ARKANSAS RIVER COMPACT ADMINISTRATION

THIS MEETING, being held at 9 a.m., on August 14,

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Members present:

GUY E. GIBSON, Topeka, Kansas CARL E. BENTRUP, Deerfield, Kansas M. P. REEVE, Garden City, Kansas

1976, at the Pomegranate Inn, Aspen, Colorado.

FELIX L. SPARKS, Denver, Colorado ROBERT TEMPEL, Wiley, Colorado HARRY BATES, JR., Holly, Colorado

FRANK COOLEY, Meeker, Colorado, Chairman LANE HACKETT, Lamar, Colorado, Secretary

Others present:

Duane Helton, Colorado Water Conservation Board Bob McCabe, Colorado Water Conservation Board David W. Robbins, Colorado Attorney General's Office Richard E. Fidler, USGS, Pueblo Russell K. Livingston, USGS, Lakewood John Dumeyer, Hydro Engineering, Pueblo James Kasic, Division Engineer's Office, Division 2 Robert Jesse, Division Engineer's Office, Division 2 Jack McNeice, USBR, Pueblo, Colorado Charles L. Thomson, SECWCD, Pueblo Arthur G. Cudworth, Jr., Albuquerque District, Corp of Engineers

John J. Clinico, Alburquerque District, Corp of Engineers

James H. Stramley, Fort Lyon Canal Co., Las Animas Arthur Esgar, Fort Lyons Canal Co., Wiley Frank Milenski, Catlin Canal Co., LaJunta William Howland, Amith Canal, Buffalo Canal, Holly Leo J. Pollart, Amity Canal Co., Holly Michael K. Higbee, Manvel Canal Co., Lamar Richard U. Grozier, Chief Hydrologic Records, USGS, Lakewood, Colorado

C. V. Mills, Lamar, Colorado

PROCEEDINGS

MR. COOLEY: I am going to call the meeting of the Arkansas River Compact Administration to order on the 14th of August, 1976.

Every member of the Administration is present. Mrs. Leila Mosher is a Court Reporter to take the minutes of the proceedings. We wish during the course of the meeting that the people here having questions or statements to make identify themselves for the record.

The gentleman immediately to my left with the -making the great contributory remarks is Mr. Felix L. Sparks,
the -- what is your proper title with the Colorado River
Board?

MR. SPARKS: It depends on who wants to call it.

Actually, I am the Director of the State Water Board.

MR. COOLEY: Next to Mr. Sparks is Mr. Robert Tempel.

Next to Mr. Tempel is Mr. Harry Bates, and these three

constitute the delegation from the State of Colorado. And

for the benefit of those that may not know, the procedures

of the Compact Administration require that each state votes

as a state, and that for any positive action to be taken

it takes the consent of both states.

Immediately to my right is Mr. Carl Bentrup from the State of Kansas. Carl lives in Deerfield. To his right

is Guy Gibson. He is the Chief Engineer for the Division of Water of the State of Kansas.

And next to him is Mr. M. P. Reeve, who lives in Garden City, Kansas. These gentlemen constitute the Kansas delegation.

We are circulating an attendance list. We request that each of you sign the list, use your organization and a clear mailing address.

The synopsis of the agenda is on the blackboard, and at this time I want to --

(Discussion off the record)

We noted in the audience representatives of the U. S. Geological Survey, and particularly Mr. Dick Grozier. Dick, just for sixty seconds, would you please tell us, as a matter of interest, what you have done in the Big Thompson disaster. I think that whole area is of interest to us.

MR. GROZIER: I think probably Mr. Sparks could probably fill you in as much as or better as I can, because he has been on the ground more.

We in the Geological Survey have made it -- or feel that it is our duty to the people to document this unusual rainfall event to as much detail as we possibly can.

Immediately after the flood -- in fact, the next morning -- we had people in the area, making indirect measurements, logging sites. We flew the entire area by airplane, to locate

unusually high run-off areas. We have to date made approximately thirty-two to thirty-five -- I don't know the exact number yet -- indirect measurements of peak flows throughout the high rainfall area. We made a ballpark estimate of forty thousand cfs at the mouth of the canyon. The best figures that we could come up with was that the one hundred year flood at this particular location was 17 thousand cfs -- cubic feet per second -- and that the five hundred year flood was around thirty thousand cubic feet per second, so this is something over the five hundred year flood. We are not saying how much it is. We have run into some very high unit run-off areas. There's one small draw that comes into about the center of the canyon which is in the area of the greatest rainfall where we had -- have run indirect measurements -- we haven't got our figures yet -but from all indications we are running four to five thousand cfs per square mile, which is very high unit run-off.

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It just completely took the sopsoil off of the side of the mountains and took the -- all the soil down in the creek beds right down to bare rock.

I have -- I've been around quite awhile and I have never seen any run-off such as this nature. The highest intensity or highest rainfalls that has been run into so far is around twelve inches and this is the Green Haven area.

Now, the Corp of Engineers, to my understanding, are

running a flood line down the canyon, high water profile. ī We are taking aerial photographs at a scale of one inch to 2 These are big photographs of the entire one hundred feet. 3 canyon, both the Big Thompson and the North Big Thompson, and all the way to as far as down as Highway 287 at Loveland, 5 and are outlining on these maps the actual flood line. 6 are -- I have got four people in the canyon now, working --7 walking the canyon, outlining these flood lines. We hope 8 to have, within the next two or three weeks, all of the computations made for the indirect measurement and will put 10 out a brief open file report listing all of the distribution 11 and the drainage areas for all those who have an interest 12 in it. 13 MR. COOLEY: Thank you very much, Dick. 14 MR. GIBSON: Mr. Chairman, May I speak? You said 15 twelve inches intensity of rainfall? 16

MR. GROZIER: Twelve inches rainfall, yes, sir.

MR. GIBSON: How much time? I missed it.

MR. GROZIER: 6:30 to eleven o'clock, something like

MR. GROZIER: Any other questions?

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that.

MR. COOLEY: We are glad to acknowledge that Dick Fidler of the U.S.G.S., of the Pueblo Office is here, and the program this morning, the first lead off is going to be Russ Livingston, of the U.S. Geological Survey. Russ, do you wish us to sit in the audience for this presentation?

of slides. 2 MR. COOLEY: Is there any objection from any member 3 of the Commission to this being summarized generally in the 4 minutes? Is there any objection at all? 5 Without objection, then, we'll go in that manner. 6 (Presentation by Mr. Livingston) 7 MR. COOLEY: How will your information be published 8 and available? 9 MR. LIVINGSTON: Well, we are in the process of 10 continuing this study. It's not completed as such, and I 11 believe the schedule calls for completion in July of next 12 year, and at that time we'll probably come out with a 13 publication similar to this. It might be a little more 14 upgraded than this. The preliminary results, as I mentioned, 15 have been documented in the letter to Tommy Thomson, with 16 the Conservancy District, but as far a formal published report 17 that will come a little bit later. 18 MR. COOLEY: We will now have questions, and will 19 the questioners please identify themselves for the Court 20 Reporter? 21 MR. DUANE HELTON: My name is Duane Helton with 22 the Water Conservation Board. 23

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MR. RUSSELL LIVINGSTON: Well, I will have a number

My question is that your chart, you show a percent-

age of the discharge -- your percentage of losses, percentage

of discharge, but how do the losses look on a volume basis?

MR. LIVINGSTON: The losses -- the transit loss was determined on a volumetric basis. In other words, the model it's easy enough to determine what the volume of release was and the model takes that volume of release, whatever it may be -- two thousand acre feet in the case of the test release and it moves it downstream so that at a particular point downstream the model shows you what that hydrograph loss is.

MR. HELTON: But you put the area -- total area under that hydrograph is the amount of water you moved won, but it looks like you fairly arbitrarily cut it off after five days.

MR. LIVINGSTON: Okay. Okay.

MR. HELTON: So you are still moving water down there after your five day period.

MR. LIVINGSTON: Of course, this question of bank storage -- in other words, that -- could I turn that thing on? I want to show you a little what I'm talking about and see if it will do it.

Okay. What Duane is talking about is that volumetrically we have to cut it off somewhere over here.

(Demonstration by slides)

MR. LIVINGSTON: The transit loss should not be increased to account for that, because if it is, then they will divert more water than is there, and they will be taking

someone else's water.

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Okay. You can go ahead and shut her off, then.
Any other questions?

MR. COOLEY: Any other questions? Guy? Larry? Thank you very much, Mr. Livingston.

MR. HACKETT: We have a question for Mr. Livingston Lane Hackett, Secretary of the Compact, and Water Commissioner for District 67, below the John Martin Reservoir.

How would -- in your studies and measurements and records that are available to you now, how would you compare this study with the Arkansas River below John Martin and the State Line, just off the top of your head, with what --

MR. LIVINGSTON: Well --

MR. HACKETT: Could you throw a figure?

MR. LIVINGSTON: No. I really couldn't, not without doing some studies. The model could be applicable down there. It would be, as a matter of fact. Callibration would be necessary and so forth, but it could be done below Pueblo Reservoir. As I said, the model was developed for the Upper Arkansas River -- well, for at least down to Pueblo, and it has been modified and as you see, from the region of the Pueblo Reservoir to John Martin, and it's flexible to the point it could be used on any river system, for that matter. So I don't want to stick my neck out and say what it might be, so this has been a lot of problems with our study.

I don't feel it's a problem, but the irrigators do. 1 can't come out and say here's a transit loss; that they 2 can't compare with a seven hundredths percent model. Every 3 release is different; it depends on the flow of the river and 4 the type of release that you have, so I can escape your 5 question in that way. There is no other figure, so I couldn't 6 7 throw one out to you, but releases could be modeled both from John Martin Reservoir, to find out what the loss is, or what 8 the hydrograph loss is like on downstream. 9 MR. COOLEY: Thank you very much, indeed. I, for 10 one, found the studies very interesting and stimulating. 11 (Discussion off the record) 12 The program will continue with a 13 MR. COOLEY: presentation of the U.S. Bureau of Reclamation. Jack McNeice 14 of the Bureau Office from Pueblo, was our host yesterday on 15 a tour of the project and he will now give a slide 16 17 presentation, and I have this next question: Is there any 18 reason why Mr. McNeice's remarks should be reported in the 19 record? I am going to suggest that they not be reported unless there is an objection, and if there is an objection, Leila 20 will be glad to report this, but without objection, then, 21 22 Jack, you can tell any stories you want to. 23 (Presentation by Mr. McNeice) MR. COOLEY: 24 Thank you very much, Jack. 25 any questions?

MR. McNEICE: If any of you are ever up in the country anyplace this side of the hills, the other side of the hills and would like to have a tour of the Pueblo Dam, Mt. Elbert Power Plant, I would be just more than glad to arrange it for you. If I can't take you out myself, I can get somebody that will take you on a tour, so just feel free to ask anytime. Thank you.

MR. COOLEY: Thank you, indeed, and thank you for your courtesies to us yesterday.

At this time of the meeting we set down that there will be a discussion of the operation of the River in the year 1976. I have not contacted anyone formally to commence this, but I think it will be substantially self-starting.

Mr. Hackett, could you lead off on the operation of the River this year?

MR. HACKETT: Yes, sir. As far as I did not make a formal -- or prepare a formal operational report at this -- for this particular meeting. But as far as the operation of the Compact, and if they want to get back into River, State operations, we have those records. What I don't have I'm sure Mr. Jesse, the Division Engineer, would have.

As far as the Compact Administration is concerned, we closed the Reservoir -- our Compact here on October 3, 1974, for winter storage.

MR. SPARKS: 1975?

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1975, yes. I quess I'm way behind. MR. HACKETT: In 1975, it was on November 1, 1975, that we closed All right. for winter storage, at one minute after midnight. At the same time, we had a call placed -- or I had a call placed for Colorado River flow from the Keesee and Ft. Bent River for any river flow into the Reservoir -- they had to place the call with me for a release. That continued until a big snowstorm on the 19th of November, and the river call was called off, or cancelled, and the gates were closed for complete storage of anything coming in to the John Martin. February 17, 1976, at nine o'clock in the morning, river flow was still -- again released in the amount of twelve second feet on a demand or call from Ft. Bent Canal, which is just below the John Martin Reservoir a few miles.

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On April 5, 1976, at the beginning of our irrigation season, we had a release or opened our irrigation season with a release at 8:30 in the morning, on a staggered basis for a study request by U.S.G.S. on a sediment study and so forth at different locations on our releases out of John Martin. Our initial release was at 8:30, at 250 c.f.s. and we had four releases on an hourly basis until we reached the 250 c.f.s., until we reached the 1,000. Which is the maximum that could be released under the conditions and rules and regulations of the Compact at that time, which our storage was below the 20,000 acre foot storage, so we were

limited to a thousand second feet of release.

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This initial opening for storage water ran for -until April 10th at six o'clock, the Reservoir became empty.

At six p.m., or eighteen hundred hours. Then, up until the
8th of July we were strictly -- or the Arkansas River was
strictly on State priority and administration until July 8th
when we had some water coming from Purgatory River.

We closed the -- for storage at 5:30 in the morning and the Kansas call was for five hundred -- or for four hundred -- I beg your pardon -- the Colorado call for five hundred c.f.s. which made a total of nine hundred, but due to -- we had an estimated flow of 2,000 second feet from the Purgatory River, due to a station's problems and reports upstream that we used an estimated figure there, but no storage was obtained. We actually, on this release of nine hundred c.f.s., we never did receive enough flow that we could go into a storage situation at John Martin.

MR. BATES: Did you close the gates?

MR. HACKETT: We regulated the gates. At the time of the order it was closed -- the order stated closed for storage, but we never raised our maximum flow there for release.

On the 9th of July, we had a flash -- or this is the remainder of the next day, after our initial closing, why we were back on river flow. We never obtained any storage,

so at eight hundred -- or eight o'clock in the morning, we went back to straight river flow for Colorado purposes, administration.

August 2nd, at 7:30 in the p.m., we closed for storage. The water -- Purgatory water, initially 3,800 c.f.s. at Las Animas, the gauge height station flow, or the actual flow, at Purgatory, and the Arkansas at Las Animas, was coming in at 1,900 c.f.s. That was peak flows that instigated my order for closing.

We reached a storage of 2,000 acre feet during that period on the 8th, and we still have a thousand second feet release, Colorado Kansas calls.

I could not deliver water hardly past Lamar, on 1,000 second feet release. I wasn't getting any --holding my ditches in priority between John Martin and the Lamar compact measuring stations. It was real obvious that any water would hardly reach Kansas to fulfill any commitment down there.

Under the situation, and with the U.S.G.S. working twenty-four hours a day, making measurements, following that water down, and working in that area of daylight and dark, I expect they burned out several batteries during different measurements down there, in following that water down.

We found that the changes or the shifts in the measuring stations had changed drastically from the original curve and this was one of my problems, as we found out later

in delivering -- or in my shortage of water at the measuring station at Lamar. Our release at John Martin had changed considerably due to the trash build-up below the measuring seciton, so when they got us a final measure and shift to apply to that station below John Martin, I hadn't been receiving the water to work with that I had called for, due to the trash situation and so forth.

So under that condition, I called -- made a call to increase the release at John Martin for 250 second feet of water for inflow, which I have charged to Colorado in order to try to fulfill commitments that I could see I wasn't making, or going to be able to make. And under the Compact rules and regulations I think it was noted to make this river flow release on top of the regular Compact release. That ran till the 6th of August at 9:30 in the morning. We went out of storage and back to the river administration under the State Engineer of Colorado.

I know there's lots of questions and discussion, probably.

MR. COOLEY: All right. Lane, with your forbearance we'll break now for a short coffee break and then I will call on Bob Jesse, after the coffee break, and I'd like to get back to work just as soon as we can -- not more than a ten minute break.

(Recess)

MR. COOLEY: There is some interest in the operation of the Pueblo Reservoir, and Bob Jesse, if you'll discuss the operation of the Rangely Reservoir in July, or -
COMMENT: The Rangely?

MR. COOLEY: Rangely Reservoir -- how provincial can you get? The Pueblo Reservoir.

COMMENT: I knew there was a lot of authority, but gee, I didn't know --

MR. COOLEY: Rangely Reservoir is one of my frolics.

Then we'll open up the discussion to the questions of the operation of the River.

MR. BOB JESSE: I am sure the time in question concerns the first of August of this year. The series of thunderstorms that we had in the northern part of the State had done a lot worse that we did. We had a series of thundershowers that went through. We both passed water through the Pueblo Reservoir. We had gotten a small quantity of water in the Pueblo Reservoir, out of a small peak that occurred above Pueblo. The water that came below, of course, went through in the priority system. During the time we did this, John Martin was closed. We determined that the water that was temporarily detained in the Pueblo Reservoir would not have occurred at the same time as the other peaks that went down the river and that the peak would be within the capacity of the canal above John Martin, had Pueblo Reservoir had not

been there. We then delivered water to the water rights that would have gotten it had Pueblo not been there. The entire event occurred during the time John Martin was closed, including the time that we delivered the water temporarily detained. We have compiled -- we are in the process yet of compiling the hydrographs and the ditch -- we don't have the ditch diversions compiled yet. We do have compiled the hydrographs of the main river guaging stations that -- that a --will verify in our opinion the fact that the water came in near Portland, would have been behind the peak that went through the -- due to the Fountain and the other It's kind of an involved situation. tributaries. hydrographs are fairly complicated; they are not yet completed.

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We have, of course, had some protest and inquiries. To say we have had inquiries is the understatement of probably the year. We have had a series of inquiries by two of the ditches below John Martin. They have employed the services of an Engineer to look at this situation. The Engineer has contacted us. We have made available to him the information we have now and I would maybe suggest that we, instead of presenting our data to the entire Compact, to take up the time to present the data to the Engineering Sub-committee or we will do whatever -- we will present whatever data we have to whoever wants to see it at whatever time they That's why we're here today. want to see it.

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We would -- we don't have it duplicated. We can -i we will present our hydrographs any time you want us to. 2 We feel that the peak flows that came down through Portland would not have gotten to John Martin, but would in fact be diverted by the ditches within Colorado, had Pueblo Reservoir 5 not been there. And that's the way we have operated. MR. COOLEY: Thank you, Bob. We should, within 7 the next quarter of an hour, determine procedure on whether 8 these questions are -- require the attention of the Compact Administration, but I know they are of interest, and I 10 11 wonder if there are any members of the Administration that have any questions or comments they wish to make at this 12 I will recognize anyone? 13 time. MR. BATES: Yes. Mr. Chairman, I was in contact with 14 Bob Jesse. I was one of those who was quite concerned about 15 this and the determination of the ownership of that water 16 which was -- those that were restricted. 17 18 One of the first questions I would like to direct, Bob, is what facilities, if any, or arrangements can he see 19 20 now that possibly would have helped him to determine whether or not to have closed those gates and restricted the 21 flow? 2.2 MR. COOLEY: Are you going to answer Mr. Bates' 23 question, Bob? 24

Yes.

MR. JESSE:

MR. JESSE: If you are talking about the gates at John Martin --

MR. BATES: Yes.

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MR. JESSE: I have no input whatsoever, or any computation as to when the gates at John Martin are being closed.

MR. BATES: No. I was talking about Pueblo. Excuse me if I said John Martin. I am talking about Pueblo Dam, the restriction at Pueblo.

MR. JESSE: Yeah. There are a lot of considerations there. One of them is the inflow, the expected influe, the downstream conditions, the condition of the river below Pueblo through town and through Nepesta, and of course, the situation on whether or not the John Martin is closed is a consideration. The other tributary inflow is a consideration at this time -- at the time the decision was made to do what we did, and of course, it was at one o'clock in the morning, during the time the run was in progress. information is gathered a little more primitive than below the John Martin Reservoir. We have some telemeter guaging stations, but the majority of them, we interrogate by getting in our car with a flashlight and going out and looking at it. We have to evaluate the situation as we know it at the time.

We could certainly stand some of the radiotelemetering stations similar to Las Animas, and the State Line. We could

sure use a lot of them, but there's many considerations that have to be given. One of them, of course, is the flows through Pueblo and through the Avondale, which is considerably lower than the allowable discharges at Nepesta. There are some criteria for that. But we — it's just hard to stand here and say exactly what consideration goes into making a decision whether or not to throttle it back or not, because every — every day is different — every set of circumstances are totally different, and it changes from one day to the next, but we have to react with the information available to us at the time, and it depends on what the other conditions are. It makes a difference if there is flow in Orofino or Chico or the Fountain — it makes a difference on the duration of the peak.

The peak at Portland lasted something like three hours. The other flows, we don't have information on how long they were going or calculate how much they are going to be. We have to make a judgment, evaluating everything, and then stick by it, and that's basically what we done, and we think the record bears it out.

MR. TEMPEL: Bob, how long was the flow restricted or how long was it closed?

MR. JESSE: We never -- we did not close the Pueblo Reservoir as such. What we did was, we maintained the discharge of Pueblo Reservoir at it's present amount. We

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had a reserve run in progress and we did stop that reserve run, but the natural flows as we knew them to be, of the evening preceding, were continually passed through Pueblo. The excess amount was what was detained. The reserve run, of course, was in progress and it remained in progress, concealed within the inflow and that was stored in Pueblo, but that was not part of the natural flow.

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The time frame we are talking about -- the flood occurred from beginning to end and something six to eight hours. We detained it something in the neighborhood of twelve to eighteen hours. It was completely discharged from Pueblo Reservoir in the neighborhood of twenty-four hours, and it was delivered to the canal we deemed it being delivered to, in three days? Three days.

MR. COOLEY: Mr. Bentrup has a question.

MR. BENTRUP: Bob, how much flood water was stored in Pueblo Reservoir -- I mean, what --

MR. JESSE: Near six thousand acre feet.

MR. BENTRUP: I believe there's some questions and operating procedures we need to clear up here, for both Pueblo Reservoir and Trinidad Reservoir. Roughly, the procedures that the Compact agreed to was that both rivers were to be operated as if the dam did not exist. Then, I do -- Kansas takes the position that at no time should any flood waters be held back for any period of time, except to prevent

flooding in the lower river. I believe the waters -- is not
the decision of the State Engineer to determine how long that
water should be kept back. If the dam were not there, the
waters would proceed on down the river.

Kansas takes the position that that water should
have been immediately released as soon as flooding would be
avoided and I think the same thing in the Trinidad Project.
Who's in charge of operating it? Are you?

MR. JESSE: Basically that's what we did. That's

MR. JESSE: Basically that's what we did. That's exactly what we did. The Trinidad Dam will be in the same situation. The storage in Trinidad Dam occurred on a flash peak that came in and the inflow exceeded the capacity of the discharge outlets and that flow was in and out very briefly.

The determination we made at Pueblo, we did immediately release -- order the release of the water. There's a lot of factors to think about there. One of them is that if we would like, the Bureau would want to charge storage for the waters in there, so it has to be released immediately and we did release it immediately.

MR. BENTRUP: That was a misunderstanding I had.

MR. JESSE: And that's what we did.

MR. GIBSON: Mr. Chairman?

MR. COOLEY: Yes, Mr. Gibson.

MR. GIBSON: Bob, you mentioned you made a determination of ownership of water. I am not really familiar

1 with Colorado Law, but does the State Engineer determine ownership of water or the right to the use of water? 2 The -- we -- the right to use the water, MR. JESSE: 3 I believe, is the proper term. 4 MR. GIBSON: You used the owrd ownership -- you 5 determined somebody owned this water, so you held it up. 6 MR. JESSE: Yes. I had to first determine where the 7 water would have gone, had Pueblo not been there, and I 8 confuse myself sometimes by saying that they own the water or who would have gotten it. 10 MR. GIBSON: All right. So it's right to use of 11 water? You determined by water right there was use to it? 12 MR. JESSE: Yes. 13 MR. GIBSON: All right. Now, the other question 14 I have is, I am a little confused. You mentioned, I believe, 15 that you passed all the flow as if the Reservoir had not been 16 there? 17 We have a goal of passing -- of MR. JESSE: 18 operating Pueblo Reservoir as though it weren't there. 19 MR. GIBSON: Would you, under different circumstances 20 -- would all the water pass -- natural flow that came in --21 pass through as if the Reservoir was not there? 22 MR. JESSE: I -- no. The water was temporarily 23 detained in Pueblo Reservoir. 24 MR. GIBSON: Was it temporarily detained because of 25

the possibility of flooding downstream?

MR. JESSE: That was our estimate at the time, yes.

MR. GIBSON: How close were your estimates -- I am not trying to put you on the spot, but were you in the ballpark, so to speak, on it?

MR. JESSE: Avondale gauging station, of course, is still unclear, but the criteria is <u>five thousand feet</u> at Avondale. We exceeded that by probably one hundred feet or so. It's difficult to know at the time you are detaining this water, which is some thirty miles upstream, whether it will be on top of a five thousand foot river or behind the five thousand foot river, so the --

MR. GIBSON: Yes, but even if it's behind -- if it's behind a sufficient amount to come on down to John Martin Reservoir, that's the thing I think we would be interested in.

MR. JESSE: Yes. We made the determination it would have been that -- it would have been within the capacity of the canal, had Pueblo not been there. I think that's the key to the whole thing.

MR. GIBSON: I understand your request -- or your office was to meet with any committee we want to set up to discuss this. Is this what you have suggested?

MR. JESSE: Yes, sir. I sure will. I will be glad to.

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MR. GIBSON: I have no further questions at this time.

MR. COOLEY: I have a question for the members of the Administration. I wonder, based upon what Mr. Jesse said, that there are sufficient data now — or sufficient understanding of the data to warrant further discussion of this event at this time, and whether the engineering data and reports might not do one of two things: either clarify the factual background or remove any need for further discussion? I throw that out as an observation. Mr. Sparks, do you have anything to say to that question?

MR. SPARKS: Nothing.

MR. BATES: Mr. Chairman?

MR. COOLEY: Yes.

MR. BATES: I would like to get back to the point
I was trying to arrive at a moment ago. I feel like, knowing
quite well that this is only a once, probably several times
in the future, this happening, and I also know that there
will never be two like situations — that the determination
will have to be made by Bob or whoever is in that position,
and I feel that the facilities — measuring facilities are
not sufficient to properly advise that individual — whoever
it might be — to regulate the gates as they need to be, and
I feel that possibly we need to put some push behind getting
some better gauging stations, facilities, if you please, to

know where and when and how much water there is and will be 1 at a certain point at a certain time. I feel that it's 2 quite inadequate and in talking with some of the people that are involved in this thing and under the circumstances, I am afraid that we won't be able to handle this situation. 5 That we will be confronted with it time and time again, with 6 uncertainties and a continuous question in our mind whether 7 or not the proper people received the water that was 8 9 available, or not. And so if there is a great need for better facilities 10 11 I think that we should start trying to correct that situation I mean -- because I am quite sure we are going to be now. 12 13 faced with this, time and time again, so --MR. COOLEY: Are you suggesting that possibly a 14 15 flashlight and a measuring staff is not the adequate way of controlling a two hundred million dollar facility? 16 17 MR. BATES: More or less, yes. More or less. 18 MR. REEVE: Mr. Chairman? 19 MR. COOLEY: Mr. Reeve? 20 MR. REEVE: I more or less agree with Mr. Bates, and 21 I think that we have already, at our last meeting last year 22 in Lamar, discussed the gauging facilities that we're presently using and I think they leave a lot to be desired. 23 Isn't that right, Mr. Hackett? 24 25 MR. HACKETT: As far as the operation of the John.

Martin Dam, yes, sir.

MR. REEVE: So maybe we ought to tie this thing altogether and maybe the subject is coming up later that we possibly ought to be looking at improvements in our whole measuring facilities, from one end to the other.

MR. HACKETT: Mr. Chairman, we have Mr. Grozier with us today, on our agenda, and I understand that he was crowded to leave, and being we are into this stage of things it might be well to bring him on and then we get into the budget matter, so however you would like to handle that.

MR. COOLEY: All right. With leave, I would like to quickly pass among certain members of the Commission and visitors here, limited to the question on the adequacy of the facilities for measurement of the flows in the Arkansss and it's tributaries in Colorado, leading off with summary comments by Mr. Grozier, and then I'm going to call upon others.

Dick, if you please.

MR. DICK GROZIER: It's well known by Lane and others that there is a certain deficiency in not only in the adequacy of the gauging stations, station discharge limitation, but in the accurate and timely reporting of the data to Lane or to Garden City or to wherever it need be.

One of the prime considerations that we have, of course, is the controls at each of the gauging stations.

We have in the past year built the concrete control at -- just below John Martin Reservoir. These are very expensive in this type of stream, sand channels, water neophytes growing in the channel. Every little rise produces a certain change in your station's discharge limitation. These are very difficult to monitor on a day to day basis without some permanent type structure. The gauge at Purgatory - Las Animas, we have untold troubles there because of the growth in the channel, because of the lack of flow in the channel to keep the channel clean.

What we do about this, I don't know, other than just make more and more measurements on a weekly basis, which we try to do during the summer, and occasionally we can't get it done because of the press of other work. Then we have the problem of adequate reporting of the data to Lane's office and to the Garden City Office.

We have at present four radio stations in operation in the lower Arkansas River, one on the Arkansas at Las Animas, one on Purgatory at Las Animas. These report through a relay at John Martin to Lane's Office. Then we have the Frontier Ditch and the Arkanasas River at Coolidge, which transmits through a relay at Hartman into Lane's Office.

We have the Frontier Ditch and the Arkansas River at Coolidge are transmitting through Syracuse and Lincoln relays into the

Garden City Office. The originating stations -- the four originating stations, the equipment is twelve, thirteen, fourteen years old, so it's some -- some of it's old tube type. It's getting very expensive to maintain. I have been in contact with many companies and many organizations over the past few months -- well, since the December meeting -- and have only day before yesterday, arrived at some figures that possibly what could be done to improve the radio situation that we have in the lower Arkansas. Then I would get into some of the others in just a minute.

We could maintain the present system for -- by replacing the four transmitting stations, at about \$1,200 _____ apiece, and rebuilding the telemarks at about \$250 apiece.

These telemarks are now -- new, are running about twelve, fourteen hundred, but they -- I have talked to the original manufacturer and they will rebuild them as a new condition for about \$250 apiece. This is just those four stations.

Now, the four relay stations are a little bit newer equipment, but the latest equipment that was purchased was about '67, and that was the Syracuse and Lincoln relays, so we are looking at replacement of these two relays -- all four relays -- within two, three, four years, at the most.

The receiver that's in Mr. Hackett's Office is no longer being manufactured and I can find no-one that will work on this, other than myself, and I have worked on it a

little bit. So really, this type of receiver needs to be replaced, so what I would like to recommend that we do is go to a satellite system. This is one of the reasons I have delayed in so long in getting figures. It was — is because the satellite system is just now becoming operational. It can be added to with very little expenses at any gauging station anywhere and you can receive the data at any time that you so desire, within a limitations of what you are willing to pay for.

This satellite station, the original transmitter, antenna, battery, solar powered -- this gets away from 110 operation. You wouldn't have to worry about if the electrical power goes out we lose all of our data. This will run about \$3,700 a station. You need a test set -- one test set for the whole unit. That runs about \$1,200. That's all that would be required for transmitting the data.

Now, the data is transmitted by satellite, by the ghost satellite which is an aerosynchromoneous stationary orbiting satellite. The data is transmitted to essentially Washington -- in the Washington area and put through the computers and run back, stored in the computer and comes back on the teletype to any office that you so desire. Now, this office can be in the State Engineer's Office; it could be in Lane's Office; it could be in the Garden City Office. We do not have to have an elaborate relay system of radios to get.

the data where you really want it. This can operate very remotely, even in these mountain stations, and I think that this is the type of system that we eventually should go to, to get this adequate data that Bob needs on a timely basis, to get the data as you need it. And it could be available in any office. It just prints right out on a teletype.

Now, these figures that I gave you are in addition to a -- either a lease of a teletype or the purchase of a teletype, and the teletype on a lease basis is about a

hundred dollars a month, and on a purchase you can get rebuilt teletypes for six, seven hundred. They are two to three thousand new, I think, the best figures I have been able to come up with.

MR. REEVE: You would have to string a wire from someplace, wouldn't you?

MR. GROZIER: That's on the teletype. The lease of the teletype includes the wire.

MR. REEVE: If you bought the teletype, you would have to --

MR. GROZIER: I haven't dug into that kind of figure, yet, so I am not sure. I don't know how this operates. You could have this data transmitted to you at three hour interval or one hour interval or twenty-four hour interval, and it would just all print right out on the teletype. It would not only be stations, which would not mean a great deal

on a standard rating the station data at your discharge and then that would be put out on the teletype. Then what would have to be done would be to give shifts rather than in feet and put in discharge to Lane or to whoever else needs it, for adjusting the discharge figures as stored in the computer.

Any questions?

MR. COOLEY: I have one.

MR. GROZIER: Yes.

MR. COOLEY: It seems to me that this discussion has -- has taken a couple of twists and turns. We have apparently gone from the discussion of an event at the Pueblo Reservoir to the lack of criteria or adequate information on the operation of the Pueblo Reservoir, to a recommendation that we completely uptdate and renovate the facilities for the control of John Martin.

All of these subjects, I guess, are worthy of consideration and probably will have to come up in sequence, but let me quickly ask you two or three questions about Pueblo, all subject to the qualification that I am a little bit nervous about the -- whether this is the place for this discussion, but be that as it may, are you generally familiar with the various facilities for measuring inflow in the Pueblo area, and the tributaries to the Arkansas, both above and below Pueblo?

MR. GROZIER: Yes, sir.

MR. COOLEY: In your opinion are these facilities adequate and in proportion to the importance and the need for the skillful operation of the Pueblo Reservoir?

MR. GROZIER: I do not think, frankly, that Bob can get up to date data with the present system for accurate operation of the Pueblo Reservoir -- the flow through the Reservoir. You've got what? One telemark up there?

MR. JESSE: The inflow at Portland.

MR. GROZIER: The inflow at Portland.

MR. COOLEY: The last question I have: the facilities that you described, were they not for John Martin and would these be adequate for the gathering of information for the skillful operation of John Martin?

MR. GROZIER: Yes. This is what I tried to make out, although what I described was for John Martin. The same type of thing can be utilized in -- anywhere, in the mountains or in any gauging station so desired.

Have any of you people come up with MR. REEVE: any figures on how many gauging stations they would consider first as the very minimum; second, as adequate, and third, as -- kind of getting all the little streams coming in?

MR. GROZIER: No, sir, they haven't. That would depend on the operation.

MR. REEVE: Do you have any ideas on that, up there

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at Pueblo Reservoir, Mr. Jesse?

MR. JESSE: The whole concept is new to me. I have never studied it. We are talking about maybe half a dozen gauging sites, maybe.

MR. REEVE: I didn't have any idea. That's what I was wondering about -- \$3,700, apiece, isn't that right?

MR. JESSE: Well, that's quite a chunk of money

MR. JESSE: Well, that's quite a chunk of money for our operational budget. That's --

MR. REEVE: Well, it's quite a chunk of money for anybody's operational budget.

MR. JESSE: That's true.

MR. REEVE: But it looks to me like, with that thing up there where it is, why it ought to be part of the operation of the Dam, to be able to adequately measure the inflow.

MR. JESSE: I didn't design either the Dam or the measuring devises, and I'm forced to use what's available. All I have got is a flashlight and my sedan, why that's all I can use. It would sure be nice to have this stuff. We do have telemetering devices.

MR. TEMPEL: I think one of the other problems, and my question to Bob is, what kind of measuring device do you have on the Fountain as to -- I mean, this has something to do with the operation of Pueblo Dam, because of the inflow of the Fountain that comes in below Pueblo Dam, and I was

wondering what the adequacy of --

MR. JESSE: A shirt tail guess I made, about half a dozen gauging sites; only one of them would be an inflow into -- but every single tributary, including the ones below John Martin, could have an information on what happens to the ditches between the two Reservoirs, and even to determine Pueblo Reservoir would be in priority or the ditches above the Pueblo Reservoir would be in priority. It makes a difference whether there's water in Orofino or in Chico, or in Fountain, but the question was about the Fountain. There's a gauging station operated by the USGS on the bridge almost immediately upstream from it's confluence with the Arkansas. That station was satisfactory in operation. It was measured during the nigh. We did get amounts and were able to make reasonable projections as to what the Fountain was going to do, based on information given to us by the U.S.G.S.

We did -- it would be a lot easier if we could go to the teletype and take it off every three hours, rather than drive out and see that the guy is measuring and ask him what he thought. Since we don't have that, that's the way we do it.

MR. BATES: It would not only be a lot easier, as far as you're concerned, but as far as I'm concerned it would be a lot more accurate. I would feel much better about your decision, if you had the proper information.

MR. JESSE: We can only operate on the information available.

MR. BATES: Right.

MR. JESSE: That is, at the time. It's always easy to come back the next morning and sharpshoot a decision made the night before, and that could be what we're getting into today.

MR. BATES: In regards to what you had to say awhile ago, Frank, about whether or not we should be discussing this, but since the construction and operation now of the Pueblo Dam, this involved -- then the Compact Commission became involved in this water up here, so that's why I am concerned about this because we are making a determination of whose water, in these quick decisions and somehow or other we have got to update and improve these facilities, somewhere along the line, before we can adequately administrate both John Martin and Pueblo.

MR. COOLEY: Mr. Bates, I appreciate your remarks.

It seems to me that there are some things that this

Administration can do and that there are certain things this

Administration cannot do. It would be -- it seems to me

apparent that it is not our province to determine whether

in the operation of the Pueblo Reservoir, one, six or twelve

telemetering stations are needed, but it is apparent from

this discussion that a study of this matter should be _____

undertaken by some of the interested persons, and I think it ١ would also be both fitting and proper for us to request at the next meeting certain inputs and I'd like to suggest to the Commission that -- and I'm just throwing this out as what might be our proper function -- to request Mr. Thompson to write us a letter of not more than two or three pages on the need for further measurement of the tributaries of the Arkansas. To request as well, a letter from Bob Jesse on the subject of the measurement and to take care of the measurement question. Any others that you might recommend that we would be within our -- without our charter and scope in asking them to write to us, and possibly from Mr. Grozier and secondly, in another area, requesting that we hear again on the August event and what the engineers determined there, so that that may be useful to the questions that the representatives from Kansas asked about.

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Now, would that be a sufficient wrapping up of the questions this morning, and a way to approach the thing? I will call on Mr. Gibson for a minute.

MR. GIBSON: Well, I was personally thinking about accepting Bob's invitation to meet with the Engineering Committee and maybe the Operations Committee of the Compact to explain -- I think the world explain may be wrong -- to give a report on how that particular storm was operated, what some of the problems were involved, so that the Compact

can better understand his problems and what actually happened.

I would make that suggestion to the group.

The other thing is on the matter of stations. From the comment he has made, I believe they are in the process of doing their own study up there of what's needed. I would think the Compact would be within it's authority to, if the State Engineer felt we could be of some help, by a letter, pointing out the need for these things, to help them in their budgetory matters and along this line, if this would be a suitable thing for us to become involved in.

MR. COOLEY: Mr. Sparks, can I call on you for your comments on procedure?

MR. SPARKS: Well, I think the people in the Arkansas Valley and the State Engineer and the people that work with the utility are familiar enough with the existing measurement devices in the River to formulate a reasonable plan for improvement of what we have.

I simply want to point out, however, that all these things are done at taxpayer expense and there is a limit to what we can do. There is no way in God's world we can gauge all the tributaries to the Arkansas River. Nobody has got that kind of money in their budget and our first charge in every case is to prevent flood damages down the river. The first structures that go out in a flood are the diversion devices on the river, and we have a benevolent program of the

Federal Government to replace at Federal expense those diversion devices, and perhaps that's part of our trouble, but we have to react quickly to the flood threat, and we have to do our best to try to prevent flood damages and like I say the first damages occur to the diversion structures and in many cases to the extent of hundred of thousands of dollars. So there is no way we can second-guess these decisions and there is no amount of measuring devices you can put in which will really improve the situation very much. We have about all the measuring devices in that river that the State of Colorado can stand financially. Those telemetering stations were put in at the expense of the State of Colorado -- came out of the State Water Board budget, originally, so I have misgivings about large expenditures of money, which I don't think will accomplish substantially more than what we can do than what we have.

MR. COOLEY: Any other comments? Yes?

MR. ARTHUR G. CUDWORTH, JR: I could make one small comment.

MR. COOLEY: Mr. Cudworth?

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MR. CUDWORTH: Cudworth, Corp of Engineers. I manage the cooperative stream gauging program from the Albuquerque District -- that is, my branch does. I am under continual pressure myself, to support the existing gauging program that we have at this time, and the questions that

are asked of me in support, or in trying to support this 1 program is what problems are encountered by the operators? 7 And to be quite frank, I don't have specific 3 answers to these questions. I don't know what the specific problems are. I would hope that out of these letters that 5 are being generated and what-not, there would be some 6 description of the specific problems that are encountered, 7 so that I can support the existing program that I have now. If I am unable to, I'm afraid it's going to be severely curtailed over the next few years, so I am in -- as far as 10 expansion is concerned, I am severely limited as far as what 11 I can justify. I am just fighting to maintain what we have 12 now. 13 MR. COOLEY: Delightful prospect of less measurement 14 instead of more. 15 MR. REEVE: Honestly, how much duplication do we 16 have up and down that River between the different Bureaus and 17 States and one thing and another? 18 MR. CUDWORTH: I think we have very little. 19 MR. REEVE: Very little? 20 MR. CUDWORTH: Very little duplication, as far 21 as I'm --22 MR. REEVE: You kind of use each other's figures, 23 then? 24 MR. CUDWORTH: Sure. That's correct. 25

MR. MICHAEL HIGBEE: Michael Higbee. On the Manvel 2 Canal, I would certainly agree we need to get the measurement 3 4 problem down to a pretty close science. I think we are talking about misplacing around five thousand acre feet. 5 At the current high prices, it's kind of a gross of around 7 one hundred thousand dollars that District 67, or Kansas, may have lost, if you are figuring three acre inches or even 8 9 six, to get that other cutting of hay on there. 10 I might suggest that taxes would be created enough 11 to go ahead and put the measurement devices in through the additional -- of course, the water isn't lost completely, but 12 it is loss by what you might call the rightful ownership. 13 Maybe the increase in taxes would take care of the bill --14 15 I mean, that's just one small flood. 16 MR. HELTON: I may be mistaken, but I don't think 17 the Corp of Engineers support any of the gauging stations we are talking about here today. I might suggest if they are 18 having trouble in justifying they stations they do have, maybe 19 20 we can help them. 21 MR. COOLEY: You have got equal time, Mr. Cudworth. 22 MR. CUDWORTH: I think we do support some of the U.S.G.S. 23 24 MR. HELTON: Do you? 25 MR. CUDWORTH: Yes, below John Martin is one of

MR. COOLEY: Yes, sir.

Identify yourself.

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them.

MR. HELTON: Up on Purgatory?

MR. CUDWORTH: Purgatory, certainly. There's one other up along the Arkansas.

COMMENT: There's one on the Fountain.

MR. COOLEY: Jack McNeice?

MR. McNEICE: Yes. Bureau of Reclamation. I feel that the Bureau of Reclamation has got a responsibility, even if the State Engineer didn't, in directing us to cut those flows down out of Pueblo Reservoir to stop a flood downstream. That we would have an obligation to do it on our own.

We got criterias set up from the Corp of Engineers of what the flood is at each of these gauging stations downstream.

We do not monitor the station at Avondale -- Mr.

Jessee's shop does this, and we have worked real closely with

Bob on all this. As I say, if Bob -- if we knew a storm was

in the area and flooding in the river and Bob would not direct

us to close those gates -- not completely close it, but to

hold it to five thousand capacity at Avondale, that we would

not be taking care of our responsibility, so I think that

we have got to insert this in there, too. I mean, it's not

all on Bob Jesse's shoulders, really.

MR. GIBSON: Mr. Chairman?

MR. COOLEY: Yes, sir?

MR. GIBSON: I don't think anybody here has questioned anybody about their operation and responsibility of preventing flooding. I don't think that's even involved here at all. Nobody has raised the question about -- we all recognize the responsibility of the Bureau, the responsibility of the State Engineer on releases to prevent flooding. think there has possibly been some misunderstanding, some mis-information and therefore I would -- Mr. Chairman, I don' know whether it's appropriate for a Motion or not, at this time, or whether you want to take this up under unfinished business. That there is a need of a meeting with representatives of the Compat to be better informed as to what took place, clear up any misunderstanding there might be, how might this matter better be handled -- if that's a good word or how it might be handled in the future, with members of the Operation Committee of the Company, if that was not done this time. But I don't think we are attacking any agency. I am certainly not, on this matter of how it was handled as far as flooding is concerned.

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MR. BENTRUP: Mr. Chairman, I think we are -- the main problem that we are concerned about is getting water into the John Martin Reservoir that they would have gotten without the Reservoir -- without the Pueblo Reservoir, and Bob, would it be too much trouble to take an imaginary flood say of thirty thousand acre -- well, say Pueblo Reservoir, a

a flood would accumulate thirty thousand acre feet in Pueblo Reservoir, have that released and determine how much would get into -- well, first, how much of that water would have gotten to -- fell in a twelve hour period-- how much of that water would have gotten to John Martin, without the Pueblo Reservoir -- how you would get that down there without the Pueblo Reservoir?

Would that take too much time now or would you rather do it in a -- I, myself, don't believe we are going to get water we would have got with the -- would have got before the Pueblo was built.

MR. JESSE: It should be possible to identify the-who would have gotten the water after the fact. One of the
problems is, we have to do it at the instant the event is
occurring.

MR. BENTRUP: Sure.

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MR. JESSE: But in the event we had, say, thirty thousand acre feet impounded in Pueblo Reservoir, the next morning, if there were no emergency we could then collect our data and we could then identify who would have gotten it had Pueblo not been there. Then it would be a simple matter of making a Reservoir release, which we do routinely, to whoever would have gotten it, and in the event it would have went to the John Martin Reservoir, that would be simply another Reservoir release.

MR. BENTRUP: And that water would be past all these diversions and that would not increase the flows they would not have otherwise have had?

MR. JESSE: Yes, absolutely. We do that routinely; that's one of the ways that it operates. When we interject a reservoir run into the river, we identify that as apart from the river, and we do not allow the ditches along the way to pick it up, but we pass it on past the ditches that are even closed off entirely, to the next ditch that somehow came into possession of this right to use this water, and that would be the way we would handle that.

MR. COOLEY: Mr. Milenski, do you have a comment that you wished to make?

MR. MILENSKI: I think if you are going to limit the flood flows at five thousand at Avondale, you have only begun to have problems. The fact that you do have the dam in there to prevent flood damage, and you are going to take that as a criteria, how would you then operate as if it weren't there?

I think you are -- every time you put in a dam you let the river grow shut below it. Pretty soon you haven't got any carrying capacity and it disappears with the years, and I think the whole outfit has got to take a look at it, because five thousand for flood -- there's six thousand feet decreed out of the Arkansas up to 1890.

MR. COOLEY: Yes, sir?

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MR. BILL HOWLAND: Bill Howland, Amity Canal. I would like to second Mr. Milenski's comments. We have seen this below the John Martin Reservoir, the carrying capacity of that channel has seriously deteriorated, and it could no longer carry what it did before John Martin was built, and also, addressing myself to the original question of what should have happened to that water -- I am not trying to -on the event of ten days ago I would in no way try to second guess anyone as to whether there was a threat of flood below Pueblo Reservoir; however, it seems to me that there was a serious ambiguity in the fact that there was a determination made that a flood threat existed, and the water was retained, but when it was released, it was determined that the canals above John Martin could have picked it up anyway, so it was not allowed to come on down to John Martin and to me that's an ambiguity, because if the flood threat existed, the canals could not have picked up the water and if it did not exist, the Pueblo Reservoir should not have retained the water.

MR. COOLEY: Thank you, Mr. Howland.

The only manner in which this Administration can work is with the unanimity of both States. It's perfectly clear, I think, to everyone in the room that the questions raised this morning cannot be solved by this Administration,

nor by the persons here.

There is a recommendation from one of the Kansas members of the Administration that there be a meeting of the Operating Committee with the Colorado State Engineer, and that these matters be discussed in such a group. I heard a comment that if the Engineering Committee might equally be interested. It does seem to me that this matter would best at this time be referred to a committee for a report back here.

Now, on that limited idea, I would like to call from the -- hear from the representatives of Colorado on procedure of how best to field this -- these series of potatoes.

MR. TEMPEL: I think it ought to be referred to the Operations Committee. I agree with Kansas.

MR. COOLEY: Harry, do you -- ?

MR. BATES: Well, yes, but I also feel it should be -- the Engineering Committee is involved in this thing, what we are discussing, and as the Operations Committee, so in a sense this involves all of us. I don't know how -- Mr. Chairman, how you would like to handle it, but we do need to get together and iron out some of these wrinkles.

MR. SPARKS: Well, I don't know. It seems to me that either -- do we have a --

MR. COOLEY: We have an Operations Committee and

we have an Engineering Committee. Each Committee has one member from each State.

MR. GIBSON: Mr. President?

MR. COOLEY: Yes.

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MR. GIBSON: Mr. President -- Mr. Chairman -- the Operations Committee is a member of the Compact.

> MR. COOLEY: Yes.

MR. GIBSON: The Engineering Committee is a member of the staff of the State.

> MR. COOLEY: That's correct.

MR. GIBSON: And therefore my suggestion was that the Compact should -- members of the Operation Committee should be involved in this matter and I felt that it was desirable that the Engineering Committee also be kept posted up to date.

MR. COOLEY: Well, I am advised, Guy, that the -both the Engineering Committee and the Operations Committee are composed of Compact Members. In fact, our Engineering sub-committee has been functioning for some time and that's composed of the professionals from each State, and I was just apprised of this in the last sixty seconds.

> MR. BENTRUP: That is correct.

MR. COOLEY: I am sure that the Engineering Sub-Committee would be available to consult with either Committee.

MR. GIBSON: You ought to change your minutes then

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when you have them. 1 MR. COOLEY: We might well have to change --2 MR. GIBSON: And refer to them, then, as Engineering 3 Sub-Committee instead of Engineering Committee. 4 MR. COOLEY: You are Chairman of the Engineering 5 Committee, according to the 27th Annual Report, and I quite 6 agree. 7 MR. GIBSON: I am going to change my recommendation then, that it be the Engineering Sub-Committee should meet 9 with them. 10 MR. COOLEY: All right. We are developing, I think 11 that the consensus that the Operations Committee, Harry Bates 12 and Carl Bentrup, meet with the Engineering Sub-Committee, 13 composed of engineering staff from each State, to further 14 consider this matter. 15 Is that the substance of your recommendations now, 16 Mr. Gibson? 17 MR. GIBSON: Yes. 18 I think I would like to check, though -- I believe that we also had part of the recommendation 19 as to meet with who? The representatives of the --20 21 MR. COOLEY: State Engineer. MR. GIBSON: Not meet with the State Engineer, but 22 representatives from his office. 23 MR. COOLEY: That's right. 24

MR. GIBSON:

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That's right. I think this is it.

MR. COOLEY: And is this a Kansas consensus? ì the other representatives from Kansas join in this view now? 2 3 MR. REEVE: I think so. 4 MR. BENTRUP: Yes. 5 MR. COOLEY: Is this satisfactory with Colorado? 6 MR. BATES: Yes. 7 MR. COOLEY: All right. I don't think we will 8 require a formal motion, but before I declare this to be the 9 consensus, I see two fellas that are pretty close, waving 10 their arms. Jack McNeice? 11 MR. JACK McNEICE: I would like to see that amended a little bit burther, to have a representative from the 12 13 Bureau and the Corp of Engineers. 14 COMMENTS: Agreeable. 15 MR. COOLEY: No objection whatever to this. Should that meeting be held in -- U.S.G.S. is jumping up and down. 16 17 COMMENT: Might as well hold a whole Compact meeting. 18 MR. COOLEY: Should this meeting be held in Pueblo 19 or Lamar? I think -- well, Lamar would be better --20 MR. GIBSON: I think in all fairness that we have 21 the Corp and the G.S. - and the Bureau, we ought to have the 22 G.S. there, too. 23 MR. COOLEY: The minutes have already caught that. 24 (Discussion off the record) 25 MR. COOLEY: The Kansas representative has indicated

that the meeting might better be held in Pueblo because of 1 the availability of information and data and offices in 2 Pueblo, so that meeting should be held in Pueblo. It is my 3 experience that if we can pick a date certain, that the meeting would much more likely to be held and to be held promptly, and I am -- unless someone -- unless we have a further frantic waving of arms --7 MR. GIBSON: When are you going to be ready, Bob? When would you be ready for this kind of meeting? MR. JESSE: We would like to -- first, by the State 10 Engineer, do you mean the Division of Engineer or the State 11 Engineer? 12 MR. COOLEY: No. Division Engineer. 13 You are 14 going to be Prince Hamlet in this performance. MR. JESSE: We have already begun, of course, 15 16 immediately after the decision was made, we began collecting information and it will go on for probably years, but a couple 17 of weeks would sure suit us. 18 We have other problems. 19 20 MR. COOLEY: I would recommend -- now, I don't have hunting season marked in my calendar --21 (Discussion off the record) 22 23 MR. COOLEY: All right. Tuesday, the 14th of September, at the hour of ten o'clock a.m., in the Offices 24

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of the Southeastern Colorado Water Conservancy District.

investigate the Teton Dam. 2 Okay. At this time I'd like to turn the meeting 3 over to Duane Helton, and the Engineering Sub-Committee, for 4 their report. 5 MR. HELTON: Mr. Chairman, we worked up a revised 6 draft of operating criteria and a resolution, and the 7 8 Engineering Sub-committee was not able to meet, but we did mail it to the members of the Compact Administration and to the Kansas members of the Engineering Sub-committee, and 10 I understand they have had a redraft, so maybe we should start 11 with their redraft -- it may save time. 12 Does that meet with your approval, to start with 13 the Kansas redraft and I think Kansas has some copies for 14 the members of the Administration. 15 MR. BENTRUP: You are talking about a draft of 16 the 7-27-76? 17 18 MR. REEVE: Right. 19 MR. HELTON: I have some copies of the original redraft before the Kansas changes. 20 21 MR. COOLEY: Hold up, Duane. Mr. Gibson, I think 22 almost all of the members of the Commission have your redraft of Mr. Helton's draft. Do you happen to have any 23 more copies with you for persons in the audience? 24

Any person is welcome to attend. We are not going to

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MR. GIBSON: No, I don't. Sorry.

to me, other than to proceed as you have suggested, Mr. 2 Helton. 3 If you will pass out your copies of the July 15th 4 draft, the Commission members will be paying close attention 5 to the correction and amendation of Mr. Gibson of July 27th. MR. HELTON: Perhaps we should start with the 7 operating criteria and maybe use the same approach we have 8 used at the last meeting -- that is read the provisions 9 paragraph by paragraph. Is that --? 10 MR. COOLEY: Mr. Gibson has not made substantial 1 T changes in two pages of whereas, and I think we should indeed 12 turn to the permanent pool operating criteria, and Mr. Helton 13 will you read the -- your draft? Then we will discuss first 14 the -- Mr. Gibson's comments and then any others, paragraph 15 by paragraph. 16 MR. HELTON: Okay. Our redraft reads this way: 17 Paragraph one: These provisions will allow the 18 State of Colorado to create a permanent pool in John Martin 19 Reservoir for recreational and fish and wildlife purposes. 20 MR. COOLEY: Mr. Gibson, would you take it from 21 here? 22 It has been suggested a consideration MR. GIBSON: 23

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MR. COOLEY: We have no choice other than, it seems

be given to striking the words "State of Colorado to create"

and in lieu thereof, insert the word "creation of", so that

it would read:

These provisions will allow the creation of a permanent pool in John Martin Reservoir for recreational and fish and wildlife purposes.

MR. COOLEY: It seems to me to improve the language of paragraph one. Is there a consensus to the suggested change?

MR. BATES: I see no objection to it.

MR. TEMPEL: I see no objection to it.

MR. SPARKS: However, does this imply that Kansas is going to use this pool, also?

MR. REEVE: We have got a lot of swimmers down there.

(Discussion off the record)

MR. COOLEY: Let the record show there is a consensus to the change. Are there any other changes in paragraph one? Mr. Helton?

MR. HELTON: Okay. Paragraph two.

The permanent pool shall ride on top of the conservation pool. It shall not reduce the amount of water storable in the conservation pool, and it shall not invade the flood control space by more than 10,000 acre feet as required by Public Law 89-298.

To help overcome limited water supplies during dry years and to obtain an effective size of 10,000 acre feet,

the permanent pool will be allowed to reach a maximum size of 15,000 acre feet.

MR. COOLEY: Mr. Gibson?

MR. GIBSON: Well, the original copy had to -- due to an oversight, I am sure, the omission of the word "pool" was not inserted after the word "permanent", and so we are now in agreement there that the first sentence is read:

The permanent pool shall ride on top of the conservation pool.

Now, in the third sentence of paragraph two, where it says: to help overcome limited water supplies during dry years and to obtain an effective size of 10,000 acre feet, it was suggested that we strike that in it's entirety, and the following sentence then as originally proposed, we would strike the 15,000 and insert and in lieu of the following:

The permanent pool will be allowed to reach a maximum size of not more than 10,000 acre feet.

MR. COOLEY: Mr. Helton, why don't you defend your draft and then we will discuss this?

MR. HELTON: We discussed this pretty thoroughly at the last meeting. The additional five thousand acre feet is necessary because it's impossible to operate a reservoir at a fixed level; in other words, by varying this permanent pool size up to 15,000 acre feet, it will be possible to achieve an effective size of 10,000 acre feet. From the Kansas

position I can't see that it makes any difference to the State of Kansas whether it's ten thousand or fifteen thousand. The problems and the principles all apply equally well in either situation. I think maybe members of the Administration --MR. BENTRUP: Well, my opposition to that was it filled -- if we have a permanent pool and you are allowed to create at 15,000 feet, we could end up with the conservation pool empty and the permanent pool of fifteen thousand acres. I have been on this thing fifteen years, and ten thousand is all that has ever been asked for, and I know my people in Kansas would seriously object to increasing this to fifteen thousand. I have a hard time understanding why. MR. HELTON: It really --MR. BENTRUP: Well, you are increasing it -- we could end up with 15,000 acre permanent pool, and the conservation pool empty. MR. HELTON: How is that any different than ending up with ten thousand --MR. BENTRUP: Five thousand acres. MR. HELTON: But it's not Kansas water in either It's water acquired by the State of Colorado.

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MR. BENTRUP: Well, very conceivably, when the

water you purchase in two or three years, you could have a

20,000 acre foot pool, but you are donating that other five thousand to the conservation pool.

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MR. SPARKS: Let me explain it this way: limiting factor is, this has to ride on top of the conservation pool and you cannot invade the flood control space more than ten thousand feet. So when you run a reservoir operation study there's no way that you can maintain a permanent pool at ten thousand feet. There will be times when it's much below ten thousand, depending on the water supply, so in your operations study you try to -- you have to fluctuate the water supply, depending on what's available. So that at times when the water is available, we need to fluctuate it upwards in order to take care of the critical periods which will follow. At times this permanent pool will be down to five thousand feet, or perhaps lower. There's just no way that you can maintain a fixed pool in any type of reservoir operation, but it doesn't hurt anyone because the overriding principle again is that it does not invade the conservation pool or the flood control pool, but from simple operation study you just can't operate it without fluctuating both up and down, and it doesn't take one drop of water from anyone.

MR. HACKETT: Mr. Chairman, I would like to ask Mr. Helton a question. In your operating criteria, doesn't your spill set up in your operating criteria, you talk about, of the 95,000 acre feet you are talking about here?

MR. HELTON: Well, at fifteen thousand acre feet, there will be times when there will be water spilled to it -- just of the Compact, so at ten thousand acre feet, of course, that would occur not often and I think that's the issue here, is that Kansas would like to obtain for the Compact water at the expense of the permanent pool, is what it amounts to.

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MR. REEVE: I personally feel kind of like Santa Claus, figuring that this wouldn't be stream water, this ten thousand acre feet, or at least a large amount of it would be stream water -- I kind of feel like Santa Claus, going along with the ten thousand acre feet.

MR. SPARKS: No. This is not stream water. purchased from the State of Colorado by existing rights, senior rights, on the river. This is not the -- this is not water from the John Martin Reservoir -- this is water are taking from existing irrigation or reservoir storage and the Colorado Courts will only allow the amount of storage that was previously adjudicated, so we lose fifty percent or more of all of the water that we purchase. It goes to The actual fact is it's going to be of the downstream. benefit to the downstream people from this operation, and that's a matter that we have to fight out in the Courts. What we are going to end up with is only fifty percent or less of the amount of water that we actually buy. Every

appropriator in Colorado is already in this case, to be sure that they are not denied anything, so the taxpayers in Colorado are going to get screwed royally, let me put it that way, before this thing is over. We are going to pay about three times for the small amount of water that we are getting and I can assure you that the people in Colorado are ably protecting Kansas's interests in this matter.

MR. COOLEY: What we are discussing is the language that allows the permanent pool to go from ten to fifteen thousand acre feet. Mr. Gibson has raised the objection to the language allowing the ten thousand acre feet to have that variation up to fifteen thousand. The State of Colorado has indicated that the -- if I understand them, that the fifteen thousand is necessary for two reasons: One is the difficulty of management, and secondly, is to allow for those fluctuations.

How, if in any manner, may these differences in language be resolved or thrashed out? Perhaps the most important thing to come before us today.

MR. GIBSON: Mr. Chairman?

MR. COOLEY: Yes, sir?

MR. GIBSON: I would not want to disagree with our distinguished Chairman; however, I feel that it is not Mr. Gibson, but the State of Kansas has taken a position of ten thousand acre feet. I am not sure that he says -- it's

quite correct when he says that Colorado has objected.

We have heard one member of the Colorado Commission express their viewpoints, but as the State as a whole, has Colorado objected to changing this from fifteen to ten?

MR. COOLEY: Okay. I think you have probably got me on both counts. What I am trying to do is to focus the intention of the entire Commission on the language, to determine if we can achieve language that will be matisfactory for permanent pool operating criteria.

MR. BATES: I have only one question in regard to this. If the amount of water, regardless of what we are talking about, a fifteen thousand acre feet in this instance is owned by the State of Colorado, and supplied by the State of Colorado, I have no objections, but Mr. Helton has indicated that it is impossible to hold this thing and regulate this at any certain level, which brings me back to this question we were on awhile ago about the measurement and the regulations of waters and the change of ownerships and this, and if they have got to do these things, how can they prevent from possibly entering in upon someone else's water or vice-versa? It raises a question in my mind. I have no objections to that extension or limitation of the fifteen thousand provided.

MR. TEMPEL: Mr. Chairman, I can really see no difference as far as the operation of a permanent pool, as

long as -- within the operating criteria, as long as the

State of Colorado owns the water and provides the water -- not
what size of permanent pool it is, or I have no objection. I
really don't see that -- I can see that because of buying
existing water rights and the criteria for the delivery of
those water rights that there can sure be some fluctuations
in flow as to maintaining that permanent pool, you know,
that it could go from two thousand to a maximum of whatever,
but there could sure be some problems in maintaining a certain
level of the pool.

MR. HELTON: Mr. Chairman?

MR. COOLEY: Mr. Helton, go ahead.

MR. HELTON: Maybe I should say that it's not the upper part of the permanent pool — that part of the permanent pool between ten thousand and fifteen thousand, that really concerns us, but it is having that extra water to carry us through the dry years, is what the purpose is there, for without the fifteen thousand acree feet in the permanent pool the permanent pool will drop down to approximately six thousand acre feet. If we have to keep it down to ten thousand, it will drop down to four thousand. That's the difference between four thousand six thousand during dry years as opposed to between ten and fifteen during wet years.

MR. SPARKS: Actually, the average pool will be less than ten thousand -- the actual average. All we are

trying to do is average here. If we put language in here to say average and never exceed ten thousand feet in any five year period, ten year period, that's fine. Actually, average on this would be less than ten thousand feet, but we are trying to keep up with that as high as we can on the average. That's the reason any reservoir operator you have to fluctuate up and down, but if we could have language to say average and will not exceed ten thousand feet in any ten year period, consecutive ten year period, maybe that would satisfy the Kansas objection. We are not trying to increase the size of the pool. We are trying to keep up as close to the average of ten thousand feet as we can. It will be less than ten thousand feet, the average.

MR. COOLEY: Have any of these comments proved useful towards thrashing out the language here, Mr. Gibson?

(Discussion off the record)

MR. COOLEY: Kansas requests a caucus for ten minutes, and I think there is ample and good reason why such a request should be granted. It's quarter after twelve. I rather suggest that it might be appropriate for us to have a lunch break at this time and come back promptly at 1:30.

We will not -- when we come back at 1:30 -- immediately go to the problem of the Manvel, but we will continue this matter for a period of time until we get to a breaking point, and only then will we turn to the Manvel

but I want to encourage every one to come back here at 1:30.

(Discussion off the record)

MR. SPARKS: Only let me suggest to Kansas -- I can see the point Kansas raises about trying to increase the size from ten thousand to fifteen thousand, and I think it's a valid point. Suppose we address that by saying it should be allowed to reach a maximum size of fifteen thousand, provided that the average pool retained in any consecutive progressive ten year period shall not exceed ten thousand acre feet -- that's all we're trying to get at. In other words, in any progressive ten year period, the average pool shall not exceed ten thousand acre feet.

MR. COOLEY: With that, can we have a lunch break? We will have a break.

(Recess)

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August 14, 1976, 1:30 p.m.

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MR. COOLEY: During the noon hour, it's apparent that much work was done on the resolution. Mr. Bentrup, can you brief us in on where the members stand now on the permanent pool operating criteria?

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MR. BENTRUP: All right. In paragraph two will stand as Mr. Helton read it.

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MR. COOLEY: Okay.

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MR. BENTRUP: We have withdrawn the changes.

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MR. HELTON: Could I make a substitute statement?
Why don't we use Mr. Gibson's language with the substitution

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of the fifteen thousand instead of the ten thousand feet?

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MR. BENTRUP: That's perfectly all right with us.

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MR. HELTON: Would you like me to read that?

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MR. COOLEY: I think you ought to read paragraph

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two at this time in to the record.

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All right, Duane, go ahead with Paragraph two.

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MR. HELTON: All right, paragraph two states:

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The permanent pool shall ride on top of the conservation pool. It shall not reduce the amount of water storable in the conservation pool and it shall not invade the flood control space by more than 10,000 acre feet as required by Public Law 89-298. The permanent pool will be allowed to reach a maximum size of not more than fifteen thousand acre feet.

MR. COOLEY: Is this the Kansas consensus at this Now, this vote is -- I am not asking for a binding vote on paragraph two, because we will obviously have to make a final vote on the entire criteria, but is paragraph two now in acceptable form for Kansas? MR. REEVE: Yes. MR. BENTRUP: Yes. MR. GIBSON: Yes. MR. COOLEY: There is a Kansas consensus. Is there a Colorado consensus? This is not a binding vote. It is a way of proceeding. Okay. There is a Colorado consensus. apparent to me that the changes in paragraph three go more to grammar than to substance. Have they been discussed, and are they acceptable? From my standpoint -- from our MR. HELTON: standpoint. MR. COOLEY: It appears that they are acceptable. Please read paragraph three, with the changes in the Kansas redraft. MR. HELTON: Okay. The operation of the conservation pool is prescribed in the Arkansas River Compact -- I better start all over --The operation of the conservation pool as prescribed

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in the Arkansas River Company shall continue as if the

permanent pool does not exist. 1 MR. COOLEY: There is an apparent consensus from both states. 3 Paragraph four has -- there appears to be a question as to perhaps style or substance. What has been 5 decided here, Duane? Do you know? 6 MR. HELTON: Well, I would recommend that Mr. 7 Gibson's language, with one insert I would like to add, in 8 the third line between the word "owned" and "by", I would like to insert "or control", so that sentence would read: 10 The permanent pool shall be established initially 11 and thereafter maintained by replacing evaporation losses 12 with water that is available under water rights owned or 13 controlled by the State of Colorado. 14 MR. COOLEY: And the next sentence, please read. 15 The use of water for this purpose MR. HELTON: 16 from any source by the State of Colorado must be approved by 17 formal resolution by the Arkansas River Compact Administration. 18 MR. COOLEY: Is there a consensus from Kansas as 19 to this? 20 MR. GIBSON: Mr. Chairman? 21 MR. COOLEY: Yes, sir? 22 MR. GIBSON: Would you give me an example of 23 controlled by? 24 25 MR. HELTON: Okay.

MR. SPARKS: We might lease water at times; we might just buy it outright for a particular year, if the permanent pool is getting low, we might just purchase water for that year.

MR. GIBSON: Thank you.

MR. COOLEY: With that explanation, is there apparent --

MR. REEVES: Yes.

MR. COOLEY: -- consensus? There is an apparent consensus as to paragraph 4. Paragraph five would appear to contain an improvement as to style. Mr. Helton, what have you achieved over the noon hour as to this?

MR. HELTON: I agree with the language which I think it is an improvement.

MR. COOLEY: All right. Would you please read into the record the paragraph as presently agreed to.

MR. HELTON: Net evaporation from the additional reservoir surface area resulting from the addition of the permanent pool to the conservation storage shall be charged against the permanent pool storage. The net evaporation rate shall be seven-tenths of the measured pan evaporation less the measured precipitation. During times when no conservation water is in storage, the permanent pool shall be charged with all the evaporation.

MR. COOLEY: As to this I would take it there would

be no controversy from either State. There is an apparent consensus as to the paragraph five. Please proceed to the preamble part of paragraph six.

MR. HELTON: The Arkansas River Compact

Administration shall cause a daily accounting of water in

John Martin Reservoir to be made in order to insure that

the same amount of water will be available for release from

the reservoir as if the permanent pool does not exist.

MR. COOLEY: Now, as to that, it would appear that the changes that you have read are an improvement as to style and do not go to substance. There is an apparent consensus as to that preamble paragraph.

Would you please go to Paragraph A?

MR. HELTON: Total storage in John Martin Reservoir shall be determined daily at a time designated by the Arkansas River Compact Administration by applying the reservoir elevation obtained from a continuous water stage recorder, or a non-recording staff gauge when data from the continuous water stage recorder is not available, to the latest adopted capacity table.

MR. COOLEY: Say, I'm going to help here, and use my Latin -- when data are not available and that will be my contribution for the day. These, I would take it, would be improvements and refinements as to style and do not go to substance, and there, I think, is an apparent consensus

as to paragraph A, and no-one has objected to my Latin. 1 Paragraph B? 2 MR. HELTON: Paragraph B. Permanent pool inflow 3 shall be determined by a representative of the Arkansas River 4 Compact Administration. 5 MR. COOLEY: Any questions as to B? 6 MR. HELTON: I would like to add, if I can: 7 in cooperation with the Colorado State Engineer. 8 MR. GIBSON: Mr. Chairman, would the gentleman 9 please explain what he means with the cooperation with the 10 State Engineer? 11 MR. HELTON: I think it would be impossible to make 12 a determination of water -- transporting water from point A 13 above John Martin to John Martin, without the cooperation 14 of the State Gneiner. 15 The State Engineer is going to assess 16 MR. SPARKS: 17 a loss. 18 MR. GIBSON: I think here, the only thing I had in 19 mind, a representative of the Arkansas Compact Administration. they could in effect then sit down with the State Engineer, 20 21 and he is going to do the work, you know, and if they wanted 22 to have a little extra help with the G.S., they could have it, and they are not bound by the G.S. and the State Engineer's 23

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MR. HELTON:

Except the State Engineer -- yes, that s

force.

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Ī right, but the State Engineer under State Law, is responsible 2 for --3 MR. COOLEY: Duane, embodied in this, it seems to me, is that the representative of this Commission is going 5 to use the best available sources, best available data, and 6 is going to do the best possible job he can, and I wonder if 7 we might not do without your addition? 8 MR. HELTON: Okay. 9 MR. SPARKS: I don't see it makes any difference, 10 but instead of a representative, why don't we say, representatives of Arkansas or the Compact Administration? 11 12 MR. COOLEY: It appears that that change has been 13 accepted by the Compact. I think there's a consensus as 14 to apragraph B. 15 Paragraph C, there are no apparent changes 16 suggested, but it should at this time be read into the record. 17 MR. HELTON: Permanent pool storage shall be 18 calculated by adding the permanent pool inflow during the 19 previous day to the permanent pool storage at the beginning 20 of the previous day and deducting the net evaporation during 21 the previous day. 22 MR. COOLEY: There is an apparent consensus as 23 to paragraph C. 24 Paragraph D appears to -- it first claims to have 25 some possible improvements as to style. Have you discussed

these and reached a conclusion.

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MR. HELTON: They are find. I agree, they are improvements.

MR. COOLEY: Let's then have you read paragraph D with the apparent improvements in language.

MR. HELTON: During times when water is in conservation storage, the actual volume of conservation storage shall be determined by deducting the permanent pool storage from the total storage. Releases of water from conservation storage and releases of river flow shall be made as provided in the Arkansas River Compact.

MR. COOLEY: There is apparent consensus as to paragraph D.

What, gentlemen, have -- conclusions did you reach during the noon hour as to paragraph E?

Carl, why don't you report on your discussions, if you would, sir. Mr. Bentrup?

MR. BENTRUP: We have paragraph E, we have changed it to read this way:

When the conservation pool has previously been declared empty, that water in storage in excess of 10,000 acre feet shall be subject to the control of the Arkansas River Compact Administration.

After the word "in excess of" we inserted "10,000 acre feet" And strike the words -- the rest of the "the calculated volume of the permanent pool storage."

MR. COOLEY: I think I follow --1 MR. BENTRUP: You want me to read it again? 2 MR. COOLEY: Would you read it one more time? 3 MR. BENTRUP: When the conservation pool has 4 previously been declared empty, that water in storage in 5 excess of 10,000 acre feet shall be subject to the control .6 of the Arkansas River Compact Administration. 7 MR. COOLEY: Is there a Kansas consensus as to this 8 change? 9 MR. REEVE: Yes. 10 MR. COOLEY: Is there a Colorado consensus as to 1 T the change? 12 MR. SPARKS: I am not entirely clear on it, but 13 I don't see any real objection to it. 14 MR. COOLEY: The apparent consensus as to paragraph 15 E, as read into the record. 16 There is a suggested paragraph F. Mr. Bentrup, 17 what was the decision, if any, as to paragraph F. 18 MR. BENTRUP: We struck paragraph F. 19 MR. COOLEY: The proposed paragraph F is out. 20 happened, if anything, Mr. Bentrup, to the paragraph 21 heretofore F -- paragraph 7 -- isn't that mooted? 22 MR. BATES: Was E, but is now deleted. You say 7, 23 but E is what it was, and this one, E, has taken it's place. 24 MR. COOLEY: Yes. We are on the next paragraph now 25

MR. BENTRUP: Then F has been deleted. 1 MR. COOLEY: F has been deleted, and 7 is now out, 2 3 as well. MR. GIBSON: Seven is out, as well, because --(Discussion off the record) 5 6 MR. COOLEY: Now, the former paragraph 8 now becomes 7 paragraph 7. There have been no changes in it. Mr. Helton, 8 would you please read that paragraph now numbered seven? Can I make sure I understand what we 9 MR. HELTON: done with paragraph F? We have just taken it out? 10 MR. COOLEY: 11 Completely. MR. HELTON: We have eliminated the old paragraph 12 seven? 13 MR. COOLEY: F is out; seven is out. 14 15 MR. HELTON: 8 is now seven, not changed. 16 MR. COOLEY: And you are about to read it. 17 MR. SPARKS: Wait a minute. We have got two 7's 18 now -- the old one and a new one, or is it? What is that? 19 (Discussion off the record) 20 MR. COOLEY: Now, read the paragraph beginning 21 "Nothing --" 22 Nothing in these criteria shall be MR. HELTON: construed so as to limit the authority of the Chief Engineers, 23 U. S. Army Corps of Engineers, to operate John Martin Reservoir 24 25 for the primary purposes of the prevention of floods and the

preservation of life and property. 1 MR. COOLEY: The next paragraph? 2 Paragraph 8. The additional costs to MR. HELTON: 3 the Administration of making the daily accounting and the 4 necessary record keeping resulting by the creation of the 5 6 permanent pool shall be borne entirely by the State of 7 Colorado and such monies shall be paid to and remain under 8 the control of the Arkansas River Compact Administration. 9 MR. COOLEY: Now, I detect the skillful draftmanship of Mr. Guy Gibson in the changes in this paragraph. Are they 10 acceptable to Colorado? 11 MR. SPARKS: Well, I don't know how we're going 12 to -- I don't know that the Compact Administration is going 13 14 to have any expense at all in connection with this. I 15 don't see how the Compact Administration is. MR. COOLEY: I detect that the additional sentence 16 17 and a half may be just nails -- more nails into this thing 18 and may not add a great deal to it, if you don't take offense 19 at my comments, Mr. Gibson. 20 MR. GIBSON: Which one is that? 21 MR. COOLEY: If Colorado is to bear the entire expense I -- just as a matter of drafting, I wonder if the 22 23 next sentence and a half here are necessary. 24 MR. GIBSON: Well, they are going to pay the expense.

Now, the Compact's going to -- we have any rights they might

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1 have under the Compact, to have any say about what time of 2 day they are going to read those gauges, how often, as long 3 as they control the money, they are going to do about as they 4 please, aren't they? 5 MR. COOLEY: No. I think -- maybe -- I don't want 6 to advocate these changes -- that's not my job; in fact, that's 7 the opposite of my job. 8 MR. GIBSON: Where will the money go? They will 9 make their own provisions about reading the gauges up there. 10 That's covered by another part of the MR. COOLEY: 11 criteria, it seems to me, back in one of the other sentences 12 you have referred to. 13 MR. GIBSON: I would appreciate it, Mr. Chairman, 14 if you would point that out to us. 15 MR. TEMPEL: As I see it, the expense would be 16 borne by the State of Colorado. 17 MR. SPARKS: Direct. We can't bear the expense and 18 also pay it to the Administration. 19 MR. HELTON: Of course, if other people can do it 20 to the satisfaction of the Compact Administration, there 21 wouldn't be any expense, there wouldn't be any monies 22 transferred, but if the Compact Administration has to hire 23 somebody, then that would show up as a line item in the

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budget. I think that's what you were intending, wasn't it?

MR. GIBSON: My question is, how is this going to

operate? In other words, are we going to have, as we do at the present time, you folks are going to have the State Engineer or somebody read those gauges up there, read this, do the computing and tell the Compact what it is, or is the Compact going to have somebody read the gauges and do the computations and the money will come from the State of Colorado, through the Compact to pay for that?

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MR. COOLEY: Guy, if you please, turn to paragraph six on the first page, down toward the bottom of the first page of the criteria. The Compact Administration is going to cause the daily accounting of water in the reservoir to be made -- and then jumping to the other one -- the additional costs of the Administration are going to be borne entirely by the State of Colorado.

MR. GIBSON: All right. Well, those that are going to pay that extra money agree that that condition, and actually means that the money will be paid into the Compact for them to pay for the cost, or what is their thinking on it?

MR. SPARKS: Well, of course, the Corp of Engineers keeps a daily record, or keeps records -- continuous records, on the John Martin Reservoir. Those records are available constantly. Do we have to rely upon the Corps for the basic data of what is in the reservoir and the evaporation, the pan evaporations -- those are the two major factors. Now,

the inflow has to be measured by the Colorado State Engineer in order to protect other water users. He's the one that measures any inflow, so those are the only people involved that I know of, in this.

MR. GIBSON: All right. You have a representative here from the Colorado State Engineer's Office?

MR. SPARKS: Yes. Mr. Jesse.

MR. GIBSON: Are you going to furnish the Compact daily what those inflows at those two stations are, and what percent is water under this agreement for permanent pool and what percent is administrative? Now, if we asked you to do that on the basis of eight o'clock every morning, to correlate with the eight o'clock time, I believe the Corps reads their station, and pan evaporation, so that we will have a permanent pool criteria to go by, as set forth herein, can you furnish us that kind of information?

MR. JESSE: I don't understand the question.

The stations in question I don't believe exist now.

MR. GIBSON: Well, we are talking about that it's there. Mr. Sparks has indicated that you can do these things and I am just asking you. As I see it, this is what needs to be done in the long run.

MR. JESSE: If the gauging stations did exist and it was within our capability of interrogating them at eight o'clock in the morning, we would certainly furnish it to the

Compact Administration and to anyone else.

MR. GIBSON: I think that would have been a nice thing if you had left the word capabilities out, but you say if you are in your capability. It has to be done; the Compact wants this done, you know, this will have to be a special assessment on the State of Colorado and the State of Kansas to see it's done, or is there funds going to be paid into the Compact to see it's done? If it is not within your capability, then we can get someone else to do it.

MR. JESSE: I am not too sure I totally understand what we are talking about. We can't, of course, agree to do the impossible.

MR. GIBSON: I agree with you.

MR. JESSE: We will do whatever is within our power

MR. GIBSON: I am sure you will, Bob. That's not our question.

MR. SPARKS: In the administration of the decrees you have got to know how much water is being delivered to this decree on a daily basis, isn't that correct?

MR. JESSE: We need to know how much water is being delivered to every decree. Not all of them are accounted for on a daily basis. If this were necessary we would have to take it up with our State Engineer and the budgeting people to collect the necessary personnel and equipment and recording apparatus as needed.

MR. BATES: Mr. Chairman? In regard to this, this is all through here, it makes the statement that this will be done on a daily basis, and so I mean -- if the State of Colorado does not do it on a daily basis, then it would more or less null and void this agreement, so as I see it, they would have to do this.

MR. COOLEY: Well --

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MR. BENTRUP: If you have a daily record as of right now, the only rights we are talking about are the Muddy Creek right and there is no gauge there yet. That would be the only one.

MR. TEMPEL: Within the Court Decree, Muddy Creek - MR. SPARKS: Yes. We do have a gauge. We have a gauge on Muddy Creek.

MR. BENTRUP: Yes. That's what I mean. That's the only one we are talking about right now. Most of them, there will not be operating and won't be any water there. On the days when it's furnishing water, it will have to be read at a certain specified time. Would it have to be eight o'clock in the morning, or --

MR. GIBSON: All of it has to be correlated. If the Corps is reading theirs at eight, it would seem to me either to disrupt their's to accommodate something else, but not to disrupt the Corps -- and I have not visited with the Corps members about this at all -- their reading, it would

seem to me the others should be read and correlated at the same time. If you go to the definition of how you are going to figure that permanent pool, then it all has to be done at the same time and correlated.

MR. COOLEY: That part, I am sure, is clear. Fortunately, as well, the costs that we're talking about are those additional costs. Because, for example, the costs of record keeping by the Engineer -- the State Engineer, that are already undertaken will not be an additional burden upon anyone. They are already being done, and it's the kind of correlation cost that you are talking about that become the additional costs. Is there any objection to the language that those monies go through the Treasury of the Compact?

MR. SPARKS: Well, see, the problem is, we will do this with existing personnel, or if we have to put on additional personnel, we'll do it, but if we are going to do it, then we are going to have to do it with existing personnel. We can't hire -- I don't think there's any point in hiring anybody to do this separately, either. Then we will have a cooperative agreement with the Geological Survey where they include it in our gauging program, or we will do it through the State Engineer's Office, one of the two, but in either event, the money will be furnished directly by the State of Colorado, and I don't see any point in -- we can't furnish that service and also pay money into the Administration. If

we want to put in here in the event that the Administration incurs additional expenses, that we will pay that into the Administration.

MR. COOLEY: Let me try one on you, Mr. Sparks.

There seems to me would be additional costs, both to the

Administration and to the State and would these words solve

the problem for everyone? We are talking about the additional

costs shall be borne entirely by the State of Colorado -
continuing on with the changes and such monies to the extent

not paid by the State to existing agencies shall be paid to

and remain under the control of the Compact Administration.

Would that solve the apparent dilemma? Some of these additional expenses might well be paid in increases to the State Engineer. I would suppose, and to the extent they weren't paid to the State Engineer, somewhere else they perhaps should go through the Compact Administration. Would that solve the problem?

MR. BATES: Well, my question here is, on this, we are talking about something that Felix Sparks is not anticipating additional costs to the Administration -- he doesn't anticipate any additional costs to the Administration

MR. SPARKS: No. The Administration is not paying any costs today for anything, other than a Secretary.

MR. BATES: But if there are additional costs in this situation, if there are additional costs to the

Administration, then I think we should have something like this.

MR. SPARKS: Yes.

MR. BENTRUP: That's exactly what it says now.

MR. BATES: Yes. So ninety-nine chanes are that this paragraph will never become useful.

MR. TEMPEL: It says additional cost to the Administration of making a daily accounting and the necessary record keeping resulting by the creation of the permanent pool shall be borne entirely by the State of Colorado, and gosh, I can't help but think -- it says additional cost -- it says the administrating of daily accounting.

MR. SPARKS: We can't bear the costs and pay it over to the Administration, both.

(Discussion off the record)

MR. BENTRUP: What we are talking about here are not the costs of the people you have now, but if some costs we do not foresee, that the Administration becomes involved in, then you would pay us for these costs.

MR. TEMPEL: Carl, it says for the additional costs

MR. BENTRUP: Yes, I know.

MR. SPARKS: But there is not a cost to the Administration.

MR. BENTRUP: We don't anticipate it.

MR. SPARKS: Maybe we could solve it this way:

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In the event there are additional costs to the Administration We don't anticipate any costs, but in the event there are.

In the event there are additional costs to the Administration for making the daily accounting and the necessary record keeping, they shall be borne entirely by the State of Colorado, and such money shall be paid to and remain under the control of the Arkansas River Administration.

It would read, in the event there are additional costs to the Administration for making the daily accounting and the necessary record keeping resulting from the use of the permanent pool they shall be borne -- the costs -- entirely by the State of Colorado, and such money shall be paid to and remain under the control of the Arkansas River Compact Administration.

MR. COOLEY: There is a Kansas consensus then?

MR. REEVE: Yes.

MR. BENTRUP: Yes.

MR. COOLEY: And a Colorado consensus? There is a Kansas consensus and Colorado consensus as to this language.

Paragraph nine, any modifications of these operating criteria must be approved by the Arkansas River Compact Administration.

Is there a Kansas consensus on this language? It seems an improvement. Colorado consensus? Improvement there.

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MR. GIBSON: Now, Mr. Chairman --

MR. COOLEY: Mr. Gibson?

MR. GIBSON: I didn't add anything, but I have a question. I am sure it must be in this Court Decree someplace, but let's say for some reason or the other this thing falls through for lack of a better word, then should there be some clause here that failure for the Court Decree to be carried out or something here, this becomes null and void?

MR. COOLEY: Well, Mr. Gibson, it seemed to me, just recalling from the last Garden City meeting, that the style of these criteria were to be drafted in such a manner that Colorado might have more than one string to it's bow, that if they weren't successful in one purchase that they might try another and do the same — that's just speaking from my recollection of what was said at Garden City.

MR. GIBSON: I have no real hard feelings one way or another. I only asked the question.

MR. SPARKS: There's no other way to do it except in accordance with the Court Decree.

(Discussion off the record)

MR. SPARKS: There's no other way.

MR. BENTRUP: And you still own the rights you purchased.

MR. SPARKS: That's right.

(Discussion off the record)

MR. COOLEY: Are there any other questions on the three pages only of the permanent pool operating criteria, directing the question to the State of Kansas?

Are there any other questions on the three pages only of the permanent pool operating criteria, directed to the State of Colorado?

MR. SPARKS: I don't have any.

MR. TEMPEL: I don't have any.

MR. BATES: A question I want to be sure I understand and that's this paragraph 4, just referred to. Nothing in here has approved of any waters as available to this establishment or maintenance of a permanent pool.

MR. SPARKS: This does not refer -- this is simply operating criteria for whatever waters may be put in there; it doesn't refer to any specific waters.

MR. BATES: And any waters will have to be approved by this Compact Commission prior to any storage in this -- that this pool --

MR. SPARKS: That's the way I read it.

MR. BATES: Okay. You are just referring to this criteria. All right.

MR. COOLEY: The three pages of the criteria; now, it's -- it seems appropriate to me that we pay attention at this time to the two page resolution concerning the permanent

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Because of the importance of this, I am going to continue on with this and request the Manvel to stand by, and 4 go down through these. I notice that we have worked hard on the resolution part at the Garden City meeting, and I'll 5 6 ask if there is any question by either State as to the first whereas paragraph, beginning the States of Colorado and Kansas -- is there any Kansas question as to this part? MR. GIBSON: Well, you want to go into these modifications on page two? MR. COOLEY: No. I am doing them a paragraph at

a time.

MR. GIBSON: All right. The first paragraph number. MR. COOLEY: The first paragraph. The apparent consensus is the first paragraph. The second paragraph, said Compact specifically provides -- is there any question as to that paragraph? The second paragraph specifically provides? No question as to the second paragraph.

The State of Colorado desires to create a permanent Is there any question as to that?

MR. BATES: There's no question but what they do.

MR. COOLEY: There is a consensus as to that paragraph. The State of Colorado owns or controls good and valid water rights.

MR. BENTRUP: As of right now -- wait a minute ---

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1 Muddy Creek, we don't know what it will -- I doubt if that will be sufficient. 2 MR. SPARKS: I don't think that clause adds 3 4 anything to the resolution at all. Strike it. MR. BENTRUP: No. 5 6 MR. SPARKS: I think it should be stricken out 7 and not affect a darned thing. MR. COOLEY: There is a consensus that we delete 8 9 that paragraph that says, the State of Colorado owns or 10 controls good and valid water rights. MR. SPARKS: That's subject to some question at 11 this time. 12 (Discussion off the record) 13 MR. COOLEY: All right. The Public Law 89-298 14 whereas paragraph, is there any question as to that, from 15 16 Kansas? There is a consensus as to that paragraph -- the 17 paragraph in the bottom of the page, benefits to the people 18 of the States of Colorado and Kansas. No question? 19 MR. BENTRUP: That would be perfectly all right 20 to say Kansas residents got free fishing privileges, or 21 something. 22 (Discussion off the record) MR. SPARKS: Scratch out just the word generally. 23 24 MR. COOLEY: Generally. We have too many generals around here -- I have noticed that problem. There is an 25

apparent consensus of getting rid of the general. Turn the 1 page. Operating criteria, as Exhibit one, is there a 2 3 consensus as to that? All right. The first paragraph, operating criteria, 4 has passed muster. 5 MR. BATES: Mr. Chairman? 6 MR. COOLEY: Yes, sir. Harry. 7 MR. BATES: Would it be out of order to ask on 8 this particular paragraph, this audience, if they have any 9 remarks on it? 10 MR. COOLEY: At the rate we're going, I would like 11 to keep digging here and there will be a number of things 12 come up at the proper time. I'm afraid if we turn this 13 crowd loose there would be no controlling them, is my 14 problem. 15 The next paragraph, it seems to me, has got some 16 The recitals as to civil action -- is it 1434 -problems. 17 that's being appealed, is that what you are alluding to 18 here? Mr. Sparks, is that what's going on? 19 That's not being appealed, no. MR. SPARKS: No. 20 That's final. 21 MR. COOLEY: Okay. Then, do you have any question? 22 Is there a consensus as to the paragraph dealing with the 23 Decree in 1434? 24 Apparent consensus as to that paragraph. 25

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1 The next to the last paragraph, I am embarrassed to say I have a question as to this one. Let me bring up my 2 3 problem now, Mr. Gibson. If possible, I would like the 4 language of this Resolution to as closely as possible use the exact language of the Compact, and the exact language of the 5 6 Compact are prescribed procedures for the administration of 7 this Compact provide that where such procedures involve the operation of John Martin Reservoir they shall be subject to 9 the approval of the District Engineer. Therefore, for the -and the last line of that paragraph I prefer the language, 10 11 procedures for the administration of -- no, by golly, you 12 can have it either way in the same -- I see your point. 13 spoke too hastily. They are the same language in the same 14 sentence that the Compact -- either one is the language 15 of the Compact. I have got no objection to that. 16 Does Kansas agree to your changes? Are they 17 acceptable? 18 MR. GIBSON: Carl? 19 MR. BENTRUP: Yes. 20 The last paragraph I would take MR. COOLEY: Okay. 21 it that Mr. Sparks would want the words changed to owned 22 or controlled? 23 MR. SPARKS: Right. 24 MR. COOLEY: -- by the State of Colorado. 25 MR. SPARKS: Right.

MR. COOLEY: With the additions of the word "or 1 controlled" by the State of Colorado, is this paragraph 2 acceptable to Kansas? 3 MR. BENTRUP: 4 Yes. MR. REEVE: Yes. 5 Is it acceptable to Colorado? 6 MR. COOLEY: Then 7 it's acceptable. I would -- I would think that procedurally that I should entertain a motion that the John Martin 8 9 Permanent Pool Operating Criteria, the three pages, be adopted and that after the vote of both states on that motion 10 11 that there be a -- if the vote should be favorable, there be a resolution concerning the Permanent Pool as a way of 12 13 proceedings. I don't know how else to do it. That's a way of doing it and let -- I will therefore entertain a motion 14 by anyone here that the three page operating criteria be 15 16 adopted and this will be subject to a vote of each state. 17 MR. TEMPEL: Mr. Chairman, I would so move. 18 MR. COOLEY: It has been moved -- I am not sure 19 that we require a second, but if anyone cares to second. 20 MR. REEVE: On the spirit of cooperation, let me 21 enter a second to this. MR. COOLEY: Mr. Reeve has entered a second to 22 the motion. I would then call for a vote -- call for a 23 24 Colorado vote first? 25 MR. SPARKS: Aye here. MR. BATES: Aye.

1 MR. COOLEY: I think that you want to say something. 2 MR. BATES: No. I think that everything I have 3 is already covered. 4 MR. COOLEY: Colorado has voted aye. I call for 5 the vote of the State of Kansas. 6 MR. BENTRUP: Kansas votes aye. 7 MR. COOLEY: The State of Kansas votes aye. 8 Permanent Pool Operating Criteria have been adopted by the 9 Compact Administration. 10 At this time I'll call for a resolution -- for a 11 motion for the Resolution concerning the John Martin Reservoir 12 Permanent Pool. 13 MR. TEMPEL: Mr. Chairman, I would move for the 14 adoption of the Resolution to adopt the John Martin Permanent 15 Pool. 16 MR. COOLEY: Is there a second? 17 MR. REEVE: I'll second the motion. 18 MR. COOLEY: The motion has been made and seconded. 19 I would like to call for the vote of the State of Colorado. 20 MR. SPARKS: Aye. 21 MR. TEMPEL: Aye, with the amendments. 22 MR. BATES: Aye. 23 MR. COOLEY: I would like to call for the vote of 24 the State of Kansas. 25 MR. BENTRUP: Aye.

MR. COOLEY: The State of Kansas has voted aye. 1 You know, Mr. Chairman --MR. GIBSON: 2 3 MR. COOLEY: Yes, sir? 4 MR. GIBSON: -- might I suggest that you might want 5 to give some consideration in the minutes to showing, since 6 we drew up the rules and so on, that Colorado made a motion, 7 it was seconded by Kansas, rather than by individuals 8 seconded. 9 MR. COOLEY: I think that's a very worthy comment and I instruct the official reporter to make certain that the 10 minutes reflect this. 11 At this time I have got a few bookkeeping remarks. 12 13 (Discussion off the record) 14 MR. ROBBINS: Mr. Chairman, I would like to point 15 to the Compact Commission that the Resolution is dated the 16 13th day of August, and I believe it should be the 14th, 17 just for the record. 18 MR. COOLEY: Who invited him? Thank you, Mr. 19 Robbins. This will be shown as to be the 14th. 20 I have here, and I am going to distribute 21 to members of the Compact Administration, the resolutions from 22 many, many of the inhabitants of Las Animas and Lamar, 23 Colorado, which I would like you to just look over, urging 24 the creation of the permanent pool. These are petitions 25 that have been presented to the Compact Administration, signed

by hundreds of people in Lamar.

(Discussion off the record)

MR. COOLEY: I suggest we preserve the petitions with the permanent records of the Compact Administration, and let the record of the meeting reflect that a large number of petitions bearing hundreds of signatures, were presented to the Compact Administration.

MR. GIBSON: After they made the decision.

ME. TEMPEL: After they made the decision.

MR. COOLEY: Mr. Hibgee, you and your father have been faithful in attendance at the meetings and deliberations of this organization on behalf of the Manvel Canal. Your father was particularly courteous to us in Garden City, Kansas in that he allowed a number of other items to come before the meeting, although he was very anxious to give his presentation.

We want to acknowledge to you his courtesy to us at that time, and we -- it is our intention this afternoon to extend the same courtesy to you and to afford you whatever reasonable time you need to make your presentation to the Board.

MR. TEMPEL: Mr. Chairman, might I make a statement? Mr. Highee called me and because of the decision of the Board to hold the meeting at very high altitude, Mr. Highee could not attend. He said he was sorry, but he would

send somebody better, so Mike is here to present this, but Mr. Highee couldn't come to this altitude.

MR. COOLEY: Thank you, Bob. It remains to see whether he sent somebody better or not, and I know you will do your best. Please convey the regards of the entire group to your father. Come on up and make yourself comfortable, whatever is best for you.

MR. HIGBEE: I'll just stand here. Ed wanted to send his reasons for not coming, he had a heart attack a couple of years ago, so he sent his number two -- whether that's better or not, I don't know. We'll come to see.

I would like to just read this; that's all I really have:

Request number one as presented at the previous Compact Meeting at Garden City, Kansas.

The Manvel Canal and Irrigation Company urgently requests that the 20,000 acre feet rule be amended.

It is obvious, if the John Martin Dam were not present, that, at times, the normal fluctuating river flow would permit the Manvel Canal to run the 54 cubic feet per second now adjudicated. At this time, the 20,000 rule does not allow a large enough release of water to include the Manvel Canal in the normal sequence of priorities.

We request that this rule be amended to permit the Manvel Canal to run at least part of their priority.

We would suggest at least three percent of the Colorado part 1 of the release. 2 In support of this request, we would like to 3 4 submit these figures: One, in an eight year average, before John Martin 5 storage, from 1935 to 1942, the Manvel Canal diverted 4,567 6 7 acre feet. 8 Two, in the irrigation season 1961 to 1962, 1,192 9 acre feet. Three, in 1970, zero; 1971, 8 acre feet; 1972, 10 11 693 acre feet; 1973, 1,221 acre fee; 1974, 336 acre feet; 1975, 32 acre feet; 1976 to date, 204 acre feet. 12 13 These figures were furnished by Lane Hackett and R. J. McGrath. 14 15 At the time of it's inception, we believed that 16 the John Martin Dam would behoove everyone by it's capacity 17 to haul floods and store water for more beneficial use. 18 We feel time has proven that the lesser river 19 flow has been injurious to the Manvel Canal and has changed 20 the rightful ownership of the water. We believe some 21 provision must be made to return this water to it's correct 22 destination. 23 It is impossible for the Manvel Canal to bring 24 about a water use agreement. Therefore, it must be the

responsibility of the Compact Commission to institute the

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necessary steps to permit the Manvel Canal to get 2.9 percent of the Colorado share of the John Martin Dam storage.

I would like to add the -- we felt that the attitude of the Commission has been sort of a light at the end of the tunnel for us, simply a place to come in the -- and air a grievance. There has been somewhat of a change, I think, in the past years and we want to thank you very much for your time and your consideration.

MR. COOLEY: Well, we have some questions from members of the Commission. Carl?

MR. BENTRUP: Mr. Higbee, when releases are 1,250 feet as allowed, when the storage is above 20,000 feet, can you then get your amount of water?

MR. HIGBEE: Lane, can we?

MR. HACKETT: Have you? At times. In good years they do receive some water and fulfill commitments under the Compact Rules and Regulations, but without a good average winter moisture period below John Martin Reservoir and a good storage impounded in John Martin, where all ditches -- Colorado ditches, are running water, and with this in mind, return flow to the river her permitted in the past to owners, Manvel Canal's priority, or priority part of the time. When we had a percentage basis they were entitled to some water, but it took waters away from senior priority rights. The senior priority rights in District 67 gave water on a percentage

1 agreement in order to include all the canals, and this was way back in 1943 or 1949, the original percentage agreement. 2 3 MR. BATES: When was it broken? 4 MR. HACKETT: Right here by Harry L. Bates, Pueblo 5 Canal. 6 I said when? MR. BATES: 7 MR. HACKETT: November 12, 1965. 8 MR. COOLEY: Pardon me just a second. 9 record show I am not interrupting anyone. I have been 10 informed of some of the factual basis of what the Manvel's 11 problems are and I have some grasp of the percentage agreement. Some of the people here are experts in this area 12 and have spent years in this matter and this dispute. 13 14 Nevertheless, there are probably four or five persons here who do not have the factual basis to even follow what's 15 16 being request, what the history is and what the problem 17 is and what is being sought, and I suggest that there is 18 someone here who can give a brief recitation of what this 19 entire problem concerns. Now, Lane, do you want to try it? 20 Duane? Would you like to try to give 21 Someone here ought to, however. Harry? Would 22 you like to just in a few words describe what the problem 23 of the Manvel is? 24 MR. BATES: Well, just like he stated, really, 25 the problem is the Matter of the total amount of release that Colorado's share of the Compact water, the total

releases will not, under this 20,000 second feet, nor under certain circumstances, the 12,500 -- or 1,250 second feet, release will not fulfill all Colorado priorities and Kansas forty percent share, also.

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MR. COOLEY: The Manvel has, let's say, a junior priority which lies downstream from the John Martin. times of high -- substantially high flow, prior to the construction of the John Martin, that relatively junior right would divert water on some occasions. After the construction of the John Martin Reservoir those unusually high flows would be trapped and captured in the John Martin. releases from the John Martin would be in accordance with the terms of the Compact and the Manvel's relatively junior right would not be satisfied, because of the hardship on the Manvel or for other reasons, I don't understand, apparently a Compact or Agreement between senior ditch rights downstream from the John Martin was agreed to, under which the stream would be administered by percentages and not by the straight priority system and such Agreement is not now in effect.

Is this a reasonable statement of the problem of the Manvel?

MR. BATES: That is correct, and just to clarify it as simply as I can. Now, Lane mentioned I was the one that broke the contract -- the agreement -- but it was an ...

agreement among all ditches and the State Engineer agreed that as long as all ditches in the -- below John Martin in Colorado were in agreement on a percentage basis, then the State Engineer would allow this water to be divided that way. Without such agreement among all the ditches, unanimous agreement, then we would have to go on strict priority basis.

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MR. HACKETT: Excuse me, Harry, the Compact reads such.

MR. BATES: Yes. That's right, and under this agreement all -- that all ditches entered into -- and somewhere around '48 or thereabouts -- early 50's anyway, the Buffalo Canal, which had a senior priority of 67 1/2 feet, sacrificed approximately half of that and accepted on a percentage basis an equal of something like thirty-five second feet. Other ditches then likewise and also other ditches -- not only the Manvel, but some other ditches, got a larger amount than their decreed rights, and this was the way we operated for a number of years. How this happened, I don't know -- I had nothing to do as far as the adoption and acceptance of this agreement, but it was, insofar as the Buffalo Canal was concerned, it was not right, and as Lane said, it was broken, and in later years they have tried to get together on this matter to get another agreement. Buffalo agreed to take a lesser amount than the 67 1/2, but

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not to the amount that it was before.

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Other ditches would not go along with it and so consequently we have no agreement among the ditches, so we are -- that's where our problem is.

MR. HACKETT: The latest -- I had two separate occasions, after the first agreement was broke, that we are referring to, the Buffalo Canal in 1965, and I began work for the State in 1964, and this agreement was broke in 1965. two different occasions we got representatives in District 67 from each Ditch Company and reworked, and a new percentage basis and some of them worked temporarily. The first one worked temporarily for some time and it was abolished or terminated by the Ft. Bent Ditch Company, which is just below John Martin, so we made the second effort and we couldn't get full agreement among the ditches for a percentage basis, so therefore under the Compact Rules and Regulations, without a percentage agreement or some Agreement -- operable agreement on conservation water, we have no alternative -- or I have no alternative as your Secretary, but to administer water on a priority basis under the State Engineer.

MR. COOLEY: It would appear that the unanimous consent would be necessary otherwise and I would suppose that the word termination would be the better usage.

Mr. Helton, you had your hand up.

MR. HELTON: I just wanted to supply some numbers.

I went through a tabulation of decrees in District 67. The river flow would have to be approximately 867 second faet before Manvel could come in on priority basis. Under Compact Colorado can demand releases of 750 second feet when 20,000 acre feet or more is in storage, plus releases of river flow. Basically you would have 20,000 acre feet in storage, 750 release storage water, plus a minimum of 100 second feet in the river going through the Reservoir before the Manvel would come on priority basis.

(Discussion offthe record.)

MR. SPARKS: What has been suggested, to do this we would have to amend the Compact. There is no other way. We are bound by that Compact, and we can't amend -- the Administration cannot amend the 20,000 acre rule, because that's specified in the Compact. The only way it can be done is by amendment to the Compact, which would require the consent of both Kansas and Colorado, and the United States. I would doubt that Kansas would agree to that, and I am not sure the Colorado people would, either, so I don't know. We are in sort of a quandary in this matter, because the Administration itself is helpless to do anything about it except by recommending an amendment to the Compact which would have to go back under the respective State Legislators and to the Congress.

MR. COOLEY: I think, Mr. Sparks, your remarks are

right on the target and I agree with them. It seems to me 2 that there are two other possible benefits that the 3 Compact Administration could afford and one of them now is and that is for there to be an airing and an understanding 5 of the problem, and secondly, that if a great hardship is worked on the owners of the Manvel Canal and it was I thought 7 a rather moving thing to hear Mr. Higbee's speech in Garden 8 City, brief though it was -- it may be that some form of 9 tacit encouragement could be given to the accomodation 10 canal within the State of Colorado by the unanimous consent 11 of the owners of water rights in that -- in that District. 12 Of course, neither of these are legal remedies within the 13 Compact, but it seems to me that they -- that they well might 14 deserve some of our time, and I think that was one of the 15 purposes because there is a real question and I am sure the 16 Higbee family is aware of the degree to which the Compact 17 can afford any relief at all.

Does anyone else have any comments to make on this fairly serious problem of the Manvel Ditch?

Yes, sir, Mr. Helton?

MR. HELTON: Mr. Chairman, I have a proposal to make on behalf of the Amity Mutual Irrigating Company that may have some bearing on this problem. If you would like at this time I will do that.

MR. COOLEY: In the next three minutes we will get

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to such a proposal. Before Mr. Helton comes in with the Amity problems, are there any more comments on the Manvel problem?

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Mr. Higbee, do you have anything further you would like to say at this time?

MR. HIGBEE: Only one thing, that whenever you place a dam in, I think it's parallel somewhat with other situations whenever you place a dam in and control the flows out, why there is a certain degree of ownership change, and I sure think that we need to realize this in the future in regulations and have an eye for rectifying them.

MR. SPARKS: I might comment on that point, Mr. Higbee. There is no question but what this Compact changed the rights of Colorado water users. Prior to the Compact, of course, the Manvel did -- and other ditches, got greater diversions for the simple reason that we weren't obligated to deliver water to Kansas. When we obligated ourselves through the Compact, to deliver water to Kansas, this burden fell upon the Colorado water users in order of their priority and there is no question but what the Compact did interfere with your rights. There is no question about that. Not only yourself, but other water users in Colorado as well, but that's what an Interstate Compact does. And I think the only practical method -- I just don't see any possibility of amending the Compact.

MR. HIGBEE: The only thing that's pointed out by
Mr. McGrath in one of the figures that he gives out, is
that in this eight year period before the John Martin began
storing water, the figures are pretty well correlated. All
the other ditches pretty well had the same acre foot diversions
until you get down to these very junior priorities, and then
these were chopped drastically, four to one, and sometimes
to nothing, and I realize your position, the difficulty you
have changing in the Administration. Still, I am using this
as a format to point that out in the hopes that some agreement
can be made in the Colorado group that I think the burden has
fallen somewhat unfairly on the junior priorities.

MR. SPARKS: Of that there is no question. The burden falls on the junior priorities. Every Compact we have had, the junior priorities are hurt. There's no question. You lose water -- you and others from a junior priority and from the State level we are very anxious to see that some agreement be arrived at in Colorado that would help solve the problem of junior priorities which did at that time lose water by this Compact. And we will make every possible effort we can to see that that burden is distributed as fairly as possible in Colorado, but that's going to fall on your own neighbors to do that. We can't do much at the State level.

MR. COOLEY: I would think that you had in effect

given encouragement to another effort, or any appropriate

effort to another realization of a percentage agreement to

administer the rights below John Martin in Colorado, out of

priority if unanimous consent can be obtained to such an accord.

MR. SPARKS: We certainly encourage it and I am

MR. SPARKS: We certainly encourage it and I am sure the State Engineer does, also.

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MR. HIGBEE: Let me add one more thing, just to clarify one thing, and I think Lane will agree with me.

Past agreements weren't broken necessarily because of the feelings the Manvel Canal was trying to hook somebody it was usually between two other groups -- we were kind of an innocent bystander, and kind of caught the water off the curb, so to speak.

MR. HACKETT: In fact, I might go a little further with that, if I may, Mr. Chairman.

MR. COOLEY: Please go ahead.

MR. HACKETT: In line with Mike's remark, that in order to furnish water to those junior rights in District 67, that the senior rights had bent over backwards and relinquished water under these percentage agreements which have operated, but it would cost senior rights -- senior rights did give water -- make water available to owners of those junior rights and without their agreement, when one of the seniors break that agreement why we are back on this old hang-up of senior water.

MR. COOLEY: Mr. Higbee, the Compact Administration i is glad that you came here and is ready to hear you or any of 2 your family or persons on the Manvel Canal now or at any 3 other time, and thank you for coming. We appreciate your 4 father's great courtesy to us and intend to give that 5 courtesy in return. 6 7 MR. HIGBEE: Just so you don't think this is a 8 family canal --9 MR. COOLEY: No. MR. HIGBEE: -- I think we have seven hundred 10 shares in the thing and fifty-two hundred, so there are many 11 other families involved. 12 13 (Discussion off the record) 14 MR. COOLEY: Now, at this time we will go to Mr. 15 Helton's presentation with respect to the Amity. MR. HELTON: Okay, Mr. Chairman. The Amity Canal 16 Irrigation Company would like to 17 18 (Discussion off the record) 19 MR. COOLEY: All right. Without objection, the Court Reporter will not transcript your initial presentation. 20 21 (Presentation by Mr. Helton for Amity Canal 22 Irrigation Company.) MR. COOLEY: We need a discussion of this proposal 23 of you or anyone else, Mr. Helton, to start this off. 25 MR. HELTON: Okay. I'll describe what would happen to these three conservation pools. With ten thousand

acre feet conservation pool, which is about what we had at the beginning of the irrigation season this year, Kansas would receive 5,400 acre feet as opposed to 4,000. The ditches in Water District 57 would receive 18,000 as opposed to 6,000. With twenty thousand acre feet conservation storage, Kansas would receive 9,400 as opposed to 8,000. The ditches in Colorado would receive 24,600 as opposed to 12,000. With 30,000 acre foot conservation storage, Kansas would receive 13,400 as opposed to 12,000. The ditches in Colorado would receive 30,600 as opposed to 18,000.

MR. COOLEY: Where is the water coming from? Is it the losses of the Great Plains Reservoir and the transportation system to it?

MR. HELTON: It corresponds to waters that would be diverted into the Great Plains Reservoir system. However, because of the winter storage program through the Southeastern Conservancy District, this water would be delivered out of our winter storage program for delivery to the Amity at John Martin or into the river for transportation to the John Martin.

It's a good deal for -- and they can actually develop more usable water through this proposal. I personally think it's a good thing for Water District 67 and for Kansas. I recommend that this Administration look upon it favorably.

1 MR. COOLEY: Are there benefits to the Pueblo Winter storage program? 2 3 MR. HELTON: I don't think that it has any effect 4 on the Pueblo winter storage program at all. MR. COOLEY: Mr. Thompson? 5 MR. THOMPSON: Mr. Thompson, from Southeastern 6 7 We have reviewed a preliminary draft of this, and it is compatible with the overall winter storage program in 9 Pueblo, because the waters involved are waters that acrrue 10 to the Arkansas River below Pueblo Dam, and it's just 11 merely a change in procedure from whether it is delivered 12 to the headgate of the Ft. Lyon Canal or the water is 13 delivered directly to John Martin Reservoir. 14 MR. COOLEY: What are the immediate apparent 15 negative effects of this proposal? 16 MR. HELTON: Well, from a State standpoint, we 17 are letting 1,400 acre feet across the State Line. Maybe 18 we can find some way to keep some of that. I don't think 19 there are any other negative benefits. I think it's a good deal for everybody concerned. I think we ought to encourage 21 it. 22 MR. COOLEY: Carl? 23 MR. BENTRUP: I am in favor of any plan that keeps 24 water in the Great Plains Region or in the John Martin 25 Reservoir. Where would this water be measured? __If _you put_

it into the --1 MR. HELTON: It would never go into the Great 2 Plains system. 3 MR. BENTRUP: That is if it did, would Ft. Lyons' deliver your water to the Great Plains? It would be measured 5 then at the Ft. Lyon headgates? 7 MR. HELTON: Right. MR. BENTRUP: And if this plan were adopted, it 8 would be measured and also with river loss to the John Martin 9 or how would that work? 10 11 MR. HELTON: Well, it would be delivered to Ft. Lyons headgate, but I don't think it would be carried by the Ft. Lyons. This is pretty customary procedure, to move water from point A to point B, and the State Engineer could really 14 go into more detail. 15 MR. SPARKS: 16 Your answer is yes, Mr. Bentrup. The water would be measured at Ft. Lyons headgate and would 17 be delivered to John Martin Reservoir on that basis, less river losses. 19 20 MR. BENTRUP: I'm in favor of that. MR. HACKETT: 21 It wouldn't be calculated losses; 22 it would be actual losses. MR. BENTRUP: I would not want to make a decision 23 on it right today. Neither do I want to put it off. I 24 25 would like to see a committee appointed to make a study on

it for some facts and figures on it. I am in favor of keeping any water in the river channel rather than sending them to the Great Plains. It helps everyone when there's a little more water.

MR. REEVE: From a practical standpoint, how would it be to try this thing one year and see how everybody likes it?

(Discussion off the record)

MR. POLLART: I would like to point out -- I am
Leo Pollart, President of the Amity Mutual -- that this
proposal for a one year trial period, and to answer your
question, this is water that is being diverted to us from
the winter storage program of -- or out of Pueblo. This is
the whole thing in a nutshell, as to where. It is merely a
matter of changing a point of diversion, I guess you would
say, rather than going to the Great Plains, of delivering it
into John Martin for more direct delivery down our canal.

MR. COOLEY: How long has your Board worked with this proposal?

MR. POLLART: We have been kicking it around for quite awhile, but I would say it has come to a head since the Garden City meeting and we are working in conjunction with the Pueblo storage as, you know, the Great Plains is entitled to sit in on these planning of the Pueblo winter storage program, and attempts to help to further that project and proposal, and carrying this in conjunction with it and help

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to decide whether -- or I guess you would say determine whether there will be any more winter storage programs in Pueblo.

MR. HELTON: Maybe it does have an effect on the winter storage program.

MR. POLLART: It could have a very definite effect on the whole river, as a whole.

MR. TEMPEL: Mr. Chairman, and Leo, why don't you tell them what happened -- it was last year, didn't you run water in that Keesee for about forty days and never did get any water to the Reservoir?

MR. POLLART: Well, this is a combination of events which did cost the Ft. Lyon and the Amity quite a little bit, but weather conditions and everything such as they were and then later on, when it proved unsuccessful, we traded horses and put water further upstrea and then drew it back, but it was very costly for both Ditch Companies and we are trying every which way to conserve and use water and Lord knows that District 67 is a short -- very short and every way we turn we are shorted again, and we are quite concerned about this thing. And it relates to a lot of other things, and so this is why we are asking Duane to present this today as a try to do something different than what we have -- the rut we have been stuck in the last thirty years since the Compact came about, and well -- this

is an opening move, that's all I can tell you.

MR. COOLEY: Mr. Tempel opened -- asked the question that I needed to have asked in order as an outsider to get some grasp on what's going on. The whole motivation of what you are proposing has to do with the efficiency of the use of large water rights that are owned by the Amity, does it not?

MR. POLLART: That's correct.

MR. COOLEY: And it's obvious to everyone else and just beginning to come through to me, that this matter proposes a more efficient use of water which will enable you in turn to seemingly pass benefits on to others.

MR. POLLART: Well, the way we figured it, maybe that say due to circumstances such as last year, or in a term of say thirty days delivering down the Kickinberg, which is eighty miles long, into Great Plains storage, then back into our systems, you run into a winter storm in the winter time, it's costly. Now, if we had open weather, a clear ditch, we have records to prove we utilize fifty-one percent of waters taken and stored and returned to the ditch. Like I say, we don't know the answers. We offered this proposal as a try for one year. If we see that we don't benefit more than we do, than going Great Plains, naturally we are going back to the Great Plains — that's all there is to it, with winter stored water.

1 MR. COOLEY: If this proposal that you're making is -- tends to the greater efficiency of water in the Arkansas 2. and if it has benefits to others than yourself, and if the 3 storage season is to be in December, it would appear that action should be considered at the meeting today. Is that 5 not so? 7 MR. POLLART: That's right, because it will help us to determine our stand and our position in conjunction 8 with the winter storage program at Pueblo as to what 10 decision and have a bearing on whether or not you might 11 say there will be a winter storage program in Pueblo. 12 MR. COOLEY: And if this Board were to act 13 today favorably to your proposal, this action would be 14 completely fruitless unless and until there were the unanimous accord of the water users as to the utilization of 15 16 the 600 cubic feet of water out of John Martin. Is that not 17 correct?

MR. POLLART: Yes. Yes.

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MR. COOLEY: Mr. Sparks, is the -- I'll address this to the entire Commission. Is the proposal put together with sufficient clarity and certainty that it is susceptible of being approved by the Compact Administration today in Aspen?

MR. POLLART: I might add that the total 600, with very little deviation -- not going over the 600 feet -- I am

quite sure could be arranged between the ditches below in 67.

MR. HACKETT: May I have fifteen seconds?

MR. COOLEY: Go ahead, Lane.

MR. HACKETT: After this proposal -- I am sure that all of District 67 had received this proposal prior to today, or as soon as possible after it was made up, by the Amity Canal, is that right, Leo? All the 67 --

MR. POLLART: All of them. It was presented at the meeting a week ago yesterday.

MR. HACKETT: The majority, let me put it this way -- the majority of the District in Water District 67 has had some communications on this, and some thought given to it and as far as I'm concerned, I feel if they had objections, any opposition as far as 67 was concerned, I would have heard about it.

MR. SPARKS: Well, that's an internal matter with Colorado which really doesn't concern Kansas, and that's something we will have to determine the attitude of the water users in Colorado.

The question proposed by the Chairman is whether or not this is sufficient that the Commission could act on it. I would say, yes, with reservations -- not with reservations -- yes, with conditions and by those conditions I mean that a specific operating procedure would have to be

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formulated which is acceptable to both Colorado and to Kansas.

I think there are other details that the Commission needs to be informed upon and right down to the specifics, and including whether or not this is agreeable to all the water users in Colorado, which as I say, is an internal matter with us, but the Commission, I don't think, can act on it and say yes, we are going on it and let it go with that.

I think we would have to follow up with at least a special committee that would oversee the proposed operation.

MR. ESGAR: Mr. Chairman?

MR. COOLEY: Yes.

MR. ESGAR: Arthur Esgar, Director, Ft. Lyon

Canal. I think it is an internal matter. I am interested

more in the matter of procedure with the -- the idea of the

Amity's proposal of the 15,000 acre feet being stored in the

Pueblo Dam. However, in the matter of efficiency, use of

winter water, we wanted to suggest that perhaps some procedure

other than the 82 feet per day be delivered for the winter

storage period. It seems to us that we are a winter

irrigation season -- the Ft. Lyon is. We irrigate in the

winter time and while we would be willing to enter an

agreement whereby Amity got the 15,000 acre feet, we would

like the privilege or the arrangement that we would get it

to them when the river was -- when it was too cold to irrigate. That was the benefit both of us receipt of the winter water proposal. If we will guarantee that 15,000 acre feet goes to Amity, but when it is possible to irrigate we would like to do the same as we have in the past, with Amity, use it in our system. Perhaps that should be considered. I am not sure I made this exactly clear, but to give them 82 feet every day cuts our headwaters down to where we are less efficient, whereas if we could use both of it when irrigation is possible and give them all of ours when it's frozen up, we would both derive the same amount of water.

MR. SPARKS: I certainly get your point. Again, as I say, some internal matters in Colorado that have to be finalized, including the problem of the Ft. Lyon, but I want to state in the eighteen years now I have sat on this Commission, this was one of the most encouraging signs I have seen and I think the Amity is certainly to be commended for coming forward with a proposal I think is deserving of a try, but whatever is worked out, it's going to have to be done in close cooperation with water officials of both States and I think we could act upon it with that understanding, that whatever is finalized it has got to be subject of the approval of the Compact Administration.

MR. COOLEY: Mr. Pollart, it's clear from what

you have said that procedurally the Compact Administration could make some form of approval for the machinery of this proposal with the condition subsequent as it is phrased, that the one hundred percent agreement be obtained before it takes effect.

Would an accommodation with the Ft. Lyons be out of line as an additional condition, subsequent, or could -- do you think that accommodation would and could be made?

MR. POLLART: I am quite sure it could.

MR. COOLEY: Okay. That ought to be good enough for one year experiment and further procedures right this minute.

MR. POLLART: I might add, the one reason we would if possible, like to get clearance for the go ahead is that I believe it's the 24th -- Tommy?

MR. THOMSON: Yes, sir.

MR. POLLART: We hope for indication as to whether or not a winter program will proceed in Pueblo, which gives us ten days. I feel that if the Commission would go ahead on a trial basis with reservations, as you said, that it would clear our feelings and help us — be helpful towards the completion of another year of trial winter program in Pueblo and I would encourage the go ahead of the Commission if they see fit, so that we can further our plans and strive to help, if we can, in the Pueblo program.

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1 MR. COOLEY: I understand what you are saying, Mr. Pollart. 2 MR. BATES: Mr. Chairman, I would make a motion, 3 4 if it's in order, at this time --MR. COOLEY: Well, let me go at it a different 5 6 way, with your leave, and it's simply this: 7 I think that we ought to look carefully at the 8 machinery and the qualification of this Board that would be 9 necessary before we entertain a motion that there ought to be a discussion of what are the things and what are the 10 11 steps that would have to be nailed out prior to any motion being made. I don't mean to -- I don't mean to throw 12 13 roadblocks into this. Frankly, the contrary. 14 Mr. Gibson, may we have your comments on what safeguards or items of machinery would be necessary before 15 16 such a proposal could be considered by this Commission? 17 MR. GIBSON: Well, I think Mr. Sparks expressed 18 it very well a minute ago in that -- that if I understood 19 Mr. Sparks right in that this matter should be referred to 20 an appropriate committee to come up and study this and with 21 the safequards and with the administrative procedure to 22 handle it. At the same time, I think if we are all in 23 agreement that this is worthwhile, we can go so far as to

indicate that subject to such conditions that might be

developed here in the near future, we go with the plan.

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Ŧ MR. COOLEY: Would you envision that the definition of the safequards was a more of a professional and engineering 2 procedure than one of substance and might well be referred 3 to professionals from both States, meeting together to work on the problem. Is that the way you see it? 5 б MR. POLLART: I think so, yes. 7 MR. GIBSON: Yes. That's the way I would feel about it. 8 MR. COOLEY: Pushing this farther -- would you think that someone from your_staff-or-yourself-and-someone from 10 11 Mr. Sparks staff or himself, would be those persons properly to work out the operative procedures and to define them? 12 MR. GIBSON: Yes. I think that's as far as it 13 goes, however, I think we would want to broaden it a little 14 15 bit to bring in the Secretary of the Compact and some of the 16 people that are involved want to meet at the same time. MR. COOLEY: Well, that -- with those comments, it 17 18 would seem to me that it would be perhaps appropriate that 19 one member of the Compact from each State, that one of the 20 professional engineering staff from each staff having 21 concern and the Secretary -- the five of them -- meet to 22 define those safeguards and items of language necessary

MR. REEVE: Mr. Chairman?

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MR. COOLEY: Yes, sir, Mr. Reeve.

properly to protect the interests of the Compact and --

1 MR. REEVE: Since you are going to have a meeting 2 of those particular groups along in the middle of September, 3 is it out of order -- would it be too late for those items to be considered at that meeting? 5 MR. COOLEY: September is a good bit before 6 December, and I think the attitude, if I can detect it --7 MR. REEVE: I believe they said something about 8 deadlined the 24th of August. 9 MR. COOLEY: Mr. Reeve, I think that your comment 10 is right, that is to say, if this Board should say these 11 five fellas will hammer out the safeguards, but when that 12 committee has hammered out the safeguards with each State 13 having veto power, we approve of what is sought to be done, 14 subject to those safeguards, that certainly the Amity and 15 the Ft. Lyon and the Pueblo storage project all would have 16 enough assurance -- that would be a reasonable assurance for 17 them, as I understand it. Is that right, Mr. Thompson? 18 Yes, sir. With this thought in MR. THOM SON: 19 mind on a time table. First of all, I want to assure Mr. 20 Sparks' comments, that's the most encouraging concept I 21 have seen in quite some time. I am sure we can work it out. 22 Also, you will have your regular annual meeting 23 in December, this being purely experimental, Mr. Chairman. 24 Between now and then, if there are grave misgivings or 25 whatever the case may be, in the Compact administration would

just say because of certain elements it is aborted -- it is aborted, then we would have to go back to the second phase 2 3 of either the Amity would go on into the Great Plains of 4 whatever the case may be, but I appreciate what Leo was 5 saying, as President of the Amity. They do want to come to the next meeting of the winter storage group on Tuesday, the 6 7 24th, with the confidence that this Administration is favorable to the concept, but again with the safeguards. In December, if it isn't there, you can kill it. 10 MR. COOLEY: Mr. Pollart, do you follow the 11 proposed procedures? Does it sound reasonable to you? 12 MR. POLLART: Yes. 13 MR. COOLEY: And does it sound reasonable to the 14 Ft. Lyon, as well? 15 MR. ESGAR: Yes, sir. 16 MR. COOLEY: All right, Harry, if on behalf of

MR. COOLEY: All right, Harry, if on behalf of Colorado you wanted to_make-a-motion-now-that-there be a committee of five that meet at the same day as the other meeting, to consider those safeguards, I'd sure entertain such-a-motion.

MR. BATES: I will so move.

MR. COOLEY: Now, this motion had to do with the creation of a committee. Does Colorado vote for the creation of such a committee?

MR. SPARKS: Yes.

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MR. BATES: Yes. 1 MR. TEMPEL: Yes. 2 MR. COOLEY: Does Kansas wish to vote on the 3 4 motion for the creation of a five man committee, each State to have a veto on that committee? That is part of your motion? 7 MR. BATES: Yes. That's what you said. MR. BENTRUP: Yes. 8 9 MR. GIBSON: Yes. 10 MR. REEVE: Yes. 11 MR. COOLEY: So a committee has been created of five men to consider this. 12 MR. SPARKS: We will designate ours right now. 13 Mr. Harry Bates, if he will accept it, representing Colorado 14 15 Commissioners and Mr. Duane Helton, representing the State. 16 MR. GIBSON: I would like to designate Carl for 17 this. 18 MR. COOLEY: Mr. Carl Bentrup will be the 19 representative from the Commission and the Engineer from the 20 State of Kansas will be designated later. 21 MR. GIBSON: Can I send you a name on that? 22 MR. COOLEY: You bet. Will be named later. 23 MR. GIBSON: It will be either Harry Mackey or 24 Jerry. 25 MR. COOLEY: Lane Hackett will be the fifth member

of the committee. At this time the Chair would entertain a 2 motion from Kansas that the proposal of the winter storage 3 of the Amity Mutual Irrigation Company be accepted as an experiment and subject to the findings of the five man committee. MR. BENTRUP: I would move. 7 MR. COOLEY: It has been moved by Kansas, approved 8 by Colorado. (Discussion off the record) 10 MR. COOLEY: I would like now to turn the meeting to matters of budget and Mr. Hackett has a mysterious item 12 about which he has been telephoning me weekly for many 13 Mr. Hackett, would you please proceed. 14 MR. HACKETT: Should it be necessary that I go 15 back to the annual meeting at Lamar, on December 9, 1975? 16 MR. COOLEY:

No. Just tell us what the -- I did not interrupt him -- just tell us what the problem is and what

We have a budget authorized for --MR. HACKETT: at the annual meeting in Lamar, a proposed budget which was authorized but subject to additions for monitoring monies that was to be handled in our April meeting, or May meeting, at Garden City, but due to the fact that the U.S.G.S. hadn't got all the figures and Mr. Grozier was unable to attend that meeting, these new station monitoring systems and the expense

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you want to be done.

and so forth was not available and it was just recently that they had -- he had come up with them, and he presented the picture today, but to get -- I don't think I need to emphsize or I hope I don't, because it seems to be at every meeting that the Compact Commission has had since I have been Secretary, I have been crying about the measurements of water at Compact stations, and I have felt -- my conscience has hurt me a little bit about it. I was laying into the U.S.G.S pretty hard, but they have done a wonderful job with their facilities and budgets and so forth, but I -- in order to handle this measurement of inflow, and also outflow, at State line flow, which is all a part of the Compact, that these stations are very important to me.

I live with that receiver, down there twenty-four hours a day, and I get a gauge height, when it's working, from each station every hour. When there's four stations sending those reports in on those gauge heights in one for each station every hour --

MR. COOLEY: Is that equipment shot?

MR. HACKETT: It has been shot for some time.

It operates on a battery set-up, part of the time. Some of it is on electrical or 110. We get a thunderstorm and it blows out your power lines. The batteries play out rather fast and they cannot send a signal that's readable from a weak battery, and the U.S.G.S. are having trouble, I understand,

1 of coming by those batteries, even to get them purchased. 2 Now, Mr. Fidler can probably fill in the details 3 that I haven't covered. 4 MR. COOLEY: Are those stations essential to the 5 operation of the John Martin, particularly in view of the 6 proposed winter storage program, and the permanent pool? 7 MR. HACKETT: Definitely. 8 MR. COOLEY: Have you explained these needs to 9 the Commission at previous meetings? 10 MR. HACKETT: Well, not -- we have discussed 11 them. 12 MR. COOLEY: Have you touched on them? 13 MR. HACKETT: I think the Commission is pretty 14 well aware of my crying and so forth about it. 15 MR. REEVE: As I remember, the Commission charged 16 you with finding out bids, prices, alternatives, because we 17 wanted to do something, if we could. 18 MR. HACKETT: Yes, sir, and that's what Mr. Grozier 19 has offered today. 20 MR. COOLEY: How much are the total damages? 21 MR. HACKETT: About sixteen thousand dollars. Ι 22 haven't had a chance to require these notes -- did you get a 23 chance to look these over, Felix? 24 MR. SPARKS: That doesn't have any line cost in 25 it, that proposal. MR. REEVE: For the teletypes.

١ MR. SPARKS: No. I don't know. I think other 2 than that, it's compatible with the figures that were given 3 to us this morning by Mr. Grozier, but it doesn't have any 4 line cost included. MR. REEVE: If we stayed with four units you have 6 got now -- he said those were \$3,700 apiece, that would be most of it right there, see? And you would have a base 8 station. 9 MR. COOLEY: Hang on. Just hold on, Dick. Is 10 what you are asking that you be instructed to include this 11 in the budget presentation you make to this Commission in 12 December? Is that what you are asking? 13 MR. HACKETT: Yes. That I submit to the Governors 14 of both States immediately, or as soon as possible after this 15 budget is approved, either with this addition to the --16 MR. COOLEY: You lost me -- pardon me -- you lost 17 Are these budgets to be submitted to the Governors of 18 the two States in August, or -- / 19 MR. HACKETT: Yes, sir. 20 MR. COOLEY: Are they going to -- they are? 21 MR. HACKETT: Yes, sir. Just immediately, as 22 quick as I can get home and get on the stick. 23 MR. COOLEY: All right. 24 MR. HACKETT: With the approval of the Compact,

whatever they would come up with.

1 MR. COOLEY: Have the other items of the budget already been covered by the Commission? 2 3 MR. HACKETT: Yes, sir. At the annual meeting, 4 but there may be some revisions that they would like to make. 5 (Discussion off the record) 7 MR. HACKETT: May I give you a copy and pass some 8 copies out? 9 (Discussion off the record) 10 MR. HACKETT: There are some tentative figures 11 that --12 (Discussion off the record) 13 MR. HACKETT: This budget that I just handed 14 out, Mr. Cooley, is one that was approved at the annual 15 meeting in Lamar, but it was subject -- in the minutes, we 16 will find it was subject to any additions that the U.S.G.S. 17 might come up with, figures on the cost of monitors and to 18 be in addition to this. 19 MR. COOLEY: All right. Is the radio equipment in 20 place in the \$4,400 figure, or is it in addition thereto? 21 MR. HACKETT: Addition, sir. This is just an 22 annual expense with the cooperative agreement with the U.S.G.\$. 23 MR. COOLEY: Okay. And is that totally borne 24 by the Compact Administration? That entire expense? 25 MR. HACKETT: This \$4,400?

1 MR. COOLEY: No. This sixteen -- the sixteen 2 thousand bucks. MR. HACKETT: I think that would be a fifty-fifty. 3 MR. COOLEY: Now, you may speak, Dick. 5 MR. FIDLER: I am Dick Fidler, with the Geological 6 Survey. What we did -- on that it would be a fifty-fifty 7 program. Like the other program. The \$4,400 you are looking 8 at there is \$8,800, -- that's half, so the sixteen is the 9 total figure. MR. COOLEY: Now, with the wire --10 11 MR. FIDLER: The figures Lane has, it's an option. One is repairing and fixing up and the other is changing. 12 13 MR. TEMPEL: In other words, the \$4,400 would be 14 replaced by the \$16,000? MR. COOLEY: No. 15 No. It's in addition. 16 MR. FIDLER: The \$4,400 stays; the \$16,000 is 17 changing to the new equipment; the \$5,800 we have, that 18 Dick presented this morning, is a repair. 19 MR. COOLEY: All right. Is there -- now, the 20 line -- the teletype line, apparently, Mr. Reeve, is not in 21 the figure. Half of sixteen therefore should be nine 22 thousand and not eight thousand, it would seem to me, and 23 is there a motion? 24 You would have to have how many lines, MR. REEVE:

You would have to have a station in Lamar and we'd ...

have to have one in Garden City. Would you have to have one in Pueblo?

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MR. HACKETT: They don't have now. They haven't had.

MR. REEVE: But somebody would have to pay for at least two lines.

MR. HACKETT: I think this is strictly Compact, unless the State would like to -- as far as I'm concerned, I haven't had any information from anybody in the State that they should be involved in this. Tommy, do you have something?

MR. THOMSON: Yes. Bob Jesse and I have been talking about it. Unfortunately they had to leave. It wouldn't involve this particular action right now, but we are talking about the Division Engineer's Office in cooperation with the District, these various gauging stations getting lines directly in -- at the moment we read four gauging stations and calling in these figures, we are going to try to work on a sophisticated program.

MR. COOLEY: It seems to me that the sixteen thousand dollar figure is not refined, and wasn't presented as being a refined final figure. It was just a horseback estimate of what some of the gross prices were, but did not include a number of things, placement contingencies and other items that always are necessary for the completion of the

work and therefore, if we are to proceed with this, if it l is desirable at all, we ought to have a figure enough to do 2 the job and not something that's twelve hundred short of doing 3 4 the job. 5 MR. HACKETT: Right. 6 MR. REEVE: Yes. I think as far as I know, everybody 7 agrees we are going to have to have some new monitoring 8 equipment on those stations. 9 MR. HACKETT: Or a damned sight faster Secretary 10 than you have today, to cover those stations. 11 MR. COOLEY: Yes. And that being so, Mr. Reeve? 12 MR. REEVE: We are just going to have to get it worked out and it looks like the U.S.G.S. thinks we need the 13 the satellite system is probably the most effective, most 14 15 efficient for us, and it sounds pretty good to me, and we will just have to get formalized on what some of those line 16 17 fees would be and some of those things. 18 I am very much in your line of thinking. I think 19 that the sixteen thousand is a bare bones minimum thing, and 20 I think we'd better be thinking along terms of twenty, and see what that will do. 21

MR. COOLEY: Would your motion then be that the Secretary be authorized to put in as much as ten thousand dollars in the budget for actual costs of satellite communication equipment?

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MR. REEVE: Well, yes, except for the fact that Mr. Gibson tells me that their deadline in Kansas for the 1977 budget is tomorrow and it already has been approved by the Kansas State Board of Agriculture, which you know, we may be in an impossible situation, but he has got some money in the budget for this thing, but I don't think that much.

MR. HACKETT: I approached Mr. Gibson on that yesterday during the tour and I may have misunderstood him, but I thought maybe if I got home quick enough -- I am not leaving tonight, but I will if I have to -- I didn't plan on it, but I will get those budgets, whatever we come up with and get them in the mail.

MR. SPARKS: It's not a question of mail -- I don't need anything in the mail. I need to know where we are going. Our budget has already been presented, to begin with, so I am going to have to amend it damned fast, so I will make a motion that we add ten thousand dollars to the budget for the fiscal year 1977-78.

MR. COOLEY: All right. That has been carried by both Colorado and Kansas, and Lane, no kidding, I think that you should be doing a good deal of telephoning, whatever is necessary, both to Mr. Sparks and to Mr. Gibson, to make sure that these items are pressed as far as possible, because of limitations of budget loss.

MR. SPARKS: I don't need to know anything further.

MR. COOLEY: Fine. Are there any other essential changes to be made in the budget?

MR. REEVE: Well, Guy Gibson mentioned, and if this estimated carry-over is one hundred dollars, isn't that an awful narrow margin. Would that be contingencies?

MR. HACKETT: May I answer that?

MR. REEVE: Yes.

MR. HACKETT: To the best of my knowledge, it's going to be a very narrow margin due to the fact that we have been operating in the past on one annual meeting a year, which we had coffee expense. This year we have had -- well a little meeting room expense sometimes, but this year, we have had two special meetings and the Compact took care of the Garden City meeting partially for the Board Members, but they didn't near cover the Board Member's expenses and we have this meeting at Aspen which has been very expensive to the Board Members themselves, and I don't know how they wish to handle the expense of this, either -- it's out of their pockets or Compact money, but we are going to be on a very, very tight situation from here on till this 1977 budget comes into effect, because we have been running on a very short carry-over.

MR. COOLEY: In answer to a specific question I made to the Secretary over the noon hour, I determined that he had not had any change in compensation in I believe seven

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years. I don't seek to needlessly raise the budget of any organization, but I think we can all take notice of the cost of living index and the wage adjustments that are common in other parts of Government and governmental activities, and I think that this and other matters of the budget are such that it's just apparent to me that this budget is -- has not been written with some of the present activities in mind.

Furthermore, while I am rolling, I can assure you that as far as the present Chairman is concerned, the meeting -that there will be as many meetings as is necessary to handle the work that comes before the Commission, and that we will be working more frequently than once every December, especially with things like winter storage and subcommittee meetings and so forth and I am concerned about the apparent inadequacy of the budget.

MR. REEVE: Lane, what kind of cash position and bond and so forth? Have we got any assets besides the budget?

MR. HACKETT: No, sir. No, sir.

MR. BATES: No carry-over deals. That's the reason for the one hundred dollar carry-over. We are going to live on that budget, or it goes back.

MR. SPARKS: The Administration does not pay any expense to anyone except the Secretary. Each State must bear it's own expense.

MR. COOLEY: It increases his expenses.

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MR. SPARKS: It increases his expenses, but not the Administration.

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MR. COOLEY: That's right. That's what the Compact says.

I think another item that should be MR. HACKETT: given some serious consideration was on the budget that was approved, or tentatively approved with the monitoring set-up to be approved later, is the telephone and telegram item, travel expense, which your Secretary has benefited mostly from, and our professional services, since we have gone to perfection on recording the minutes of these meetings, is -were not covered in this budget, and definitely I think it is the proper way to have on your Compact meetings, as much as we can have, because either that or a new Secretary, because I am not qualified to take minutes in any shape, way or form, so there is some -- there would be the professional services, the telephone, telegram item and travel expense that I should think -- I feel should be looked at pretty closely on the final budget to be presented to the States.

MR. BENTRUP: Well, let's go item by item and get this thing going.

(Discussion off the record)

MR. SPARKS: To get this over with, I move we add two thousand dollars to the budget and just distribute.

it among the various items here.

MR. COOLEY: That's a Colorado motion.

MR. BENTRUP: Kansas seconds.

MR. COOLEY: Approved by both States.

This Commission will hear anybody that has come before it, especially those that have travelled long distances. Is there anyone here who wishes to be heard who has not been heard?

I know there is some people, Tommy, we haven't recognized formally, and we should have, and for that lapse I apologize, but is there anyone here that wishes to be heard before this Commission?

Is there any other matter that -- yes?

MR. WILLIAM HOWLAND: Mr. Chairman? Bill Howland. Since you give me this opportunity, I stand before you now with mixed emotions. I am very happy that you moved favorably on the Amity proposal.

My other emotion is that I have fought against the permanent pool for some sixteen years. And I would like to ask the Commission, or the Administration, to clarify for me exactly what the resolution established?

I will ask you specifically, does the Resolution entitle the State of Colorado to store for a permanent pool purposes only the Muddy Creek waters?

MR. SPARKS: Yes, at this time.

1 MR. HOWLAND: Any other waters to be stored has 2 to come before the Administration? 3 MR. SPARKS: Correct. In another Resolution, 4 correct. 5 (Discussion off the record) 6 MR. SPARKS: Muddy Creek water is the only water 7 covered by this Resolution. 8 MR. HOWLAND: In effect, what you have done is to 9 establish the permanent pool idea in John Martin, with the 10 assurance that any time any water is to be transferred into 11 this pool, the Administration has to approve by Resolution 12 any other water? 13 14 approved separately by the Administration. 15 16 already adopted the operating criteria, but I wish that you 17 would take into consideration two or three points that I 18 might say periodically, I really think Duane Helton did a 19 20 on his work on the permanent pool. 21

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MR. SPARKS: Correct. Each case has to be MR. HOWLAND: All right. Now, I know you have Hell of a job on the Amity's proposal, but I have reservations MR. SPARKS: I think we can resolve that issue swiftly. Any time there is nothing fixed about these operating principles, we can change those at any time. sure the Compact Administration is going to do so if they appear unworkable, so if at any time anybody has any objections to those operating principles, I think it should be brought before the Commission and give us an opportunity ahead of time to study it. We will damned sure consider changing it. There is nothing fixed about that. What we have done today we can undo tomorrow.

MR. HOWLAND: Very good. That gives me some encouragement, and I see some light there at the end of the

encouragement, and I see some light there at the end of the tunnel, as Mr. Higbee said.

I might just -- in view of my reservations -- it would only take a moment.

There was testimony this morning that the gauging stations were inadequate to administer the Compact water at the present time, and Mr. Sparks, I believe you said that the State of Colorado had no funds to update them.

MR. SPARKS: Well, we just voted twenty thousand dollars for that very purpose. That's what the twenty thousand dollars was, we just added to our budget. Not separately, the State of Colorado does not. I mean, I don't have any funds in my own budget, but we just voted to add twenty thousand dollars to the Compact budget for this coming fiscal year for that very purpose, to update the gauging stations.

MR. HOWLAND: Very good. That takes care of that.

All right. I have some concern about the paragraph

six (d), the volume of conservation storage will be determined by deducting the permanent pool storage from the total storage.

(Discussion)

MR. COOLEY: These, of course, were discussed, as well, at Garden City, and have been considered in the drafting of the criteria, Mr. Howland. This is a problem that the Compact Administration is aware of, and is thrashing around with, as well.

MR. HOWLAND: I attended the meeting in Garden City, but my concern still exists. I guess I haven't been in the bar with you guys or something.

One other consideration is that there really hasn't been any discussion about the possible change in the quality of the water and under State Statute -- Colorado State Statute, I think that District 67 people are entitled to not only the quantity of the water as such, but the quality of the water that they can make use of historically. Now, that is not to say that this might deteriorate the quality of the water all that much, but I have some reservations about the loss of siltation in conjunction with the permanent pool, because I know that I have seen the Corps of Engineer's figures that show open reservoir with no permanent pool as low as thirteen percent trap efficiency. You can bet on a trap efficiency of at least ninety-six _____

percent, according to the Corp of Engineers, with a permanent pool. So if you trap ninety-six percent of the sediment, you are not going to have very muddy water below John Martin Reservoir any more.

MR. COOLEY: Mr. Howland, we will hear you again on this subject, I am sure, and I am not trying to be sarcastic with my remark, either, and I am satisfied as well that this Commission will be hearing reports not only from you but from the governmental agencies on this very question, which of course we can't thrash out this afternoon.

I am very glad you raised your questions and I am with your history on the permanent pool, I think you had every right to speak up and we are delighted to hear from you and will be looking forward to hearing from you again in December.

At the December meeting the Corps of Engineers will be giving the lead-off report and to the extent that this fits in with their research they may well touch this point in addition to the others that they are going to report on.

MR. HOWLAND: Thank you for the opportunity to be heard.

MR. COOLEY: Thank you, sir. Is there anything else to come before the Compact Administration?

If not, the meeting is now adjourned.

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STATE OF COLORADO SS. COUNTY OF MESA I, Leila E. Mosher, Certified Shorthand Reporter of the State of Colorado, hereby certify that I took the foregoing proceedings in accurate shorthand notes, and that the foregoing pages numbered one (1) through one hundred thirty-eight (138), both inclusive, constitute a full, complete and accurate transcription thereof. DATED at Grand Junction, Colorado, this 31st day of August, 1976. peils & Mosher Leila E. Mosher, C.S.R. ARCA Meeting August 14, 1976