	Denver, Colo.

The special meeting was convened at 9:30 A. M. in the Court House at Lamar, Colorado, July 8, 1958. Vice Chairman Green presided in the absence of Chairman Paulsen.

It was moved, seconded and passed to dispense with reading of the minutes of the meeting of March 18, 1958.

A motion to approve the minutes as drafted was duly seconded and passed.

Mr. Smartt was called upon for the Secretary's report and he replied that he did not have a report as Secretary. He submitted the Treasurer's report as follows:

Treasurer's Report to June 30th, 1958

Balance on Hand, October 31, 1957, Auditor's Report		\$1,299.20
Receipts, State of Colorado, Dec. 2, 1957	\$1,800.00	
State of Kansas, Dec. 31, 1957	<u>1,200.00</u>	
	\$3,000.00	
Total Funds Available		4,299.20
Disbursements by Administration, Reported Mar. 18, 1958		
Vouchers No. 227, 230, 233, 236,		
228, 231, 234, 237, 239		
229, 232, 235, 238, 240	1,365.70	
Balance March 18, 1958		2,933.50
Vouchers		
No. 241 Lamar Daily News	23.31	
Printing & Furnishing 500 post cards		
No. 242 U. S. Geological Survey	125.00	
Cooperative agreement		
No. 243 Hacket Smartt, March & April	195.50	
Salary		
No. 244 M.St. T. & T. Co., March & April	25.65	
Service		
No. 245 M. St.T. & T. Co., May & June	30.35	
Service		
No. 246 Treasurer of the United States	18.00	
O.A.S.I. Funds		
No. 247 Hacket Smartt, Secy.-Treas.	<u>195.50</u>	
Salary, May & June		
Total Disbursements since March 18, 1958	613.31	
Balance, July 8, 1958		2,320.19

It was moved, seconded and passed to accept and record the Treasurer's report.

Mr. Smartt read a resolution from the Amity Mutual Irrigation Company and said that he had acknowledged its receipt. A copy of the resolution follows:

RESOLUTION

WHEREAS the stockholders of The Amity Mutual Irrigation Company are vitally interested in the use and diversion of the waters of the Arkansas River and its tributaries; and

WHEREAS they are vitally interested in the storage in, and operation of the John Martin Dam; and

WHEREAS there are plans and efforts being made to effect the creation of a permanent pool in said John Martin Dam; and

WHEREAS the stockholders of The Amity Mutual Irrigation Company believe the creation of said permanent pool is not to their best interests;

BE IT THEREFORE RESOLVED, that the stockholders of The Amity Mutual Irrigation Company are opposed to the creation of a permanent pool in the John Martin Dam.

The above resolution was passed unanimously by the Stockholders at the annual meeting on March 3, 1958.

/s/ Evllyn Cox

Secretary

Mr. Smartt then summarized the correspondence which consisted of requests for copies of the annual reports and copies of minutes of certain meetings. He said that the requests had been complied with as far as possible. He also remarked that he has held his travel for the Administration to a minimum, but it is impossible to perform the functions of the Secretary entirely by telephone. He wondered if it is the desire of the Administration to limit his travel. Other members of the Administration agreed that some travel was necessary and the amount of travel should be left to the discretion of the Secretary.

Mr. Smrha reported for the Engineering Committee and remarked that no meeting of the committee had been held, but the subject of repairs to gaging stations was to be considered and called on Mr. Miller of the U.S.G.S. to give his report. Mr. Miller summarized the report which follows:

Recommended Rehabilitation
of
Arkansas River Compact Gaging Stations

At the meeting on March 18, 1958, of the Arkansas River Compact Administration, the Surface Water Branch, Geological Survey, gave a verbal report to the Administration on the present conditions and repairs or rehabilitation needed at the gaging stations operated in connection with the Administration of the Compact. The Administration requested this office to prepare a statement for the July 1958 meeting, which would include: (1) description of the proposed work, (2) estimate of costs, (3) our recommended priority based on the importance of the station and the necessity or urgency of the work.

This information is listed below by stations, in the order of priority recommended by this office:

1. Arkansas River near Coolidge, Kansas

Present conditions:--

Discharge measurements above a wading stage are made from the county highway bridge, 1,560 feet downstream from the gage. This bridge is narrow and dangerous from which to work, especially if a crane were to be used in order to handle heavy sounding weights during floods.

This bridge is supported by about 25 timber-pile bents in the measuring section. Measurements made from this bridge cannot be as accurate as those which could be made from a cableway across an unobstructed reach. The piers create an uneven velocity distribution and any drift lodged against them tends to aggravate this condition. Not as heavy sounding weights can be used from the bridge as from a cableway. This becomes a serious handicap during floods.

Recommendation:--

Although a cableway at this station would not enable complete measurements to be made during extremely high floods (the same thing applies to the bridge), as water would flow around the cable on both banks, it is believed that due to the importance of this station that the expense of a cableway is justified.

Costs:-

Cableway, complete	\$1,400
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2. Purgatoire River near Las Animas, Colorado

Present conditions:--

The recorder at this station is located on the county bridge crossing the river about 2.8 miles southeast of Las Animas. Above wading stage, discharge measurements are made from this bridge.

The first recorder well was installed on the first pier from the right (south) bank. In March 1953, it was necessary to move the gage to the next pier farther toward the center of the stream, as the flow had moved away from the old gage. During medium flows or before the gravel bar on the north bank is overflowed, the flow is at a considerable angle to the bridge. This angle is greater at low flows, becoming more normal to the bridge as the stage increases; however, it is not uniform but varies at different points in the cross section. It is so difficult to measure through the bridge members with a crane, that a handline is usually used with a 50-pound sounding weight. These combined factors probably cause some decrease in accuracy of the measurements and consequently the records.

During extreme floods, the road north of the bridge will be overflowed. This occurred in 1955, and a section of the road was washed out, making it impossible to measure the overflow by wading.

Recommendations:--

A measuring cableway should be installed. It would not be economical to install a cableway from which all flows could be measured; however, a cableway could be installed immediately upstream from the bridge from which most floods could be measured with greater accuracy and in less time than from the bridge.

Costs:--

Cableway, complete	\$1,400
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If the Administration has not already done so, it is suggested that the advisability of moving this station about 6 miles upstream to the Hanson ranch be considered. The site would be very suitable for a measuring cableway and bubbler-type recorder installation. There are no tributaries with perennial flow entering the river between the present location and the proposed site. During local rains, the intervening area would contribute to the flow between the two locations but the amount or percentage increase has not been determined. Miscellaneous measurements have been made this spring to determine the ground-water accretion, if any, between the two locations.

Cost:--

Cableway	\$1,400
Recorder (bubbler type)	2,400
	<hr/>
	\$3,800

3. Arkansas River near Las Animas, Colorado

Present conditions:--

The bank at the recorder and cableway, which is immediately downstream from the gage, has been subject to scour for a period of years and has required continual protection at the gage. At the present time, the left A-frame is endangered by bank caving. Part of this is caused by overflow or waste from the irrigation ditch, which runs near the cable.

Last year, a pilot channel was constructed from the highway bridge above the station to the railroad bridge below. Any flow through this channel would bypass the station. If this channel were to be left in the condition it was in, when viewed March 19, 1958, it is possible that a flood would degrade it so there would be flow in it at all stages.

Recommendations:--

Conditions are uncertain because of the bypass channel. Until the river breaks through and degrades this channel to the point where it becomes necessary to move the gage, it is recommended that the present station be operated. A "bubbler" gage can be operated without adding additional intakes or bank protection. If the present well and shelter are endangered by caving of the bank, the gage can be moved farther back from the stream with very little expense. However, the bank must be protected in front of the cable.

A "bubbler" gage was purchased last year for this station. Delivery was made only recently and it is being tested at this time (May 23, 1958). It is planned to install the "bubbler" gage in the present shelter in the near future.

If, or when, the present station is bypassed, the "bubbler" gage probably should be moved to the highway bridge upstream and a cableway installed. "Wait and see what will happen" seems to be the best policy.

Cost summaries:--

A. Cableway, Arkansas River near Coolidge, Kansas	\$1,400
B. Cableway, Purgatoire River near Las Animas, Colorado	1,400
C. Install bubbler, Arkansas River near Las Animas, Colorado	<u>250</u>
TOTAL	\$3,050

Alternate proposal:--

1. Cableway, Arkansas River Coolidge, Kansas	\$1,400
2. Move gage, Purgatoire River near Las Animas, Colorado:	
a. Cableway	\$1,400
b. Bubbler Gage	<u>2,400</u>
	3,800
3. Install bubbler, Arkansas River near Las Animas, Colorado.	<u>250</u>
TOTAL	\$5,450

The installation of a Telemark at Arkansas River below John Martin Dam is being taken care of between the Corps of Engineers and this office.

The maintenance work on the Frontier Ditch was considered to be a normal maintenance item for which this office is responsible and has ^{been} done without additional costs to the Administration.

Surface Water Branch
Geological Survey
Denver, Colorado

May 23, 1958

Copies to: Carl G. Paulsen, 4000 Cathedral Ave., N.W., Washington, D.C.
David Jenkins, Ark. Riv. Comp. Admin., Las Animas, Colo.
Hackett Smart, Ark. Rv. Comp. Admin., Lamar, Colo.
R. V. Smrha, Ch. Engr., 1026 S., State Off. Bldg., Topeka, Ks.
Logan N. Green, Ark. Rv. Comp. Admin., Garden City, Kans.
Carl E. Bentrup, Ark. Rv. Comp. Admin. Deerfield, Kans.
R. W. Moor, U.S.G.S., Lamar, Colo.
Director, Colo. Water Conservation Bd., State Off. Bldg.,
Denver, Colorado

A discussion of the gages followed, and Mr. Miller stated that since his report was written some measurements had been made on the Purgatoire at both the Las Animas gage and the proposed new site upstream at Hanson Ranch, and because of the pick up of flow between the two sites, some error would probably be introduced in the inflow to the reservoir, and he, therefore, recommended that the station not be moved from the present site.

Mr. Smrha questioned the ability to measure floods at the Coolidge gage and asked Mr. Miller and Mr. Vincent to comment on the condition of the radio equipment at the Coolidge station. In the discussion which followed it was determined that smaller floods up to about 10,000 c.f.s. could be measured at the gage and that parts of the radio transmitter were worn and should be replaced, but that so far they hadn't found anyone capable of making the repairs. It was suggested that after the irrigation season is over a telemark could be installed while the transmitter is repaired in the Denver shops of the U.S.G.S.

Funds to make repairs to the gages, as suggested in Mr. Miller's report, were discussed, and it was determined that the financing could best be obtained by requesting some additional funds in the 1959-1960 budget requests of Colorado and Kansas. Mr. Smrha suggested that the Coolidge station should receive the priority in being repaired if it was found that all the additional funds requested were not made available.

Mr. Smrha reminded the other members that a vacancy existed on the Engineering Committee. Selection of a successor to Mr. Crawford on this committee was postponed until the next meeting of the Administration.

Mr. Bentrup gave the report of the Operations Committee which follows:

July 8, 1958

Report of Operations Committee

Due to much rain and snow this spring which furnished plenty of moisture, there was no demand for water from the Reservoir until April 23rd at which time the Lamar Canal called for 50 cfs. 100 cfs. were released in order to compensate for the loss from dam to their headgate.

Other small releases were made from time to time and reached a high of 265 cfs on May 14th, on which date the gates were closed at 5:30 PM due to a heavy rain and hail storm which covered a large portion of the Valley.

The gates remained closed until May 20th on which date 60 cfs were released. The releases gradually increased to 650 cfs on July 1st. Kansas demanded 400 cfs at 1 PM on July 1st and that amount was released at 1:30 PM on said date. Colorado demanded 50 cfs more on July 2nd and this made a total of 1100 cfs being released which was the highest discharge of this season.

On July 3rd the discharge was reduced 450 cfs due to rains and enough water in the river at the State Line to supply Kansas needs.

The discharge remained at 650 cfs until 9:05 AM, July 5th, at which time the release was reduced to 150 cfs due to heavy rains throughout the Valley.

On June 11, 1958 the amount of water in storage reached a high of 352,478 acre feet, then gradually receded to 336,510 acre feet, on July 4th.

The present water in storage 8 AM, July 8th is 351,778 acre feet.

The present release at 8 AM, July 8th is 475 cfs.

/s/ Carl E. Bentrup

Mr. Green said the Administration and Legal Committee had no report to make.

Mr. Smrha moved that for purposes of administering the Compact, the new area-capacity table adopted by the Corps of Engineers June 1, 1958 be adopted by the Administration. The motion was duly seconded and passed.

Mr. Smartt read an invitation from the Arkansas-White-Red Basins Inter-Agency Committee to attend their meeting in Denver July 24 and 25. It was noted that an item on the agenda was a report on the operations of the Arkansas River-Colorado-Kansas Compact. It was not stated in the agenda who was to make the report.

Vice Chairman Green said that he understood all members of the Administration had received copies of Mr. Crawford's memorandum with respect to Carey Dam and the attached copy of a letter from the Director of the Colorado Game and Fish Department which explained the project and its proposed operation. The memorandum and letter were received and placed in the files of the Administration.

Mr. Green next introduced the subject of a permanent fish pool in John Martin reservoir and said that a written application for the pool had been received from Mr. Oakley Wade as had been requested of him at the March 18, 1958 meeting of the Administration when he had made an oral application. Mr. Bentrup's motion was duly seconded and passed that the application be submitted to the legal committee for study and a report at the next meeting. Mr. Sparks asked if the ditch companies would object if a permanent pool was created by increasing the conservation pool. A discussion ensued on difficulties of operation, evaporation charges and legality of such an action.

Copies of the By-Laws, as amended to date, were distributed to the members of the Administration, and after some discussion, it was decided to consider their republication in the next annual report.

Copies of the new area-capacity tables for John Martin reservoir, prepared by the Corps of Engineers, were furnished to Kansas and Colorado members for distribution.

Mr. Smartt distributed copies of the cooperative agreement with the U. S. Geological Survey for operation and maintenance of compact gaging stations, and asked Mr. Miller if he would explain how this contract differed from those previously executed. Mr. Miller explained that the agreement was the same except that the amount was doubled--increased from \$500 to \$1,000. He stated that the accuracy of the records could be improved with additional funds, and that new Federal Salary increases had increased the operational cost of each station. Increased costs and the availability of funds was discussed. Mr. Smrha moved that the Secretary be authorized to negotiate the agreement with the U.S.G.S. in the amount of \$500. The motion was seconded and passed. It was brought out in discussion that Paragraph 2 (c) of the contract would enable the Administration to increase its contribution to the U.S.G.S. by an additional \$500 at the October or December meeting if such additional funds were found to be available. Additional contributions would be matched by the U.S.G.S.

Mr. Smrha's motion was seconded and passed to instruct the Secretary to request the budget contributions for the current fiscal year from Colorado and Kansas.

Mr. Smartt informed the members that Mr. Bone had requested that the Administration pay a part of the telephone costs for the new telemeter station. It was estimated that the Administration's share would be about \$100 per year. Mr. John Martin explained that he understood the costs were to be divided between the U.S.G.S., the Corps of Engineers and the Administration. Mr. McGrath said that the State Engineer might also be interested in contributing to the cost since his Commissioners will use it quite often. The subject received additional discussion, but action was deferred until the next meeting when it is hoped that more detailed information will be available.

Mr. Bentrup remarked that it appeared likely that John Martin reservoir would get some water into the flood control storage area, and asked Mr. Martin to explain the method of release of such water. Mr. Martin said that releases of water stored in the flood control pool would be made at the maximum rate with safety. Mr. Bentrup then questioned if the demand on reservoir water couldn't be released from the flood storage. Mr. Martin replied that at present the Corps of Engineers would be compelled to make flood releases as rapidly as possible up to the channel capacity below the dam which was about 5,000 c.f.s. He said that it was possible that the Corps would consider altering the releases to meet the requests of the Administration, and suggested that such a request should come from the Administration Secretary. He also said that, at present, stream conditions and forecasts govern flood releases to channel capacity. Mr. Smartt suggested that the Administration make a written request of the Corps to make flood releases more in line with demands so that the water can be used. Mr. Smrha suggested that the Operations Committee take this matter up with the Corps, and the other members agreed. In the discussion of flood releases that followed, Mr. Martin said that Senator Allott has had some correspondence with the Corps on flood releases.

Mr. Green recessed the meeting to reconvene at 1:00 P. M. to consider the increased budget request for gaging station repairs.

Afternoon Session

The meeting was reconvened by the Vice Chairman at 1:20 P. M.

Mr. Smrha submitted estimates of future expenditures based on last year's expenses and increased to take care of gaging station repairs and operation. His motion was seconded and passed that the following budget for the period July 1, 1959 to June 30, 1960 be adopted by the Administration and transmitted to the Governors of Colorado and Kansas as per Article VII, E (2) of the Compact:

Personal Service - - - - -		\$3,825.00
Secretary Salary - - - - -	\$1,200.00	
Social Security - - - - -	50.00	
Gage Reports - - - - -	2,500.00	
Audit of Accounts - - - - -	75.00	
Capital Outlay - - - - -		300.00
Maintenance and Operation - - - - -		1,675.00
Bond - - - - -	25.00	
Printing - - - - -	600.00	
Official Publication - - - - -	100.00	
Travel - - - - -	150.00	
Typing and Mailing - - - - -	200.00	
Investigation and Inspection - - - - -	150.00	
Telephone and Telegraph - - - - -	300.00	
Office Supplies - - - - -	150.00	
Total Budget proposed for 1959-60		5,800.00
Estimated Carry-over as of June 30, 1959		1,800.00
Total to be appropriated by Colorado and Kansas		<u>4,000.00</u>
To be appropriated by Colorado (60%)		2,400.00
To be appropriated by Kansas (40%)		<u>1,600.00</u>
		4,000.00

Mr. Smartt moved that Mr. Green be assigned to draft a resolution of commendation for the past services of Mr. Crawford and send the resolution to the Secretary for transmission to Mr. Crawford. The motion was seconded and passed.

Mr. Boydston was instructed to send notices to members notifying them of the July 22, 1958 regular meeting of the Administration to conform with provisions of the By-Laws.

Mr. Smrha said that the dummy annual report should be considered at the special meeting in October and suggested that the meeting be called as late as possible in that month.

Mr. Bentrup's motion was seconded and passed to have a special meeting October 28, 1958.

Mr. Smrha moved that the meeting adjourn, and the motion was seconded and passed.

Meeting adjourned at 1:45 P. M.