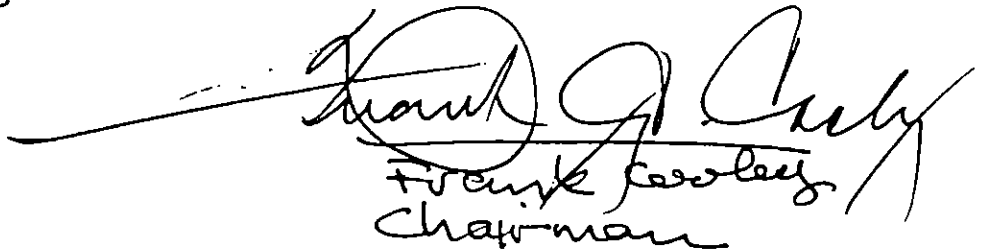


MINUTES
OF
ANNUAL MEETING
OF THE
ARKANSAS RIVER COMPACT ADMINISTRATION
AT
COW PALACE INN
LAMAR, COLORADO
ON
DECEMBER 13, 1988

These minutes were approved by the Administration at the Annual Meeting held on December 11, 1990 in Lamar Colorado


Frank Feeley
Chairman

(P R O C E E D I N G S)

MR. COOLEY: This is the second Tuesday in December in Lamar, Colorado, and the time and the place for the annual meeting of the Arkansas River Compact Administration, which I now call to order.

The principal representative of the State of Kansas is David Pope, and, at this time, I am going to request David to introduce the members of the Compact Administration and the staff for the State of Kansas.

There is an attendance sheet that is in circulation. Please put your names and addresses on it.

MR. POPE: Thank you, Mr. Chairman.

I would like to introduce on my far right, Carl Bentrup, one of the members of the Administration from Kansas, Deerfield, and Ron Olomon from the Garden City area, the other member of the Administration.

In terms of staff personnel from Kansas, I have on my far left, Leland Rolfs, legal counsel from my office. Richard Simms, New Mexico, and Brent Spronk from Denver. Then from my staff, I also have James Bagley from Topeka. Steve Frost. And I would like Steve perhaps to stand if he could. I believe this is his first annual meeting and he is our new

Water Commissioner for the Garden City field office. He took Howard Corrigan's place all of you knew from years ago. Also, Mark Rude and Dale Jacobs also from our Garden City field office. In addition, there are several members representing ditch companies and others from Kansas that are here, and I will probably miss someone, so I will not introduce those individually, Mr. Chairman, if that is acceptable, and I believe that takes care of those from Kansas.

MR. COOLEY: Thank you very much, David.

The principal representative from Colorado by law is Bill McDonald, and Mr. McDonald, if you will introduce the Colorado representatives and the Colorado staff, please.

MR. McDONALD: I will. Thank you, Frank.

On my far left, Carl Genova, representing Districts 14 and 17 in Colorado. Next to him, Jim Rogers, representing District 67 water users, of course. Myself, Bill McDonald, Director of the Colorado Water Conservation Board. Sitting on my right, Dennis Montgomery, a special Assistant Attorney General for the State of Colorado in the Kansas v. Colorado litigation.

In the audience, I would introduce David Robbins, also a special Assistant Attorney General

with respect to that litigation. We are particularly pleased to have with us today, also, Hal Simpson, who is the Deputy Colorado State Engineer. The State Engineer is also here and I would expect him to be joining us subsequently. I am not sure who drank him under the bar last night.

MR. COOLEY: Well, the court reporter isn't here, but--

(Laughter.)

MR. McDONALD: On the Division Engineer's staff, it is my particular pleasure to introduce Steve Witte. He is the new Division Engineer who has taken the very large shoes both literally and figuratively that Bob Jesse has so well maintained over the years. It is a particular pleasure to have Steve assume that staffing.

Steve, why don't I just have you introduce the members of your staff, if you would, please.

MR. WITTE: Chuck Roberts. Bill Howland, who is the Acting Operations Secretary. Dan Neuhold. And I think that's it.

MR. COOLEY: Thank you.

We are very pleased that Mr. Milenski is here and the meeting is, therefore, official. Always good to see you, sir.

Bob Roumph is the most familiar of the persons from the Corps of Engineers, and Bob, if you would, please, make the introduction for the people who are here today from the Corps of Engineers.

MR. ROUMPH: Okay. We have got Mr. Don Thrope. He is from Denver. We have got Dick Singer, the Chief of Reservoir Control, and we have got Captain Thompson. We have recently moved him from Albuquerque on up to our Pueblo office. You will be seeing more of Captain Thompson in this area.

MR. COOLEY: Thank you very much and welcome to the meeting. We are very pleased that you are here.

I haven't seen Ray Willms, but I understand he is en route, and when he gets here, we will break wherever we are to introduce his party, and thank you.

There are some representatives here from the United States Geological Survey and I am not sure whether both Kansas and Colorado are represented, but who is here from Kansas?

MR. PUTNAM: Jim Putnam from Kansas.

MR. COOLEY: Good. Thank you very much, Jim.

After receiving comments from both states,

Mr. McDonald has circulated a proposed agenda, and before the agenda is discussed, I want to make some changes in the proposal.

At the bottom of the first page, under item about 6 e., we have been presented an obituary for Bob Jesse that we will want to carefully consider.

The beginning of the next page called 6 f., the action on the 1986 annual report which has been circulated and which several of us have made minor changes in--let's see--and the financial report, I think, is adequately mentioned here somewhere under "Budget matters," but we have got some materials in there.

Yes. Surely the item on the proposed budget is sufficient for that.

Are there any other additions that we should make to the agenda at this time?

MR. McDONALD: None from Colorado.

MR. COOLEY: Thank you. With those additions, I will ask for a motion from Kansas that we approve the agenda as it has been circulated.

MR. POPE: Yes. I would be willing to so move.

MR. COOLEY: Is there a second?

MR. McDONALD: Second.

MR. COOLEY: And Kansas?

MR. BENTRUP: Kansas votes aye.

MR. COOLEY: Kansas votes aye.

MR. McDONALD: Colorado votes aye.

MR. COOLEY: Colorado votes aye. The agenda has been adopted. (Agenda is included as Appendix A and the list of attendance as Appendix B.)

The transcript of the December, 1987, annual meeting. I believe that was circulated and some corrections were made. Is that not so?

MR. McDONALD: Frank, I have the originally typed copies of the minutes originally executed by Mr. Peterlin, who was our shorthand reporter. All of this was circulated and approved between March and July this year.

I think, for the record, all we do at this point is if it is suitable, is have a motion accepting this transcript as the official minutes of the December 8, 1987, meeting, and if that motion finds favor, I think, probably have you scrawl your signature on the front page.

MR. COOLEY: Do you so move?

MR. McDONALD: I will move that we accept this transcript as the official minutes of last year's annual meeting. Is there a second?

MR. BENTRUP: Kansas seconds.

MR. COOLEY: And Colorado?

MR. McDONALD: Votes aye.

MR. COOLEY: Kansas?

MR. BENTRUP: Kansas votes aye.

MR. COOLEY: I am going to scrawl my signature on this and a date. The 13th?

MR. McDONALD: Yes, sir.

Frank, I will Xerox the front page with your signature on it and send copies back to everybody so their files will be completed.

MR. COOLEY: Yes.

The next item on the agenda is the "Reports of officers for compact year 1988."

I have nothing to report at this time.

The Recording Secretary.

MR. ROGERS: That will be Bernice Carr and she isn't here.

I passed out a copy of what we have done from July 1 up to December 1.

MR. COOLEY: And that matter which you have circulated is all financial and we can consider that, I think, under financial matters.

Did she have anything else to relate, Mr. Rogers?

MR. ROGERS: No, she didn't.

MR. COOLEY: Okay. The next item is the Treasurer's Report, and for myself, I would rather put that report at the end of the meeting with the financial matters that are on the agenda and let most of the people here escape, if that's all right.

MR. ROGERS: That's fine.

MR. COOLEY: Good.

Now, we are coming to what I always thought was the most fun part of the Arkansas River for better than ten years is to have Bob Jesse up here answer questions and explain, and something I look forward to for months, and we have been deprived of that hour of fun because of Mr. Jesse's transfer of responsibilities.

Mr. Howland, would you care to fill in on that part of the agenda?

MR. HOWLAND: I will do my best. Would you like to have me come up?

MR. COOLEY: I think you ought to come up front. We made it as hard as we could for Mr. Jesse and I don't see why we should let you off any easier.

MR. HOWLAND: Okay. You all know Bob retired as of the 1st of July and the Compact was kind enough to appoint me Acting Operations Secretary, so I got all the glory and none of the goodies, I guess you might say, but I have submitted the annual Operations Secretary's

Report to the members of the Compact Administration and I presented the report to the Operations Committee last night.

I will just go over the highlights of the report of the Operations Committee and hopefully there will be no questions whatsoever, but if there are, I am sure Bob Jesse and Steve Witte can help me answer.

The 1988 Compact water year began on November 1, 1987, with 246,368 acre feet impounded in John Martin Reservoir. The water was apportioned as follows: State of Kansas, 102,906 acre feet; State of Colorado, 120,461 acre feet; the Transit loss account was at zero on November the 1st, but at midnight on October 31st, we had 13,790 acre feet, which was transferred under the Operating Plan right after midnight on the 1st of November, 24/35 to Colorado, 9,456 acre feet; 11/35 to Kansas, 4,334 acre feet; the Recreation Pool containing the 9,377 acre feet. At midnight on October 31st, we were in storage in the Conservation Pool, consequently, the Conservation pool contains some water, some 13,600 acre feet. Just as a sideline, I put in that of the amount of water in the irrigation accounts in John Martin at that time, Colorado's share was 53.9%, Kansas's share was 46.1%.

On February 1, 1988, a new area-capacity table was introduced at the reservoir at elevation 3845.67 feet above mean sea level. This resulted

in a reduction in capacity of 2.21%, which is not all that bad considering the amount of water we handled since the last survey. At that elevation, it amounted to only 6,340 acre feet. All the accounts were reduced proportionately on February 1st.

In the report, the big book, it shows as a release. We have this thing on computer now and the only way I can get it out of the accounts is to show it as a release. However, there is a footnote in the report that shows it is not an actual physical release. It is just a reduction in the contents of the several accounts. The Kansas account was reduced by 2,246 acre feet. The Colorado accounts were reduced by 2,934 acre feet. The Recreation pool was reduced by 205 acre feet, and the Conservation pool was reduced by 956 acre feet.

The maximum elevation for the year was reached on April 10. The elevation was 3848.50 and the corresponding storage content was 310,748 acre feet.

We stored 75,323 acre feet in the Conservation pool during the season. Of that, 52,736 was stored during the winter storage season and 22,587 acre feet was stored during the summer storage season.

We only had one storage event after the Conservation pool was transferred into accounts on May the 6th. The Conservation pool, we began transferring

water on April the 1st from the Conservation pool into the accounts according to the Operating Plan because there were calls from downstream ditches in Kansas and it took until May 6th to evacuate the Conservation pool into accounts.

Then we had a short duration storage event in May the 21st through the 24th, I believe it was, which accumulated some small storage, but most of the summer storage was accumulated while we were transferring water from the Conservation pool to the accounts.

We released 93,385 acre feet from the Kansas account for irrigation. In addition to that, we released 2,300 acre feet from the transit loss account to facilitate delivery to the State Line gages. 130,323 acre feet was released to Colorado ditches for irrigation. This included a little over 1,419 acre feet of well augmentation water.

At the close of the Compact year the reservoir was at an elevation of 3817.88 feet and contained 78,984 acre feet. This was a drop of 30.62 vertical feet from the year's maximum elevation and a decline of 231,700 acre feet from the maximum storage. So we really drained it down this year and the inflow was not what we have been used to. At 2400 hours October 31, contents of the reservoir were distributed as follows:

Kansas, 26,231[✓] acre feet. The total of the Colorado accounts, 39,057 acre feet. Recreation pool, 7,433[✓] acre feet. The transit loss account, 6,263[✓] acre feet in October, but this has now been reapportioned 11/35 to Kansas and 24/35 to Colorado. Of the water in irrigation storage accounts on that date, Kansas's share was 40.2% and Colorado's share was 59.8%. I thought you might be interested in the total evaporative loss from the reservoir for 1988. That was over 40,000[✓] acre feet. The evaporation in John Martin when you have that much water is one of the major users of water from the reservoir. I guess there is not much we can do about that. It's just the facts of life.

That's all I have, Mr. Chairman.

MR. COOLEY: Thank you very much. Don't sit down quite yet.

MR. McDONALD: It's a tradition, Bill. You have to understand.

MR. HOWLAND: Yes. I am glad this is my one and only time.

MR. COOLEY: Does Colorado have any questions of Mr. Howland?

MR. McDONALD: Just for the record, Bill, I take it you were reading from a typed report?

MR. HOWLAND: Yes. I didn't get you one,

did I?

MR. McDONALD: That's fine. I just recommend we include it in the record as Exhibit A.

MR. COOLEY: Indeed. I had the same thought.

MR. HOWLAND: I will get you a copy of it, Bill.

MR. COOLEY: And we will deliver one to the court reporter, Bill.

MR. HOWLAND: Yes.

MR. COOLEY: Any questions from Kansas?

MR. POPE: What is the status of the storage in some of the other reservoirs in the basin?

MR. HOWLAND: I only have two that I have got this morning. Pueblo Reservoir, Tommy Thomson is going to give you a complete report on that pretty soon, I am sure, but on the satellite monitor this morning, it showed 164,475 acre feet. In John Martin this morning, it showed 91,510. And I don't remember if Trinidad was on that.

Was it, Steve?

I gave my copy to Steve Shock. He and Steve Witte both have one.

MR. COOLEY: Hold on just a second.

MR. WITTE: I can provide you with an approximate content of Trinidad Reservoir as of the 11th, and

that was 21,050 acre feet.

MR. COOLEY: Are there any others you are interested in, in particular?

MR. POPE: No. That's fine. That takes care of my question.

MR. COOLEY: A question, Bill, for either you or for the Corps: It has been quite a while since the last capacity table before this one was made, it seemed to me. Do you recall about when that prior table was?

MR. HOWLAND: I think it was 1981. Maybe '80. Was it 1981?

As I understand it, you are now using a million acre foot handle as a trigger or is it a yearly span? It used to be about seven years. I understood one time that maybe it was handled differently in the million acre feet handle, but I never did get a figure. That's not the way it is.

MR. COOLEY: I was surprised, as you indicated, with the amount of brown water coming down that river that not more siltation invaded the reservoir.

MR. HOWLAND: I was very surprised myself. It looks like the reservoir, when it was built, was predicted not to last over about fifty years and we are at forty now, a little over, so I think it is going

to last a lot longer than fifty, too.

MR. COOLEY: I am going to throw this witness open to the audience now. Again, this is the most fun we have all year. If you have any questions, please pipe up.

Here is a question.

MR. GENOVA: The 52,736 acre feet stored during the winter, did that include the--

MR. HOWLAND: That included all the water that was stored there during the winter storage for the winter season.

MR. COOLEY: Keep your voice up, if you would, Bill.

MR. HOWLAND: That included all the water that was stored.

MR. COOLEY: Bob Jesse never got off this light, folks.

Are there any more questions?

MR. HOWLAND: I tell you what, I think we maybe ought to get him up here and give him another shot at it.

MR. COOLEY: Thank you very much.

MR. HOWLAND: Thank you.

MR. COOLEY: We next turn to the "Committee reports for compact year 1988." The first is the

"Administrative and legal" committee.

MR. McDONALD: Mr. Bentrup is pointing his finger at me. I guess I have been chairman for the past year.

MR. COOLEY: Obviously, your report is not going to be lengthy.

MR. McDONALD: In either event, the Administrative and Legal Committee had no occasion to meet during compact year 1988 and we have nothing to report.

MR. COOLEY: The "Engineering" committee?

MR. POPE: Mr. Chairman, I am chairman of the committee for the past year. I do have a report.

The Engineering Committee, consisting of myself and Carl Genova, along with several staff members and consultants from both states, met on Monday evening, December 12, 1988, here in Lamar. The meeting was also attended by Mr. Jake Broyles, his attorney, Mr. Mike Shimmin, and engineering consultant, Mr. Peter Boddie.

The agenda consisted of a review of the proposed transfer of the Keesee Ditch water rights out of Colorado Water District 67 and the creation of a storage account in John Martin Reservoir.

At the committee's last meeting on this matter, it requested a response to several technical questions and indicated that several policy issues

should also be addressed by the applicant.

Mr. Boddie submitted a report to each member of the committee in October of 1988 responding to the technical questions raised by the committee.

These items were discussed, but not entirely resolved, due to the uncertainty about the way to proceed on the policy concerns.

These technical issues primarily involve concerns about the appropriate years of record for the analysis and the appropriate irrigation efficiency for the operation.

In addition to these technical concerns, the proposed transfer raises two very complex and difficult policy issues. Number one, how to deal with the post-compact alluvial wells whose pumpage is commingled with the use of the Keesee Ditch right to irrigate all of the same land. The Colorado representative is unwilling to make findings of fact under Article V-H of the Compact that deal with the effect of the wells, and the Kansas representative is unwilling to make findings of fact that do not address the wells. Number two, the proposed establishment of a new category of account in John Martin Reservoir raises many unique questions that will be difficult to resolve because of the variety of interests in the basin.

The committee discussed all three of these issues and concluded that it could resolve the technical issues, but that further deliberation was necessary by each of the states on the other two issues before any further action could be taken by the committee.

Each member agreed to pursue the matters discussed in good faith including a proposal to somehow include a disclaimer in any action taken to protect the legal position of each state, with the appropriate people from their state so as to allow this matter to move forward, if possible.

That concludes my report, and I would ask Carl Genova if he--I believe he concurs with the report we reviewed earlier.

MR. GENOVA: Yes.

MR. COOLEY: Is there a time table either specific or in the mind of the committee as to the further proceedings referred to in your report?

MR. POPE: Not specifically, no. As I indicated in the report, we intend to look at these issues in good faith and do the best we can in that regards.

MR. COOLEY: As a point of order, I don't know that action of the Compact Administration is necessary upon the engineering report. I will proceed

in any way that the states desire.

Mr. McDonald, do you want action or suggest action by the Compact on the report?

MR. McDONALD: I think the report is fine the way it stands.

We have the Keesee Ditch down as a separate item. If there needs to be any formal disposition, we can do it under 10, but I think the report stands as read.

MR. COOLEY: Mr. Pope, is this satisfactory?

All right. Then the report has been given and we will proceed.

The "Operations" committee.

MR. OLOMON: Yes. Mr. Chairman, as Bill Howland stated, the Operations Committee met with him yesterday evening and we went over his report with him and we concur that all the figures are accurate and we will judge that report as sufficient for our needs, and so, therefore, we will not give a report per se.

We do have one request from the Corps of Engineers. When you did your sedimentation study--when you do another one, which I understand will be quite some time, probably, but when you do another one, would it be appropriate for you to notify the members of the Administration on the Compact what conclusion you came

to instead of just notifying the Colorado State Water Office? Would that be advisable?

MR. ROUMPH: Fine.

MR. OLOMON: That's the only request we would have.

MR. COOLEY: Mr. Olomon, then, in effect, the report of the Operations Secretary becomes the report of the Operations Committee.

MR. OLOMON: That is correct.

MR. COOLEY: We will now proceed to the "Election of officers for compact year 1989."

The first matter is the election of a Vice-chairman. Nominations do not require seconds.

Is there a nomination for the office of Vice-chairman?

MR. McDONALD: Colorado would nominate Carl Bentrup as Vice-chairman again.

MR. COOLEY: Carl Bentrup's name has been placed in nomination for Vice-chairman.

Are there any other nominations?

Any other nominations?

Any other nominations?

MR. GENOVA: I move that nominations cease.

MR. COOLEY: The motion has been made. Mr. Pope?

MR. POPE: Second.

MR. COOLEY: And how does Kansas vote?

MR. POPE: Kansas would vote aye.

MR. COOLEY: And Colorado?

MR. McDONALD: Colorado votes aye.

MR. COOLEY: I am surprised, Carl.

The next office is that of Recording Secretary.

Mr. Rogers, is there a nomination for Recording Secretary?

MR. ROGERS: Yes. I would nominate Bernice Carr.

MR. COOLEY: Bernice Carr.

I would entertain a motion that the nominations cease.

MR. OLOMON: I will so move.

MR. COOLEY: The motion has been made by several persons.

Let's see. Colorado?

MR. McDONALD: We will second the motion first and then Colorado will vote aye.

MR. COOLEY: I had the motion three times. I figured that was as good as your second.

Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Kansas votes aye. Bernice Carr

has been regularly elected to the office of Recording Secretary.

Treasurer.

And remember, we do audit the books, so is there a nomination for Treasurer?

MR. McDONALD: I would nominate Jim Rogers.

MR. COOLEY: Okay. Is there a motion that nominations cease?

MR. BENTRUP: I move that nominations cease.

MR. COOLEY: Mr. McDonald, would you care to second that? No, you better not. Carl seconded the motion.

Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Colorado?

MR. McDONALD: Colorado votes aye.

MR. COOLEY: Congratulations, sir.

The Operations Secretary, really the front line part of the Administration.

Is there a nomination for Operations Secretary?

MR. McDONALD: Frank, I would nominate Steve Witte, the new Division Engineer.

MR. BENTRUP: I will second the nomination.

MR. COOLEY: Steve Witte has been nominated.

And is there a motion that the nominations

cease and that Steve be elected by acclamation?

MR. BENTRUP: I make the motion.

MR. COOLEY: There has been a motion.

Is there a second?

MR. McDONALD: Second.

MR. COOLEY: Second.

Colorado?

MR. McDONALD: Colorado votes aye.

MR. COOLEY: Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Steve, congratulations. You are going to enjoy the hot seat for a while.

The next item on the agenda is a resolution concerning Bob Jesse that has been circulated.

MR. McDONALD: Should we let Mr. Jesse see it or not?

MR. COOLEY: I don't think we should. I think it would go to his head. He might want to correct it.

Have you all had an opportunity to review the resolution concerning Mr. Jesse?

MR. BENTRUP: Yes.

MR. COOLEY: Well, have all the Colorado members had an opportunity to see the resolution?

MR. McDONALD: We have, Frank. Is it something

that you would like to read into the record so that we can really honor Bob since he is here?

MR. COOLEY: I think that would be very appropriate, and before you do that, however, in our method of numbering resolutions, would this be--

MR. McDONALD: Exhibit B to the transcript.

MR. COOLEY: Exhibit B to the transcript, all right, but that doesn't answer my question. Under that system of numeration, this would be 89-1, would it not?

MR. McDONALD: That's fine with me.

MR. COOLEY: Okay. I think that's great.

Mr. McDonald?

MR. McDONALD: It is with a good deal of both personal and professional pleasure, quite literally, that I move the adoption of the following resolution:

"WHEREAS, Robert W. Jesse was an employee of the Colorado Division of Water Resources for 28 years; and

"WHEREAS, Mr. Jesse served as the Colorado Division Engineer for the Arkansas River Basin from 1974 until his retirement from state government in 1988; and

"WHEREAS, Mr. Jesse assisted the Arkansas River Compact Administration in numerous ways throughout his tenure as the Colorado Division Engineer; and

"WHEREAS, Mr. Jesse served as the Administration's assistant secretary or operations secretary from 1980 until his retirement from state government, and

"WHEREAS, Mr. Jesse performed with distinction his responsibilities as an officer of the Administration; and

"WHEREAS, he conducted himself at all times with the utmost professionalism and sense of public duty.

"NOW, THEREFORE, be it resolved by the Arkansas River Compact Administration that it does hereby acknowledge with gratitude the outstanding service of Robert W. Jesse to the Administration and to the states of Colorado and Kansas, express its appreciation to Mr. Jesse for his dedication, and extend to him its best wishes for continued good health and happiness in all of his future endeavors.

"BE IT FURTHER RESOLVED that this Resolution be entered into the records of the Administration and that the recording secretary be instructed to send a copy to Mr. Jesse.

"BE IT FURTHER RESOLVED that the Administration honor Mr. Jesse for his many years of service by including his picture and appropriate dedicatory remarks in the Administration's annual report for Compact Year 1988."

Again, I would move the adoption of that resolution.

MR. BENTRUP: I will second it.

MR. COOLEY: All right. The State of Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Colorado?

MR. McDONALD: Colorado votes aye.

MR. COOLEY: Carl, if you would be kind enough to sign the original?

MR. BENTRUP: (Signing document.)

MR. McDONALD: I believe a speech is definitely in order so that Bob can come one last time to the microphone.

MR. COOLEY: Well, I agree.

Bob?

MR. JESSE: I don't plan to make a long speech to kind of hurry things up a little bit, but I do appreciate the honor. I do appreciate the resolution. It has been a challenge and it has been interesting, and I am going to miss working with all of you people.

We have had our droughts and we have had our floods, and I am going to miss working with all of you people. I hope I will see some of you around, though.

I am hoping to attend Compact meetings in the future and I am glad to be here and I am glad to

be working with the Conservancy District, and I hope to see all of you around.

Thank you.

MR. COOLEY: Thank you very much.

(Applause.)

MR. COOLEY: It certainly is not going to be the same.

Let's give him the original and put the Xeroxes in the records.

The 1986 annual report was prepared in Mr. McDonald's office in draft form and circulated, and telephone corrections and so forth were made. I made a few that were minor.

Do we have a copy of the report with the corrections before us now or it is available?

MR. McDONALD: Frank, I have a copy, but only this one copy. It was literally mailed yesterday to everybody else. I think I would suggest this means of handling the 1986 report: To my knowledge, everybody's requested comments have been accommodated. There are no outstanding differences of opinion. Under the circumstances, I think I would suggest simply to clear the records the Administration approve for publication the 1986 annual report subject to final approval of David Pope and myself within the next two or three

weeks after people get this final copy. But, again, there is, to our knowledge, no outstanding differences, so I think David and I can dispose of it by phone after we consult with our respective delegations and yourself, Mr. Chairman.

This is 1986. Yes.

MR. COOLEY: I think it is a practical way to proceed, Mr. Pope.

MR. POPE: Yes. I will concur with that.

The reason I was conferring with Lee here on the side is that we had agreed, I think it was two annual meetings ago, maybe just one, to draft a resolution of appreciation for Howard Corrigan, that I think was accepted as an action, as I recall. It was going to be included in either this annual report or the following one. That's what we can't recall, but if I can be so informal as to say, sir, if we look up that retirement date, and if this is the one, we will put it here. If not, we will wait to the next one.

MR. McDONALD: Colorado would be more than pleased to recognize Howard in whichever annual report is appropriate.

MR. POPE: It was a done deed. We just didn't ever get the thing put in the record, I think, is the problem.

MR. COOLEY: Fine.

MR. POPE: That is our fault. I apologize for that.

MR. McDONALD: No problem, David.

MR. POPE: With that clarification, certainly the approach suggested, I think, is acceptable.

MR. COOLEY: Well, all right. With a so moved on the part of Mr. McDonald and it was seconded on the part of Mr. Pope, then we can take a vote.

Would you make a motion and state your remarks are now in the form of a motion?

MR. McDONALD: I would move that the Administration accept the 1986 annual report for publication subject to David Pope and I conferring one last time by telephone as to the adequacy of the final changes and confer with you also, Mr. Chairman, if you have any corrections. Assuming that the three of us can come to terms, it will be printed.

MR. COOLEY: That was a motion, Mr. Pope.

MR. POPE: Second.

MR. COOLEY: All right. Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Colorado?

MR. McDONALD: Colorado votes aye.

MR. COOLEY: All right. That is disposed of.

The "Appointment of committee members for compact year 1989."

What has been the tradition of the Compact is that the chair of each of these three committees switches back and forth each year, and I lost track of the switches in 1983, so if you would help me with these three committees.

Now, who is to be the chairman of the Administrative and Legal Committee for 1989?

MR. McDONALD: Carl.

MR. BENTRUP: You were this year.

MR. McDONALD: Well, we acted like I was.

MR. BENTRUP: I will try to do the same next year.

MR. COOLEY: Carl. And the other member of the committee was Mr. McDonald? All right.

The Engineering Committee, who was to be chairman for '89?

MR. POPE: I was this year, so it should rotate to Carl, I believe.

MR. COOLEY: Mr. Genova and Mr. Pope.

The Operations Committee?

MR. OLOMON: Yes. I was chairman this year, so next year Jim Rogers can be chairman.

MR. COOLEY: I have as respective chairmen

of the three committees a Mr. Bentrup, Mr. Genova, and Mr. Rogers. The other committee members, going from the top down, Mr. McDonald, Mr. Pope, and Mr. Olomon.

Do we need to take any further action on that?

Are the representatives of the Bureau of Reclamation here now?

A VOICE: Mr. Willms will be here shortly, I hope.

MR. McDONALD: Why don't we simply go on to the two other federal agencies, Frank?

MR. COOLEY: Well, I want them here for purposes of cross-fertilization, Mr. McDonald.

What is your pleasure with proceeding either with the Trinidad Reservoir-- No. That wouldn't be appropriate.

Item 10, the Keesee, could we do that one, commence that now?

MR. POPE: We can. I think that is a matter already essentially taken care of.

MR. COOLEY: Okay.

MR. POPE: There is really no further action beyond the Engineering Committee report that I believe is appropriate.

MR. COOLEY: Okay.

MR. McDONALD: Frank?

MR. COOLEY: Yes.

MR. McDONALD: I agree with David. I would only ask, since representatives of Keesee are here, if they would care to speak on Agenda Item 10.

MR. COOLEY: Oh, I think the committee's report on Keesee was in the nature of their conclusion and how to proceed. If there was someone from Keesee, I think it wouldn't be inappropriate to have a short discussion of what the proposal is again and where we are and then we can adjourn for a ten-minute coffee break, by which time we hope that the Bureau will be here.

Is there someone here from Keesee?

MR. McDONALD: Mike, if you want to? I am not demanding that you speak.

MR. SHIMMIN: Thank you, Mr. Chairman.

I am Mike Shimmin, the attorney representing Mr. Broyles in the Keesee transfer case.

I am not sure there is a lot to add in light of the report of the Engineering Committee.

We appreciate the opportunity to have met with the committee for in excess of two hours last night to discuss these issues.

I would say only that we do want to proceed to a resolution of these issues with all the speed that

is possible.

Under the circumstances, it is becoming evident that that may be slower rather than faster, but we are willing and desirous of proceeding as fast as possible and will do what we can to try to reach a resolution of these issues.

As I said last night, this case has now been pending before the Administration since 1984, and we would like to proceed and get the issues resolved and we will do the best we can to work with the Engineering Committee as an initial matter to get a resolution of those issues.

MR. COOLEY: I recall the remarks on the subject one year ago, but would you please restate the fundamentals of the request itself, not in detail and not necessarily with precision, but with a broad brush, if you would?

MR. SHIMMIN: Certainly, Mr. Chairman. The concept of what we are asking to do is to transfer the historic consumptive use attributable to irrigation under the Keesee Ditch for alternative storage in John Martin Reservoir and for exchange to Pueblo Reservoir.

What we are asking the Administration to do is make findings of fact pursuant to Article V-H of

the Compact concerning the impact, if any, of this transfer on water users in District 67 and the State of Kansas and to approve a plan of operation and an account system within John Martin Reservoir which will allow for the storage and accounting for this water as part of the reservoir operations.

We have a case pending in the Colorado Water Courts which will address other and additional issues relating to the upstream exchange to Pueblo Reservoir and we have pretty much agreed pursuant to the request of the Administration to postpone action in the Colorado Water Court until such time as the Administration makes some determination of the issue which has yet to occur.

MR. COOLEY: And the approximate quantities?

MR. SHIMMIN: The approximate quantities in the initial engineering indicated that there was 2925 acre feet of historic consumptive use attributable to the Keesee Ditch during a study period from 1964 through 1983. The question of defining the period of study to be used is one of the technical issues that is still under discussion with the Engineering Committee and as the period of study changes, the number of acre feet of consumptive use may well change also.

MR. COOLEY: Thank you very much.

I propose that we be in recess. My watch

says 9:48. Twelve minutes would bring us to 10:00 o'clock. I would like to resume promptly twelve minutes from now by my watch and by yours.

(Short recess.)

MR. COOLEY: Let's come back to order, gentlemen. We will come back to order and I suggest what we do is we go to the informational reports which are allegedly not related to any litigation or controversy and after those, we will go back to the federal agencies' reports until Mr. Willms gets here with Mr. Livingston's remarks.

Tommy, I wonder if I could call on you for the report on the winter storage and on Lake Cheraw.

Before you do, and just for the record, I think I should state that our court reporter was not notified of the early bird setting of this meeting, but he was here as we were concluding the introduction part at the very beginning of the program, so the entire meeting is properly and capably being recorded.

Mr. Thomson?

MR. THOMSON: Mr. Chairman and members of the Administration: I appreciate very much the opportunity to give you an informational report regarding the winter storage program, and, also, I will touch briefly on the Lake Cheraw situation under the Water Quality Control

Commission.

As I have done in previous years, my report will be more operational than anything else, but we did have a winter storage program in 1987-1988. We were restricted in Pueblo Reservoir to 27,000 acre feet because of the fact that the owners of the decreed water rights who store in Pueblo didn't want to take a chance on having to have any of their winter water released prematurely as had happened the previous two years, so we concluded the storage of winter water in Pueblo Reservoir on December 27th when we reached the 27,000 acre feet, and the remainder of the winter storage program continued until March 15th with the water being stored in the other accounts including John Martin.

As you know, that was the first year under our winter storage decree which was approved by the water court on November 10th.

This year, I held a meeting of the board of trustees which is now established under the decree on September the 23rd, and after consultation with the Bureau of Reclamation, it was agreed that we would proceed on November 15th with a regular winter storage program.

It was also agreed that reports would be submitted by the Division Engineer's Office as they

have done so very faithfully every two weeks, and I believe each and every person on this Administration received the first report on or about December 1 or 2, and another report will be coming out within the next few days.

It is my hope that with the level of Pueblo Reservoir which was reported earlier at this meeting, we will be able to have the full four months of winter storage at Pueblo Reservoir, in essence, concluding on March the 15th and regular reports will be submitted to the Administration.

I do plan to call a meeting of the board of trustees by agreement probably sometime in February in order that we might discuss not only the amounts in the individual accounts, but, also, plans by the Bureau of Reclamation. I believe Mr. Willms will report on this, for their transfer of water from Twin Lakes Reservoir to Pueblo to accommodate construction that is essential at that reservoir.

So I believe, Mr. Chairman and members of the Administration, that's my informational report on winter storage.

MR. COOLEY: Accommodate construction where?

MR. THOMSON: At Twin Lakes and I believe

that will be part of their report.

MR. COOLEY: Part of the Corps' report?

MR. THOMSON: No, sir. The Bureau of Reclamation.

MR. COOLEY: The Bureau's report?

MR. THOMSON: I would defer to either Mr. Willms or Mr. Garner on that aspect of it.

MR. COOLEY: Refresh me. If the winter storage were completed, what would the amount of water in Pueblo Reservoir be at that time in round numbers?

MR. THOMSON: Strictly depends upon the inflow. We can only store the percentage by the court decree as to the inflow and I believe the inflow is just about average now.

We have had good years and we have had very dry years, so it strictly depends upon the snowpack and flow.

MR. COOLEY: What would be the maximum figure of both accounts?

MR. THOMSON: About 82,000 and down to about, I think, 30,000 in Pueblo.

We have had, and those records have been submitted, we have had for the total system, for instance, in '78 and '79, in the total system, we had 94,793. We have up to 139,000, 134,000. In the last few years,

188,000, 196,000, 180,000. Now, that is in the whole system. Now, that includes John Martin, the Fort Lyon system, Holbrook, Colorado System, and Pueblo Reservoir.

MR. COOLEY: Are there any other questions on this subject before Mr. Thomson goes into Lake Cheraw?

Good opportunity.

MR. POPE: Mr. Chairman, I really don't have a question. I would just like to indicate that the matter of the winter storage program is presently the subject of two motions pending before the U.S. Supreme Court and Kansas does not believe that it is appropriate for us to comment at this time in this forum.

MR. COOLEY: I understand.

MR. THOMSON: I appreciate that.

MR. COOLEY: Now, Mr. Thomson, Lake Cheraw.

MR. THOMSON: Very briefly, Lake Cheraw has been there forever and ever, and very few people could have cared less until just the last few years when we did have above normal precipitation in the Arkansas Valley, as well as in our collection system, and the level of Lake Cheraw rose to a point where it caused serious concern to many entities, the town of Cheraw, some of the surrounding irrigation companies, and to the downstream entities.

The Water Quality Control Commission was asked

by some of those entities if they would take a look at Lake Cheraw and see what, if anything, could be done to alleviate the urgency of the emergency situation, but also develop long-range programs.

I was asked by the Water Quality Control Commission if I would chair an ad hoc informal group to see what, if anything, could be done. I was asked to do that in July of '87.

I appointed an ad hoc committee. We met with entities in the Arkansas Valley and did develop a concept which I presented to the Water Quality Control Commission and they did approve temporary rules and regulations as regarding releases from Lake Cheraw, as well as inflow.

The whole idea then was to develop a dilution program whereby we would release approximately 2,000 acre feet of water out of Pueblo Reservoir and dilute releases out of Lake Cheraw with the hope that we could draw the level of Lake Cheraw down during the winter storage program so that it wouldn't pose the same kind of problem that they experienced that year and the previous two years.

We did not implement that program because of objections raised by, and very properly raised by the City of Lamar, Prowers County, City of Las Animas, and Bent County.

So everything went just as mother nature would have it go during the winter months and during the summer months. Due to the fact that we had an extremely warm summer and normal precipitation, the level of Lake Cheraw did drop considerably so that the emergency no longer exists.

The Water Quality Control Commission did hold formal hearings on it and did develop what they propose are the final rules and regulations as regarding releases.

Those releases are particularly significant insofar as the total dissolved solids. In other words, the quality of the water that can be released from Lake Cheraw and waters that will enter the Arkansas River.

I think significant to this Compact Administration is the fact that at that hearing, it was pretty well agreed informally that the entities in the Arkansas Valley, our district and others, counties, perhaps cities, would join together and either work a program with the U.S. Geological Survey or the Bureau of Reclamation, both of which have expertise in those kind of programs to see if we can determine and develop a long-range program, in essence, not only to lower the level of Lake Cheraw, but hopefully extract some of the

real--for want of a better word--crummy stuff down at the very bottom of it because it is going to remain there, and unless we meet it head-on, it is going to continue to fester and cause water quality problems, so I am optimistic that we will have a basin-wide program to see if we can't work something out on it, but I believe the Water Quality Control Commission was supposed to make a final determination on rules and regulations a week ago today. I did not get to attend that meeting. I was attending another meeting.

MR. COOLEY: Any questions of Tommy on Lake Cheraw?

Just one question: The salts and the brines in that lake, therefore, vary with depth?

MR. THOMSON: Yes, sir, they certainly do. And Russ Livingston is here and I would rather defer to Russ on that, but while we were doing our studies a year ago on the temporary plan, we were very fortunate that the U.S. Geological Survey had some experts and some sophisticated equipment doing some work at Pueblo Reservoir, and so they did take that equipment down to Lake Cheraw and it is interesting, we talk about 16,000 parts per million of totally dissolved solids at the upper level, and when I talked about crummy stuff, it is 80,000 parts per million down at the bottom, and

that's what I am hoping we can figure out what to do with it. I thought about making bricks and shipping it someplace. Bob Jesse suggested we ought to spray it on coal cars as they go east or something like that, but we are going to find a solution. Something has to be done.

It is a valuable body of water there. It is a vessel that can be used and should be used, in my opinion, to perfect water management programs, and I certainly respect the concerns registered by the people in Lamar, Tom Shinn, the attorney for the City of Lamar and others. It is not our intent, certainly it is not my intent when we developed the temporary program to cause any injury, and I still feel we had a program worked out on dilution which would introduce water into John Martin and would not exceed what normally flowed in there any way.

MR. COOLEY: It is not your everyday municipal water supply?

MR. THOMSON: No, sir, it surely isn't, but it has got to have a use someplace. Someplace.

MR. BENTRUP: Tommy, what parts per million does ocean water have? Do you know?

MR. THOMSON: Russ? 35,000 parts per million?

MR. LIVINGSTON: Yes.

MR. THOMSON: 35,000

MR. BENTRUP: So it is over twice?

MR. THOMSON: Yes. It has got to be pretty jelly down there, and I think it would make great breakfast cereal, something like that, I am not sure, but we will find a use for it. It has got to have a lot of nutrients in it. Maybe we can find a fertilizer company someplace that would love to do it, otherwise we will just go down to New Mexico with deep well injection or something like that. We have got to do something with it.

They talked about filling it up or drawing it up or something, but as precious as reservoirs, the water storage areas are, we just, I think, got to put it to use.

MR. COOLEY: Careful, Tommy. We have got some people here from Albuquerque and all of this is on the record.

MR. THOMSON: Well, they know that EPA and all of the rest of them are talking about that hazardous waste area down there and I don't know if this classifies like Rocky Flats and so on, but I think I better get off that one.

A VOICE: Put a wave machine in it and you can have sea water circulating.

MR. THOMSON: Put what?

A VOICE: Put a wave machine in it.

MR. THOMSON: Oh, we have already tried that. You know, get the cows out in the middle of it and so on.

MR. COOLEY: Thank you very much, Mr. Thomson.

Mr. McDonald, the Frontier Ditch and that following item.

MR. McDONALD: I have already mailed out about a month ago the opinion rendered by the Colorado Supreme Court on the appeal of the denial of the applications for water rights, which denial was upheld. There is nothing I can add to what the Supreme Court has already said.

MR. COOLEY: It looked to me that the authority was in this Administration.

MR. McDONALD: I haven't read the opinion, to tell you the truth, so I am not sure what it says other than that the Supreme Court upheld the denial of the applications.

MR. COOLEY: All right. Who is going to report on the ground water use in these four or five counties?

Is that you, Mr. Pope?

MR. POPE: Mr. Chairman, I presume that it is. I don't know that I had any discussions with anyone

about that item on the agenda, to tell you the truth.

I guess I could say that by way of just an update of a report from last year about the same subject, that activities continue in Kansas to look at the issues that are being dealt with in the intensive ground water use control area that was established by my office some time back, and I think I did report quite a bit of detail last year about the nature of that action.

There has not been any further action officially taken since that time, so I really don't have a whole lot to add.

Like I say, there are efforts being made by the local task force out there to wrestle with some of the difficult issues and we have not yet rendered a final report.

MR. McDONALD: Still active?

MR. POPE: Yes. I think their meetings have tailed off. They have been trying to wrestle with some of the final issues and I would think it would not be too terribly long before some of those things start coming together.

MR. COOLEY: In the last few minutes, Mr. Willms arrived, and, therefore, we are able to pick up on Items 8 and 9 on the agenda.

I will take the liberty of asking Mr. Livingston of the U.S. Geological Survey to lead off on the reports from the Federal agencies. If rumor is correct, Mr. Livingston, we may not see you here next year and we have certainly enjoyed your reports in the past and are going to enjoy this one.

MR. LIVINGSTON: Thank you, Mr. Chairman.

It is true I will be leaving. In about three months, I will be taking a career position with the New Mexico district and so I will be moving to Albuquerque and I hope that I will find some groups as enjoyable to work with down there as I have enjoyed working with the Compact through the years.

I thought I would go through and touch upon some reports that have been published over the last year and bring you up to date on those, make some comments relative to some ongoing and new studies that we are doing in the basin, and then follow that with some discussion of our data collection activities which you might find interesting.

First of all, in the area of reports, one concerning the Pinon Canyon area, which is, of course, in the Purgatoire River drainage. We have a report out, No. 87-4227. It has recently been published. The title of that document is The Hydrology of the

U.S. Army Pinon Canyon Maneuver Site, Las Animas
County, Colorado.

As you recall, this is the maneuver site where the Army is doing tank maneuvers and we have been doing studies there for a number of years.

The first part of that study is to identify the hydrology of the area. The second part of the study is to evaluate the impacts of the military maneuvers on the hydrology.

This particular report is the first part of the study. It includes detailed descriptions of ground water, ground water quality, surface water and surface water quality, and also includes discussion of sediment yields, flood frequency and other flow statistics.

Again, we have another report that will be due next year that will regard the impact on the water resources of those military maneuvers.

MR. COOLEY: Russ, I have a question of my own in connection with that report which I read pretty carefully. Was any thought given to taking an arroyo outside of the fence either to the northeast or to the southwest as a possible means of establishing a base line for that area?

MR. LIVINGSTON: There certainly was. In

fact, the original work plan for that study had what we call a paired watershed concept, which is what you are talking about, and upon my arrival, they changed that approach because with the type of thunderstorm activity that is frequent in an area like this, it is very very difficult to evaluate in a short period of time any kind of hydrologic response in a paired watershed fashion.

In other words, the storm characters are such that they are very localized, and really to say that we had the same kind of precipitation event and we measured two different responses is almost impossible in a short period of time, so as a consequence, that approach was dropped, and what we are doing is we have one arroyo, Taylor Arroyo that has been highly instrumented and we are developing and calibrating a hydrologic model of that particular arroyo and we will use that model to turn the right knobs to show the differing infiltration characteristics, for example, and then after you run that climatic data through that, you find out what the resulting sediment yields are and flood totals and so forth, so that has been our approach, but certainly it was considered.

We had that very situation going on. At one point, we had two watersheds, but we felt in the

long run, it wouldn't document the kind of things that the Army needed within the number of years we have in the study.

MR. COOLEY: I was also amazed in reading that report at the amount of annual evaporation in that area. It brought home to me again the business about the great plains being the great American desert.

MR. LIVINGSTON: From a recharge standpoint, you get essentially no recharge during the summer period because of the high ET rates. Even though you may have a very high precipitation event, the water doesn't percolate far enough to not be evapotranspired later on. The only recharge you get is during the winter period during the snow melt.

The chairman asked me to make some comments relative to and report on the Black Squirrel Basin. The Black Squirrel Basin is a designated ground water basin that is located east of Colorado Springs. As a designated ground water basin, it is administered as nontributary to the Arkansas.

The report out on that is 88-4017. It is published. The title of it is Geohydrology, Water Quality, and Preliminary Simulations of Ground Water Flow of the Alluvial Aquifer of the Upper Black Squirrel Creek Basin, El Paso County.

The report includes a description of that basin, the water budget of the system, and through model analysis, simulates the impacts of current and future ground water withdrawals on the water in storage there and water levels that are measured in the various wells in that basin.

Lastly, I wanted to mention a report relative to the Arkansas basin water management work that we had done for the Southeastern Colorado Water Conservancy District.

There has been a number of reports of interest from that study. The last report has finally been approved for publication. That report number is 88-4214.

As I mentioned, it has been approved for publication, but it has not been published yet. We hope to expedite that process and release that report to the open file hopefully by about the 1st of March.

The title of the report is Calibration and Use of Interactive Accounting Model to Simulate Dissolved Solids, Stream Flow, and Water Supply Operations in the Arkansas River Basin of Colorado.

The report depicts the model accuracy by comparing simulated water supply operations and stream flow and water quality with observed data.

It gives data files needed for applying the

the generic water management model that has previously been published.

Any comments on that?

That is all I had on the reports area.

MR. COOLEY: I have got one question on the simulated business. How do you simulate it, with a computer or something in the field?

MR. LIVINGSTON: No. It is a computer based model.

MR. POPE: Question, Russ. On that last report you referred to, the 88-4214, are copies of that available at this time since it has been approved for publication?

MR. LIVINGSTON: I believe our policy on that, Dave, is that the final approved copy can be looked at in our district office. We can't make copies either reproduced or made available to take home kind of thing. Until the report has actually been released to the entire public sector, we cannot make that available to individuals, but I think you can come in and look at it.

But our policy has been that we have got to do a news release and all that kind of stuff to make it available to everyone at the same time, and it would be again our objective to try to get that done as

quickly as possible in the next couple months.

MR. POPE: And that would be the open file?

MR. LIVINGSTON: That would be the open file, yes.

MR. POPE: March 1?

MR. LIVINGSTON: Yes. And we would literally just retype the report and Xerox copies. That's what it would be. It wouldn't be a formal publication, but at least we could go through the depository and publicly release it.

MR. POPE: When did you say you were leaving for New Mexico?

MR. LIVINGSTON: About March. About the same time.

MR. POPE: I guess my request is that you not depart until that report is open file.

MR. LIVINGSTON: As I mentioned to you at the coffee break, I told them I wasn't going to come here and make this report unless that report got approved, so it has been a long while getting that report.

Some comments on some studies that we are doing or will be doing that might be of interest to the Compact: First of all is a bibliography of water resources studies and activities in the Arkansas River Basin of Colorado. That's an effort that was funded

several years ago, again, by the Southeastern Colorado Water Conservancy District.

It includes a computerized data base of reference material. There are over 1,000 references in there. Each one is indexed by key words, by author, of course, by date. They are also indexed by location so one can retrieve data from a particular county or that sort of thing.

It is a computerized data base, but we will be putting out a publication that will include listings of those items that are in the data base.

We plan to try and get the publication for part of that prepared and sent to the Conservancy District in about a three-month time frame here, so that this next quarter, we hope to get that accomplished.

The plan is that the Conservancy District will actually publish the document.

I also wanted to mention, you touched on water quality during Tommy Thomson's remarks, we have begun a two-phased water quality study in the Arkansas River Basin.

The first phase began this past July and concludes the end of this month. The first phase is to assemble the issues and concerns that are seen in the basin by the individual water users and municipalities

and so forth, and what we have done is something a little unusual for the Survey.

We have met with these various entities on an individual basis and there was about, I think, eight different entities involved and talked with them about their concerns relative to water quality and we will prioritize that.

The second phase of the study is actually to begin studying on those various issues, taking the first priorities first, of course.

The actual study is planned to begin October of 1989.

Among some of the issues that have been previously brought up are the water quality effects relative to water transfers and exchanges, water operations in the basin and so forth.

I wanted to make a comment here that setting the stage for this type of investigation has been a network of about twelve stations on the Arkansas River and some of the major tributaries at which we are operating now continuous water quality monitors.

This has been through a program primarily through the Southeastern District. One of the stations in that network is the station on Horse Creek near the confluence with the Arkansas River relative to the

Cheraw issue, so again, it is a two-phased study, and we are just nearing the completion of the first phase and that will result in a published work plan for the second phase of the study.

I also wanted to briefly mention a study that we began this past summer of the Fort Lyon canal system. Fort Lyon, of course, is the largest irrigated system in the Arkansas Basin irrigating over about 90,000 acres.

Our study is to determine general water use within that irrigation system, both ground water and surface water. It will include measurement of canal seepage losses and irrigation return flows.

It is a long-term study and we don't expect to see very definitive results in the near future on that study.

It is designed for five years. This allows us time to put in the instrumentation that we have already put in which includes a number of additional gaging stations along the canal system, but also will allow us about three years, three irrigation seasons of data collection.

Any comments on those studies before I give you another one?

MR. COOLEY: Yes. I have got a number of

short questions on measurement.

I want to interrupt.

Where is the sign-up sheet now, the sign-up pad?

Okay. Harry, have you signed it?

How many have not? Raise your hands if you have not signed the sheet.

Would you gentlemen on the periphery make an effort to get the sheet fully signed and then brought up to the head table, if you would?

Back on the measurement. How many years have you been working on this river?

MR. LIVINGSTON: Myself?

MR. COOLEY: Yes.

MR. LIVINGSTON: This is my tenth year. That's a leading question.

MR. COOLEY: No. I am pretty serious about this. This will be your last visit here. Will you describe generally what you think about the measuring stations on the river from your own perspective now?

MR. LIVINGSTON: Well, that's a tough question.

MR. McDONALD: You have been led, Russ.

MR. LIVINGSTON: What is that?

MR. McDONALD: You have been led.

MR. LIVINGSTON: Yes. But I don't know where

to.

Well, certainly the satellite data program, the State of Colorado primarily operates, has been a giant stride forward because the bottom line is that we need to be in the field to make the measurements of discharge in a timely fashion in order to get the best quality of data because these streams are some of the most difficult to gage in the country.

The sand channels and so forth shift so dramatically that the study improves the final accuracy if we can get out there and measure the stream at the proper time. In other words, if we can watch the satellite data coming in and seeing when this data changes and get somebody out there, make the measurements, so that has been a giant stride forward.

As you recall, what we were operating before is the radio network that you folks were funding and it somewhat provided the same kind of information, but actually, ourselves, we weren't really on line for that network and it really didn't help us operationally, so from the standpoint of getting on malfunctions and getting out there when we need to make discharge measurements, it has improved things.

Another thing is that you may recall when we put the control below John Martin, I think that was a

stride forward.

I know there has been some problems because of algae build-up and so forth, but still, having an artificial control there has certainly helped that particular station a lot.

There are other things that could be done. I was going to mention a little bit later, but I will bring it up now. We have gotten some federal money for improving the data collection on the stations located on the Purgatoire River at Las Animas, which is one of the stations you folks are partly funding, and we had a serious build-up of debris there. There were some old bridge pilings that were catching debris and affecting our stage-discharge relationship, so we got some federal money to go in there and dredge that out, so we expect that that will improve the situation.

Maybe that is a roundabout way of trying to address your question, Frank.

I think the real bottom line is that we do gain from more discharge measurements, we gain from timing of the discharge measurements to the right stage, the right conditions of the river, and certainly we have gained a lot by the real time collection of the stage-discharge relationship.

MR. COOLEY: I heard a U.S.G.S. hydrologist

from Texas one time say, in effect--I can't reproduce words--the most useful thing to him when there were great flood events in Texas, these unexpected thirty, forty thousand foot thunderheads, is to get any kind of a measurement as that water went across a road or a dam or through a town, that type of thing.

Is that true here in Colorado as well or in the Arkansas?

MR. LIVINGSTON: Oh, certainly that is true. That ties down the upper end of the rating curve, but for most of our purposes, 95 percent of the time, we are dealing with the medium or the low flow end and probably that is the more critical flow into the spectrum for most purposes.

So, yes, it is true that we have special funds and when there are floods of that nature, we go out and we do surveys and tie in the upper part of the rating curve, but the stream system itself changes more during the low flow conditions than it does at the upper end because the upper end, the channel itself, the bridge openings and so forth control the flow, and that is a little more stable than the shifting sand that controls the lower end.

MR. COOLEY: My last question in this line

is: Based on your ten years of experience and your remarks here, do you perceive some significant need for improvement or some area that deserves more attention in the Arkansas River?

MR. LIVINGSTON: I don't really think so. I don't think there is too much more that we could be doing to improve the accuracy of the records. I don't see anything that would be drastic in nature that way.

MR. COOLEY: I don't have any more questions in this area.

MR. LIVINGSTON: Thank you.

MR. McDONALD: Frank, I do.

MR. COOLEY: Bill?

MR. McDONALD: Russ, Steve Frost and Steve Witte expressed to me some concerns about measurements being taken under a cooperative agreement. I understand that was a matter of some discussion in the Operations Committee last night. I just want to reflect on the record: Do I accurately understand you that you folks in G.S. have agreed with the two Steves that you will be more readily available at their request to make measurements at times that are perhaps more useful than has been recent past practice?

MR. LIVINGSTON: This is the first I have

heard of it. I didn't realize that there was a particular problem in that way.

We are funded for a certain number of discharge measurements and we have to somewhat live within, you know, that range, as far as making a total number, but I would certainly, as far as the Pueblo office goes, and the Colorado end of the river, we would like to work with Steve and so forth to make our measurements again in the proper time and so forth to be of maximum benefit.

Sometimes logistics do get in the way because we have limited resources, too, and if people are out in the field and we can't get to them to come back and make discharge measurements, that is something out of our control, but I didn't know there was a problem relative to the timing of measurements.

MR. McDONALD: Frank, could I pursue this with the two Steves?

MR. COOLEY: Please go ahead.

MR. McDONALD: Who was--Steve Frost or Steve Witte--at the Operations Committee last night? I really want to have some comfort that this issue has been resolved.

MR. WITTE: The discussions that we had last night in the Operations Committee meeting and the agreement that we arrived at were with the gentleman

from the U.S.G.S. from the Garden City office.

MR. McDONALD: May I ask you then, are we clear that this has been sorted out?

MR. WITTE: I believe in the past, there was some sort of structured thing of when these additional measurements were made and they sometimes were made at times when the flow hadn't changed, so with a little more communication, I think we can take care of that. Find the flow sheets.

MR. McDONALD: Okay.

MR. BENTRUP: Where was the concern on the river, what stations?

MR. POPE: Is it fair to say basically that I understand those conversations and I don't think we want to blow this out of proportion, but I am just saying I think that if Steve Witte and Steve Frost and their people can communicate with one another, and, in turn, relay advice on to the U.S.G.S. as to when they think one of those extra measurements that we fund should be appropriately made, that would take care of their concerns and I believe that Jim has indicated certainly the office is willing to do that and it would probably be just a matter of communications as he indicated in the past.

Is that a fair statement?

MR. McDONALD: That's fine with me. I just want it on the record to be sure we had that understanding.

MR. POPE: I think that is what it is now.

MR. McDONALD: It is sufficiently disposed of as far as I am concerned and I certainly appreciate it.

MR. LIVINGSTON: It sounds like Kansas got that settled. If there are any problems relative to the Colorado District office that pertains to that, you know, that's all I know about the circumstances.

The last new study I wanted to talk about is the one I am handing out, a little brief rundown on out to you now.

The probability analysis of daily flood flows in the Pueblo Reservoir during April and May.

The study is currently funded by ourselves and the Southeastern Colorado Conservancy District. We hope in the future years of the study that we will gain some support from the Army Corps of Engineers as well. As you can see, the study period began this past October, and as originally planned, was a three and a half year study.

As you may recall, part of the designed capacity of Pueblo Reservoir includes the 66,000 acre foot joint use pool, "joint use" meaning that it is available for conservation, as well as flood control

purposes, and the operation principles at this point dictate that that pool must be vacated by April 15th of each year in order that it be available for flood control purposes during the storm runoff season.

The reason that April 15th date came up, as near as we can tell, the Corps of Engineers did a study during design phases and in the historical records, found a flood on April 22, 1942, and because of the significance and the magnitude of that flood, it was decided that that flood control would have to be vacated by the April 15th date.

The question then really becomes: Is there any flexibility in that date?

In the past, during the early '80's here when we had some wet periods, there was considerable amount of water in the joint use pool that had to be released to accommodate this operation principle and it didn't fully get utilized because of the timeliness of having to deal with that water at that time of year and we would hope then by perhaps coming up with a method of being flexible in this date, to gain better use of the water that is involved.

What we are going to do then is certainly look at the historical record and through some modeling efforts, try and determine exactly what the probability

is of floods that have occurred historically, given the antecedent climatic and hydrologic conditions that have occurred each year in the past, and then also to use that historical data to calibrate a stream flow model and combine that with a routing model through Pueblo Reservoir, and in that method, come up with a real time model or methodology to be used every year, updated on a fairly frequent basis, perhaps daily or weekly, given the hydrologic conditions that particular year and storage in the Pueblo Reservoir, how much time it is going to take to vacate that storage and so forth, and give us a better tool to evaluate what the risks are of leaving the water in that pool or whether we have to vacate it because there is a certain probability level that there may be a flood coming down or could occur in the future to cause problems.

So that is kind of a rough outline of that study.

Any questions?

MR. COOLEY: There ought to be questions on that.

Do you have any questions, Mr. McDonald?

MR. McDONALD: I do not.

MR. COOLEY: Mr. Pope?

MR. POPE: I appreciate being advised of the

fact that a study is being undertaken and obviously interested in the study. I guess, at this point, that is all I have.

MR. LIVINGSTON: If either state would like, I can send you a complete project description which will detail out the analytical procedures and so forth to both states.

MR. COOLEY: I would think that would be very helpful.

MR. POPE: Yes. I do, too.

MR. LIVINGSTON: The last thing then, we kind of touched on data collection, but just a few other comments for your information: First of all, our gaging station--well, the gaging station we have been operating for a number of years on Fountain Creek of Pueblo, which has been the outflow to the Fountain Creek watershed will be discontinued in the very near future.

The Corps of Engineers' funding support for that station was lost this last September.

We have been continuing the operation of that station until the Division of Water Resources gets their station operational, which will be located--I am not sure how far downstream that is, probably a mile or something like that. It is a little closer to the

mouth than our station, so once that station gets activated, then we will discontinue our station.

MR. COOLEY: How many years of continuous records at that station, approximately, long time, short time?

MR. LIVINGSTON: I believe at the present site, it went from after the 1965 flood, so I would say there was about twenty years of records, twenty plus years of records there.

I would say, however, that the gaging station further down near the mouth is somewhat comparable, particularly for high-flow periods.

There are some return flows through the city, but for many purposes, I think the data will be comparable.

Relative to some of the stations operated as a part of the co-op agreement with the Compact here, I already touched on our work on the Purgatoire in removing that debris.

I also wanted to mention that we have moved on a number of occasions the Arkansas River at Lamar gage out here as you saw coming in.

There is bridge construction. We moved that gage, I bet, five times trying to keep up with construction there, as well as a gravel operation downstream.

But I did want to mention that we will install

a data collection platform at that station in the next couple months which will further enhance the management of the Arkansas River in this portion of the basin.

I guess that is it, then, Mr. Chairman.

MR. COOLEY: Any other questions of the U.S.G.S.?

And incidentally, is there anything to be added by the Kansas office?

A VOICE: No, Mr. Chairman. I think we have taken care of everything.

MR. COOLEY: If we take care of you adequately in the budget, that will satisfy your requirements?

A VOICE: Certainly.

MR. COOLEY: Any further questions?

Thank you very sincerely and Godspeed and good luck in your new assignment.

MR. LIVINGSTON: Thank you.

MR. COOLEY: For a while, it looked like we were going to have to put on Hamlet without the Prince of Denmark, but in the meantime, Mr. Willms has arrived with briefcase and we are now, Mr. Willms, ready to have your contribution to the meeting on behalf of the Bureau of Reclamation.

MR. WILLMS: Well, thank you, Mr. Chairman. And I hate to start a session like this, but I will start

off by apologizing for not being here earlier. I surveyed the agenda and decided that your organizational activities would take at least until noon and my judgment was obviously bad.

MR. COOLEY: Well, we were so expecting you to be here that we got through them in an inordinate amount of speed.

MR. WILLMS: During the last year, we stored 38,050 acre feet of winter water and on September, we had 3,899 acre feet remaining in storage.

MR. COOLEY: Where?

MR. WILLMS: In Pueblo. Incidentally, this is the Fry-Ark. Excuse me.

We also had one of our better years for use of project water out of the Fry-Ark project.

We had 79,494 acre feet purchased by the Southeast District. Of that 79,000, 61,530 acre feet was delivered.

In addition to that, there was some water carried over from the previous year into 1988 and that amounted to 7,829 acre feet and that water was delivered. That left us with a total use for irrigation of 64,873. The remainder of 4,486 was used for municipal and industrial purposes.

We ended the water year with Turquoise

Reservoir contents of 127,934; Twin Lakes contents, 135,190; Pueblo Reservoir contents, 150,781; and Rudei Reservoir contents, 87,756.

We imported 13,451 from the West Slope. It was another year when we significantly curtailed our imports due to lack of storage space in project reservoirs.

We also brought through the Bousted Tunnel 726 acre feet for Busk-Ivanhoe.

We did carry on exchange with the Twin Lakes Canal Company and the amount of the exchange in 1988 was 1,980 acre feet.

As of the 12th of December, the contents in our reservoirs, Turquoise Reservoir, 120,936; Twin Lakes Reservoir, 135,271; Pueblo Reservoir, 163,934; and Rudei Reservoir, 78,522.

Looking forward into the coming year, we have, of course, drawn the reservoirs down substantially.

We have in Pueblo alone some 90,000, 95,000 acre feet of vacant storage space. We would expect space to be available for the winter storage program.

In addition to that, we would anticipate operating the project's import system at full capacity in the coming year for the first time in several years.

In the last several years, we have had to curtail imports because of lack of storage space.

We have one other step we are looking at as far as the Fry-Ark project is concerned. We still have a little construction work to do on Twin Lakes Dam. The dykes and the outlet works of the old dam are still in place. They need to come out and we have scheduled to draw down Twin Lakes about 50,000 acre feet in August, to start working at removal in September. We would expect removal to take only sixty days and then we would start bringing Twin Lakes back up.

It does impact the operation of the project because in order to vacate that space, it may be necessary to move water from Twin Lakes into Pueblo Reservoir which may have some carry-over effect on the winter storage program going into next year, the following year.

Maybe I will stop there and ask if there are any questions on the Fry-Ark operations?

MR. COOLEY: I want to point out that the gentleman from Trinidad has just arrived with exquisite timing.

Carmel, it is good to see you and glad you all made it safely.

What questions do we have on the Pueblo Reservoir and Fry-Ark part of this presentation?

Any?

That's about 400,000 acre feet of water in storage on this side then?

MR. WILLMS: That's approximately correct, yes.

Not all of that incidentally is project water. A certain amount of that belongs to Twin Lakes Canal Reservoir Company, some of it to Homestake project, some of it to the cities of Pueblo, Aurora, Colorado Springs, and I don't have any information right at my fingertips as to what those particular breakdowns are.

MR. COOLEY: Without going into numbers, what do you go through the winter with in Turquoise after the drawdown roughly?

MR. WILLMS: Well, our operating practice in the last few years has been to try to hold Turquoise full and we would go ahead and make deliveries to the extent that we can out of Pueblo.

The reason for that is that the space is more usable in Pueblo than it is in Turquoise, since we have a great deal more flexibility with the water in the upper reservoirs. The second reason is the

evaporation is considerably less in Turquoise than it is in Pueblo, so beyond what we have to deliver, say, through the Homestake delivery system, we do our deliveries out of Pueblo.

MR. COOLEY: Have the sales of power from the pump storage in Twin Lakes been substantial in the last couple years?

MR. WILLMS: The Twin Lakes, the power marketing out of the pump storage is all capacity. It doesn't include energy, and the value of that plant is to be able to generate during the day and to pump it back during the night, and we do bring a little water through on a continuous basis.

The amount of water that we import is 60,000 and plus what Homestake brings over. That energy is not enough to offset the loss of energy through the pump-back process and that energy just goes in to compensate those people who furnish the energy to pump back.

The Western Area Power Administration has contracted for most of the capacity out of the plant and the plant is used substantially and it might surprise you somewhat, but the biggest use of that plant is to provide a place to put energy during the night when the steam plants are still operating, but

haven't the load to carry them and if we didn't have that plant, particularly, Larimer River Station, the Larimer River Station in Wyoming would have to frequently shut down at night and that's a very expensive process.

That's a roundabout way, but it is kind of a different use of a plant than just typically producing energy.

MR. COOLEY: Any more questions on this subject?

Yes. Mr. McDonald?

MR. McDONALD: You piqued my curiosity, Ray. Why are you marketing only capacity by--

MR. WILLMS: That decision, of course, is Western Area Power Administration's and I think that their conclusion was that the amount of pure energy that was produced at that plant was not enough to market by itself, so the way they dealt with that is they marketed it at capacity and in the contracts, they permit those people who bought the capacity to take the energy that was generated to offset the pump-back process, and I think it washes out in the price by probably letting them get a higher rate for the capacity.

I understand that in the new marketing schemes, that is going to be marketed somewhat in

conjunction with the Pick-Sloan. The capacity on Mt. Elbert is pretty darned expensive, and so by combining it with the Pick-Sloan--and I understand the way they do that is many of the customers in in the Pick-Sloan, if they want a chunk of energy out of the Pick-Sloan, they have got to get a chunk of Mt. Elbert to go along with it and that is one of the mechanisms to see that the repayment is accomplished.

MR. COOLEY: Okay. The next item on your report?

MR. WILLMS: The only other item I have is the Trinidad operating principles review.

MR. COOLEY: We are interested in that.

MR. WILLMS: That is too bad.

We did mail it out Thursday, I believe, and at the time we mailed it, we had a limited number of copies. We have a bunch more of them now, so anybody who wants more copies, let us know and we will distribute them.

This final report, we have had, of course, a number of meetings since the last annual meeting of the Administration, a lot of discussions concerning the report.

We have attempted to address the concerns of the various parties to the best of our ability and our

judgment on those.

The report speaks for itself. I didn't intend to go into any particular details on the report. I haven't brought technical staff, so I am also not prepared to get into a very technical discussion of it. I will answer whatever questions people may want to ask to the extent that I can and if there is a need for any further discussions, we can certainly arrange to have technical staff available and to get into that.

We did feel that there were a lot of studies done in that. They are depicted in the report, that the studies do offer some insight to what happens through the operation of the project. We do think it may provide a mechanism for further discussions and we would hope settlement of the conflicts, and with that, I will try to field any questions.

MR. COOLEY: I have made a number of mark-ups in my copy having to do principally with sentence structure and grammar and clarity and so forth, and one I would like to bring to your attention now is at the bottom of the conclusion page. The first conclusion, Page 55, is a conclusion that "The storage of water under the auspices of flood control has not been recognized as flood storage by the Corps," and I think what you

mean by that is the storage of water by a Colorado determination of flood control has not been recognized as flood storage by the Corps.

Is that correct? Have I got it?

MR. WILLMS: Yes. I think that's correct. The Corps, in our correspondence with them, were fairly blunt in that there has been no flood operations. The State of Colorado, on the other hand, felt under their own jurisdiction, they had stored water to prevent flood damage.

MR. COOLEY: Well, I am not trying to create controversy where none exists. I am trying to clarify in my own mind what it is that the report concludes, but it would seem to me that that letter K is the difference between a determination probably by the office and the officers of the State Engineer versus the Corps of Engineers in its criteria.

MR. WILLMS: I think that is reasonable.

MR. COOLEY: And I had a lot of fun going through. The report refers to model storage, and sometimes with a small "m," small "s," sometimes with capital "M," capital "S," sometimes with capital "M," small "s," but never with small "m," capital "S," and this kept me occupied and away from causing other kinds of trouble for several hours.

MR. WILLMS: Yes. You have to realize, Mr. Chairman, that we changed many of those and didn't get all of them.

MR. COOLEY: I would be glad to cooperate with you on some of the ones that you didn't get, but to the extent that this report may be effective in solving disputes and controversies, I think it is very welcome.

It's clear to me, Mr. Willms, that with the amount of minutes that either state has had this report, that I do not think effectively that report is appropriate for any work or discussion by the Compact Administration at today's meeting, but having said that, I am also ready to inquire whether either state wants to ask any questions at this time, realizing that there have been only a few hours to go through it.

Mr. Pope, is there anything that you are able to ask or inquire of at this time?

MR. POPE: I don't have any questions.

MR. COOLEY: Would you care to make a comment?

MR. POPE: I think Mr. Simms-- We might want to see if there are any questions first.

MR. COOLEY: Fine. I will come back then.

Mr. McDonald, do you have either comments or questions on the report at this time?

MR. McDONALD: Frank, we are certainly not

prepared to discuss substance, having just received the report as you indicated.

I guess, two things: One, Colorado would certainly thank the Bureau for its efforts which have been lengthy and extensive. It had to have been a very substantial chunk of staff time from Ray's office going into that, and I know the difficulty of undertaking those kinds of special efforts, but we appreciate that it was done to fulfill the requirement for the five-year review.

I think, secondly, the only thing that I would flag among the recommendations are that the Conservancy District, the states of Colorado and Kansas and the Bureau get together to pursue further the conclusions and recommendations that are laid out in the report.

Colorado certainly agrees that we ought to get together to do that, and for our part, I would like to leave here today with that meeting having been set not later than February so that we can get on with it.

MR. COOLEY: Well, I certainly would endorse that.

It seems to me that there have been items that have been disposed of as a result of this and that there may be more.

It also may be that this meeting isn't appropriate to dispose of even the least controversial of items concerning Trinidad. I would hope otherwise, but experience leads me to think maybe not.

I am delighted in that some subjects appear to be getting taken care of in this process and I will do what I can to push for a date for the resolution of anything that can be resolved or any progress that can be made.

Mr. Simms, did you want to make any comments at this time?

MR. SIMMS: Mr. Chairman, Kansas would first have to distinguish between the first three recommendations, the third of which, I believe, calls for the meeting that Mr. McDonald would like to proceed to as expeditiously as possible, and Kansas is prepared to meet with respect to the remaining six recommendations, and, I believe, can agree to each of those recommendations.

With respect to the first three recommendations, the first one of which pertains to the practice of rollover and the second one of which pertains to the failure to account for winter water storage under the Model decree right, as well as the third relating to working together to amend the operating principles, it

is Kansas's position that the proposed or suggested amendments to the operating principles truly are not amendments to the principles, but rather amendments to the objectives of the Trinidad project which the operating principles were designed to fulfill, which form the basis of the project's authorization by Congress.

Kansas believes that the Bureau has effectively suggested to amend the project with respect to the first two recommendations and it is Kansas's position that the Arkansas River Compact Administration does not have any authority obviously to amend the project.

Let me explain that just a little bit. In House Document 325, the chief of engineers recommended that the Trinidad project be constructed and maintained on three conditions or for three purposes.

In Mr. McDonald's words in one of his submittals to Mr. Willms, it is contemplated the project would be operated--and I am quoting Mr. McDonald--"in accordance with the three basic conditions recommended by the Bureau of Reclamation."

It was on that basis that Congress authorized the project.

These three conditions are recited as "objectives" in Article I of the operating principles.

With respect to regulation for irrigation, the operating principles recognize that Congress authorized the project for--and I am quoting--"optimum beneficial use of water for irrigation consistent with the protection of downstream nonproject rights as set forth in House Document 325 which provides..." And then Article I reads: "(A) The transfer of the storage decree of the Model Land and Irrigation Company is 20,000 acre feet annually from the present site to the proposed Trinidad Reservoir. (B) Storage in the Trinidad Reservoir of flood flows originating on the Purgatoire River above the dam site which would otherwise spill from John Martin. (C) Storage in the Trinidad Reservoir of the winter flows of Purgatoire River historically diverted for winter irrigation of the project lands."

As I indicated a moment ago, Article I of the operating principles sets forth the "objectives" of the project.

Article IV of the operating principles sets out the actual operating principles drafted to realize these irrigation objectives.

The Bureau is suggesting in Kansas's view a proposal to amend those objectives as opposed to the operating principles that were designed to bring them

to fruition.

For example, the first objective in regard to irrigation is the optimum beneficial use consistent with the provision of House Document 325 for--and I am quoting again--"transfer of storage decree of the Model Land and Irrigation Company for 20,000 acre feet annually from the present site to the proposed Trinidad Reservoir."

The decree that was subsequently entered requires the exercise of the transferred right as if it were subject to physical limitations of the rehabilitated Model right.

MR. COOLEY: Is that the decree of the Colorado Supreme Court?

MR. SIMMS: That is the decree of the Colorado Water Court, yes.

The project was authorized to facilitate the exercise in this regard of the Model right in Trinidad Reservoir. The limit of that right both physically and legally was the storage of no more than 20,000 acre feet annually.

House Document 325 did not provide and Congress did not authorize the project for the transfer of 20,000 acre feet annually plus the storage of an additional 20,000 acre feet, for example, annually of water in the

joint use pool.

In regard to the rollover, in other words, the Congressional objective was to limit the irrigation regulation to 20,000 acre feet annually of storage under the Model right. That limitation is defined in the operating principles as an objective of the project. In Article I, the actual operating principles themselves. In Article IV, were designed to sustain that objective.

In proposing or suggesting the amendment of the operating principles to--quoting the Bureau in the first two recommendations--"recognize rollover," the Bureau is suggesting, I believe, that the Arkansas River Compact Administration has somehow been empowered to change the purpose for which the project was authorized.

Absent some action by Congress, the objectives of the project, in Kansas's opinion, must remain the same. Only the operating principles in pursuit of those objectives can be amended.

In regard to rollover, to continue with this example, the Bureau, the District, and Colorado, I am assuming, want to amend the objective, that is, to make it possible to regulate water for irrigation contrary to the Model right and contrary to the Congressionally authorized component of the project in that respect.

It is Kansas's position that the Arkansas River Compact Administration cannot change the purposes of the project, only the operating principles designed to further those purposes.

In a special master's recent decision in the pending case of Kansas versus Colorado, it was held that rollover and the failure to account for winter water storage under the Model rights are matters that are presently before the Supreme Court to be determined there.

The suggested amendments to the operating principles which are really proposed amendments to the purposes or objectives for which the project can be operated are caught up in the matters before the court. The court will decide the issues which we believe are beyond the purview and the powers of the Administration.

That is all we have. Thanks.

MR. COOLEY: Mr. Willms, does the first part of the recommendations--is it intended to do more than address the practices in the operation of Trinidad?

MR. WILLMS: Our view, in preparation of the report, I gave greater weight to the objective to optimize the use within the Trinidad project consistent with the protection of the downstream rights than we did to the interpretation of the views of the Model decree

that Mr. Simms just recited.

I think that our view is that we could go ahead and revise the principles to the extent that those users downstream are protected.

I frankly have not sought a legal opinion on that and I think maybe, at this point, that is a good place for me to stop as far as comments are concerned.

MR. COOLEY: I agree with Mr. Simms' analysis that the recommendations do break themselves into two parts, the first three and the other six, and I think that the recommendation that you have as (C), working together is perhaps, in my view anyway, the most important of the lot.

Can we, this morning, pick a date and place for a meeting further to discuss the report, and what, if anything, may be done to carry it out.

Mr. McDonald, have you any suggestions as to dates and places?

MR. McDONALD: I do not. I didn't bring my calendar, as a matter of fact. I would like to get to this not later than February. If we can all clear calendars, let's do it.

MR. COOLEY: Late January, early February?

MR. McDONALD: Yes.

MR. COOLEY: And do you contemplate a public

meeting or a meeting composed of principals?

MR. McDONALD: Excuse me, Frank.

MR. COOLEY: Well, go ahead and finish.

MR. McDONALD: In light of briefing schedules, I was just being reminded by Dennis, early February wouldn't be good. It would be better to do it later in February and I would guess that is probably preferable to January. All of us having just gotten this, nobody is going to get it digested before the holidays, so how about sometime after the 15th of February?

MR. POPE: February seems to be probably the preference on our part.

MR. COOLEY: And where is the place, near Mr. Spronk's office?

MR. POPE: Sure. I guess. I don't know.

MR. COOLEY: Somewhere in Denver?

MR. POPE: Denver is fine. I don't think we have any problem with that.

MR. COOLEY: And if Bill McDonald has not his calendar with him, let's pick a tentative date, pick a tentative date and adjust it from there if it conflicts with something.

MR. McDONALD: My calendar is clear. I don't have a set of dates to look at is all.

MR. COOLEY: Oh, good. We can remedy that.

MR. McDONALD: Ray, how about you? Do you

have yours?

MR. WILLMS: I think I got something here that has got '89 on here.

MR. COOLEY: The ever available Mr. Thomson.

MR. WILLMS: Well, there is a week, Monday the 20th through the 24th.

MR. McDONALD: Is the 20th a holiday, Ray?

MR. WILLMS: Unfortunately, my calendar doesn't have holidays.

MR. McDONALD: That is Washington and Lincoln, I think, so let's do it something other than the 20th.

MR. POPE: I would suggest either Wednesday or Thursday.

MR. COOLEY: Thursday.

MR. WILLMS: 23rd.

MR. POPE: That's fine.

MR. McDONALD: 23rd of February would be fine with us.

MR. COOLEY: Okay. Somewhere near the airport around 10:00 o'clock in the morning.

MR. WILLMS: Would you like us to go ahead and host this?

MR. McDONALD: Would you, please?

MR. WILLMS: Yes. We can go ahead and arrange for the usual Holiday Inn probably if that is satisfactory.

MR. POPE: That is fine with us. I don't have any problems with that.

MR. COOLEY: Do you have any more good news?

MR. WILLMS: I have no more news at all.

MR. POPE: Let me also indicate by way of comment that we recognize the time and effort that the Bureau put into the review that Bill McDonald indicated and I certainly wanted to express our appreciation for that in spite of all the difficult issues that we all deal with here.

MR. WILLMS: Thank you.

MR. COOLEY: Thank you very much, sir. Glad you made it.

A VOICE: Mr. Chairman, may I ask: You posed the question as to whether the meeting is going to be a public meeting or just among the Compact Administration members and I am not sure I heard the answer.

MR. COOLEY: I didn't either.

Which would be most beneficial, Mr. McDonald, staff or the public?

MR. McDONALD: The public has attended. I would understand it to be a meeting of Reclamation, the Conservancy District, Kansas and Colorado, but it is certainly an open meeting.

MR. POPE: That would be our position as well.

MR. McDONALD: I would be glad to mail notice to my standard Arkansas Valley mailing list if Colorado interests would like notice of that meeting and that will cover eighty or ninety entities, whatever.

MR. COOLEY: Kansas and Colorado can attend in other states at their peril.

Okay. Colonel Gonzer, do you want to buck this matter to Mr. Rounph or do you plan to present the report? Having seen what we did to Mr. Willms, I think it shows a good bit of fortitude on your part.

MR. GONZER: Mine perhaps will be less controversial.

As you know, the Corps of Engineers has focused primarily on flood control in the last number of years under this Administration and so, first of all the things I will talk about today relate to flood control.

There hasn't been a lot of flood control and flood fighting activities during the last year that we have undertaken.

As we mentioned earlier, the snow melt and the runoff was lower than normal last year, so we didn't have any real problems in the flood fighting, flood control end of our business.

We have a number of projects under construction at this point. We have begun in the summer of last year

a levee project in Pueblo, Colorado, on Fountain Creek, and that is progressing nicely. It is scheduled for completion in March of '90. Although the contractor is moving along quite well, he hopes to finish up in December, 1989. That will provide flood control and protection for the City of Pueblo from Fountain Creek once that is completed.

We are doing some work at John Martin Reservoir. If you have been out there, you have noticed that they are working on a new boat ramp, although from the testimony I have heard here, I am not sure there is going to be enough water to use it, but it has been a long time in coming. We did get funded and so we have started the construction of a major large two-lane boat ramp with turning circles, et cetera, so it is going to be a major nice facility for recreation use at John Martin.

We also have just awarded a contract to build two good toilets up there and we will be doing some road work, in addition, so there is a number of projects going on at John Martin to enhance the recreation potential of that facility.

There are a couple of small projects that we are going to be starting this spring, what we call Section 42 projects, which are erosion protection of public facilities. We have one on Fountain Creek, Stratmoor, and one at Pinon Bridge. These will be small riprap projects that will help protect some public

facilities from erosion.

We managed to get them approved in late September of last year. We have just got us under the fiscal year of limitation because there will be no starts. Congress has indicated that there will be no new starts for any Corps continuing projects in '89, so we are lucky to get those two projects in the cooperation of the local who was instrumental in getting that done in the last week of September so that we can carry on and start them off in '89.

Planningwise, our major plan of focus in the Arkansas basin at this point is Colorado Springs. We started a major feasibility study of Fountain Creek above its confluence with Monument Creek to Colorado Springs. This is perhaps going to be a channel improvement project which will protect Colorado Springs. We signed an agreement with them to carry out the study and that study will be done in January, 1990, which hopefully would result in some type of construction appropriation down the road a little bit.

We are doing a runoff model study of the Arkansas River basin above John Martin to provide us some better computerized data on flows so that we can operate John Martin in a little smarter manner. That is one of the studies we are doing.

Another similar study, although more oriented toward flood protection is in the Pikes Peak region where we are working with local communities there to use their stream gages and rainfall gages to create a real time projection of flows in the various streams and areas that will be inundated and areas that need to be evacuated.

They have got some problems up there that do not lend themselves to structural fixes, so we just asked for money and funding to help them develop a software to come up with a program that will provide them some way to react depending on where the water is coming from and where the rain is coming from.

We also are working or just starting a study, a small study on Coal Creek at Florence that will be under our continuing authorities.

A couple of other things you might be interested in. We have already mentioned that the area capacity tables for John Martin were implemented on 1 February.

We have talked in past years about storage at Trinidad and the fact that there was some excess capacity there, but there were problems with the downstream channel being less than what was required to release flood flows.

The City of Trinidad has been working very

well in cleaning out the channel and I am happy to announce that the channel capacity has been increased substantially below Trinidad.

The only remaining impediment is the temporary road they have in there, but they have got a program on the books to build a bridge in '89 and then they will be able to remove that temporary road across the river there, so the channel capacity in Trinidad should be improved considerably by the end of this year, which will then allow the release of that space for purposes of flood control.

We are currently working with the Bureau of Reclamation on developing an OMU on operation of Trinidad. I think we are both in agreement as far as the extra storage goes, that right now, that storage can't be allocated. If it is going to be used to store water, that may impact downstream water users and the litigation and operating principles and those kinds of things, so even though the channel capacity is released, the availability of the water is still tied up in these other issues that the Bureau is working on.

We are also working on drought contingency plans. As you know, most of the country experienced a severe drought last year. The Corps was deeply

involved as a team leader for the Federal Government on the drought. It asked each of the districts to provide drought contingency plans for any future problems. In our case, it is not as applicable as it is back east. Back east, nobody knows how much water they have, who owns it, how to use it. Here, you all got that figured out, so I am not sure how much our efforts are going to be on this contingency stuff. Since you all got it all figured out, there is not a whole lot that we can do.

So the program was primarily designed for the folks back east, but we are going to have to put out a report, so we will be getting with you in '89 to get your input on those type of issues. So those are basically the activities that we are working on at this point.

Do you have any questions?

MR. COOLEY: A couple of questions, first of all, if I may. The restrictions on Trinidad were very severe here only two years ago. Does a number come to mind of what the channel capacity is up to?

MR. GONZER: Well, originally, it was designed to be 15,000 and it was down to 5 or less at one point and they have done a lot of clearance. Now, we still got that road in the way. I don't know what we would estimate it at now. Once they get the road out of

there, I think it would be about 10.

MR. COOLEY: Good. And the other question: I was piqued by your reference to runoff studies with respect to John Martin.

MR. GONZER: Yes. What we are doing is developing again a software package to better analyze the runoff well upstream so that we will be able to make better predictions about the amount of water coming into John Martin, so if we have to pre-evacuate or position ourselves better to be able to handle a major flood coming down the watershed, we will be able to do that with better predictions based on our program and existing stream gages and perhaps some other rainfall gages we might install.

MR. COOLEY: I will admit that after I was briefed eleven years ago on the flood events in John Martin, every time I see a tropical event going through the Caribbean, I fantasize on whether this one will get lost again in Fountain Creek, and, if so, what happens, but I guess that's what is the real challenge for John Martin, and for the Arkansas River.

There are some more questions. Carl?

MR. BENTRUP: Does the construction you are doing on Fountain Creek, does it include any storage facilities?

MR. GONZER: No. It is a levee project,

levees down each side, some recreation and that kind of stuff. Has no water retention capability at all.

MR. POPE: The study Frank was just asking about on John Martin, it basically then addresses flood operations--

MR. GONZER: Yes.

MR. POPE: --predictions--

MR. GONZER: Yes.

MR. POPE: --as related to the John Martin?

MR. GONZER: Yes.

MR. GENOVA: Will maintenance of channel capacity at Trinidad, will that continue to be your project?

MR. GONZER: No. That is a local responsibility of the City of Trinidad and we will continue to pressure them as much as possible to keep that there. It is pretty clean. They put a lot of money and effort into it now and I would hope that they maintain it.

MR. COOLEY: Would you mind if I ask Carmel to respond--

MR. GARLUTZO: Yes

MR. COOLEY: --with any remarks that the gentlemen from Trinidad might have? I don't want you to leave the mike, Colonel.

MR. GARLUTZO: They do have a program in

place, and this spring, they may start on it. It was just a temporary dirt fill originally there, but it was washed away by a flood years ago. That just happens to be there from one side of the town to the other. That will be removed. It has a couple of culverts filled with dirt.

MR. COOLEY: And it is still under way? It is an ongoing thing?

MR. GARLUTZO: Yes. They had some bids come in too high, so they have to renege.

MR. COOLEY: More questions for the Colonel?
Mr. McDonald?

MR. McDONALD: No, sir.

MR. COOLEY: I think that we have got to do the same thing for the Colonel that we have done for Bob Jesse. We will open him up to the audience at large. This is kind of an opportunity that isn't afforded to us every day.

Are there any other questions?

A VOICE: How come your charges are up so high?

MR. McDONALD: Colonels have rank. Jesse doesn't have any.

MR. COOLEY: He was as rank as they got.

(Laughter.)

MR. COOLEY: Colonel, even before Robert E. Lee, the best and the brightest in the Army were put in the Corps of Engineers. We are delighted you are here. We would like to see you again next year.

MR. GONZER: Thank you.

MR. COOLEY: Thank you, sir.

I have 11:40. The rest of the agenda, it appears to me, is in delightful items like "Auditor's report" and "Budget matters."

I would just as soon try to make as much progress as we can and I would propose that we at least get into the "Auditor's report" now, but even as we do so, I suggest that unless someone has a better idea, we turn the gentlemen here from the various ditches and so forth loose to their own resources as we go into the fun of the audit and the budget.

Mr. Pope, do you have any comments on those proposals?

MR. POPE: No. That's fine. Anyone is welcome to stay, but certainly shouldn't feel bound by it.

MR. COOLEY: Mr. McDonald?

MR. McDONALD: I would concur. We have nothing but budget business left. I guess for my

part, I would ask two things: I think if we at the table would stick with it, we can knock this off in thirty or forty minutes and be done; and secondly, as we did last year, what if we give our reporter a break and do our discussion and then we can simply summarize on the record the results of all our number crunching.

MR. COOLEY: I have no objection to that.

Mr. Pope apparently doesn't either.

MR. POPE: No problem.

MR. COOLEY: Mr. Court Reporter, we would like to go off the record now, but we will continue in a formal way on our budget.

Those of you who don't intend to stay, if you would leave silently.

(Discussion off the record.)

MR. COOLEY: If you please, now, back on the record.

For the record, a number of actions have been taken by the Compact Administration, but in the interest of there being an efficient and orderly

manner of acknowledging these, I am requesting Mr. McDonald, one at a time, to read into the record the five or six actions which have been taken by the Administration.

Mr. McDonald?

MR. McDONALD: Okay, Frank. Thank you.

I understand by way of summary those actions to be as follows: Number one, that we are approving and accepting the audit for the fiscal year ending June 30, 1988, from Crimond, Farmer & Company, and that would be entered into the record as Exhibit C.

MR. COOLEY: That action has been approved by the Administration.

MR. McDONALD: Secondly, when we were off the record, we, by formal motion, accepted the Treasurer's report which consisted of one, a statement of cash receipts and disbursements and change in cash balance for the period July 1 to December 1, 1988. That would become Exhibit D. Secondly, a list of checks written since June 30, 1988, to December 1, 1988. That would become Exhibit E. And thirdly, a list of bills due and pending between December 1 and December 12, 1988. That would become Exhibit F.

MR. COOLEY: That action was taken by the Compact Administration.

MR. McDONALD: Okay. And then I think for the record, I now need to move the adoption of revisions to the previously adopted budget for FY 1989-1990 which are per our discussions off the record and would be reflected if this motion is passed as Exhibit G, with Exhibit G showing the revised budget for 1989-1990.

MR. COOLEY: Is there a second?

MR. BENTRUP: Second.

MR. COOLEY: Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Colorado?

MR. McDONALD: Colorado votes aye.

MR. COOLEY: That action has been taken by the Administration.

MR. McDONALD: Then I would move the adoption of the budget for FY 1990-1991 per the draft which was discussed while we were off the record, and if that motion passes, that would be formally reflected as Exhibit H in the proceedings.

MR. COOLEY: Is there a second?

MR. BENTRUP: Second.

MR. COOLEY: Colorado?

MR. McDONALD: Colorado votes aye.

MR. COOLEY: Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Kansas votes aye. That action has been taken.

MR. McDONALD: And the final thing is on the advice of our auditor, we need to reflect that the relationship between the Administration and Jim Rogers in his capacity as the Administration's Treasurer, and Bernice Carr in her capacity as the Administration's Recording Secretary is that of contractor and independent consultant, and as part of that motion, I would one, have the Administration enter into an appropriate contract with each of those two individuals representing that independent contractor status with the remuneration to each of them for calendar year 1989 being \$1,000.

MR. COOLEY: Is there a second?

MR. BENTRUP: Second.

MR. COOLEY: It is seconded.

Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: Colorado?

MR. McDONALD: Votes aye.

MR. COOLEY: That action has been taken.

MR. McDONALD: Might I ask how we are, in fact, going to write such contracts?

MR. COOLEY: It will be drafted through your office, submitted to Mr. Pope's office and put in the

hands of the people in the month of January.

MR. McDONALD: I will be glad to do that.

MR. COOLEY: The next item is the cooperative agreements with the United States Geological Survey.

MR. McDONALD: I move that the Administration authorize the chairman to execute and enter into cooperative agreements for Federal FY 1989 with the Kansas and Colorado Districts of the U.S.G.S. for our annual cooperative agreements, the sum of those two agreements for Federal FY 1989 being \$11,375, which sum will be payable from the FY1989-1990 budget of the Administration.

MR. COOLEY: Is there a second?

MR. BENTRUP: Second.

MR. COOLEY: Colorado.

MR. McDONALD: Colorado votes aye.

MR. COOLEY: Kansas?

MR. BENTRUP: Aye.

MR. COOLEY: That action has been taken.

Mr. McDonald, you indicated that there was one other item that you wanted on the record.

MR. McDONALD: It was just the independent contractor issue.

MR. COOLEY: Oh.

MR. McDONALD: We have disposed of that.

MR. COOLEY: Is there anything else to come before the Compact Administration?

MR. POPE: This is strictly just an observation or comment that as I look through the Treasurer's report, Jim, we always get the items, the checks and whatnot, from June 30th to about the time of the annual meeting. I don't know that we ever really get the last half of the year because we don't meet. If you could just mail those to us.

MR. COOLEY: Mr. Pope, that is all in the Audit report.

MR. POPE: Oh. Is it listed in there? I guess it is.

MR. COOLEY: No. Not line by line, Jim.

MR. POPE: Okay. Not the same form. It gives you the bottom line. It is no big deal, but if you, at the end of the fiscal year, June 30th coming, each time, just slip that in the mail. I don't think there is any need of anything beyond that. It would just complete the file is all it would do.

MR. COOLEY: I might mention to you fellows, all wear a clean shirt in 1989. I finally got lined up with a photographer. I missed this year again.

MR. BENTRUP: That has been going on for the last three meetings.

MR. COOLEY: The meeting is adjourned.

(Which was all of the proceedings
had on Tuesday, December 13, 1988,
at the Annual Meeting of the Arkansas
River Compact Administration at the
Cow Palace Inn, Lamar, Colorado.)

11

Exhibits to 1988 Transcript

- ✓ A. Howland's op. sec. rpt. p. 14
- ✓ B. Jesse resolution (89-1) p. 25
- C. Audit for 1987-88
- D. July 1 - Dec. 1, 88, balance
- E. checks written since June 30, 1988
- F. Dec. 12 bills pending
- G. 89-90 revised budget
- H. 90-91 adopted

consultant
KA # price

Appendix A - Agenda

Appendix B - Attendees

Exhibit A

December 12, 1988

Report of Operations Secretary
to
Operations Committee
of
The Arkansas River Compact Administration

Gentlemen:

The 1988 Compact water year began on November 1, 1987, with 246,368 af impounded in John Martin Reservoir. This water was apportioned as follows: State of Kansas-102,906 af; State of Colorado-120,461 af; Transit loss account-0 (13,790 af residual water transferred to Colorado and Kansas on November 1 as follows: 24/35 to Colorado-9,456 af; 11/35 to Kansas- 4,334 af); Recreation pool- 9,377 af; Conservation pool- 13,624 af. Of the 223,367 af available in irrigation accounts, Colorado's share was 53.9% and Kansas' share was 46.1%.

On February 1, 1988, a new area-capacity table was introduced at reservoir elevation 3845.67 feet above mean sea level. This resulted in a reduction in capacity of 2.21% or 6,341 af. The Kansas account was reduced by 2,246 af; Colorado accounts were reduced by 2934 af; the Recreation pool was reduced by 205 af; and the Conservation pool was reduced by 956 af.

The maximum elevation for the year was reached on April 10. The elevation was 3848.50 and the corresponding storage content was 310,748 af.

75,323 af was stored in the conservation pool during the season. 52,736 af was stored during the winter storage season and 22,587 af was stored during the summer storage season. This was all transferred to accounts according to the Operating Plan.

93,385 af was released from the Kansas account for irrigation. In addition, 2,300 af of transit loss water was released to facilitate delivery to the State Line gages. 130,323 af was released to Colorado ditches for irrigation. This included 1,419 af of well augmentation water.

At the close of the Compact year the reservoir was at an elevation of 3817.88 feet and contained 78,984 af. This was a drop of 30.62 vertical feet from the year's maximum elevation and a decline of 231,764 af from maximum storage. At 2400 hours October 31, contents of the reservoir were distributed as follows: Kansas-26,231 af; Colorado accounts- 39,057 af; Recreation pool- 7,433 af; Transit loss account- 6,263 af (this has now been re-apportioned 11/35 to Kansas and 24/35 to Colorado). Of the water in irrigation storage accounts, Kansas' share was 40.2% and Colorado's share was 59.8%.

The total evaporative loss from the reservoir during 1988 was 40,127 af.

Respectfully submitted

W. M. Crawford

R E S O L U T I O N

89-1

WHEREAS, Robert W. Jesse was an employee of the Colorado Division of Water Resources for 28 years; and

WHEREAS, Mr. Jesse served as the Colorado Division Engineer for the Arkansas River Basin from 1974 until his retirement from state government in 1988; and

WHEREAS, Mr. Jesse assisted the Arkansas River Compact Administration in numerous ways throughout his tenure as the Colorado Division Engineer; and

WHEREAS, Mr. Jesse served as the Administration's assistant secretary or operations secretary from 1980 until his retirement from state government; and

WHEREAS, Mr. Jesse performed with distinction his responsibilities as an officer of the Administration; and

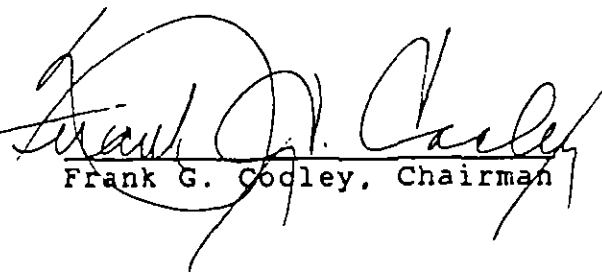
WHEREAS, he conducted himself at all times with the utmost professionalism and sense of public duty.

NOW THEREFORE, be it resolved by the Arkansas River Compact Administration that it does hereby acknowledge with gratitude the outstanding service of Robert W. Jesse to the Administration and to the states of Colorado and Kansas, express its appreciation to Mr. Jesse for his dedication, and extend to him its best wishes for continued good health and happiness in all of his future endeavors.

BE IT FURTHER RESOLVED that this Resolution be entered into the records of the Administration and that the recording secretary be instructed to send a copy to Mr. Jesse.

BE IT FURTHER RESOLVED that the Administration honor Mr. Jesse for his many years of service by including his picture and appropriate dedicatory remarks in the Administration's annual report for Compact Year 1988.

Entered this 13th day of December, 1988, at the annual meeting of the Arkansas River Compact Administration held in Lamar, Colorado.


Frank G. Codley, Chairman

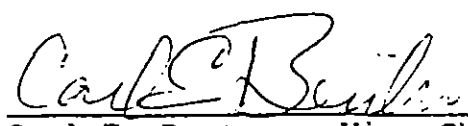

Carl E. Bentrup, Vice-Chairman

Exhibit B

Crimond, Jarner & company

certified public accountants

Exhibit C

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

We have examined the statement of assets & liabilities - cash basis of the Arkansas River Compact Administration as of June 30, 1988, 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, 1988. 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.

The financial statements have been prepared on the cash basis of accounting which is a comprehensive basis of accounting other than generally accepted accounting principles.

In our opinion, the financial statement presents fairly the assets and liabilities arising from cash transactions of the Arkansas River Compact Administration as of June 30, 1988, and the results of cash transactions for the year then ended on a basis consistent with the previous year.

Crimond, Jarner & Co

September 23, 1988
Lamar, Colorado

ARKANSAS RIVER COMPACT ADMINISTRATION
 STATEMENT OF ASSETS & LIABILITIES - CASH BASIS
 JUNE 30, 1988

ASSETS:

Cash & Cash Equivalents	\$	51,294
Equipment		25,518
Concrete Control		<u>8,000</u>
TOTAL ASSETS		<u>84,912</u> =====

LIABILITIES:

Liabilities		<u>0</u>
-------------	--	----------

CASH BASIS EQUITY:

Expended:

Equipment		25,518
Concrete Control		8,000

Unexpended:

		<u>51,294</u>
TOTAL CASH BASIS EQUITY - NOTE 1a		<u>84,912</u>
TOTAL LIABILITIES & CASH BASIS EQUITY	\$	<u>84,912</u> =====

The accompanying notes are an integral
 part of the statements.

ARKANSAS RIVER COMPACT ADMINISTRATION
 STATEMENT OF CASH RECEIPTS & DISBURSEMENTS & CHANGES IN CASH BALANCE
 FOR YEAR ENDED JUNE 30, 1988

CASH BALANCE, JULY 1, 1987		\$ <u>57,824</u>
RECEIPTS:		
Revenue from Assessments:		
Colorado	12,000	
Kansas	8,000	
Interest	3,197	
Miscellaneous Income	<u>159</u>	
TOTAL RECEIPTS		<u>23,356</u>
DISBURSEMENTS:		
Treasurers Bond	100	
Geological Survey	17,290	
Equipment	1,984	
Rent	500	
Professional Fees	1,224	
Office Supplies	220	
Printing	150	
Secretary's Salary	2,000	
Telephone	657	
Annual Report	3,253	
Recording Secretary & Court Reporter	<u>2,168</u>	
TOTAL DISBURSEMENTS		<u>29,896</u>
EXCESS OF DISBURSEMENTS OVER RECEIPTS		<u>(6,530)</u>
CASH BALANCE, JUNE 30, 1988		\$ 51,294 =====

The accompanying notes are an integral
 part of the statements.

ARKANSAS RIVER COMPACT ADMINISTRATION
 STATEMENT OF CASH RECEIPTS & DISBURSEMENTS WITH BUDGET COMPARISON
 FOR THE BUDGET YEAR JULY 1, 1987 TO JUNE 30, 1988

	BUDGET	ACTUAL	OVER(UNDER)
CASH BALANCE, JULY 1, 1987	\$ _____ 0	\$ _____ 57,824	\$ _____ 57,824
RECEIPTS:			
Revenues from Assessments:			
Colorado - 60%	12,000	12,000	0
Kansas - 40%	8,000	8,000	0
Miscellaneous Income	0	169	169
Interest	_____ 3,500	_____ 3,197	_____ (303)
TOTAL RECEIPTS	_____ 23,500	_____ 23,366	_____ (134)
TOTAL TO ACCOUNT FOR	_____ 23,500	_____ 81,190	_____ 57,690
DISBURSEMENTS:			
U.S. Geological Survey	17,290	17,290	0
Operations Secretary	6,100	2,000	4,100
Treasurers Bond	100	100	0
Telephone	2,000	867	1,133
Payroll Taxes	350	0	350
Recording Secretary & Court Reporter	3,500	2,186	1,312
Travel & Meeting	100	0	100
Professional Fees	450	1,224	(774)
Office Supplies	300	220	80
Printing	300	160	140
Annual Report	3,000	3,263	(263)
Equipment	2,000	1,984	16
Rent	_____ 0	_____ 500	_____ (500)
TOTAL DISBURSEMENTS	_____ 35,490	_____ 29,896	_____ 5,594
CASH BALANCE, JUNE 30, 1988	\$ (11,990)	\$ 51,294	\$ 63,284
	=====	=====	=====

The accompanying notes are an integral
part of the statements.

ARKANSAS RIVER COMPACT ADMINISTRATION
NOTES TO CASH BASIS STATEMENTS
JUNE 30, 1988

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
 307 South Fifth Street
 LAMAR, COLORADO 81052

COLORADO
 J. WILLIAM McDONALD, Denver
 CARL GENOVA, Pueblo
 JAMES G. ROGERS, Lamar
 Treasurer

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

KANSAS
 DAVID L. POPE, Topeka
 CARL E. BENTRUP, Deerfield
 Vice Chairman
 RON OLOMON, Garden City

ARKANSAS RIVER COMPACT ADMINISTRATION

STATEMENT OF CASH RECEIPTS & DISBURSEMENTS & CHANGE IN CASH BALANCE
 FROM JULY 1, 1988 to DECEMBER 1, 1988

CASH BALANCE, JULY 1, 1988		\$51,294.00
RECEIPTS:		
Colorado	\$12,000.00	
Kansas	8,000.00	
Interest on Savings Acct. since July	<u>240.17</u>	
TOTAL RECEIPTS		\$20,240.17
DISBURSEMENTS:		
Treasurer's Bond	\$ 100.00	
U. S. Geological Survey	6,720.00	
Professional Fees	190.92	
Salaries	1,000.00	
Telephone	352.71	
Rent	250.00	
Bank Service Charge	2.00	
Office supplies & Postage	46.85	
Operation's Secretary Account	<u>2,825.84</u>	
TOTAL DISBURSEMENTS		<u>11,488.32</u>
EXCESS RECEIPTS OVER DISBURSEMENTS		<u>8,751.85</u>
CASH BALANCE, DECEMBER 1, 1988		<u>\$60,045.85</u>
CASH IN BANK	\$ 243.12	
SAVINGS-Money Market Account	11,751.80	
CERTIFICATE OF DEPOSIT	<u>48,050.93</u>	
TOTAL		<u>\$60,045.85</u>

Exhibit
D

ARKANSAS RIVER COMPACT ADMINISTRATION

307 South Fifth Street
LAMAR, COLORADO 81052

COLORADO
J. WILLIAM McDONALD, Denver
CARL GENOVA, Pueblo
JAMES G. ROGERS, Lamar
Treasurer

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

KANSAS
DAVID L. POPE, Topeka
CARL E. BENTRUP, Deerfield
Vice Chairman
RON OLOMON, Garden City

CHECKS WRITTEN SINCE JUNE 30, 1988

<u>DATE</u>	<u>NO.</u>	<u>WRITTEN TO:</u>	<u>FOR</u>	<u>AMOUNT</u>
July 12	959	Lewan & Associates	Repair Systel Unit	\$ 406.00
" 12	960	Mountain Bell	Telephone	74.56
" 12	961	Lower Ark. Water Assn.	Office rent-July	50.00
" 12	962	James G. Rogers	2nd half annual salary	500.00
" 12	963	Bernice R. Carr	2nd half annual salary	500.00
" 12	964	Colorado Mobile	Operation's Sec.-Phone	127.98
Aug. 9	965	U S West Communications	Telephone	74.29
" 9	966	Lower Ark. Water Assn.	Office rent-Aug.	50.00
" 9	967	Guaranty Abstract Co.	Bond Position Schedule	100.00
" 9	968	Donald F. Peterlin	Bal. Transcript Ann. Mtg. 12/8/87	128.92
" 9	969	Colorado Mobile	Operation's Sec.-Phone	130.16
" 9	970	Heinrich Company	Surveyor's tripod, level & rod	1,759.65
" 9	971	1st National Bank	Petty cash-postage	30.00
Sept. 16	972	Lower Ark. Water Assn.	Office rent-Sept.	50.00
" 16	973	AT&T	Leased equipment-quarterly	17.66
" 16	974	U S West Communications	Telephone	55.79
" 16	975	Lewan & Associates	1 typewriter daisywheel	34.00
" 16	976	Colorado Mobile	Operation's Sec.-Phone	124.89
Oct. 12	977	U S West Communications	Telephone	64.53
" 12	978	Lower Ark. Water Assn.	Office rent-Oct.	50.00
" 12	979	Colorado Mobile	Operation's Sec.-Phone	122.90
" 12	980	US Dept. Interior, Geological Survey	Stream flow measurements 10/1/87 to 9/30/88	6,720.00
Oct. 12	981	Karen S. Voepel	Bal. due-Min. Ark. Rvr. Compact Mtg.	62.00
Nov. 8	982	U S West Communications	Telephone	65.88
" 8	983	Gobin's	1 Bx. Manila envelopes	16.85
" 8	984	Lower Ark. Water Assn.	Office rent-Nov.	50.00
" 8	985	Colorado Mobile	Operation's Sec.-Phone	120.26
Dec. 1		TOTAL CHECKS WRITTEN TO DECEMBER 1, 1988		\$11,486.32
Aug. 31		Bank Service Charge		2.00
		TOTAL EXPENSES TO DECEMBER 1, 1988		\$11,488.32

Exhibit E

ARKANSAS RIVER COMPACT ADMINISTRATION

307 South Fifth Street
LAMAR, COLORADO 81052

COLORADO
J. WILLIAM McDONALD, Denver
CARL GENOVA, Pueblo
JAMES G. ROGERS, Lamar
Treasurer

FRANK G. COOLEY
Chairman and Federal Representative
P.O. Box 88
Meeker, Colorado 81641

KANSAS
DAVID L. POPE, Topeka
CARL E. BENTRUP, Deerfield
Vice Chairman
RON OLOMON, Garden City

DECEMBER 12, 1988

Bills Due and Pending:

U S West Communications (Telephone)	\$ 50.00
AT&T (Phone rental)	17.66
Lower Ark. Water Assn. (Rent)	50.00
Gutenberg's (Printing 1988 Compact Report)	86.99
Colorado Mobile (Operations Sec.)	129.78
Computer Products (Inv. 3621)	62.98
Crimond, Farmer & Co. (Audit & copying)	576.80
First National Bank (Petty cash-Postage)	30.00
Division of Water Resources (Access fees-Satellite)	<u>7,000.00</u>
Total	\$8,004.21

Exhibit F

Revisors
handwritten

EXPENDITURES

A. SALARIES AND CONTRACTUAL SERVICES:

1. Treasurer	\$ 1,000	
3. Recording Secretary	1,000	
2. Operations Secretary	6,100	
4. Auditor's Fees	500	
5. Court Reporter's Fees	1,500 500	
6. Payroll Taxes	350 0	9,100
		\$10,450

B. GAGING STATIONS:

1. U.S. Geological Survey Cooperative Agreements for federal FY 1989	\$11,500 //,375	
2. St. of Colorado Satellite System	<u>8,000</u>	275
		\$19,500

C. OPERATING EXPENSES:

1. Treasurer's Bond	\$ 100	
2. 8/1988 Annual Report (Printing)	3,500 6,500	
3. Telephone	2,000 1,000	
4. Office Supplies/Postage	400	
5. Printing/Copying	300	
6. Meetings	150	
7. Travel	<u>0</u>	
B. Rent	600	\$ 6,450 9,050

D. EQUIPMENT

\$ 0

E. CONTINGENCY:

\$ 1,000

F. TOTAL

Exhibit G

~~\$37,400~~ 38,525

INCOME

A. ASSESSMENTS

1. Colorado (60%)	\$12,000	
2. Kansas (40%)	<u>8,000</u>	\$20,000

B. INTEREST EARNINGS

\$ 2,000

C. MISCELLANEOUS

\$ 0

D. TOTAL

\$22,000

EXPENDITURES FROM SURPLUS

~~\$15,400~~ 16,525

First adopted by the Arkansas River Compact Administration at its December 8, 1987, Annual Meeting and revised at its December 13, 1988 Annual Meeting.

Treasurer

DRAFT FY 1990-91 BUDGET
(July 1, 1990 - June 30, 1991)

EXPENDITURES

A. SALARIES AND CONTRACTUAL SERVICES:

1. Treasurer	\$ 1,000	
3. Recording Secretary	1,000	
2. Operations Secretary	6,100	
4. Auditor's Fees	500	
5. Court Reporter's Fees	500	
6. Payroll Taxes	<u>0</u>	

E Exhibit
H

\$ 9,100

B. GAGING STATIONS:

1. U.S. Geological Survey Cooperative Agreements for federal FY 1990	\$11,830	
2. St. of Colo. Satellite System	<u>8,000</u>	

\$19,830

C. OPERATING EXPENSES:

1. Treasurer's Bond	\$ 100	
2. 1989 Annual Report (Printing)	3,500	
3. Telephone	1,000	
4. Office Supplies/Postage	400	
5. Printing/Copying	300	
6. Meetings	150	
7. Travel	0	
8. Rent	<u>600</u>	

\$ 6,050

D. EQUIPMENT:

\$ 0

E. CONTINGENCY:

1,000

\$35,980

INCOME

A. ASSESSMENTS:

1. Colorado (60%)	\$15,000	
2. Kansas (40%)	<u>10,000</u>	

\$25,000

B. INTEREST EARNINGS:

1,500

C. MISCELLANEOUS:

0

\$26,500

EXPENDITURES FROM SURPLUS

\$11,230

Adopted by the Arkansas River Compact Administration at its
December 8, 1987, Annual Meeting.

Treasurer

1878E

ARKANSAS RIVER COMPACT ADMINISTRATION

Appendix A

1001 S. Main Street
LAMAR, COLORADO 81052

KANSAS

DAVID L. POPE, Topeka
CARL E. BENTRUP, Deerfield
Vice Chairman
RON OLOMON, Garden City

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

COLORADO

J. WILLIAM McDONALD, De
CARL GENOVA, Pueblo
LEO IDLER, Lamar
Treasurer

NOTICE OF ANNUAL MEETING

Arkansas River Compact Administration

8:30 a.m. (MST), Tuesday, December 13, 1988
Cow Palace Inn
Lamar, Colorado

The annual meeting of the Administration will be held at the time and place noted above. The meeting will be recessed for the lunch hour at about noon and reconvened for the completion of business in the afternoon.

The tentative agenda for the meeting, which is subject to change, is as follows:

1. Call to order and introductions
2. Approval of agenda
3. Approval of transcript of the December, 1987, annual meeting
4. Reports of officers for compact year 1988
 - a. Chairman
 - b. Recording Secretary
 - c. Treasurer
 - d. Operations Secretary
5. Committee reports for compact year 1988
 - a. Administrative and legal
 - b. Engineering
 - c. Operations
6. Election of officers for compact year 1989
 - a. Vice-chairman
 - b. Recording Secretary
 - c. Treasurer
 - d. Operations Secretary

7. Appointment of committee members for compact year 1989
 - a. Administrative and legal
 - b. Engineering
 - c. Operations
8. Reports of federal agencies
 - a. Bureau of Reclamation
 - b. Corps of Engineers
 - c. Geological Survey
9. Review of Trinidad Reservoir Project operating principles
10. Proposal to transfer water rights decreed to the Keesee Ditch (District 67, Colorado)
11. Informational reports
 - a. Winter storage program
 - b. Lake Cheraw, Colorado
 - c. Frontier Ditch-- Status of Colorado water rights applications (Case Nos. 84CW207, 208, and 209)
 - d. Intensive Groundwater Use Control Area in Hamilton, Kearney, Finney, Gray, and Ford Counties
12. Auditor's report for FY 1987-88
13. Budget matters:
 - a. Review of current fiscal year budget
 - b. Review of previously adopted FY 1989-90 budget and assessments
 - c. Adoption of FY 1990-91 budget and assessments
14. Adjournment

ARCA Annual Meeting

Lamar, Colo.

Dec. 13, 1988

Appendix B

Chuck Roberts	Colo. Div. Water	
STEVEN FROST	Ks DWR	
MARK RUDE	KANSAS DWR	GARDEN CITY
James Bagley	" "	Topeka
Jim Putnam	USGS, KANSAS	GARDEN CITY
Bob Roush	Corps, Albg	Albg, NM
Charles L. Thomson	SECLWCO	Puebl. Colo
Danny Magee	Colo Div of Water Resources	Tipeco, G 10
ROBERT W. JESSE	SEW.C.D	PUEBLO, CO.
Steve Witte	Colo Div Water Res.	Pueblo, CO
Bill Howland	Colo. Div. Water Res	Las Animas CO
CARL M. SHINN	Dist 67	LAMAR CO
THOMAS P THOMPSON, CPT	COE Pueblo Co	
Dick Kreiner	COE Albuquerque, NM	
LTC Kent Gonsler	District Engr. COE	Albuquerque, NM
HAL SIMPSON	Colo. State Engineers Office	Denver
Jim Idler	Fort Bent Ditch	Lamar, Colo.
Richard Grantham	Amity	Ordway Colo.
Coan Thompson	Amity	Holly
Oliver Hines	Frontier Ditch	Coolidge, Ks.
Wayne L. Miller	Hearny County Farmers Ditch,	Deerfield, Ks
Calvin Schenckman	Hearny Co Farmers	Deerfield Ks
David A. Brem	Great Eastern Irrigation Soc.	Garden City Ks
Peter Boddie	HRS Water Consultants, Colorado CO,	representing Jake Broyles
Mike Shimmim	Vranesh + Raiser, Boulder, CO.	rep. Jake Bro
David Vickers	Pueblo Chieftain	
LEE HANCOCK	Rocky Ford, Co.	
GAN NEUHOLD	DIST 67 WATER COMM	LAMAR, CO.

Frank Milenchi

Bernard Wagner

HEMIS OAKS

Paul Frank

Joe Snyder

Russ Livingston

Jack Garner

R. E. Northrup

Glenn Taylor

Mary Wallace

RAY WILLMS

Harvey Bates

Alex Schabell

BUD O'HARA

CHRIS A. DANIELSON

Del Jacob

Marvin Hamilton J.

John S. Little

Joe Clinic

Johnnie Weber

Kent A. Ryker

Cather Concho River

Frontier Ditch

Amity Mutual

Iowa Arkansas Ditch Assn.

Lamar Daily News

U.S. Geological Survey - Pueblo

U.S. Bureau of Reclamation

SECURED DIRECTOR

Holbrook Mutual I.R.G. Co

Holbrook

U.S. Bureau of Reclamation - Loveland

Buffalo Mutual Ins. Co.

Buffalo Ditch sides

PUEBLO WATER BUREAU

COLORADO STATE ENGINEER

KANSAS Division of Water Re

Amity Mutual Ins Co.

Fort Lyon Canal Co.

St. Louis Canal Co

" " " "