1	
2	
3	
4	
5	
6	ARKANSAS RIVER COMPACT ADMINISTRATION
7	
8	COMPACT YEAR 2009
9	ANNUAL MEETING
10	December 8, 2009
11	
12	HELD AT THE
13	NORTH BALLROOM, CLARION INN
14	GARDEN CITY, KANSAS
15	
16	Randy & Nayslett vice-chair
17	12/14/10
18	
19	Reported By:
20	ADVANCED COURT REPORTING SERVICES Lee Ann Bates, CSR, RPR, CRR
21	27113 West Mills Avenue Plevna, Kansas 67568
22	(620)793-6555 or (620)664-7230
23	
24	
25	

1		APPI	EARANCE	S		
2						
3		CHAIRMAN:	ROBIN	JENNISON		
4						
5	COLORADO:					
6	Matt Heimerich					
7	Colin Thompson					
8						
9						
10	KANSAS:					
11	David Barfield					
12	David Brenn					
13	Randy Hayzlett					
14						
15						
16						
17						
L 8						
L 9						
20						
21						
22						
23						
24						
25						

PROCEEDINGS

MR. JENNISON: Go ahead and take a seat.

In deference to the rest of the world and since
we're having this meeting in Kansas, I will call the
Arkansas River Compact Administration's 2009 Annual
Meeting to order. I probably will slip and call it
the Ar-kansas River at some point during the
meeting, 'cause I just grew up that way, but we'll
call the meeting to order and we'll have just a few
instructions. We'll try to get started and not take
a lot of time.

If you come up or if you stand up to speak, if you would give your name, and if you come up to speak and you have a card, it would be very helpful if you'd just set it on the table so our court reporter, Lee Ann Bates, can get your name accurately. If you do have exhibits, we would appreciate it, if you had four of them, bring them up, because that makes it easiest for our bookkeeping.

I am Robin Jennison, the Federal commissioner and Chairman of the Arkansas River Compact. I think I'll just have the States introduce themselves and we're going to start with Kansas, and then after Colorado has introduced their commissioners, we'd

this to Kevin Salter. We'd like to have everyone sign in for that. Okay, Matt. Go ahead.

MR. HEIMERICH: Matt Heimerich, ARCA Rep. for Colorado Districts 17 and 14, and Robin, if you wouldn't mind, I'm going to ask you to introduce the Executive Order from Governor Ritter reappointing myself and Colin, just for the record.

MR. JENNISON: Without objection, so ordered.

MR. THOMPSON: I'm Colin Thompson from Holly, representing District 67 in Colorado.

MR. MONTGOMERY: I'm Dennis Montgomery.

I'm the Special Assistant Attorney General for the State of Colorado.

MR. THOMPSON: As Robin basically noted, Mr. Rogers passed away this last year and he had served in my position, or I'm serving in his position, for I don't even know how many years he was on there; quite a period of time. He was a dedicated Compact Rep. and he passed away and so we wanted that noted and put into the record, if you would, and if you can give him a moment of your thoughts, I'm sure it would be appreciated. Thank you.

MR. JENNISON: Thank you, Colin.

1	MR. BOOK: Dale Book with Spronk Water
2	Engineers.
3	MS. SCHENK: Angela Schenk with Spronk
4	Water Engineers.
5	MR. GRIGGS: Burke Griggs, Counsel for
6	Division of Water Resources, Kansas.
7	MR. NORQUEST: Jason Norquest with
8	Groundwater Management District Number 3 in Garden
9	City.
10	MR. LAW: Chris Law with Groundwater
11	Management District Number 3 in Garden City.
12	MR. RUDE: Mark Rude with the Southwest
13	Kansas Groundwater Management District.
14	MR. MEYER: Mike Meyer, Kansas Division
15	of Water Resources here in Garden City.
16	MR. BEIGHTEL: Chris Beightel, Kansas
17	Division of Water Resources.
18	MR. EDELMANN: Pat Edelmann, U.S.
19	Geological Survey.
20	MR. CLARK: Andrew Clark, USGS. I'm with
21	Kansas.
22	MR. WONDSTRA: Bryan Wondstra, The Toro
23	Company Irrigation.
24	MR. WINNER: Jay Winner, Lower Arkansas
25	Valley Water Conservancy District.

1	Chief of the Reservoir Branch for the Corps of
2	Engineers at the Albuquerque District.
3	MR. MEYER: Tim Meyer, Bureau of
4	Reclamation, Loveland, Colorado.
5	MR. VAUGHAN: Roy Vaughan, Reclamation,
6	Pueblo, Colorado.
7	MR. PHILLIPS: Rob Phillips, Colorado
8	Division of Water Resources.
9	MR. AMPE: Peter Ampe, Assistant Attorney
10	General, State of Colorado.
11	MR. DANIELSON: Jeris Danielson, General
12	Manager, Purgatoire River Water Conservancy
13	District, LaJunta, Colorado.
14	MR. GILMORE: I'm Andrew Gilmore with
15	Reclamation in Loveland, Colorado.
16	MR. TYNER: I'm Bill Tyner with Colorado
17	Division of Water Resources.
18	MR. MILLER: I'm Steve Miller, Colorado
19	Water Conservation Board in Denver. I'm on Jennifer
20	Gimbel's staff.
21	MR. SULLIVAN: Mike Sullivan, Colorado
22	Division of Water Resources.
23	MS. GONZALES: Stephanie Gonzalez, ARCA
24	Recording Secretary and Treasurer, Granada,
25	Colorado

1 there has been a request that we have at least one 2 break so that folks that want to check out can. Wе 3 plan on trying to go right through, not taking any lunch break. I think that we can do that without 4 5 stretching anybody's ability to miss a meal, so --6 MR. BARFIELD: Kevin apparently has 7 something. MR. JENNISON: Kevin, are you afraid 8 9 you're going to miss a meal? 10 MR. SALTER: I don't miss enough of them. 11 We do have the projector set up, so we don't need 12 that break before Jean, so --13 MR. JENNISON: Well, that's good. 14 if we don't need to take the break before Jean, I'm 15 going to suggest it would probably be a more even 16 morning if we take a break after Item Number 9. 17 That is the report from local water users. Take 18 that break before we have the reports from the ARCA 19 committees. Does that sound acceptable to you all? 20 MR. BARFIELD: Yes. 2.1 MR. JENNISON: Okay. That's what we'll 22 We'll take a break at the bottom of the do then. 23 first page of our agenda, and it will probably be about a 15-minute break. 24

That brings us to Item Number 4, reports of

officers' reports have been deferred to later on in the agenda. Is that the way you all read that?

Okay. Very good.

Kansas vs. Colorado status update, I believe Chris Grunewald and Dennis Montgomery, who are both at the table, are going to take care of that, so fellows, however you planned on doing that, you might start that.

MR. MONTGOMERY: Chris was going to start.

MR. GRUNEWALD: I'm just going to go through each of the items and give Dennis Montgomery a chance to add to anything I might say on it.

The first one is Entry of the Decree in that case and relinquishment of the specially retained jurisdiction by the court. The situation with the case was that in January, 2008, Special Master Littleworth submitted to the United States Supreme Court his Fifth and Final Report and also a proposed Judgment and Decree, and the majority of that had been worked out by agreement of the States.

The proposed Judgment and Decree provided that the Supreme Court would specially retain jurisdiction to evaluate the sufficiency of the Colorado Use Rules and their administration; and the

Special Master's ruling on costs had just recently taken place. It was on December 1st of 2008, and as Chris mentioned, the Court entered an opinion on March 9th of this year upholding the \$40 a day limit on the award of expert witness fees as costs and overruled Kansas's exception and then approved the entry of the proposed decree.

The Special Master, in April, then filed the motion for his discharge as the Special Master and the Court in May entered an order granting the Special Master's motion to be discharged as the Special Master with the thanks of the Court.

As Chris indicated, the States then did agree on the Offset Account or the revised Appendix A.4 and have submitted that to the Court and have agreed that that resolved the issues concerning the retained jurisdiction and there was nothing further that it was necessary for the Court to do to relinquish its retained jurisdiction so, in effect, the lawsuit is over.

There was one other issue this year and that related to a dispute over the H-I Model results for 2008, and that also has been resolved. Chris, I don't know if you were planning to address that next.

States are on that. That does touch on, I think your last point there, on what we have listed as Item 5-C., inclusion of the annual Compact accounting table in the ARCA Annual Reports, and I believe the States have agreed that that's an appropriate way to memorialize that Compact accounting, and I think the Operations Committee may be the committee that's going to be recommending that to the Administration later in this meeting.

If I could just touch on, briefly, Item 5-B. in a little more detail, I mentioned and Dennis mentioned the amended Appendix A.4 was how the States were able to resolve that final issue in the Appendix A.4 is generally about the court case. Offset Account and it dealt with that and a number of other things. The States agreed to amend Appendix A.4 to extend a number of the things that were in it originally, and one of the items that the amended Appendix A.4 addresses is that the Offset Account can be terminated with five years' notice and it sets up a number of collaborative processes or procedures for the States to work on that and a number of other issues, and I wasn't going to add any more detail to that.

Dennis, any other comments?

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

gotten together and discussed the issues, and it's my understanding that there will be further discussions among the experts.

2.4

The decree provides a dispute resolution procedure for disputes such as this and requires that any dispute be submitted to that dispute resolution procedure, which includes meetings between experts, meetings between the Chief Engineer and the State Engineer from the two States, in an effort to resolve those. If they aren't able to resolve the issue, it will be submitted to the Compact Administration, and if that fails, there is a provision for arbitration, so this may be the first test of that procedure.

MR. GRUNEWALD: If I might, Mr. Chairman, just add one. Dennis referred to the "decree," and I think the Decree of the United States Supreme Court, rather than the LAWMA Decree, if that wasn't already clear. Kansas, as Dennis said, is working -- our experts are working with Colorado on these issues, and we'll see where we go from here.

MR. JENNISON: Does that conclude that report? Thank you, Chris and Dennis.

That brings us to Item Number 6, Reports of Federal Agencies, and we'll start with the U.S.

is 94% of average. At Arkansas River at Lamar, we had an annual flow of 47,550 acre feet, which is 56% of historical averages. At Arkansas River near Granada, we had 70,890 acre feet, which was 54% of historical averages. At Arkansas River near Coolidge, we had 99,330 acre feet, which is 64% of average. Frontier Ditch basically had an additional 8,770 acre feet, so total Stateline flow was 108,100 acre feet.

Just to touch on a couple of other activities that USGS is doing in the Arkansas Basin, we continue to measure water levels in about 320 wells throughout the Basin, and in cooperation with the Lower Arkansas Valley Water Conservancy District, we measure 120 wells from Pueblo County down to the Stateline.

In 2009, we also completed several reports.

To touch on a couple, we completed analysis and draft reports; one that identified sources of

E. coli bacteria in the Upper Fountain Creek, and we completed a draft report that will soon be approved of the retrospective analysis of the occurrence and distribution of dissolved solids, selenium, and uranium in groundwater and surface water throughout the Arkansas Basin.

MR. EDELMANN: Okay. Thank you.

MR. BARFIELD: Not Kansas.

MR. JENNISON: Okay. Thank you.

U. S. Army Corps of Engineers, Major Andre Balyoz.
Major, good morning.

MAJ. BALYOZ: Good morning. I've provided my card and Dennis is handing out some handouts in reference to our report.

Mr. Chairman and members of the Compact, good morning. As I already mentioned, I'm Major Andre Balyoz. I'm the Deputy Commander for the Albuquerque District's Corps of Engineers. I'm representing Lieutenant Colonel Kim Colloton. She is our District Commander and she wasn't able to make it here today because of a scheduling conflict. I'm joined today by Mark Yuska, our Operations Division Chief. I believe he stepped out of the room just now. Dennis Garcia over here, he's our Reservoir Control Branch Chief. Van Truan from Pueblo, Colorado, he's our Regulatory Office Chief there; and Sandy Rayl is our Colorado Programs Manager.

Overall, this was a good year for the Corps of Engineers in the Arkansas River Basin. In terms of snowpack in the upper basin this year, we were near

That sediment was hindering scheduled maintenance and the inspection of the emergency sluicing gates. We conducted hydraulic dredging operations to remove that sediment. That was completed in February of 2009 and we removed approximately 82,000 cubic yards of sediment.

In Trinidad, the Corps of Engineers and the Bureau of Reclamation, along with other State and local agencies, conducted a study to determine the hydraulic capacity of the Purgatoire River below Trinidad. We collected mapping data and conducted a hydraulic model, or developed a hydraulic model, and the final report has been completed.

A couple of highlights from that report: The in-town capacity of the Purgatoire River is approximately 5,000 CFS. Out of town, however, the capacity was determined to be only 800 CFS, so with higher flows, we could see damage to some farmland outside of town there.

To highlight on some other items of interest, I'll touch on some projects that were funded by the American Recovery and Reinvestment Act of 2009.

District-wide, just for interest, the Albuquerque

District received \$26 million -- or excuse me -- planned for \$26 million worth of our projects.

1 disaster response operations in American Samoa. 2 This concludes my report for the Compact this 3 I'll be happy to address any questions for 4 myself or my staff. 5 MR. JENNISON: Thank you, Major. Questions for the Major? 6 7 MR. HEIMERICH: None. 8 MR. BARFIELD: None for Kansas. 9 MR. JENNISON: Okay. Thank you. 10 MAJ. BALYOZ: Thank you. 11 MR. JENNISON: U. S. Bureau of 12 Reclamation, Andrew Gilmore. Good morning, Andrew. 13 Was that wrong? Whoever you guys want to. 14 just told me Andrew. We're welcome to have 1.5 whichever wants to do it. We're not particular. 16 MR. VAUGHAN: My name is Roy Vaughan. 17 I'm the Facility Manager for Pueblo Dam. Our office 18 is responsible for the operation of the East Slope 19 reservoirs, as well as the collection system. 20 Meyer is here today. He's our Resource Chief. 21 Andrew, as you mentioned earlier, will report on the

We had an excellent year for project water with the Fry-Ark. Our initial forecast was 63,600. Because we had some late precipitation and the way

Trinidad continued review.

22

2.3

2.4

There's a facility assessment that was completed for the dam itself that just evaluates the risk, and then there's an action plan for how we would deal with those. State Parks is currently involved in the containment and the movement of the zebra mussels through boat inspections and so on.

2.0

That concludes my report. Be happy to take questions.

MR. THOMPSON: You could just take that water and bring it down to John Martin.

MR. VAUGHAN: Well, ask Dennis.

MR. JENNISON: Questions for Roy? Thank you, and you say Andrew's got the Trinidad Project? Okay.

MR. SALTER: Mr. Chairman, if you can give me just a moment, he has a Power Point presentation. I want to see if I can turn off the light.

MR. JENNISON: Okay. Good luck.

MR. GILMORE: Mr. Chairman and members of the Administration, as was stated before, my name is Andrew Gilmore. I'm with Reclamation in Loveland, Colorado, the Eastern Colorado Area Office, and I'm reporting on the status and progress on the 1995 to 2004 Trinidad Project Ten-Year Review. Next slide,

Reclamation agreed to update or provide an updated version of the operations model. That model is -the time period is currently 1928 through 1957.

That matches the first model that was built to analyze the initial viability and feasibility of the project. That model was updated in 1988, and we are providing an Excel spreadsheet version of this model for use.

The challenge is that both Colorado and Purgatoire River Water Conservancy District and the State of Kansas have all requested that further modeling effort and Reclamation undertake further modeling efforts. We recognize the concerns and the desires of the various parties. We are concerned, however, that with the visibility of this process and Reclamation's interest in this process, that we provide a reasonable way to move forward, so the recommendation from this review is the model needs some more updating, needs to be more current.

Then there are some, obviously, scenarios that Reclamation has been asked to unilaterally run. We expect that a modeling team come together and help us develop those scenarios so that all members of all parties have an understanding of the scenarios and the recommendations, the assumptions involved,

it's more timely, which provides more timely resolution of issues and provides a chance to have the parties come together more often than every 10 years, or five years from now, is how it would turn out.

I don't know if we have time to involve some discussions with the ARCA meeting, as it were. This would be a place where everybody gets together, but something at least on a biannual (sic) or annual basis would appear to be a more reasonable way to allow a timely address -- a timely way to timely address these issues.

With that, I do have 20 copies of the document with me on paper in the back of the room for the folks that are interested, and it will be posted on the web this week. I have an e-mail contact address list for folks that are interested. If your name is not on that list, please come see me. I expect to announce the availability of that document on the web to that e-mail address list. With that, I'd take any questions.

MR. JENNISON: Thank you, Andrew.

Questions?

2.0

2.2

MR. BARFIELD: No questions. I appreciate the update and look forward to continuing

and our district put together a collaboration of many partners, and that also included the Kansas Water Office. They participated, and then-Senator Salazar's office also, and many of our local, state and local agencies came together to develop a regional plan for tamarisk control.

We titled that the Arkansas River Invasive

Plants Plan, or ARKWIPP for short. It cost us

\$150,000, plus we had \$56,000 in in-kind donations.

Funding was brought in through local governments,

various organizations, and also through the State of

Colorado, through the Department of Local Affairs

and the Colorado Water Conservation Board.

The goal for the project was to develop the strategic plan. We had already done a preliminary mapping project in the Basin. We wanted to complete that mapping project to show us exactly where -- what our challenge was; also to develop an educational web site as part of our outreach; and then to pursue long-term funding so we could be able to implement the plan.

Our mapping project, when that was completed, indicated that there was approximately 67,000 acres of tamarisk within the Colorado Arkansas Basin.

This was of great value to us with pursuing funding

care of it.

There is research on there that talks about various control methods, all the way from aerial to cut-stump, how to go about doing that, and so that's part of our outreach and education efforts is our web site.

Last year, myself and Susan Metzger with the Kansas Water Office came to the Compact Administration requesting a resolution so the two States could pursue a joint project and for us to be looking at federal funding to be able to do that. At this point, the communication is still open, and we definitely are doing a lot of talking about what we can do.

I've made a couple trips here to Kansas. Back in March, I came and spoke to the Kansas Upper Arkansas Basin Advisory Committee about the ARKWIPP Plan, and then just a couple months ago, about the end of September, I was here talking to the Cimarron and the Upper Arkansas Basin Advisory Committee again about the implementation of the tamarisk -- I mean, of the ARKWIPP Plan; so we continue to communicate and we're contemplating on some joint projects and looking at some funding sources.

Now, the ARKWIPP Plan lays out five different

last over a long time, because this is, you know, \$70 million. That's a lot of funding there. Then also, we're looking at federal, state and local private landowner funds.

As for funding, we're looking at an EPA Five Star Restoration Grant Program. There's been a lot of funds through the National Resource Conservation Service, the NRCS, using EQIP and Continuous (sic) Reserve Program. In 2009, our district put in an appropriation request for \$1 million. We didn't receive it, but we were out there trying, anyway. Then also, we're working with the Army Corps of Engineers on doing a feasibility study in the Arkansas Basin.

Now, the State has stepped up to the plate and has provided some very significant funding for these types of projects. It's through the Department of Natural Resources and the Colorado Water

Conservation Board, and at this point, I'd like to thank CWCB and Jennifer Gimbel and Steve Miller for all of their hard work that they have put into that and recognize them for providing this funding to us, because it's very important to have that state funding to do matching with local and federal funds.

They've provided \$1 million last year, in

a very good demonstration area. They're using mechanical removal by heavy equipment and then they're coming back in with chemicals to treat the regrowth, and the cost for their project was \$75,000.

The Las Animas Levee project, again, high fire and flooding potential, and it goes through the town of Las Animas along their levee, so it's a very good demonstration area. They're using the cut and mulch method and they're using aerial spraying to take care of the regrowth, and the cost for theirs is a little over \$119,000.

Now, Prowers County's project, also we're looking at fire and flooding potential and wildlife habitat restoration. We've gone in with a helicopter and sprayed from the -- on the main stem of the Arkansas from the town of Holly east to the Kansas Stateline. We also treated some of the northern tributaries and then some of the areas also west of Holly. We were able to cover 1400 acres, and our project was really expanded because we just kind of come in at the right time, just as some of the chemical companies introduced a generic chemical that we could spray, so it really reduced our costs with that, so -- and the total price for this was

1 reducing secondary invaders, meaning another weed crop that may come in once you've cleared out, 2 3 another invasive, and looking at ways to deal with 4 the biomass, particularly after aerial spraying. 5 The cost for this was \$35,000. We've also released a number of beetles in the 6 Basin. From 2007 to 2009, we've released 7 8 approximately 300,000 beetles in most of the 9 counties all along the main stem, and we're also 10 doing a lot of monitoring on them, keeping an eye on 11 that, too. 12 So we have a choice. We can live with 13 tamarisk or we can get busy and try to get rid of it here, so all right. That's all I have for now. 14 15 MR. JENNISON: Thank you, Jean. 16 Ouestions for Jean? 17 MR. BARFIELD: None. 18 MR. JENNISON: Don't see any. Thank you. MS. VAN PELT: 19 Sure. 20 MR. JENNISON: Item Number 8, Water 21 Quality Update, Tom Stiles and Dick Parachini. 22 MR. BARFIELD: Mr. Chairman, if I might just provide a few words of introduction here. 23 MR. JENNISON: 24 Yes.

MR. BARFIELD:

We asked for this to be

back in 1998.

At the time, we were under a court decree to develop TMDLs, or Total Maximum Daily Loads, which are found within the Clean Water Act and represent, in essence, a pollutant load budget that is to ultimately be achieved so that those water quality standards associated with a given water, whether it be a stream or a wetland or a lake, can reattain and totally support the designated uses that are intended for, for that water.

In the case of the Ark River, the uses are across the board and encompass all designated uses that we in Kansas have identified, including irrigation and water supply, public water supply, aquatic life, recreation, and so forth.

So in 1998, we indicated that sulfate, excessive sulfate and boron levels were impairing certain of those uses, and consequently, in 2000, we developed two of the associated Total Maximum Daily Loads, or TMDLs, for sulfate and boron that were ultimately approved by the Environmental Protection Agency and covered the river from the Stateline to over at Pierceville, just east of Garden City.

In 2002, and understand that under the guise of the Clean Water Act, we undergo this cycle, in

could be expected to be ultimately attained within the river.

In 2006 or 2007, on their triennial review process, which basically is really about a five-year process as they rotate among the various basins within Colorado, their Colorado Water Quality Control Commission began its rule-making process for standards regarding the Ark Basin, segmented basically into three subbasins, upper, middle, and lower Ark, and of course, we were most concerned with what was going on in the lower Ark, which basically captures from Pueblo on down to the Stateline.

We participated, Kansas participated in that rule-making process, and as a result, when the Commission finalized its Statement of Basis for defining water quality conditions and expectations on the Ark in August of 2007, it laid out its expectation that the Division of Water Quality Control in Colorado, our counterparts, would work closely with Kansas to begin to address these issues surrounding salinity, sulfate, selenium and so forth, and develop the appropriate analyses to examine what ultimately might be done to either abate the loads or redefine what would constitute

Basin Advisory Committees, our Watershed Restoration and Protection Strategy Groups, which basically represent our focus groups on the local scene, to develop appropriate strategies to combat nonpoint source pollution.

2.3

On the Colorado side, the Division has engaged in discussions with the Water Conservancy Districts, but their primary point of contact on 319 nonpoint source issues has been the Conservation Districts, and they've engaged them on a number of pilot projects and demonstration projects to look and deal with the various issues that define water quality problems in the Ark River Valley, including potential installation of appropriate dust management practices at various locations throughout the reach of the river from Pueblo down to the Stateline.

There's a great deal of uncertainty still surrounding the mechanisms that are engaged in what we're seeing in terms of the loadings and the respective concentrations of these constituents we see in the river, and on both sides of the Stateline, our respective universities are engaged in extensive research and study. Colorado State has done a yeoman's job of developing studies looking at

both sides of the Stateline, under the guise of Section 319 of the Clean Water Act, which governs nonpoint source, and we recognize this is chiefly a nonpoint source-oriented issue that we're dealing with here when it comes to the salinity issue, as well as other programs that present themselves as reaching out and presenting a tangential water quality benefit, such as our project that we have in terms of ultimately retiring some of the water rights along the river and lessening the impetus of river water to go into the surrounding clean water of the associated aquifers.

2.4

We offer this up to the Administration and to both of the quantity agencies in Kansas and Colorado that this coming year might present itself as a good opportunity for the quality agencies to interact with the Compact agencies through their Engineering Committee in a series of meetings as they are scheduled and brought forth by the needs of the Compact, but to begin to open up that dialogue of introducing some of the quality aspects.

We are fully cognizant that whatever solutions we come up with to improve water quality along the river have to pass through the Compact filter so that we don't, in our quest to achieve a solution,

basically had some impact relative to the potential usability of the water for a little bit of drinking water, but more for the irrigation aspect of it.

Selenium raised the ante quite a bit, because now it introduced a potential toxic impact to the aquatic life found within the river. We are now engaged in starting to reveal on both sides that uranium has started to emerge as a pollutant of concern, both in the surface and in the surrounding groundwater. Some of our communities on our side of the Stateline within the Valley are confronting the safe drinking water aspects of uranium and radioactivity within their drinking water and have to begin to evaluate steps to mitigate the impact of that.

All these pollutants tend to follow the relative same transport process that we're seeing within the Valley, and so ultimately, a comprehensive approach to manage the loading into the river is what we'll seek, all the while recognizing that we need to remain in compliance by both States relative to the expectations of the Compact, so those close my comments there. I'll yield a moment of time if Dick wants to add anything from the Colorado perspective.

I'm glad that Tom mentioned, here at the end, the considerations that now we're having to look at uranium. I don't know whether uranium has always been in the water here or not, but it's just within the last three, four, maybe five years, that it has actually become on the radar screen in that we have seen it showing up in our groundwater and our surface water resources. Then uranium, as you might expect, then becomes more of a public health issue rather than an agricultural use issue or an aquatic life use issue, so that has another set of increased importance on it there.

2.0

2.4

I would just add with closing, and then be happy to entertain any questions that the Administration members might have, is that Tom mentioned about our work on doing a Total Maximum Daily Loads for selenium below John Martin. That is in progress. We have collected samples in June of this year below John Martin. We will need to collect at least another two or three years' worth of data, probably, in that area to get to see if there's any variability between years, but also to make sure that we have a good solid dataset, and then it will probably take another year or two beyond that before we complete our assessment of the

priorities right now tend to be elsewhere,

particularly, for both of us, nutrient criteria, et

cetera, so they're on a standby status, Dave.

MR. PARACHINI: The one comment I might add is the selenium standard nationwide is currently under review by EPA headquarters and the regions, and there has been some lingering -- I'm trying to think of a polite word -- lingering opportunity for EPA that they have said that they want to reconsider the selenium standards nationwide, and both States are keenly interested in that because, based on that criteria, then Tom and I then worked respectively on how do we set that for our state-specific standard, so if there's any change in the selenium standard at the national level, that will trickle down to the States and then we will work with that.

If you would ask me today which way the standard is going, I couldn't tell you. We've heard at one time it was going to go up, and then we hear another time it's going to go down. It's not moving right now, so those are the standards that we have to work with.

MR. JENNISON: Matt Heimerich?

MR. HEIMERICH: My question is either for Dick or Tom, and I think it refers back to what you

the circumstances in the Arkansas Basin.

2.4

Could either -- would either of you care to address that?

MR. PARACHINI: I'll address that, Matt.

From the Colorado perspective, we agree in that the selenium studies were not done specific to the Rocky Mountains west or the Plains States, and they were done primarily, I believe the species of choice was bluegill. Tom, was that --

MR. STILES: Right.

MR. PARACHINI: I think that was the fish species that has been done historically, so we recognize that, and the same concern has expressed itself on the West Slope of Colorado with respect to the selenium concentrations and the effect on the endangered species in the Gunnison and the Colorado River, so what we have been discussing is that maybe we should be doing some Rocky Mountain and Great Plains specific studies to do that, so we in Colorado are at least engaged with the Colorado Division of Wildlife and discussing with them what they may or may not be able to do in the future. Right now, it's very, very preliminary, but we certainly recognize that point that you brought up.

just -- they went into, in essence, a basin that was closed, that had nowhere else to go, and so it accumulated. We're not seeing those levels here, but we are, in our fish tissue that we've collected, do see accumulation, and yet I don't want to just focus on selenium.

I've recognized that across the timeline, we have the emerging issue of uranium; we have the back issue of sulfate; just that underlying total dissolved solids there. Those are all significant issues that any one parameter expresses some manifestation of it, but we are going to have to deal with it as the total package there of looking and seeing to what degree can we ameliorate some of the loads that are occurring, let's say, or releases coming out of John Martin to what we're seeing coming across the Stateline, because for us, it's not just the surface water but it's, by our own action, also reducing the impact on surrounding groundwater as well, so it's more -- it's more than selenium.

MR. HEIMERICH: Thank you.

MR. JENNISON: Other questions? Seeing none, thank you, gentlemen.

MR. STILES: Thank you.

24

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

year 2050. We'll be the first basin in the State of Colorado to identify our plans, projects and methods to meet the gap, and they will be submitted to the State within the next 60 days.

2.3

We've also been very active in the Interbasin Compact Committee. The Interbasin Compact Committee for four years has been struggling with the year 2050. The State of Colorado is supposed to double in size. How are we going to get water to these people? Now we are finally starting to look at the question of water and food, so I believe the IBCC is moving in the right direction to solve these issues.

We're working on Fountain Creek. In August of 2009, the Fountain Creek Foundation and the Fountain Creek Watershed District was established to help to preserve Fountain Creek, to turn it into an amenity that it has never been in the past. This was one of Ken Salazar's visions before he left the Senate.

We've also been working on the Super Ditch.

The Super Ditch is a concept. It's a concept to create a cooperative relationship between agriculture and municipal water users. Our idea with this is to stop the traditional buy and dry of agriculture; to keep agriculture viable in the Arkansas Basin.

MR. JENNISON: Questions for Mr. Winner? 1 MR. HEIMERICH: None from Colorado. 3 Seeing none, Jay, thank MR. JENNISON: Purgatoire, Jeris Danielson. Good morning, 4 5 Jeris. MR. DANIELSON: 6 How are you this morning, 7 Mr. Commissioner? 8 MR. JENNISON: Good. 9 MR. DANIELSON: For the record, I'm Jeris 10 Danielson. I'm the general manager for the 11 Purgatoire River Water Conservancy District, located 12 We are responsible for, along with our in Trinidad. 13 partners, the operation of Trinidad Reservoir and 14 delivery of water to the project lands. 15 I appreciate the opportunity to experience 16 global warming here in Garden City. I'm hoping it 17 doesn't get worse to the west. We had a reasonable runoff year this year. 18 started out initially thinking we were going to have 19 20 snowpacks in excess of average. The wonderful 21 Colorado climate sublimated about half of that 22 snowpack in 30 days, but we did end up with a pretty good year. We stored 15,000 acre feet of water in 23 the 20,000 acre foot Model Pool; diverted over 2.4

48,000 acre feet of water to the project lands,

agencies, a state agency and a local agency, and we came in under budget and ahead of schedule, and I think that just reflects the cooperative feeling that's -- that has developed between the operating entities for Trinidad, and I was proud of that.

The results: 800 CFS can be safely passed down the river without causing inundation. 5,000 CFS can pass without endangering people's homes or lives. Now, when you're Kansas, sitting down here going, "Well, gee, if we're not going to kill anybody, let's run it as fast as we can," you need to keep in mind that 5,000 CFS inundates over five square miles of agricultural land, and so that is a consideration. I frankly wish we could have an event where we could find out where those lands are, but we just -- they're not there yet.

As Dennis mentioned, we thought, going into this study, that we would identify choke points on the river, and of course, being engineers, then we could go in with an engineering solution and dredge the channel or do whatever engineers do and remedy the issue. The study indicates that there are no choke points, and I discussed with Dennis briefly yesterday, and I'd like to pursue this.

Perhaps a solution to some of the channel

analysis of the Trinidad and Thatcher gages (above and below the Project) shows no negative impact from the Project.

That's why we do the study is to determine the project impact. The project may have a slight positive impact on downstream users, as compared to pre-project conditions. Now, we're happy for that finding, but if you look at the dates that this study covers, 1995 to 2004, we are now already five years into the next Ten-Year Review period and I think we need to see if there isn't a way that we can be a little more timely. If operational issues were surfacing in 1996, we don't find it out until today.

I think Andrew suggested, and I really concur, at least an annual meeting with the entities involved, just to identify are we seeing operational problems. Maybe we can get a jump on those early on and, you know, come to some resolution of them.

Coal bed methane (CBM) is becoming a major problem for the Purgatoire or for the Trinidad Project and the Purgatoire River Basin in general. There are, I think at last count, over 800 coal bed methane wells west of the Trinidad Dam. These wells extract water. The industry says its nontributary

and Water Conservation Board and we will be installing a new satellite monitoring gage on the Purgatoire, very near the end of the project area. Right now, there is no way, until you get down to Thatcher, which is what, Steve, 60 miles down the river, and there's a lot of watershed that comes in below that.

2.1

This gage will allow us to, I think, get a very accurate handle on return flows coming out of the project. It certainly will help the Water Commissioner administer downstream calls that come up from the main stem, because right now, he can only estimate, well, I think this much is going down, and so we'll be able to deal with that. If you have any questions, I'd be happy to answer them.

MR. JENNISON: Questions? Seeing none, thank you, Jeris. Appreciate it.

MR. DANIELSON: Thank you very much for the opportunity.

MR. JENNISON: Ark River Basin developments, Kevin Salter.

MR. SALTER: When I was tapped for this, they made sure to tell me to stay brief, because on any of these issues, I could probably talk for 10 minutes or spend the rest of the day, so I will

The ditches between Garden City and the Stateline all have vested water rights, which means that they were in place and continued to use water after 1945, when our Kansas Water Appropriation Act was adopted.

Another agency is the Kansas Water Office, and you heard that agency come up with Jean's presentation this morning. They have, in this basin, the Upper Ark Basin Advisory Committee. That basin, for Kansas, runs from the Stateline down to around Great Bend, if I'm correct, as our lower terminus. The basin advisory committees are a grass roots method to bring water issues to the attention of the State and work towards solutions with stakeholder involvement, so those issues are developed in these basins.

They are taken to a Kansas Water Authority, and that particular body oversees and directs the Water Office. Those issues can either then go to the governor and on to the legislature for that type of solution, or maybe the Water Authority sets policy and procedure that then goes back down to the Water Office to implement.

Some of the issues that we're dealing with in the Upper Ark is tamarisk, water quality. This is a

University Extension Farm that's there in Rocky

Ford. They do quite a bit of work on irrigation

agriculture, both in research and then also getting
that research back out to the farm for

implementation.

When I'm in Colorado, if we can move away from the water agencies, one of the things I do hear about, a lot about, is the Holcomb power plant.

It's a power plant that -- there is a power plant at Holcomb, and at the time that that first plant went in, they contemplated expansion of that plant. Now, because of things occurring, that expansion didn't occur on the schedule that they had really anticipated, but in the last few years, that expansion was ran through; it was proposed; they filed the permits; they filed changes to some water rights; and ultimately, that permit was denied.

There was a compromise negotiated here recently, within the last year, that may allow a power plant to be constructed at Holcomb, but that's still a work in progress, as I understand. It's just my understanding that they have to go through the permitting process again because of the differences in the two proposed expansions.

With regards to those water rights, again,

1 so --

1 4

MR. SALTER: That's correct. Thanks for that clarification.

MR. JENNISON: Thank you, Kevin. Okay. We've scheduled a break for the commissioners. Is 15 minutes adequate time, you think? Okay. Well, I'm showing it's about 10:56, so 11:15.

(A break was then taken.)

MR. JENNISON: We'll call the meeting back to order. We're on Item Number 10, Report of the Engineering Committee. David Barfield.

MR. BARFIELD: Thank you, Mr. Chairman. The Engineering Committee met and visited a number of useful topics, had a number of reports related to the USGS Big Sandy Gage, Tri-States Water Right change, the Irrigation Improvement Rules, and so forth. As a result, we recorded certain action items as a result of the Committee's discussions and deliberations. I'll just highlight that list for the Administration here.

The Committee recommends to ARCA that the Kansas letter regarding Tri-State dated

September 11, 2008 be made an exhibit in the 2009

Compact meeting transcript and report.

The Committee recommends that the issue of a

1 MR. JENNISON: It's been moved and 2 seconded -- is there discussion? I'm sorry. 3 Discussion? Seeing none, Kansas? 4 MR. BARFIELD: Aye. 5 MR. JENNISON: Colorado? 6 MR. HEIMERICH: Aye. 7 MR. JENNISON: Motion passes. 8 MR. MILLER: You actually have the 9 exhibits to take care of that? 10 MR. BARFIELD: Oh, yes. You mean here 11 with us? I think we have all of them, yes. 12 provided the list. Are you speaking about the 13 Irrigation Improvement Rules? 14 MR. MILLER: I'm speaking about the 15 exhibits you just offered. Does the reporter have 16 copies now, so that we --17 MR. JENNISON: She doesn't, but we're 18 assuming Barfield has them. Is that a problem? 19 MR. MILLER: The problem is when we try 20 and write the minutes and get them signed and Lee 21 Ann is in one place and the exhibit is in another 22 place. 23 MR. HEIMERICH: Okay. I have the two 24 copies provided by -- oh, the exhibits? 25 apologize.

Operations Committee. Colin, I'll just kind of turn it over to you and you can work us through the Operations Secretary's report and the Assistant Operations Secretary's report and the Offset Account, however you guys want to handle that.

MR. THOMPSON: We met yesterday. We had a report from the Operations Secretary and the Assistant Operations Secretary and then we also had an Offset Account report. I guess, Steve, are you wanting to summarize that at this point?

MR. WITTE: I will.

MR. THOMPSON: And then Kevin can follow him on the Assistant's Report.

MR. WITTE: Good morning to you, members of the Administration, members of the audience. My name is Steve Witte. I'm the Operations Secretary for the Arkansas River Compact Administration.

Yesterday, I tendered my Operations

Secretary's report to the Committee. Copies have also been delivered to the Recording Secretary for the ARCA records.

A brief summary of the Operations Secretary's report regarding operations that occurred in Compact Year 2009 would begin by stating that the beginning of the Compact Year on November 1st, 2008, the total

loss computed on that delivery of 1,346 acre feet.

Kansas also called for a release of the water available to it from their Offset Account totaling 8,685.5 acre feet. Colorado called for releases from their various Section 2 accounts amounting to 20,229 acre feet.

There were no occurrences during the summer storage season in 2009, when conservation storage was permitted. There were, however, four separate occasions during which the Amity Canal Company was entitled to store water under the provisions of Section 3 and, in total, they were able to store 2969 acre feet in that fashion. The storage charge component on that storage amounted to 1,039 acre feet, of which 132.85 was applied against the previously mentioned transit loss computation. At the end of Compact Year 2009, there were, in all accounts, a total of 22,851.19 acre feet.

Yesterday, we also tendered a report of the -concerning the accounting and the operations of the

Offset Account in John Martin Reservoir, as we are
required to do pursuant to the resolution that
approved that account. I'll just briefly say that
during the year, a total of 11,442 acre feet was
added to that account. The aforementioned release

wait until the end of the Compact Year. We did have two meetings between the Assistant Operations

Secretary and the Operations Secretary, in which we did discuss some of the relevant issues at the time.

1.7

I would say that because of agreements that we've reached in the past, we were able to come to agreement on how much water was at the Stateline, and also the delivery deficits that occurred on Section 2, as well as the efficiency and transit loss on the Offset Account.

There are still a couple of items that Kansas has long-standing concerns on. One is the split of water going through the Ark at Las Animas gage. We hope -- we haven't been able to spend very much time in recent years on that, but it's both of our hopes that we can spend some staff time working on that issue over the upcoming year.

Another issue that Kansas has long standing on is the deliveries to the John Martin Permanent Pool, the reservoir-to-reservoir deliveries. The concern here is the recapture of bank storage and how that's accounted for.

I'll just briefly touch on the water issues matrix. This is a document that the States came up

you have any questions, I would welcome those.

2.0

MR. THOMPSON: Questions for Kevin? Thanks, Kevin.

MR. SALTER: Before I do leave the podium, I do want to recognize a couple staff members I have here, Sandra Vaughn and Chelsea Juricek. They're kind of in the background, but they're making sure that the details are not being left unnoticed.

MR. WITTE: I'd also be remiss if I didn't recognize the contributions of Brandy Cole from Kansas, as well as Rob Phillips of my office and Bill Tyner, who do the day-to-day work in making sure every number in these voluminous reports are correct and do the heavy lifting in terms of the interstate communication on these issues, so thank you to all of you.

MR. THOMPSON: Thanks, Steve. Next up, we've got 11-E, which are the Operations Committee recommendations on action items. We have six.

The first one was that we instructed Steve Miller, Sandra Vaughn and Chelsea Juricek to produce a typewritten list of the action items. They have done that. It's in front of me. They did a good job at that, yeah.

1 MR. JENNISON: There's nothing in there 2 that's controversial that needs to be divided out, 3 so I'm assuming that if you make a motion to adopt the Operations Committee report, that would be 4 5 adequate and time-saving, so --6 MR. THOMPSON: I'll make that motion. 7 MR. JENNISON: Seconded? MR. BRENN: Seconded. 8 9 MR. JENNISON: Moved and seconded. 10 Discussion? Seeing none, Kansas? 11 MR. BARFIELD: Aye. 12 MR. JENNISON: Colorado? 13 MR. HEIMERICH: Aye. MR. JENNISON: Motion carries. 14 Thank 15 you, Colin. 16 Administrative and Legal, Ms. Gimbel is not 17 here, so Randy, are you doing that? MR. HAYZLETT: Yeah, I'll do that. 18 Jennifer Gimbel was absent for the committee meeting 19 20 and she was to chair that, so Matt Heimerich sat in 21 in her place and convened the meeting and then 22 turned it over to me to run the meeting. 23 The Committee instructed Steve Miller, Sandra 24 Vaughn and Chelsea Juricek to produce typewritten 25 action items for the committee, as in the previous

The Committee Chairs for the Compact Year 2010 is a rotational basis. Engineering will be Matt Heimerich; Operations will be Dave Brenn; and Administrative and Legal will be Randy Hayzlett.

2.0

2.4

The Committee recommends that both States review and offer final comments and grammar edits to the 1980 Operating Plan by January 29th of 2010. On February 12th, 2010, ARCA will hold a special telephonic meeting to consider adoption of the revised 1980 Operating Plan.

Finally, the Committee also recommends to ARCA that the Special Engineering Committee be extended for calendar year 2010, and that completes my report.

MR. JENNISON: Okay. Can we give Stephanie, I think -- there she is. Stephanie, we have this time for your report.

MS. GONZALES: Just very briefly in regards to issues of the public access and storage of the ARCA records, the inquiry to the Lamar Library yielded concerns of the loss of ownership of the records, lack of available space, and lack of viewing devices at the library. It's advisable to pursue the option of digital archiving, which would remedy the problem, these problems that I just

```
1
         way to do it, as far as I'm concerned.
 2
                    MR. HAYZLETT: Okay. Kansas would move
 3
        the Vice-chair, Randy Hayzlett; Recording Secretary
        and Treasurer, Stephanie Gonzalez; Operations
 4
 5
        Secretary, Steve Witte; and Assistant Operations
 6
        Secretary, Kevin Salter.
 7
                    MR. HEIMERICH: Colorado seconds.
 8
                    MR. JENNISON: It's been moved and
 9
        seconded. Is there discussion? Seeing none,
1.0
        Kansas?
                   MR. BARFIELD: Aye.
11
12
                    MR. JENNISON: Colorado?
13
                   MR. HEIMERICH: Aye.
                   MR. JENNISON: Commissioner Hayzlett,
14
15
        appointment of committee chairs.
16
                   MR. HAYZLETT: Committee chairs for
17
        Compact Year 2010: Engineering, Matt Heimerich,
18
        chair; Operations, Dave Brenn, chair; and
19
        Administrative and Legal, Randy Hayzlett as chair.
20
                   MR. JENNISON: It's been moved.
21
                   MR. HEIMERICH: Second.
22
                   MR. JENNISON: Discussion?
                                                Seeing none,
23
        Kansas?
24
                   MR. BARFIELD:
                                  Ave.
25
                   MR. JENNISON: Colorado?
```

```
1
                    MR. BARFIELD: Aye.
 2
                    MR. JENNISON: Colorado?
 3
                   MR. HEIMERICH: Aye.
                   MR. JENNISON: The motion carries.
 4
 5
        Adoption of the budget.
 6
                   MR. HAYZLETT: Kansas moves that we adopt
        the budgets for the 2010-2011 year, is that correct?
 7
                   MR. MILLER: It's '11-'12, I believe.
 8
                   MR. HAYZLETT: 2011-2012.
 9
10
                   MR. MILLER: It's sitting in front of the
11
        Chairman, if you want to just read the title.
12
                   MR. JENNISON: You gave me too many
13
        papers at one time, Steve. '11 and '12; that's
14
        exactly right.
                   MR. HEIMERICH: Colorado seconds.
15
                   MR. JENNISON: Discussion? Seeing none.
16
17
                   MR. BARFIELD:
                                  Aye.
                   MR. JENNISON: Aye for Kansas.
18
19
                   MR. HEIMERICH: Aye.
                   MR. JENNISON: Colorado, aye. Motion
20
                 Method for approving transcripts --
21
        carries.
                   MR. HAYZLETT: Kansas moves that --
22
23
                   MR. JENNISON: -- or approval of the
24
        transcripts, I guess at this point.
25
                   MR. HAYZLETT: Kansas moves that we
```

1 MR. HEIMERICH: Aye. 2 MR. JENNISON: Motion carries. Approval 3 of Annual Reports. Commissioner Hayzlett? 4 MR. HAYZLETT: We recommend the approval 5 of the -- this is the Annual Report of 1994 is the only one we're dealing with here? 6 7 MR. MILLER: No. MR. JENNISON: Steve? 8 9 MR. MILLER: I submitted a draft report 10 last night to the Committee to begin the process of 11 reviewing that, not seeking approval today, but I 12 think the item on the agenda here maybe deals more 13 with the process that your committee is going to follow. 14 MR. HAYZLETT: Okay. But I think the 15 16 motion would be that the Administrative and Legal have the authority to approve the Annual Reports. 17 18 MR. JENNISON: Okay. Motion? 19 MR. HEIMERICH: Randy, you made that 20 motion? MR. HAYZLETT: 2.1 Yes. MR. HEIMERICH: Colorado seconds. 22 23 MR. JENNISON: Discussion? 24 MR. BARFIELD: Actually, I do want to 25 discuss this a bit.

We passed the motion, and I don't know how formal the motion was. We nodded heads or whatever, and it was basically in agreement that when the two State officials, the Director of the Conservation Board and the Chief Engineer of Kansas, thought it was appropriate, the report would be sent to the printer, so we didn't wait until the following December, but there was some formal action that set that in motion, and then it was a less formal process that said go ahead, you're done, and that's what we were looking for; that we don't wait and come here with 12 reports or three reports, whatever it turns out to be, next December; that as they get completed and the States are comfortable with what they say, put them out as published.

Nothing's forever, either, you know. We -- I think what we would -- if you want to limit this, a motion between now and the next Annual Meeting for how to deal with Annual Reports that get prepared in that period, and then you can redirect how you want to deal with the next set.

MR. BARFIELD: Yeah. I guess from my perspective, I would like to do it in that manner; just to sort of say for the coming year, that upon agreement of the Committee, those reports will be

Administrative and Legal Committee the authority to approve Annual Reports for completion and printing the backlog of Annual Reports for the current Compact Year. Is that -- does that work? Is that too much?

MR. MILLER: It sounds a little garbled to me. I think the part about the current Compact Year could reference the authority, so for the coming Compact Year, for the Compact Year 2010, which we just entered, the Administrative Committee has the authority to approve any of the backlogged Annual Reports that are prepared and found acceptable by the two States.

MR. HEIMERICH: Okay.

MR. MILLER: Maybe you can change the wording a little bit, but if the permission is for a year, the backlog is for many years, and as much of that as we can get done this year.

MR. HEIMERICH: Which, Steve -- so I'm sorry, Randy. David, why did you do this to me?

Is it the Committee recommends ARCA give the Administrative and Legal Committee the authority for the upcoming Compact Year to approve Annual Reports for completion and printing? Is that the key then?

MR. MILLER: I would put the Compact Year

MR. HAYZLETT: The Committee recommends 1 2 that ARCA give the Administrative and Legal 3 Committee the authority to approve Annual Reports for completion and printing. 4 5 MR. JENNISON: You've heard the motion. Is it seconded? 6 7 MR. HEIMERICH: Colorado seconds. 8 MR. JENNISON: Colorado seconds. 9 Discussion? Seeing none, Kansas? 10 MR. BARFIELD: Aye. 11 MR. JENNISON: Colorado? 12 MR. HEIMERICH: Aye. 13 MR. JENNISON: Motion carried. Okay. Ιs 14 that all of the Administrative and Legal to that 15 point? 16 MR. BARFIELD: Mr. Chairman, you didn't 17 really -- I forget each of the other committees. I 18 guess we just did all the items one at a time, as 19 opposed to sort of receiving the committee's report 20 as a whole, as we did the other reports. 21 MR. JENNISON: Mm-hmm. 22 MR. BARFIELD: Did we leave anything out 23 of the report, I guess, is the question? 24 MR. JENNISON: Well, you know, we did the 25 Operations Committee, Colin did go through and

1 | 2 |

Term of the Special Engineering Committee, and let me just go ahead and read it into the record.

Whereas, pursuant to Bylaw Article V.5., the Arkansas River Compact Administration by Resolution created the "Special Engineering Committee" at its December, 2005 Annual Meeting to resolve certain accounting and interpretation issues arising from the Resolution Concerning an Operating Plan for John Martin Reservoir ("The 1980 Operating Plan"); and

Whereas, the Special Provisions of the 2005
Resolution creating the Committee specify that:
"Term: The Special Engineering Committee shall be authorized for a period expiring on December 31, 2006, ARCA may extend this period by Resolution adopted at any regular or special ARCA meeting prior to that date"; and

Whereas, on December 12, 2006, at the 2006

Annual Meeting, the Administration adopted

Resolution 2006-07 extending the term of the Special

Engineering Committee until December 31, 2007; and

Whereas, on December 11, 2007, at the 2007

Annual Meeting, the Administration adopted

Resolution 2007-04 extending the term of the Special

Engineering Committee until December 31, 2008; and

Whereas, on December 9, 2008 at the 2008

1 MR. HEIMERICH: Colorado seconds. MR. JENNISON: It's seconded. 3 Discussion? Seeing none, Kansas? MR. BARFIELD: Aye. 5 MR. JENNISON: Colorado? 6 MR. HEIMERICH: Aye. 7 MR. JENNISON: Motion carries. 8 MR. MONTGOMERY: Mr. Chairman? 9 MR. JENNISON: Dennis. 10 MR. MONTGOMERY: There was one other item 11 on the action items of the Operations Committee, 12 which was Number 4. 13 MR. JENNISON: Yes. 14 MR. MONTGOMERY: The committee 15 recommended that the Compact Administration consider 16 including the Ten-Year Accounting tables in the 17 Annual Reports, and I don't know whether that was --18 the Compact Administration formally agreed to do 19 that, and if so, it seems to me that those tables 20 should be included as part of the record of today's 21 meeting, so I would recommend that the 22 Administration consider a motion to implement the Committee's recommendation and then the two tables 23 24 be made part of the exhibits for the meeting.

MR. JENNISON: Colin?

25

something that was done on a continuing basis for

all the future reports as well. That might be

incorrect, but I wanted to put that in front of the

Administration for their consideration, whether they

wanted the motion to be on a more forward-looking

basis or just for these two reports that are

referenced specifically in the motion.

MR. THOMPSON: My understanding is that we wanted to include it in the reports every year, I mean, as a matter of record, going forward.

MR. JENNISON: You want to clarify your motion?

MR. THOMPSON: If it's possible.

MR. MONTGOMERY: Let me raise an issue.

In the future, I think that is the intention. The

States would like to have the Ten-Year Accounting

tables, but in the future, there's a potential that

there will be a dispute, and so there then may be

subject to a dispute resolution procedure, so we

don't know if the tables have been agreed to at that

point; so I was comfortable with this current

recommendation or motion that's currently before the

Administration, and then presumably each year, the

specific table will be included in the minutes of

the Compact Administration's meeting, if there is an

1 that's what was done last year. This is simply to -- the motion would allow the inclusion of these 3 two particular tables, that the States have agreed 4 to, to be included in these two reports. 5 MR. JENNISON: Seeing no further 6 discussion, anybody need the motion reread? Okay. 7 Kansas? 8 MR. BARFIELD: Aye. 9 MR. JENNISON: Colorado? MR. HEIMERICH: Aye. 10 MR. JENNISON: Motion carries. 11 12 MR. BARFIELD: Mr. Chairman, I guess I 13 have one question now, based on our process here. 14 MR. JENNISON: Yes. 15 MR. BARFIELD: In the Engineering Committee report, we -- the Committee recommended 16 that certain exhibits be included in the minutes of 17 this meeting, correct, related to the Tri-State 18 19 matter and the Irrigation Improvement Rules. By the 20 Administration accepting this Committee 21 recommendation, were they agreeing to that, is my 22 question, or do we need to do that separately? 23 MR. JENNISON: That would be my 2.4 interpretation of parliamentary rules, but I want

you guys to feel happy with it. We adopted -- their

25

1	MR. JENNISON: That's a motion?
2	MR. BARFIELD: That's a motion.
3	MR. JENNISON: Seconded?
4	MR. HEIMERICH: I'll second.
5	MR. JENNISON: It's been moved and
6	seconded. Is there discussion? Seeing none,
7	Kansas?
8	MR. BARFIELD: Aye.
9	MR. JENNISON: Colorado?
10	MR. HEIMERICH: Aye.
11	MR. JENNISON: Motion carries.
12	MR. BARFIELD: All right. Secondly, I
13	have before me four packets, one for the court
14	reporter and for the chairman and the States, the
15	packet of correspondence between the two States
16	related to the Irrigation Improvement Rules. I
17	would like to offer those as attachments to the
18	record of this meeting.
19	MR. JENNISON: It's been moved.
20	MR. HEIMERICH: Second.
21	MR. JENNISON: Discussion? Seeing none,
22	Kansas?
23	MR. BARFIELD: Aye.
24	MR. JENNISON: Colorado?
25	MR. HEIMERICH: Aye.

1 MR. HEIMERICH: Aye. 2 MR. JENNISON: Motion carried. Anything 3 else to make things more clear? Kevin? 4 MR. SALTER: Just to be clear what you 5 guys did with those tables, is it clear to everybody 6 that those are part of the record? We only have one 7 copy right now for the court reporter, but I think 8 everybody else has had and seen copies of those 9 tables, so is it clear for the record that those are 10 exhibits to this meeting? 11 MR. BARFIELD: I believe it is. It's the 12 ones that the States jointly agreed on. There's 13 only one of those for each year. 14 MR. JENNISON: These are the ones that 15 are going to end up in the Annual Report anyway, 16 aren't they? 17 MR. BARFIELD: Correct. 18 MR. JENNISON: That's exactly right. 19 Anything else? That brings us to new 20 business. Public comment. I didn't have anyone 21 listed for public comment. We do have a little time 22 if there's -- we could maybe grant one or two 23 minutes if somebody was so compelled. 24 Seeing none, do we have assignments for the

Engineering Committee for the following year?

25

these water quality discussions; but it appears to me he threw out, at least, the idea that it's now on 3 the agenda of the Engineering Committee, and I think it would be helpful to Kevin and I at least, as well 5 as the Committee, to know if that's -- if the Administration thinks it's in their purview and 6 7 should be added to their agenda in the future, or if 8 you'd rather just meet with them in a less formal 9 way. I'm looking at Matt, 'cause you're on the 10 Engineering, but David's on there. 11 MR. BARFIELD: Can we have a moment to 12 discuss this? 1.3 MR. JENNISON: Yes. You guys want a 14 moment to discuss this? 15 MR. HEIMERICH: Yeah, I think so. 16 (Discussion held off the record.) 17 18 19 20 21 22 today. 23 24

25

MR. BARFIELD: Mr. Chairman, if I might report on our deliberations here, we are not asking this to be added to the Engineering Committee agenda at this time. We may, as we develop next year's agenda, request it, but we're not asking for that MR. JENNISON: Okay. Under future meetings, do we have any meetings that we need to talk about or plan at this point?

```
MR. THOMPSON: I don't make any money
 1
 2
         that day, either.
 3
                    MR. HEIMERICH: I think Colorado is in
 4
         agreement with February 11th being the revised date.
 5
                    MR. JENNISON: Should we have a motion to
 6
         set that in place? That might be the best.
 7
        Somebody want to make a motion to have that be the
 8
        date for our telephonic?
 9
                    MR. HEIMERICH: That's Operations, so it
        could be either David or Colin.
10
11
                    MR. HAYZLETT: It was our Committee that
12
        made that.
13
                   MR. HEIMERICH: Really? Okay. Why don't
14
        we just move that we'll push the date up for the
15
        telephonic conference for the approval of the
16
        revisions to the 1980 Operating Plan to
17
        February 11th, 2010.
18
                   MR. JENNISON: Second?
19
                   MR. HAYZLETT: Second.
20
                   MR. JENNISON: Discussion? Seeing none,
21
        Kansas?
22
                   MR. BARFIELD:
                                  Aye.
23
                   MR. JENNISON: Colorado?
24
                   MR. HEIMERICH: Aye.
25
                   MR. JENNISON: Motion carries.
                                                    Item B.,
```

1 that. 2 MR. HEIMERICH: I think we're inclined to 3 consider it. I'm not sure we're inclined to make a 4 decision at this moment, but I would add, though, 5 that we found the accommodations wonderful and 6 Kansans were great hosts to us, so I will put that 7 in the record, though. 8 MR. THOMPSON: Need to work on your 9 climate control a little bit. 10 MR. BARFIELD: Do we need a formal motion 11 to have the meeting in Lamar, December 14th of next 12 year? 13 MR. JENNISON: I think that it's set by 14 the by-laws, isn't it? 15 MR. BARFIELD: That's true, so we do not 16 need it. Okay. That's fine. 17 MR. JENNISON: If there's nothing else to 18 come before the Administration, I would entertain a 19 motion to adjourn. 20 MR. HEIMERICH: So moved. 21 MR. JENNISON: It's been moved. 22 MR. BARFIELD: Second. 23 MR. JENNISON: Seconded. All in favor, 24 say aye. 25 THE MEMBERS: Aye.

1		EXHIBIT LIST
2	Exhibits	accepted by ARCA follow in the order
3	introduc	ed:
4	Α.	Notice and Agenda
5	В.	Attendance List
6	С.	Executive Order Re-appointing Matt Heimerich
7		and Colin Thompson
8	D.	USGS Report
9	Ε.	U.S. Army Corps of Engineers Report
10	F.	Kansas letter dated September 11, 2008 re:
11		Tri-State Generation Decree
12	G.	Correspondence re: Colorado Surface Irrigation
13		Systems Improvement Rules
14	Н.	Resolution No. 2009-01: Regarding Fourth
15		Extension of the Term of the Special
16		Engineering Committee
17	I.	Ten Year Compact Compliance Accounting Tables
18		for 1998-2007 for CY2008 Annual Report
19	J.	Ten Year Compact Compliance Accounting Tables
20		for 1999-2008 for CY2009 Annual Report
21	К.	Operations Committee Action Item List
22	L.	Engineering Committee Action Item List
23	М.	Administrative & Legal Committee Action Item
24		List
25	N .	Financial Statement (Audit) Report FY08-09

STATE OF KANSAS COUNTY OF RENO This is to certify that I, Lee Ann Bates, a Certified Shorthand Reporter in and for the State of Kansas, reported in shorthand the proceedings had at the time and place set forth on the title page hereof and that to the best of my ability, the above and foregoing pages contain a full, true and correct transcript of the said proceedings. Certified to on this 25th day of May, 2010. ADVANCED COURT REPORTING SERVICES LEE ANN BATES, CSR, RPR, CRR 27113 W. Mills Avenue Plevna, Kansas 67568 (620) 793-6555 or (620) 664-7230 2.1

Exhibit A

Annual Meeting

December 8, 2009

This page intentionally blank

ARKANSAS RIVER COMPACT ADMINISTRATION

Lamar, Colorado 81052

For Colorado

Chairman and Federal Representative

For Kansas

Jennifer Gimbel, Denver Colin Thompson, Holly Matt Heimerich, Olney Springs Robin Jennison Healy, Kansas David Barfield, Topeka Randy Hayzlett, Lakin David A. Brenn, Garden City

NOTICE & AGENDA 2009 ANNUAL MEETING ARKANSAS RIVER COMPACT ADMINISTRATION

TUESDAY, DECEMBER 8, 2009 9:00 A.M. (CST)

North Ballroom Clarion Inn 1911 E Kansas Ave Garden City, Kansas

The 2009 Annual Meeting of the Arkansas River Compact Administration ("ARCA") will be held in Garden City, Kansas, on Tuesday, December 8, 2009, commencing at 9:00 A.M. CST (8:00 A.M. MST) in the North Ballroom in Clarion Inn, 1911 E Kansas Ave, in Garden City, Kansas. The meeting will be recessed for lunch at about 12:00 PM and reconvened for the completion of business in the afternoon as necessary. Meetings of the Administration are operated in compliance with the federal Americans with Disabilities Act. If you need a special accommodation as a result of a disability please contact Stephanie Gonzales at 719-734-5367 at least three days before the meeting. The tentative agenda for the Annual Meeting, which is subject to change, is set out below.

The Engineering, Operations, and Administrative/Legal Committees of the Administration will meet on Monday, December 7, 2009, The North Ballroom in Clarion Inn, 1911 E Kansas Ave, in Garden City, Kansas at 2:00 PM. CST (1:00 P.M. MST) and continuing to completion. Tentative agendas for the Committee meetings are also set out below. The public is welcome to attend the Committee meetings, but time for comments may be limited.

ENGINEERING COMMITTEE MEETING MONDAY, DEC. 7, 2009, 2:00 P.M. (CST) North Ballroom in Clarion Inn

TENTATIVE AGENDA (subject to change)
Presiding: Dave Barfield

- 1. Review committee agenda and procedure for minutes and/or committee report preparation assign staff
- 2. Status review of items currently before the Committee (items where there are no presentations or actions proposed)
 - A. Permanent Pool
 - B. Storage Account Request by the City of Lamar
- 3. Old business
 - A. USGS Big Sandy gage Pat Edelmann, USGS
 - B. Amity change of water right / Tri-State Colorado staff
 - C. Irrigation Improvement Rules Colorado staff
 - D. Special Engineering Committee discussion/extension action item
- 4. New business and other matters
 - A. Colorado Decision Support System for Arkansas River basin Colorado staff
 - B. Transit Loss Study between Pueblo and John Martin Reservoir update Colorado staff
 - C. Purgatoire River channel capacity study Dennis Garcia, Corps
- 5. Summary of action items / Committee assignments to staff
- 6. Future meetings
- 7. Adjourn

OPERATIONS COMMITTEE MEETING MONDAY, DEC. 7, 2009, 2:45 P.M. (CST)

North Ballroom in Clarion Inn

TENTATIVE AGENDA (subject to change) Presiding: Colin Thompson

- 1. Review committee agenda and procedure for minutes and/or committee report **preparation** – assign staff
- 2. Status review of items currently before the Committee (items where there are no presentations or actions proposed)
 - A. Pueblo Winter Water Storage split
 - B. Permanent Pool delivery (reservoir-to-reservoir)
 - C. Offset Account Reports / modification of past reports implementing the Offset Account Crediting Agreement (Appendix F.2 of the KS v CO Decree) / assigned to Special Engineering Committee
- 3. Reports of Operations Secretary and Assistant Operations Secretary
 - A. Operations Secretary Steve Witte
 - B. Assistant Operations Secretary Kevin Salter
 - C. Action item: Committee recommendation concerning CY2009 Operations and Assistant Operations Secretaries' Reports – action item
- 4. Colorado Division of Water Resources Offset Account Operations Report
- 5. Old business
 - A. Water Issues Matrix Kevin Salter
 - B. Approval of 2007 Operations Secretary Report action item
 - C. Approval of 2008 Operations Secretary Report action item
 - D. Ten-year Compact Compliance Accounting table action item
 - E. Special Engineering Committee discussion / extension action item
- 6. New business and other matters
- 7. Summary of action items / Committee assignments to staff
- 8. Future meetings: April and/or mid-Summer meetings
- 9. Adjourn

ADMINISTRATIVE & LEGAL COMMITTEE MEETING MONDAY, DEC. 7, 2009, 4:00 P.M. (CST)

North Ballroom in Clarion Inn

TENTATIVE AGENDA (subject to change)
Presiding: Jennifer Gimbel

- 1. Review committee agenda and procedure for minutes and/or committee report preparation assign staff
- 2. Status review of items currently before the Committee (items where there are no presentations or actions proposed)
- 3. Review Agenda for 2009 Annual Meeting
- 4. Recording Secretary Report
- 5. Financial Matters
 - A. Audit Report: review and approval Fiscal Year(FY) 2008-09 Report (7/1/2008-6/30/2009)
 - B. Treasurer Report
 - C. Budget review and recommendations to ARCA
 - i. Review of current FY 2009-10
 - ii. Review of adopted FY 2010-11
 - iii. Approval of USGS Cooperative Agreements
 - iv. Proposed FY 2011-12 budget and assessment

6. Old business

- A. Status of transcripts and/or summaries from prior meetings –Steve Miller & Kevin Salter
 - i. Annual meetings: 1993, 1998-2008
 - ii. Special meeting minutes and/or summaries
- B. Recommendation / approval of transcripts and/or summaries action item
- C. Annual Report preparation: 1994-2008 status Steve Miller
- D. Special Engineering Committee status action item
- E. 1980 Operating Plan revisions to include Special Engineering Committee Recommendations action item

7. New business and other matters

- A. Nomination of Officers action item
 - i. Vice-Chairman
 - ii. Recording Secretary and Treasurer
 - iii. Operations Secretary
 - iv. Assistant Operations Secretary
- B. Recommendation on appointment of Committee chairs action item
- 8. Summary of action items / Committee assignments to staff
- 9. Future meetings
- 10. Adjourn

ARKANSAS RIVER COMPACT ADMINISTATION 2009 ANNUAL MEETING

TUESDAY, DEC. 8, 2009, 9:00 A.M. (CST)

North Ballroom in Clarion Inn

TENTATIVE AGENDA (subject to change) Presiding: Robin Jennison

- 1. Call to Order: Chairman and Federal Representative, Robin Jennison (Instructions for those in attendance for benefit of court reporter)
- 2. Introduction of representatives and visitors
- 3. Review and revisions of agenda
- 4. Reports of Officers
 - A. Chairman Robin Jennison
 - B. Vice-Chairman Randy Hayzlett
 - C. Recording Secretary and Treasurer Stephanie Gonzales (defer to item 11)
 - D. Operations Secretary Steve Witte (defer to item 10)
 - E. Assistant Operations Secretary Kevin Salter (defer to item 10)
- 5. Kansas v. Colorado Status Update Chris Grunewald / Dennis Montgomery
 - A. Entry of Decree and relinquishment of specially retained jurisdiction
 - B. Amendment of Appendix A.4
 - C. Inclusion of annual Compact accounting table in ARCA Annual reports
 - D. LAWMA Decree
- 6. Reports of Federal Agencies
 - A. U.S. Geological Survey Pat Edelmann
 - i. General update on studies and activities
 - ii. Cooperative agreements for 2010
 - B. U.S. Army Corps of Engineers
 - i. General update on studies and activities
 - ii. Purgatoire River channel capacity study
 - C. U.S. Bureau of Reclamation
 - i. General update on studies and activities
 - ii. Trinidad Project 10 Year [1995-2004] Review

- 7. Tamarisk Control Projects Update Jean Van Pelt
- 8. Water Quality Update Tom Stiles
- 9. Reports from Local Water User Agencies
 - A. Southeastern Colorado Water Conservancy District not available
 - B. Lower Arkansas Valley Water Conservancy District Jay Winner
 - C. Purgatoire River Water Conservancy District Jeris Danielson
 - D. Update on Ark River Basin developments in Kansas Kevin Salter

10. Report of Engineering Committee

- A. Report from December 7, 2009 meeting David Barfield
- B. Engineering Committee recommendations action item

11. Report of Operations Committee

- A. Report from December 7, 2009 meeting Colin Thompson
- B. Operations Secretary Report Steve Witte
- C. Assistant Operations Secretary Report Kevin Salter
- D. Offset Account Report Steve Witte
- E. Operation Committee recommendations action item

12. Report of Administrative & Legal Committee

- A. Report from December 7, 2009 meeting Jennifer Gimbel
- B. Recording Secretary and Treasurer Report Stephanie Gonzales
- C. Administrative & Legal Committee Recommendations separate action items
 - i. Election of Officers
 - ii. Appointment of Committee Chairs
 - iii. Approval of audit report
 - iv. Adoption of budget(s)
 - v. Approval of transcripts
 - vi. Approval of Annual Reports

13. New Business and Public Comment

- A. Public Comment
- B. Assignments to Engineering Committee action item
- C. Assignments to Operations Committee action item
- D. Assignments to Administrative & Legal Committee action item

14. Future meetings

- A. Spring and/or mid-summer meeting(s) of Operations Committee
- B. Special Meeting(s) of the Administration and/or other committees
- C. 2010 Annual Meeting (December 14, 2010)

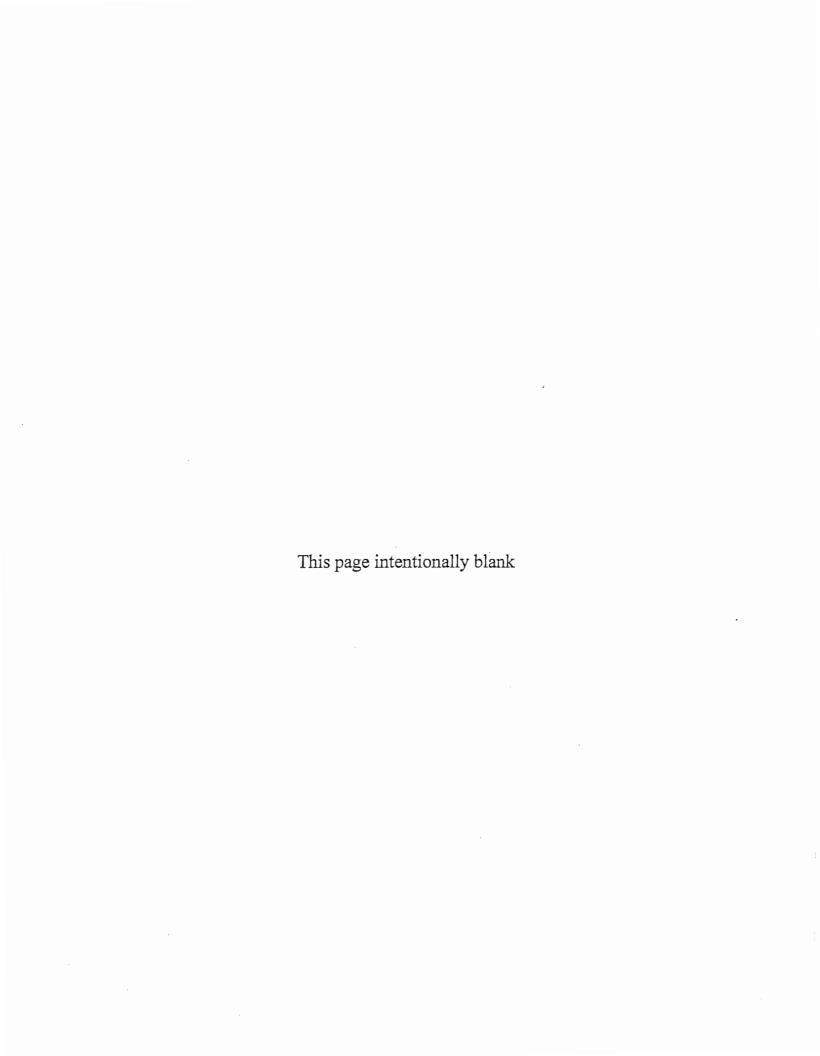
15. Adjourn



Exhibit B

Annual Meeting

December 8, 2009



ATTENDANCE LIST

2009 ARKANSAS RIVER COMPACT ADMINISTRATION ANNUAL MEETING Tuesday, December 8, 2009, 9:00 a.m. (CST) Clarion Inn, Garden City, Kansas

NAME	REPRESENTING	<u>ADDRESS</u>	PHONE & FAX	EMAIL	
Larry Jones	Finney Co. Comm.	Box 230	620-211-2358	larryjones a was net	
	Comm.	Holeamb Ks.			
Stavena, Henes	Frontier Detek	Box 147 Cooledge Ka POBAZZZ	620 372-8251		
Hal Scheuerman	Kearry Co. Farmers	POBALLE Deerfield Ko 67838	620-426-6073		
	Thursdandity Co.	p.o. Bax 597			
Rovald Conway	Great Eastin Ins. Assa		620-276-3246		
		Sander City Ks 2785 Minelka	620 277 - 2437		
al Knoll	Garden City Dick	RD &- C. Ks	67046		
Burke Griggs	Fauses Division of Water Resources	109 SW 9th St 4th Floor Topeka, KS CGG12	(785) 296-4616	burke.griggs@kda.ks.gov	
Angela Schenk	Spronk water Engineers	1000 LOJAN St Denver, CO 80303	(303) 861 -9700	ASCHENKO SPRONKLIAMI	
Dult Book		pe 11	11 11	Jehocka Spronkwater.	
Marvid Knoll	Jinny Co Water Lises Chase O'tchesof Komes	4125 N anderson Rd. German City Ks. 67816	420-477-4453		
Chris Beightel	KS-DWR	1095W9thSt Topeka, K566612	785-296-3870	Chris. baightele Kda.kg.gov	
Mike Meyer	KAA/AWR	60	620-276-290/		
MARK RUDE	SW. KS. GROUNDWATER MWAGEMENT DIST. #3	GC ,	620-275-7147	MRUDE @GMB3.ORG	

ATTENDANCE LIST

2009 ARKANSAS RIVER COMPACT ADMINISTRATION ANNUAL MEETING Tuesday, December 8, 2009, 9:00 a.m. (CST) Clarion Inn, Garden City, Kansas

<u>NAME</u>	REPRESENTING	ADDRESS	PHONE & FAX	<u>EMAIL</u>
CHRIS LAW	SWKS GROWN CHATER MNGT SWKS	2009 E SPRUCE GC KS	2757147	claw@gmd3.org
Juson Norquest	5W KS Groundenster Magt. #3	2009 E. Spruce GC. KS	275-7147	norquest@gmd3.org
Andrew Clark	4395 - KS	1390 E 8th St. Hays, KS 67601	P 786 760 3100 F 786 628 8790	alclark@usgs.gov
Par Alven		20, 8 9 0 50 74614 OD 50003	7/7/9/30% 1121 419	Empley of the server of
Don Steerman	Dist 67 Ditches	P.O. Box 880	719-336-4313 F 719-334-4315	Shinn steemanlack Centurytel. Wet
Jay Winner	LAUWED	LAMAR CO 8105L SOI Swink Pueblo \$1004	719-284-5118	winner O century tel . 10
Bryan Woudstra	The Toro Company	3103 55 NOV 24	578-1171-7139	Bryan, Woudstra @ c
mike Sullivm	COWR	1313 ShermM Dr. va GUZUS	303-566-325)	m. Le 3-11 mi Ostata. Caces
GREG NAUGLE	COPHE/ Was	DENJER BOLLY	303-692-3582	grig. Maryla Style Co. US
RANDAE RISTAU		11	303-692-3571	randalitistane State.co.us
Dick Parachini	CNPHE-WYCH	ASCE Cherry Creek Drive South Dehver CO XOXHE	303-692-3514	Lick, purachinie Late, cc.48
om Stiles	KDHE-WPS	1000 5 Jackson Sto	785-296-6170	Titles & Kilheks gov

ATTENDANCE LIST 2009 ARKANSAS RIVER COMPACT ADMINISTRATION ANNUAL MEETING Tuesday, December 8, 2009, 9:00 a.m. (CST) Clarion Inn, Garden City, Kansas

NAME_	REPRESENTING	ADDRESS	PHONE & FAX	EMAIL
VAN TRYAN	us. Army corps of Englineers	200 S. Sinta Fe Ave Suite 301, Pueblo, Colo, 81003	719-543-6415 719-543-9475 PDA	Van.a. truch ousaceuray in
SANDY RAYL	U.S. ARMY COLPS	721 19th 5+#485 DENVER, CO80202	909 629 0906 309 629 0347 FAX	SANDY, L. RAYLOUSACE, ARMY, Mil
Major Andre Balyoz	Engineers - Albuquerque	4101 Jesteron PhraNE - Albagnerque, NM 87109		usace army mil
Mark Yuska	USACE, Alba District	11 10 11/1/1	505-342-3608	Mark. e. guska A Usace, army, mil
Daws E. GARCIA	l'	41	505 342 3380	LISACE. ALVEY. M.
Tim Weyer	Bureau J Redgmation	Most w county Rd 18E Moveland, CO 80537	970-962-4341	tdmeyer@usbr.gov
POB Phillips	Coloropa DWR	310 & Abrie uss Pueblo, CO 81003	719-542-6483	robert. phillipse state.
Peter Ampe	State of Colorado	1525 shermanst Denvo gozzo	303 - 866-4500	peto-angilostationes
JERIS DANIELSON	PURLATORE RWER WATER CONS. DIST	1) CAVO GOZZO SIT BELLEVIEW AVE LA JUNTA CO SIOS	719-986-0075	Jeris danielson & hetmail.com
Trajeir E. mor	Redamation	11056 W CR 18E Lowland, CP \$0537	970-982-4362	agilmore 6 usbr. gov
BILL TYNER	COLORADO DN WATER RES.	310 F. ABRIENDO AVE SUITEB, PUEBLO, CO 81003	719542-3368 x 21/D	bill. Tymer pstate cons

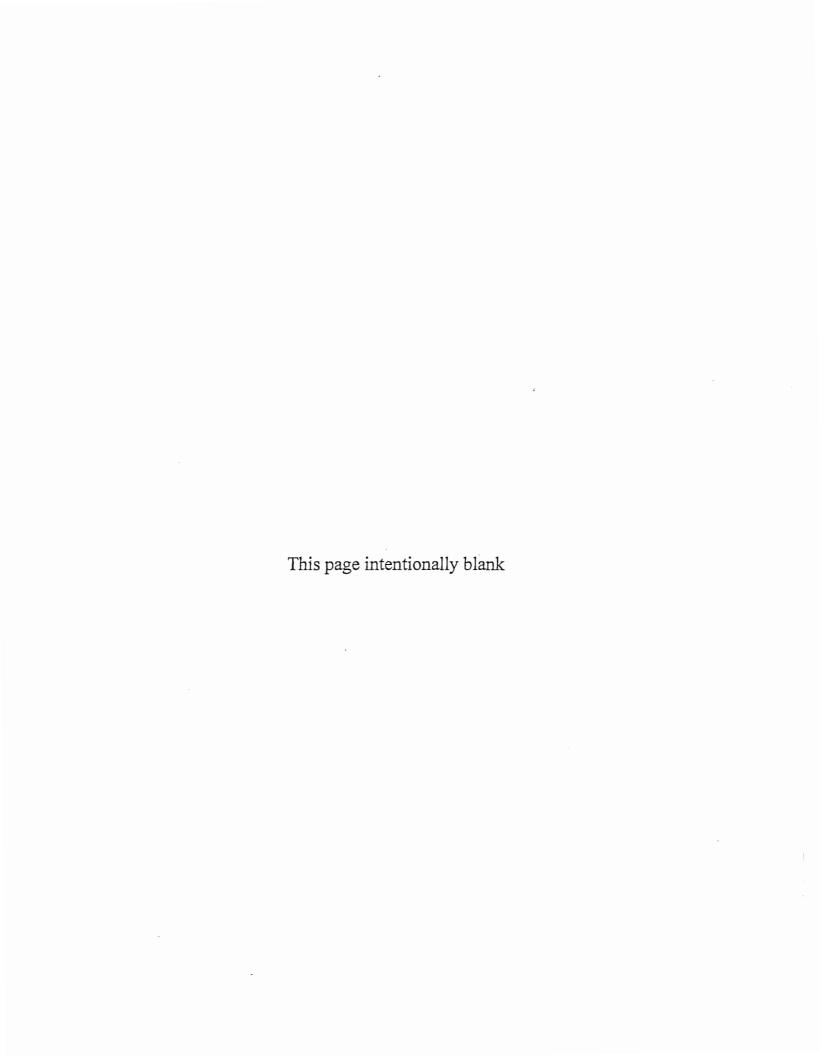
ATTENDANCE LIST 2009 ARKANSAS RIVER COMPACT ADMINISTRATION ANNUAL MEETING Tuesday, December 8, 2009, 9:00 a.m. (CST) Clarion Inn, Garden City, Kansas

NAME	REPRESENTING	ADDRESS	PHONE & FAX	EMAIL
5+8 ve 45.16~	Colorate Custon	1313 Shirman St #721 Denviro Ecces	303 91010-3441- Ext 3228	inos, dietzofilinedrotz
Stephanie Gonzales	ARCA. (Recording Sec / Treas)	PO BOX 1104 Lamar CO 81052	719-734-5102	jsgraphics@centuryte
Gear Van Peit	SE COLURADO WATERE CONSERVANCY Distric	31717 United Are	719-948-2400	jean@secued.com
Steve Wite	Colo DN Water Res! FRCA Opo Sea.	310 E. Abriendo Suite B Pueblo, CO 81003	719-542-3368	steve. With a state of us
THOM MAKEENS	KSaur	ONFELS		

Exhibit C

Annual Meeting

December 8, 2009



STATE OF COLORADO

OFFICE OF THE GOVERNOR

136 State Capitol Building Denver, Colorado 80203 (303) 866 - 2471 (303) 866 - 2003 fax



A 207 09

EXECUTIVE ORDER

MEMBERS

ARKANSAS RIVER COMPACT ADMINISTRATION

ORDERED:

That the following named persons be and they are hereby reappointed to the:

ARKANSAS RIVER COMPACT ADMINISTRATION

for terms expiring August 16, 2013:

Matthew D. Heimerich of Olney Springs, Colorado, a resident of and water right owner in water district 14 or 17, reappointed;

Colin Thompson of Holly, Colorado, a resident of and water right owner in water district 67, reappointed.



GIVEN under my hand and the Executive Seal of the State of Colorado, this twenty-fourth day of August, 2009.

Bill Ritter, Jr. Governor

Exhibit D

Annual Meeting

December 8, 2009



Report of U.S. Geological Survey Water-Resources Activities in the Arkansas River Basin of Colorado to the Arkansas River Compact Administration

December 7, 2009

In 2009, 10 streamflow gages were operated under the USGS/ARCA cooperative program; eight in Colorado and two in Kansas. Final annual flows for WY2009 are shown in the following table.

No significant problems were encountered in the network with the exception of continuing beaver dam problems at the Big Sandy near Lamar gage. The Colorado Department of Transportation (CDOT) has turned the maintenance of Highway 196 over to the county and therefore the removal of beaver dams at the culvert below the Big Sandy Creek near Lamar gage is uncertain. A significant number of beavers were trapped and removed by a trapper under contract with the CDOT. This combined with the removal of matterials below the gage has improved the 2009 record significantly. At this time beaver dams below Highway 196 are beginning to cause backwater and could make solving the problem more difficult given the distance downstream on private property.

In 2010, the USGS proposes to continue operation of the 10 streamflow gages.

Summary of Mainstem and Tributary Flows, Water Years 2008 and 2009

Station Name	WY2009 Annual Flow, in Acre Feet	WY2008 Annual Flow, in Acre Feet	2009 as % of 2008	2009 as % of Average
Arkansas River at Las Animas	154,700	204,500	76	105
Purgatoire River near Las Animas	33,220	29,460	113	73
Arkansas River below John Martin Reservoir	192,000	222,600	86	94
Arkansas River at Lamar	47,550	51,100	93	56
Big Sandy Creek near Lamar	8,490	9,650	88	78
Baseflow	6,310	8,330		
Above Baseflow	2,180	1,320		
Arkansas River near Granada	70,890	69,710	102	54
Wildhorse Cr. above Holly (Oct, Nov, Apr-Sept)	7,540	3,540	213	
$(April - Sept)^2$	3,590	2,320	139	. 156
Arkansas River near Coolidge	99,330	97,260	102	64
Frontier Ditch near Coolidge	8,770	8,660	101	

Beginning 2002 to present

²From 1998 to present

Other USGS water activities within the Arkansas River Basin inlcudes:

Measuring water levels in between Pueblo and the CO-KS Statleine from approx 120 wells twice per year;

Measuring water levels once per year upstream of Pueblo Reservoir from 20 wells;

Measuring water levels in El Paso County twice per year in approx. 70 wells;

Measuring water levels in Custer County twice per year in 60 wells;

In 2009, we completed analysis and draft reports identifying source of E-Coli in Upper Fountain Creek; a retrospective analysis of the occurrence and distribution of dissolved solids, selenium, and uranium in ground water and surface water in the Arkansas Basin in Colorado.

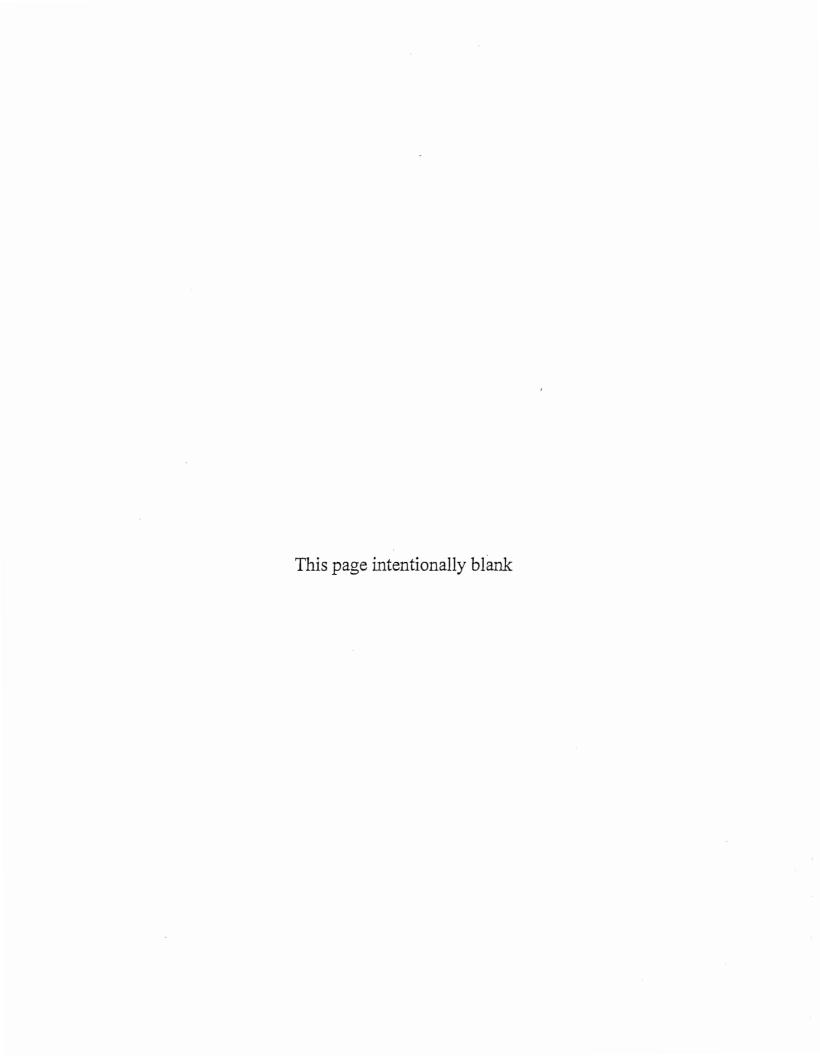
Began a study to develop a water budget of the basin-fill deposits in the Salida-Buena Vista Basin.

Began a long-term study to determine source areas, and the dominant processes that effect water quality between Canon City and Las Animas inleuding Fountain Creek. This included installing and operating 8 additional coninuous Sp. Conductance monitors and 17 transducers at ungaged locations. These data will be used in addition with the 13 other continuous Sp conductance monitors, streamflow and diversion data, and a large number of periodic water quality measurements to determine crtical stream reaches where stream-aquifer interactions have a pronounced effect on water quality.

Exhibit E

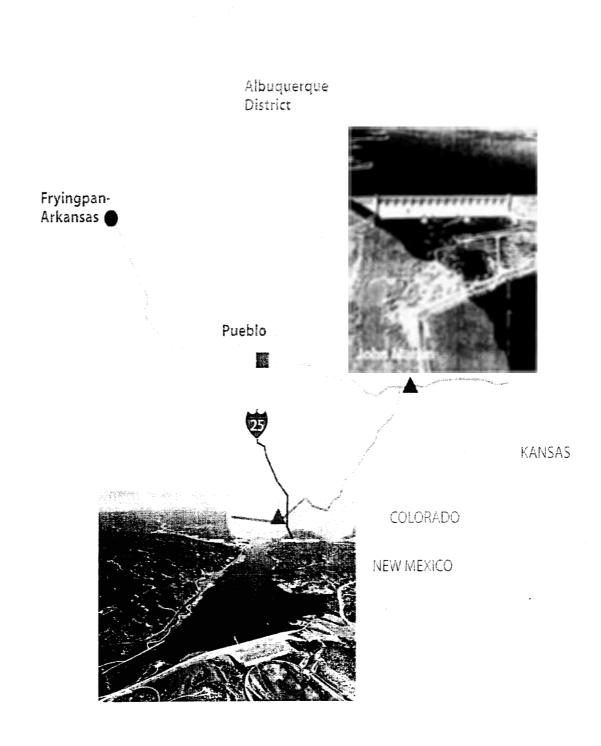
Annual Meeting

December 8, 2009



Présented By. Major Andre Bolyoz Albujuanque Districe Corps et Engineen

Arkansas River Basin





Report of Civil Works Activities for 2009

- 1. <u>General</u> During 2009, activities of the U.S. Army Corps of Engineers, Albuquerque District (Corps) in the Arkansas River Basin consisted of reservoir regulation, flood-control related studies, flood plain management services, regulation under Section 404 of the Clean Water Act, and emergency assistance.
- 2. <u>Flood Control Operations</u> The Arkansas River Basin snowmelt runoff was above normal throughout the upper basin, and slightly below normal in the southern sub-basins.

The upper Arkansas basin in terms of snow pack, reached a near normal high of 98% of average. The southern sub-basins however, were below average in snowpack at 35% of average.

There were no Corps flood-control operations at Trinidad, John Martin, or Pueblo Reservoirs.



Trinidad Lake, 2005. USACE photograph.

John Martin Reservoir

Sediment Deposits - An accumulation of sediment on the dam's upstream face was hindering scheduled maintenance and inspection of the emergency sluicing gates. In an effort to alleviate the problem, the Corps issued a contract to hydraulically dredge and remove approximately 82,000 cubic yards of sediment material. The operation was completed in February, 2009.

Upon completion of the sediment removal operation, bulk heads were set in place on all 6 conduits and the emergency sluicing gates were then inspected. Deteriorating packing glands were also replaced.

Sediment Surveys - In an effort to update the area-capacity tables for both John Martin Reservoir and Trinidad Lake, the Corps conducted hydrologic surveys in the spring of 2009. The new tables are undergoing a final review and will be available and in place by February 2010

Trinidad Lake

Embankment repair - A project to repair portions of the embankment immediately downstream of the outlet works below Trinidad Dam was completed in January 2009. The embankments were damaged during releases in August of 2004. A tiered Gabion basket system was used to line both sides of the channel for approximately 170' below the outlet works.

Trinidad Downstream Capacity Study - The Corps, along with the United States Bureau of Reclamation (USBR) and other state and local agencies combined resources in FY08 in an effort to conduct a study to definitively determine the existing hydraulic capacity of the Purgatoire River below Trinidad Lake. To date, aerial mapping and surveying data was collected and the hydrologic model development and final report are now complete. The collaborative effort undertaken for this study was key and the same group is planning to meet in early 2010 to begin identifying items of concern, and to formulate plans to move forward and address them.

3. <u>Planning Assistance to States (Section 22) Program</u> Under authority of Section 22 of the Water Resources Development Act of 1974 (WRDA), the Corps is authorized to assist Non-federal entities in the preparation of comprehensive plans for the development, use, and conservation of water and related land resources.

There are no new or ongoing studies in the Arkansas Basin under the Planning Assistance to States Program.

- **4.** <u>Continuing Authorities Program</u> There are three active Continuing Authorities Program projects in the Arkansas River basin.
- **a.** <u>Section 205</u> Under Section 205 of the 1948 Flood Control Act, as amended, the Corps is authorized to plan and construct small flood damage reduction projects that were not authorized by Congress.

Currently, there are no active Section 205 projects in the Arkansas River Basin.



Arkansas River, 2001. Photograph Van Truan, USACE.

b. <u>Section 206</u> The 1996 Water Resource Development Act provided authority for aquatic ecosystem restoration projects in areas unrelated to existing Corps water projects.

There is currently one active Section 206 project in the Arkansas River Basin, the Arkansas River Fisheries Habitat Restoration project. The Project Cooperation Agreement was signed with the City of Pueblo in April of 2002. The project will improve fish and riparian habitat along ten miles of the Arkansas River downstream of Pueblo Dam.

The majority of construction work has been completed, including J-hooks, weirs, a fish ladder, vegetated bars, boulder clusters, exotic vegetation removal and replantings. The project is scheduled for completion in FY10.

c. <u>Section 14</u> Under Section 14 of the 1946 Flood Control Act, as amended, the Corps provides emergency streambank protection works to prevent damage to public facilities.

Currently, there are no active Section 14 projects in the Arkansas River Basin.

d. <u>Section 1135</u> The 1986 Water Resources Development Act authorized the review of completed water resources projects to implement modifications that improve the quality of the environment, when environmental degradation resulted from the Corps project.

Currently, there are no active Section 1135 projects in the Arkansas River basin.

One potential Section 1135 feasibility study would determine Federal interest in removing exotic vegetation and replanting with native vegetation at John Martin Reservoir. The sponsors are Colorado State Parks and Colorado Division of Wildlife. The project is currently unfunded.

5. <u>General Investigations</u> The Corps' General Investigations program provides for large comprehensive solutions to complex problems that can explore solutions on a watershed scale.

Currently, there are no active General Investigations in the Arkansas River basin.

6. Flood Plain Management Services The Corps Flood Plain Management Services (FPMS) Program authority stems from Section 206 of the Flood Control Act of 1960 (PL 86-645), as amended. The objective of the Flood Plain Management Services Program is to support comprehensive floodplain management with technical services and planning guidance at all appropriate governmental and community levels. These services are provided to State, regional, and local governments and Indian tribes at no cost. Section 321 of the Water Resources Development Act of 1990 requires recovering the cost of services provided to federal agencies and to private entities. A fee schedule has been established.

Section 202 of the Water Resources Development Act of 1999 (PL 106-53) authorizes the Secretary of the Army to collect funds contributed voluntarily from State, regional, and local governments, Indian tribes, and other Non-federal public agencies for the purpose of recovering the cost of providing services pursuant to Section 206.

Services available include assistance relating to the interpretation and evaluation of basic flood-hazard data, guidance in preparation of floodplain regulations, advice on the use of data regarding possible alternative developments in flood-

prone areas, guidance on structural and nonstructural measures that might be employed to reduce flood hazard, and in some cases, development of basic flood-hazard data.

Governmental agencies or persons having a need for these services should contact the U.S. Army Corps of Engineers, Hydrology and Hydraulics Section, 4101 Jefferson Plaza NE, Albuquerque, New Mexico 87109-3435, telephone 505-342-3333, or consult the FPMS web page at:

http://www.spa.usace.army.mil/fpms.

Under authority of an *Interagency Agreement* with the Federal Emergency Management Agency Region VIII, the Corps initiated in 2004 a Flood Insurance Study for a portion of Black Squirrel Creek and 5 tributaries in El Paso County, Colorado. The digital topographic mapping for the study area was developed by the El Paso County Department of Transportation and funded by the Corps. The study was submitted to the Federal Emergency Management Agency (FEMA) for review, and comments are currently being addressed.

In addition to this study, the Corps received approximately ten requests for technical services at specific sites within the Arkansas River Basin.

7. <u>404 Permits</u> Section 404 of the Clean Water Act prohibits discharges of dredged or fill materials into waters of the United States, including wetlands, without a permit from the Corps.

In 2009, 5 individual permits were issued in the Arkansas River Basin. An additional 181 activities in the basin were reviewed during the period and most were covered under nationwide permits.

Persons or agencies who are planning to conduct fill or excavation activities in any waterway are advised to contact the Southern Colorado Project Office, 720 North Main, Suite 205, Pueblo, Colorado 81003, (719) 543-9459. Information, including all public notices, is also available on our web home page at: http://www.spa.usace.army.mil/reg/.



USACE Emergency Management employee. Waveland, MS USACE photograph.

8. Emergency Management Coordination

Public Law 84-99 gives the Corps of Engineers the authority to assist state and local governments before, during and after flood events. The Corps' Geotechnical Branch works with Local governments to inspect numerous flood control projects throughout the Arkansas River Basin to ensure that these facilities are in proper operational condition for the next flood season.

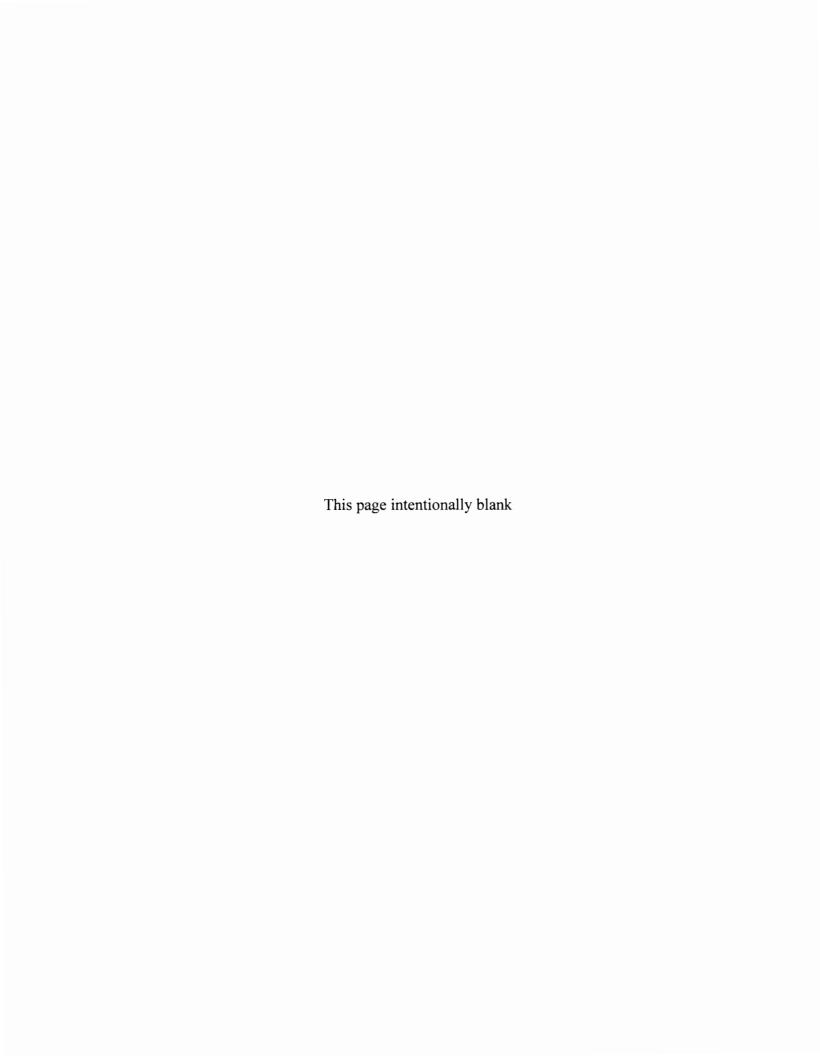
During years with high snow pack, the Corps works with the Colorado Water Conservation Board to prepare for flood fight activities that may be required.

During the past year, the Readiness & Contingency Operations Office (formerly Emergency Management Branch) received no contacts from local governments and private citizens in the Arkansas River Basin requesting information or assistance regarding flood related activities.

Exhibit F

Annual Meeting

December 8, 2009



COUNSEL EMERITUS William R. Federici

J.O. Seth (1883-1963) A.K. Montgomery (1903-1987) Frank Andrews (1914-1981) Seth D. Montgomery (1937-1998)

Victor R. Ortega Gary Kilpatric Thomas W. Olson Walter J. Melendres John B. Draper Nancy M. King Sarah M. Singleton Stephen S. Hamilton Edmund H. Kendrick Louis W. Rose Randy S. Bartell Paul E. Houston Kevin M. Sexton Jeffery L. Martin Alexandra Corwin Aguilar Jeffrey J. Wechsler Shannon A. Parden Brian T. Judson Susan R. Johnson Holly Agajanian Sharon T. Shaheen Jaime R. Kennedy

OF COUNSEL Joe A. Sturges J. Scott Hall Suzanne C. Odom Earl Potter, P.A.

MONTGOMERY & ANDREWS

PROFESSIONAL ASSOCIATION ATTORNEYS AND COUNSELORS AT LAW

325 Paseo de Peralta Santa Fe, New Mexico 87501

Post Office Box 2307 Santa Fe, New Mexico 87504-2307

> Telephone (505) 982-3873 Fax (505) 982-4289

September 11, 2008

ALBUQUERQUE OFFICE

6301 Indian School Road, N.E. Suite 400 Albuquerque, New Mexico 87110

Post Office Box 36210 Albuquerque, New Mexico 87176-6210

> Telephone (505) 884-4200 Fax (505) 888-8929

www.montand.com

Reply to Santa Fe Office

By Email and U.S. Mail

Eve W. McDonald, Esq.
Assistant Attorney General
Natural Resources Section
Colorado Attorney General's Office
1525 Sherman St., 5th Floor
Denver CO 80203

RE: Tri-State Colorado Water Court Application,

Case No. 07CW74, Water Div. 2

Dear Ms. McDonald:

Kansas appreciates the opportunity to comment on the Tri-State proposed decree in the above-referenced case. The proximity of the project to the Stateline increases its potential to materially affect Kansas' rights under the Arkansas River Compact. The comments contained in this letter are based on the second proposed draft (07CW74 Draft Decree v.2, July 31, 2008) and the associated engineering reports (Bishop-Brogden Rep. Jan. 2008 and Supp. Rep. June 2008).

Based on our preliminary review, we have the following concerns at this time:

Prompt Beneficial Use: Article V-E of the Arkansas River Compact provides:

- "(1) Releases of stored water and releases of river flow may be made simultaneously upon the demands of either or both States.
- (2) Water released upon concurrent or separate demands shall be applied promptly to beneficial use unless storage thereof downstream is authorized by the Administration."

These provisions have been addressed by the Special Master as follows:

"The Compact simply refers to "releases of stored water," as well as to releases of river flow. Article V-E(1). The Compact then requires that such releases must be "applied promptly to beneficial use," unless downstream storage has been authorized by the Compact Administration. Article V-E(2)." 3 First Report of Special Master, Part IV, "Order Granting Kansas' Motion to Dismiss Colorado's Lake McKinney Counterclaim," at 443, Kansas v. Colorado, No. 105, Orig. (1994).

The storage of Amity Canal water released, whether from storage or river flows, from John Martin Reservoir for supplying the proposed power plant or for an off-stream recharge project is not prompt beneficial use under Article V-E(2). Therefore, Arkansas River Compact Administration (ARCA) authorization is necessary. Kansas would also note that any water stored in John Martin Reservoir, including Amity Section III water, is subject to the Article V-E(2) Compact requirement of ARCA authorization as a condition of downstream storage.

Amity Canal Change of Water Rights: Any changes to the Amity water rights should be limited by the historical use. Because of the changed nature of the water rights, it is necessary to include in the decree historical use limitations to the water rights. Amity's irrigation use was governed by its priority, the water supply, timing, quantity and crop demands. The new use should be limited strictly to historic water use. Volumetric limits should be imposed to prevent expanded use, which would constitute improved and prolonged functioning of the Amity diversion and storage works.

The applicant proposes retiming of return flows. Any retiming of return flows represents a material depletion of usable Stateline flow in violation of the Compact. Kansas is therefore opposed to the retiming of return flows. Return flows should be replaced to the river at the historical time, quantity and location. The Stateline flow must remain unaffected by the proposed operations.

New Storage Water Right: The proposed decree includes a request for a new conditional water right to fill and refill a 70,000 acre-foot reservoir, with a July 31,

September 11, 2008 Page 3 of 6

2007 priority date, to be filled in part by new diversions from the Arkansas River and its tributaries.

As a general proposition, given the postcompact development that has occurred in the Arkansas River Basin, there is no unallocated water except perhaps under the most extraordinary circumstances. The criteria currently proposed in the decree for storing water in this reservoir under a July 2007 priority are inadequate. The proposed criteria should be specifically defined by the applicant. The criteria should include, but not necessarily be limited to, objective definitions of (1) when a "spill" is occurring from John Martin Reservoir that would allow storage, (2) other flow conditions under which storage would be allowed, (3) the conditions on storage of tributary water, and (4) diversion rate limitations, all of which criteria must be set so as to avoid a Compact violation. Given the operational difficulties of differentiating between the new diversions and John Martin releases for the benefit of the proposed reservoir, these criteria should also be submitted to ARCA.

Change to Miscellaneous Water Rights: Tri-State is claiming consumptive use credit on water rights decreed on drains or draws in the Amity Canal service area. It appears that the lands historically irrigated by these water rights have been included as part of the Amity Canal irrigated lands and some may also be served by the Amity Canal. Our review suggests that these water rights are seepage rights dependent upon irrigation originating from the Amity Canal. The consumptive use attributed to these diversions is already included in the results of the H-I Model for the Amity Canal through the farm efficiency used in the model, which, in turn, is used to quantify the historic use of the Amity (See ¶ 15 of Decree). Therefore, no separate credit should be attributed to the Miscellaneous Water Rights unless the Amity historic use credit is appropriately reduced and the credit is limited by the measured amounts of water available at that point of diversion. All other considerations should also be taken into account, including groundwater pumping, comingling of Amity Canal water, appropriate farm efficiencies, limits based on historical use, etc. We note that diversion records for these rights are sparse or nonexistent, calling into question the consumptive use attributed to these rights. Any lands that were irrigated under these water rights should be completely dried up from any irrigation.

New Well Field: Tri-State is proposing new wells that will draw from the Arkansas River alluvial aquifer, bench or terrace formations, and the Dakota Aquifer. All depletions caused by the pumping of the wells must be replaced in time, quantity, and location. The information provided was not sufficient to determine the amount of stream flow depletions expected to occur from the proposed pumping. These depletions will affect the mainstem as well as drains, draws and other watercourses. The procedure to estimate depletions from Dakota Aquifer pumping appears to be inadequate. A model is necessary to test the very

September 11, 2008 Page 4 of 6

favorable assumptions that the applicant makes in its favor. The assumptions do not appear to be reasonable.

Augmentation Well Pumping: Tri-State requests approval of pumping for augmentation, in addition to providing a water supply for the power plant. This results in stream depletions in excess of the available replacement supply. Tri-State anticipates constructing and utilizing reservoir and recharge storage for the purpose of re-regulating the Amity Mutual Irrigation Company (AMIC) supply to supply the power plant or replace pumping depletions. Augmentation pumping should not be authorized for the following reasons:

- Appendix G.1 of the Proposed Decree in Kansas v. Colorado, No. 105
 Orig., U.S. Sup. Ct., requires an affirmative demonstration that usable
 Stateline flows will not be depleted. The augmentation pumping will, if
 not replaced, undoubtedly deplete usable Stateline flows. Therefore, it is
 incumbent upon the applicant to make a showing including a showing
 that the specific offsetting precompact water rights have been secured
 and are sufficient in time, amount and location to fully offset the effects
 on the river.
- Adequate replacement supply to offset well depletions caused by this additional pumping has not been secured.
- The need for augmentation pumping has not been established.
- The plan contains no limitation on such pumping to available replacement supplies.
- The plan allows depletions to be unreplaced under certain conditions, which will reduce Stateline flows due to new pumping.
- Augmentation pumping into the draws and drains for the purpose of replacing depletions to the Arkansas River results in transit losses that are difficult to quantify. Current methodologies being used by Division 2 result in underestimation of such losses, both evaporative and bank storage.

Overall, this proposal appears to be unworkable. At a minimum, it is very complicated because of the multiplicity of possible operations being proposed. Moreover, the proposal is extremely sensitive from Kansas' point of view because the proposed project is so close to the Stateline. Because periods of excess flow on the Arkansas River are extremely infrequent, augmentation well pumping should not be allowed.

Recharge Project: Extensive recharge is being proposed near the Stateline. The plan proposes numerous recharge ponds scattered over a large area. These ponds increase the complexity of monitoring and accounting. Each site must have instrumentation for accounting specific to that site, with deductions for:

September 11, 2008 Page 5 of 6

evaporation, losses to nearby drains, draws, and other water conveyances, additional evapotranspiration around recharge ponds, etc. Each pond will need to be evaluated for the interaction with groundwater wells that continue to be used for irrigation. For recharge that accrues to draws and drainages, measuring flumes must be used to confirm predicted recharge. For water quality considerations, recharge ponds should not be located on lands with high salinity.

Reservoir Seepage Credits: Tri-State has claimed recharge credits from seepage from the new reservoir to allow additional pumping. The recharge is proposed to be determined as the residual in the calculated water budget for the reservoir. This will require detailed measurement and accounting of the reservoir inflows and outflows. The difficulty with this proposal is the inability to accurately measure all of the evaporation associated with seepage losses down gradient of the reservoir, which appears to be ignored in the proposed decree accounting. Reservoir evaporation will need to be measured with instrumentation at the reservoir. Effective precipitation must be applied against evaporation and must not be overstated.

It is expected that the reservoir will be a gaining reservoir due to upstream irrigation, and provision must be made to measure and release the gains through the reservoir. Special provision must be made to pass inflows on a daily basis. Reservoir accounting, including seepage, should be on a daily basis.

Augmentation Plan: The details of the augmentation plan haven't been reviewed, but in general, it should require replacement of depletions in time, quantity, and location. Additionally, there shouldn't be any carry-forward of depletions or accretions from month to month. This plan needs to balance on a monthly, or shorter, basis for groundwater effects of pumping and recharge, and depletions need to be replaced as they occur.

The total water use under the decree should be limited to a specific amount equal to the 20,000 AF per annum required to operate the power plant, plus other evaporation.

The draft decree proposes use of unidentified temporary replacement supplies. This should not be allowed. Any additional replacement sources, even if used temporarily, should be allowed only with Colorado Water Court approval.

Water Quality: Kansas has been concerned about elevated levels of salinity and selenium in the Arkansas River at the Stateline for some time. The proposed project has the potential to further degrade Stateline water quality. The decree should therefore protect water quality at the Stateline. Until it does so, the application and proposed decree are inadequate.

September 11, 2008 Page 6 of 6

General Concerns: Any reservoir constructed as part of this project should be limited to uses related directly to the power plant. For instance, exchanges for other purposes using water stored in the reservoir should not be allowed.

Tri-State has proposed that the Amity Canal will operate as if it were used solely for irrigation. Accordingly, any decree must have terms and conditions requiring such operation. Please provide Kansas with a copy of the Operating Agreement between Tri-State and the AMIC, referenced in the draft decree.

As described in more detail above, Kansas believes significant modifications to the draft decree are necessary to protect the interests of Kansas, including compliance with the Arkansas River Compact.

Thank you for the opportunity to provide comments on this proposed decree. Kansas would be willing to answer any questions regarding this letter.

Sincerely

John B. Draper

JBD:dlo

cc: David Barfield John Cassidy

Exhibit G

Annual Meeting

December 8, 2009

This page intentionally blank



JOHN B. DRAPER

Direct: (505) 986-2525

Email: jdraper@montand.com

Reply To: Santa Fe Office www.montand.com

June 12, 2009

By Email and U.S. Mail

Eve W. McDonald Assistant Attorney General Colorado Attorney General's Office 1525 Sherman St., 5th Floor Denver, CO 80203

Re: Draft Compact Rules Governing Improvements to Surface Water Irrigation Systems in the Arkansas River Basin in Colorado

Dear Ms. McDonald:

Thank you for your letter of March 17, 2009 and the May 12, 2009 Working Draft of the Colorado Compact Rules Governing Improvements to Surface Water Irrigation Systems in the Arkansas River Basin in Colorado ("Rules"). Kansas appreciates the changes made in response to my letter of February 16, 2009. Kansas also appreciates your invitation to provide further comments.

- 1. <u>ISAM/Technical Issues</u>: Thank you very much for your response and changes to the draft Rules on this issue. We would welcome a meeting of the States' experts to further discuss the ISAM. Would you be so kind as to provide us the latest version of ISAM? As soon as our experts have had a chance to review it, we will be in touch to schedule a meeting.
- 2. Benefit to Colorado Users: You indicate that, although Colorado water users will benefit from maintaining historical return flows, it is unlikely that Colorado law other than the Compact is violated by improving an irrigation system in a way that increases consumption while staying within the decreed place of use and other terms of the decree.

{00093832-

REPLY TO:

325 Paseo de Peralta Santa Fe, New Mexico 87501 Telephone (505) 982-3873 • Fax (505) 982-4289

Post Office Box 2307 Santa Fe, New Mexico 87504-2307 6301 Indian School Road NE, Suite 400 Albuquerque, New Mexico 87110 Telephone (505) 884-4200 • Fax (505) 888-8929

Post Office Box 36210 Albuquerque, New Mexico 87176-6210 Eve W. McDonald June 12, 2009 Page 2

At the outset, I would note that Article IV.D of the Compact protects Colorado users as well as Kansas users ("This Compact is not intended to impede or prevent . . . improved or prolonged functioning of existing works: Provided, that the waters of the Arkansas River, as defined in Article III, shall not be materially depleted in usable quantity or availability for use to the water users in Colorado and Kansas under this Compact by such future development or construction"). Thus, even if other Colorado law does not provide protection to Colorado users, perhaps the Compact does.

Moreover, a fundamental rule of the prior appropriation legal system followed by Colorado is that an appropriator is entitled to rely on the stream as the appropriator finds it. While the present Colorado administrative system is not providing protection to water users from increased consumption except when a water right is transferred, that does not mean that the right does not exist.

Experience under the Colorado Use Rules shows that only a small portion of the replacement water required by those rules reaches the Stateline. By far the greater portion is used by Colorado surface water users. The same can be expected to be true here.

I am concerned that, if your doubts about Colorado water law in this regard were justified, those users subject to the new Rules may object that they should not be required to replace water that would be only used by other Colorado water right owners and would not reach the Stateline. Consequently, if the protection of Colorado water users is as narrow as you suggest, it may require that special restrictions on replacement requirements be imposed so that only Kansas benefits pursuant to its Compact rights. We believe such restrictions would be unnecessary under our understanding of the law.

- 3. Retrospective Scope of Rules: Thank you for your explanation. We continue to stand on our earlier comment, however.
- 4. <u>4.B Exceptions</u>: Thank you very much for the changes made in this draft. Those changes address our concerns.
- 5. <u>Trinidad Project</u>: Thank you very much for the changes made in this draft. Those changes address our concerns in part.
 - 6. Definition of "Improvements":

Eve W. McDonald June 12, 2009 Page 3

A. <u>Ponds</u>: Thank you for the changes made in this draft. Those changes address our concerns.

B. Gated Pipe: We believe that the initial inclusion of gated pipe in the definition of improvements was justified. Gated pipe certainly has the potential to increase efficiency and reduce return flows. The H-I Model was shown during the litigation to be very sensitive to changes in on-farm efficiencies for purposes of determining depletions due to postcompact pumping. The same is likely to be true here. We therefore doubt the correctness of the suggestion that gated pipe may not have an impact on Stateline flows. At the very least, the impact of gated pipe on return flows should be evaluated, and if gated pipe is found to have the impact that we believe it does, the issues of administrative convenience cited should not thwart justified regulation. We appreciate your willingness to discuss these issues further.

As a further comment, it may be appropriate to include a statement in the Rules that new types of efficiency improvements in the future will be considered for inclusion as "improvements to a surface water irrigation system."

- 7. <u>Usability</u>: Thank you very much for the changes made in this draft. Those changes address our concerns.
- 8. Notice: Thank you very much for the changes made in this draft. Those changes address our concerns. In addition to our previous comment, we would like to request that consideration be given to requiring that notice of the issuance, revocation or modification of any general permit under Rule 11 be provided to those on the Notification List. Such notices would be a small burden, and the actions with regard to general permits will likely be of wide interest.
- 9. <u>Non-beneficial Consumptive Use</u>: We appreciate your explanation of the reasons for including elimination of non-beneficial consumptive use as a consideration in determining whether an improvement will materially deplete the waters of the Arkansas River in violation of Article IV-D. For the reasons stated in my February 16, 2009 letter and for other reasons, however, we do not believe that that explanation is correct.

We note that secondary evapotranspiration losses (SEV) from the H-I Model will be included in the ISAM as ISAM is defined in Rule 5. The SEV factor in the H-I Model is a calibration parameter developed in large part to achieve calibration at the Stateline in conjunction with many other parameters. It was never intended to be used as an absolute value outside the H-I Model. It is not a measured value nor

Eve W. McDonald June 12, 2009 Page 4

is it based on measured values like the other assumptions that are listed for inclusion in ISAM.

If this feature is retained over Kansas' objection, at the very least, each applicant should be required to carry the burden of proof to show what any reduction in non-beneficial consumptive use would be on the applicant's lands without regard to the values of SEV in the H-I Model. In addition, it would be consistent with Colorado's current proposal to take into account <u>increases</u> in non-beneficial consumptive use on each user's property.

10. <u>Variances</u>: Thank you very much for the changes made in this draft. Your changes are a definite improvement, but we do not believe that they go far enough. We would suggest that the second sentence of Rule 15 be amended to read as follows:

No variance shall waive the requirement for Division Engineer substantive evaluation according to the standards set by these Rules of an improvement to a surface water irrigation system.

The language change suggested would allow extensions of deadlines and similar procedural actions, but it would also retain the substantive standards, which we do not believe are retained by the current language.

11. <u>Groundwater</u>: Thank you for your explanation. We believe that improvements to groundwater irrigation systems should be addressed in the context of the Colorado Use Rules.

Thank you for the opportunity to comment on the revised draft Rules. The comments in this letter are preliminary, and Kansas may have further comments or recommendations after further review.

Sincerely yours,

John B. Draper

JBD:dlo

cc: David Barfield Kevin Salter

Dale Book



JOHN W. SUTHERS Attorney General CYNTHIA H. COFFMAN Chief Deputy Attorney General

DANIEL D. DOMENICO Solicitor General

STATE OF COLORADO DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

STATE SERVICES BUILDING 1525 Sherman Street - 7th Floor Denver, Colorado 80203 Phone (303) 866-4500

March 17, 2009 By Email and U.S. Mail

John B. Draper Montgomery & Andrews 325 Paseo de Peralta Santa Fe, New Mexico 87501 jdraper@montand.com RECEIVED-5

MAR 2 0 2009

MONTGOMERY & ANDREWS, P.A.

Re: Draft Colorado Compact Rules Governing Improvements to Surface Water Irrigation Systems in the Arkansas River Basin in Colorado

Dear Mr. Draper:

Thank you for your letter of February 16, 2009 ("KS Comments") responding to our November 26, 2008 request for Kansas's review and comment on the Colorado State Engineer's Draft Irrigation Consumption Rules and Rule 11 General Permits. The State and Division Engineers have reviewed Kansas's comments and recommendations and discussed them with the Advisory Committee that was established in May of 2008 to develop these rules. The Engineers have accepted the majority of your recommendations. This letter responds to each comment and recommendation, as excerpted in order below.

1. <u>ISAM/Technical Issues</u>: "The following comments, which include recommendations, do not extend to the technical issues that will be critical to the proper implementation of the Irrigation Consumption Rules, such as modeling and assumptions to be employed. Determinations of the technical issues not included in the Irrigation Consumption Rules will answer the larger question whether the Rules will be effective or not. We would therefore recommend that the technical issues be addressed in the Rules or specified separately." KS Comments at 1.

Response: The Engineers agree with Kansas' recommendation that technical issues that will be critical to the proper implementation of the Rules, such as the modeling and assumptions to be employed, should be addressed in the Rules. As you know, the Division 2 office has worked with the Advisory Committee's Engineering Sub-Committee to develop the Irrigation System Analysis Model (ISAM) for the purpose of evaluating applications filed

under the Rules. This is the model that Bill Tyner and the State and Division Engineers reviewed with you and the other Kansas representatives in a power point presentation prior to the 2008 annual ARCA meeting in Lamar. In response to your Recommendation, we are developing new language in the Rules specifying that the Division Engineer will use the ISAM to evaluate applications under the Rules.

The ISAM is a relatively simple spreadsheet water balance model that prevents the need for an individual engineering report from each applicant. For surface water irrigation systems represented in the H-I Model, the ISAM relies on assumptions used in the H-I Model for canal and lateral losses, tailwater runoff, SEV losses, soil moisture accounting, and irrigation efficiencies, and relies on data used in the H-I Model for crop PET and effective precipitation. The Engineers also intend to develop versions of the ISAM for the Upper Basin and the tributaries that are outside the H-I Model domain as soon as the necessary data are available to develop assumptions for surface water irrigation systems in those geographic areas.

The State and Division Engineers would value review of the ISAM by Kansas's experts. We would therefore like to meet with you and the Kansas engineers again as soon as possible to continue the discussion we began on December 8, 2008 regarding the ISAM. Bill Tyner contacted Kevin Salter to request this meeting along with a meeting related to the Dispute Resolution process on the Colorado Use Rules, but no meeting has been scheduled to date. Please consider this letter an additional invitation to meet on the ISAM as soon as feasible, and let me know Kansas's available dates.

2. Benefit to Colorado Users: "While the primary motivation for the Rules may be the Compact, they will benefit Colorado water users as well as Kansas. In this regard, the Irrigation Consumption Rules are parallel and similar to the [Groundwater Use Rules]. Accordingly, we would suggest that the title, authority, and purpose provisions be modified to recognize that the Rules are intended to protect not only the rights of the State of Kansas but also the rights of Colorado water users." KS Comments at 1-2.

Response: The Engineers recognize that maintaining historical return flows and seepage losses with improvements to surface water irrigation systems will benefit Colorado water users. However, the Rules rely on the Compact and the State Engineer's Compact rule-making authority for their basis, purpose and authority because it is unlikely that other Colorado law is violated by improving an irrigation system in a way that increases consumption while staying within the decreed place of use and other terms of the decree.

In contrast, the Groundwater Use Rules clearly enforce both the Arkansas River Compact and other Colorado statutes based on Colorado citizens' constitutional right to prior appropriation. They protect senior Colorado surface water rights from out-of-priority depletions caused by diversions of tributary ground water. In doing so, they benefit from Colorado's common law presumption that diversions of tributary groundwater in an overappropriated basin will cause material injury to senior surface rights.

3. Retrospective Scope of Rules: "Rule 4.A requires that permits be obtained for sprinkler and drip systems installed after October 1, 1999 within the H-I Model Domain. While Kansas appreciates the recognition by Colorado that increases in irrigation consumption have been occurring and that the effects of increases already in place should be offset, it should be recognized that the Compact requires that any increases in consumption that reduce usable Stateline flows after 1949 should be offset." KS Comments at 2.

Response: The Engineers recognize that the Compact requires that any increases in consumption which materially deplete usable Stateline flows due to post-Compact improvements to existing works be offset. However, they have endeavored to make the Rules workable by determining which of the already-existing improvements have potential to cause a Compact violation, and making the retrospective aspect of the Rules specific to those improvements. The Irrigated Acreage Study completed by the Colorado Division of Water Resources in 1999 provided a baseline for evaluating improvements made since that year. The Engineers are aware of no improvements installed to this date other than those listed in Rule 4.A that cause depletions that may violate the Compact. Therefore, for all other improvements, the Rules are prospective only.

4. 4.8 Exceptions: "Rule 4.B excludes designated groundwater basins and the Horse Creek Basin above Box Springs Ditch Headgate. Kansas recommends that these exceptions be eliminated. Basing an exception to surface water regulations on the existence of a designated groundwater basin seems out of place. The singular exclusion of the Horse Creek Basin above Box Springs headgate also appears to be unjustified." KS Comments at 2.

<u>Response</u>: We agree with this recommendation, although there are very few active surface water rights in these areas. We will delete 4.B. from the next working draft of the Rules.

5. Trinidad Project: "Rule 4.F creates an exception for improvements within the Trinidad Dam and Reservoir Project. Kansas is not aware that the Operating Principles impose requirements with respect to irrigation consumption, nor is Kansas aware of any specific instances in which requirements like those included in the Irrigation Consumption Rules have been imposed on specific acreages pursuant to the Operating Principles for Trinidad Dam and Reservoir. Therefore, this exception does not appear to be appropriate. If an exception is nevertheless deemed advisable by Colorado, Kansas would recommend limiting it to read as follows:

'These rules do not apply to improvements to surface water irrigation systems within the Trinidad Dam and Reservoir Project that have been specifically approved pursuant to amendment of the Operating Principles for the Trinidad Dam and Reservoir Project (including approval by the State of Kansas) after the effective date of these rules."

KS Comments at 2.

Response: We are in the process of refining and narrowing Rule 4.F in response to these comments. The State and Division Engineers agree with Kansas that the Operating Principles do not approve of all types of improvements covered in the Rules, such as sprinklers and drip systems. However, the Operating Principles, Operating Criteria, and Bureau of Reclamation's 1964 Irrigation Study do address future improvements to off-farm transportation efficiencies within the Project. Therefore, we believe an exception in Rule 4.F is necessary, and are working on limiting it to off-farm transportation efficiencies and, as you have suggested, any improvements expressly approved by future amendment of the Operating Principles with Kansas's consent.

6. Definition of "Improvements": "Rule 5.A.5 contains a definition of the term 'improvement to a surface water irrigation system.'... the definition should be clarified by changing the phrase 'installation of head stabilization ponds and tailwater pits' to read 'installation of head stabilization ponds, tailwater pits and any other ponds used for irrigation purposes.' Kansas would also suggest that gated pipe be considered for inclusion as an improvement because of its potential to increase consumption and reduce return flows." KS Comments at 3.

Response:

- A. <u>Ponds</u>: In response to this comment, Rule 5.A.5 will be revised to clarify that ponds with pump-back features are included. The operative phrase of Definition 5.A.5 will now read: "installation of head stabilization ponds and tailwater <u>recovery</u> pits, <u>including</u> those that facilitate reuse of <u>surface water</u>;" However, the Engineers concluded that it was unnecessary to add "installation of any other ponds used for irrigation purposes," because in general such ponds are not authorized and would already be within the Division Engineer's existing authority. The Division Engineer's current policy only allows undecreed ponds of two types to be installed as part of an existing surface water irrigation system: tailwater recovery and head stabilization. Both are subject to strict rules about length of use. Any other sort of pond would be disallowed unless it has a decree.
- B. <u>Gated pipe</u>: Initially, gated pipe was included in the definition of improvements in the Rules. However, members of the Advisory Committee pointed out that it would be difficult for the Engineers to monitor the use of gated pipe, review all the applications for the gated pipe that would be required, or determine when the existing pipe was installed. They also questioned whether this type of on-farm improvement has an impact on Stateline flows, and stressed their potential water quality benefits.

An evaluation of improvements to on-farm lateral losses was conducted using the H-I Model. The results indicated that reductions in on-farm lateral losses resulting from the

installation of gated pipe would not cause depletions to Stateline flows. The Engineers are willing to discuss this analysis with Kansas's experts when they meet to discuss the ISAM.

7. <u>Usability</u>: "Article IV-D of the Compact includes the principle of usability and, therefore, reference simply to Article IV-D might encourage administrators to allow a reduction for usability. . . . [I]t would be very helpful to point out explicitly in the Rules that "No deduction for usability shall be allowed for Improvements initiated after 1985." KS Comments at 3.

<u>Response</u>: Colorado agrees with Kansas's recommendation. Rule 9.D has been added to include your proposed insert and the full concept as it reads in Appendix J.2. The new Rule 9.D reads as follows:

- 9.D. In determining whether an improvement will cause a material depletion of Stateline flow under Article IV-D of the Compact, no reduction for usability shall be applied; provided, that no person or entity subject to these rules shall be required to maintain historical seepage losses or return flows at the state line if John Martin Reservoir is spilling and stateline water is passing Garden City, Kansas. See 2 Fifth and Final Report of the Special Master, *Kansas v. Colorado*, No. 105, Orig., U.S. Sup. Ct., Appendix J.2, at J.26.
- 8. Notice: "It is assumed that the State of Kansas or a representative of the State of Kansas may join the Notification List. No notice is provided, however, with respect to any hearing or the decision on an application. Kansas suggests that persons on the Notification List be given notice of such hearings and decisions." KS Comments at 3.

Response: The State and Division Engineers definitely invite Kansas representatives to join the official Notification List. After the Rules are effective, as now, we will continue to welcome comments and input from Kansas.

The State and Division Engineers also agree that people on the List should receive notice not only of the applications but also of the decisions and any hearings. We have revised Rule 8.B by inserting the following:

The Division Engineer will also inform those on the Notification List of any hearing on any application and of any decision approving or denying an application or Compact Compliance Plan. 9. Non-beneficial Consumptive Use: "Rule 9.B provides, 'The Division Engineer may also consider any water savings that would result from elimination of non-beneficial consumptive use due to an improvement to a surface water irrigation system to the extent permitted by law.' Kansas recommends that this sentence be eliminated. Such matters are very difficult to quantify and have a very high potential to lead to improper credits." KS Comments at 3.

<u>Response</u>: As you know, there can be a reduction in non-beneficial consumption when an irrigator improves the efficiency of an irrigation system. For example, a switch from flood to sprinkler irrigation can reduce the amount of tailwater that previously was consumed by weeds or other plants or evaporation before it reached the river.

The H-I Model accounts for this non-beneficial consumption through the SEV factor. While you are correct that Colorado courts have held that an applicant cannot take advantage of reductions in non-beneficial consumptive use to establish a new water right, and the Division 1 water court recently held that it cannot increase the quantification in a change case, those prohibitions do not carry over into this context. In comparing the effect of a surface water irrigation system "with improvement" versus "without improvement", we believe it is appropriate to take into account all relevant factors to the extent permitted by law, as the Rule states, using the same assumptions as in the H-I Model.

Colorado's Engineers will be happy to discuss this when they get the chance to discuss the ISAM again with Kansas's experts. Please also note that any change to the assumptions in the H-I model that are imported into the ISAM, such as to the SEV factor, will be reflected in the ISAM.

10. <u>Variances</u>: "Rule 15 provides for variances. Variances are not allowed by the Use Rules. No justification for variances is apparent with respect to the Irrigation Consumption Rules, which have purposes similar to the Use Rules, as indicated above. The Compact itself contains no variance provision. Such a provision carries with it a high potential that the purpose of the Irrigation Consumption Rules will be thwarted." KS Comments at 4.

Response: The Engineers generally agree with this point; however, a variance paragraph is included in several sets of the State Engineer's Rules to prevent a harsh or unfair application of the Rules. As far as anyone at the State Engineer's Office can remember, variances have rarely been granted, and then only to extend deadlines. The provision for variances is not intended to allow the purpose of the Rules to be thwarted. To address your concern, the following new sentence has been inserted into Rule 15:

"No variance shall waive the requirement for Division Engineer approval of an improvement to a surface water irrigation system."

11. Groundwater: "The Irrigation Consumption Rules apply only to surface water.

Kansas is concerned that the types of issues intended to be addressed by the Irrigation Consumption Rules are also present with respect to groundwater as it is regulated in the Use Rules and quantified in the H-I Model. Kansas recognizes, however, that the States should address those parallel issues outside the present discussion of the Irrigation Consumption Rules."

<u>Response</u>: The Engineers agree that increases in consumptive use can also occur with improvements to groundwater systems. The reason these Rules only apply to surface water systems is that improvements to groundwater irrigation systems are already addressed through the Use Rules.

* * *

Thank you again for these helpful comments. We appreciate the time it took to review and consider the Rules. The Engineers' goal is to address all appropriate concerns from both sides of the Stateline before we promulgate the rules, and we could not do so without this assistance from you and the other Kansas representatives.

I will forward a new Working Draft of the Rules as soon as we have resolved the pending matters discussed above. In the meantime, we look forward to meeting with your team in the near future to discuss the ISAM and the other technical studies in detail.

Sincerely yours,

EVE W. MCDONALD

Assistant Attorney General Federal and Interstate Water Unit

Eve W. Myonald

Natural Resources Section

(303) 866-5072

(303)-866-3558 (FAX) Email: eve.mcdonald@state.co.us

cc:

Dick Wolfe Steve Witte Bill Tyner

AG File:

DOCUMENTI



JOHN B. DRAPER

Direct: (505) 986-2525

Email: jdraper@montand.com

Reply To: Santa Fe Office www.montand.com

February 16, 2009

By Email and U.S. Mail

Eve W. McDonald Assistant Attorney General Colorado Attorney General's Office 1525 Sherman St., 5th Floor Denver, CO 80203

Re: Draft Colorado Compact Rules Governing Improvements to Surface Water Irrigation Systems in the Arkansas River Basin in Colorado

Dear Ms. McDonald:

Kansas appreciates very much the invitation to submit comments on the draft Colorado Compact Rules Governing Improvements to Surface Water Irrigation Systems in the Arkansas River Basin in Colorado, November 26, 2008 Working Draft (Irrigation Consumption Rules).

The following comments, which include recommendations, do not extend to the technical issues that will be critical to the proper implementation of the Irrigation Consumption Rules, such as the modeling and assumptions to be employed. Determinations of the technical issues not included in the Irrigation Consumption Rules will answer the larger question whether the Rules will be effective or not. We would therefore recommend that the technical issues be addressed in the Rules or specified separately.

First, there seems to be an incorrect limitation on the basis and purpose of the Irrigation Consumption Rules. While the primary motivation for the Rules may be the Arkansas River Compact (Compact), they will benefit Colorado water users as well as Kansas. In this regard, the Irrigation Consumption Rules are parallel and similar to the Colorado Amended Rules and Regulations Governing the Diversion

{00054530-1}

REPLY TO:

325 Paseo de Peralta Santa Fe, New Mexico 87501 Telephone (505) 982-3873 • Fax (505) 982-4289

Post Office Box 2307 Santa Fe, New Mexico 87504-2307 6301 Indian School Road NE, Suite 400 Albuquerque, New Mexico 87110 Telephone (505) 884-4200 • Fax (505) 888-8929

Post Office Box 36210 Albuquerque, New Mexico 87176-6210 Eve W. McDonald February 16, 2009 Page 2

and Use of Tributary Ground Water in the Arkansas River Basin, Colorado (Use Rules). Accordingly, we would suggest that the title, authority and purpose provisions be modified to recognize that the Rules are intended to protect not only the rights of the State of Kansas but also the rights of Colorado water users.

Rule 4.A, requires that permits be obtained for sprinkler and drip systems installed after is October 1, 1999 within the H-I Model Domain. While Kansas appreciates the recognition by Colorado that increases in irrigation consumption have been occurring and that the effects of increases already in place should be offset, it should be recognized that the Compact requires that any increases in consumption that reduce usable Stateline flows after 1949 should be offset. With respect to protecting the rights of senior Colorado surface water users, the relevant date would be even earlier.

Rule 4.B excludes designated groundwater basins and the Horse Creek Basin above the Box Springs Ditch headgate. Kansas recommends that these exceptions be eliminated. Basing an exception to surface water regulations on the existence of a designated groundwater basin seems out of place. The singular exclusion of the Horse Creek Basin above the Box Springs Ditch headgate also appears to be unjustified.

Rule 4.F creates an exception for improvements within Trinidad Dam and Reservoir Project. Kansas is not aware that the Operating Principles impose requirements with respect to irrigation consumption, nor is Kansas aware of any specific instances in which requirements like those included in the Irrigation Consumption Rules have been imposed on specific acreages pursuant to the Operating Principles for Trinidad Dam and Reservoir. Therefore, this exception does not appear to be appropriate. If an exception is nevertheless deemed advisable by Colorado, Kansas would recommend limiting it to read as follows:

These rules do not apply to improvements to surface water irrigation systems within the Trinidad Dam and Reservoir Project that have been specifically approved pursuant to amendment of the Operating Principles for the Trinidad Dam and Reservoir Project (including approval by the State of Kansas) after the effective date of these rules.

Rule 5.A.5 contains a definition of the term "improvement to a surface water irrigation system" (improvement). Kansas agrees that the improvements listed in the definition should be included; however, the definition should be clarified by changing the phrase "installation of head stabilization ponds and tailwater pits" to

Eve W. McDonald February 16, 2009 Page 3

read "installation of head stabilization ponds, tailwater pits and any other ponds used for irrigation purposes." Language such as this would make clear that ponds used for pumpback or other irrigation purposes are included. Kansas would also suggest that gated pipe be considered for inclusion as an improvement because of its potential to increase consumption and reduce return flows.

In Rule 8.A, 9.A, and elsewhere, emphasis is laid on the obligation to prevent violations of Article IV-D of the Compact. Article IV-D of the Compact includes the principle of usability and, therefore, reference simply to Article IV-D might encourage administrators to allow a reduction for usability. This should not be done, at least with respect to increases in consumption after 1985. At that time, the flows of the Arkansas River are considered by both States to have been fully usable. That fact does not mean that the phraseology used to refer to Article IV-D of the Compact in the Irrigation Consumption Rules is necessarily incorrect, but it would be very helpful to point out explicitly in the Rules that "No deduction for usability shall be allowed for Improvements initiated after 1985." This would be consistent with the Use Rules, with respect to which post-1985 uses are not allowed a reduction for usability. See 2 Fifth and Final Report of the Special Master, Kansas v. Colorado, No. 105, Orig., U.S. Sup. Ct., App. J.2, at J.26 ("100% replacement required: All depletions caused by post-1985 water uses in the Arkansas River Basin in Colorado shall be fully replaced with no reduction for usability").

In Rule 8.B, it is provided that "The Division Engineer shall send a copy of the application to all persons on the Division Engineer's Notification List. Anyone may join the Notification List by submitting an email address to the Division Engineer's Office." It is assumed that the State of Kansas or a representative of the State of Kansas may join the Notification List. No notice is provided, however, with respect to any hearing or the decision on an application. Kansas suggests that persons on the Notification List be given notice of such hearings and decisions.

Rule 9.B provides, "The Division Engineer may also consider any water savings that would result from elimination of non-beneficial consumptive use due to an improvement to a surface water irrigation system to the extent permitted by law." Kansas recommends that this sentence be eliminated. Such matters are very difficult to quantify and have a very high potential to lead to improper credits. Avoidance of the obligation to protect prior rights by reliance on elimination of non-beneficial consumptive use has traditionally been disallowed. See, e.g., Southeastern Colo. Water Cons. Dist. v. Shelton Farms, Inc., 187 Colo. 181, 529 P2d 1321 (1974); § 37-92-103(9) C.R.S.

Eve W. McDonald February 16, 2009 Page 4

Rule 15 provides for variances. Variances are not allowed by the Use Rules. No justification for variances is apparent with respect to the Irrigation Consumption Rules, which have purposes similar to the Use Rules, as indicated above. The Compact itself contains no variance provision. Such a provision carries with it a high potential that the purpose of the Irrigation Consumption Rules will be thwarted.

The Irrigation Consumption Rules apply only to surface water. Kansas is concerned that the types of issues intended to be addressed by the Irrigation Consumption Rules are also present with respect to groundwater as it is regulated in the Use Rules and quantified in the H-I Model. Kansas recognizes, however, that the States should address those parallel issues outside the present discussion of the Irrigation Consumption Rules.

Again, Kansas appreciates very much the opportunity to comment on the draft Irrigation Consumption Rules. These comments are preliminary and do not include any review of the critical modeling and other technical issues. After further review, Kansas may have further comments or recommendations.

Sincerely yours,

John B. Draper

JBD:dlo

cc:

David Barfield Kevin Salter

Dale Book

Salter, Kevin

From: Eve McDonald [Eve.McDonald@state.co.us]
Sent: Thursday, September 10, 2009 1:08 PM

To: JDraper@montand.com

Cc: dennismontgomery@hillandrobbins.com; Griggs, Burke; Salter, Kevin;

Chris.Grunewald@ksag.org; Samuel.Speed@ksag.org; bill.tyner@naturenet.state.co.us;

Dick.Wolfe@naturenet.state.co.us; steve.witte@naturenet.state.co.us;

debook@spronkwater.com

Subject: Re: Colorado surface water efficiency draft rules / Statement of basis and purpose /

redline

Attachments: SBP September 10 2009 Draft.pdf; Sept 10 2009 Redline to May 12 Working Draft Rules.pdf

Thank you, John. I appreciate these changes to the Statement of Basis and Purpose and have made most of them. I'll fully explain what did not work, below. Attached are the draft Statement and Rules we provided to the Advisory Committee this morning.

We agree with your point below that maintenance flows must not be subject to diversions and depletions to which the original return flows were not subject. The final sentence of Recommendation G was intended to make that point. The Engineers will be taking care of this in the terms and conditions of Rule 10 plans and Rule 8 approvals.

In the Statement of Basis and Purpose, we accepted almost all of your changes, so I'll just explain the few we did not:

- 1. I did not insert the change on pg 5 about "years of a short water supply," as that is already part of the concept of a water short farm.
- 2. I did not insert the change on page 10 that the recommendations will be implemented "to the extent they are consistent with the final language of the Rules," since this phrase would cause unnecessary upset, is unnecessary b/c true and required without being said, and the recommendations are consistent with the current draft of the Rules.
- 3. I did not change the explanation of the standard for issuing general permits because the current explanation is consistent with Rule 11.

We also made all four changes to the Rules that Kansas requested at our meeting last week:

- 1. Added a new type of "improvement" in 5.A.6., to address Kevin's point about adding SW to a GW sprinkler after the effective date of the rules.
- 2. Made the changes requested in 9.B. to make it more clear that the specific improvement being evaluated is the only one whose effect on Non Beneficial Consumption can be considered.
- 3. Added mention in 9.B.1.B that we'll file the initial ISAM version and documentation in water court, to meet your concern that there be some base version to look back at, after which all future changes will have to go through the notice and comment process. (I realized we shouldn't put this in the Rule 5 definition of ISAM since we have the rule about revising the ISAM later.) 4. Made the change in 11.C allowing time for comment in advance of changes to General Permits.

You had also reserved time to request more changes to the text of the Rules after that meeting, by September 8, but we did not receive any.

We enjoyed the meeting last week and appreciate Kansas's close review and the fruitful discussion. I'll continue to send you any revised documents as we send

them to the Committee. Note also that we reorganized the website (http://water.state.co.us/wateradmin/ArkansasRiver.asp) and are keeping it current. The attached docs should be added by end of today.

Regards, Eve

Eve W. McDonald
Assistant Attorney General
Natural Resources Section
Colorado Attorney General's Office
1525 Sherman St., 5th Floor
Denver CO 80203
Ph: 303/866-5072
Fax: 303/866-3558
eve.mcdonald@state.co.us

>>> "John B. Draper" <JDraper@montand.com> 09/08/09 1:14 PM >>> Dear Eve-

In addition to the changes that we recommended during the meeting last week in Denver, we have comments on the wording of the Statement of Basis and Purpose shown on the attached redline. It also appears that the intention is to add language to the Conclusion section, which we have not seen, but would be glad to comment on.

You will note that we have made a suggestion on page 10 of the Statement of Basis and Purpose regarding Exhibit B. Recommendation G in Exhibit B is so broadly worded that it could be interpreted to allow the provision of water to maintain historical return flows to occur in a way that the new water is subject to diversions and depletions to which the original return flows were not. Such an interpretation would be troubling and would be contrary to the final language of the Rules.

Clearly, the new water needs to be placed in the river at or below the location of each return flow that has been depleted by an improvement. Please confirm that Colorado agrees with the foregoing.

We would also appreciate receiving the same documents being provided to the Advisory Committee, so that we will have the latest drafts of the Rules, General Permits, Statement of Basis and Purpose, etc.

Thanks for the opportunity to provide these further comments.

Best regards-

John

John B. Draper

Montgomery & Andrews, PA

P.O. Box 2307

Santa Fe, New Mexico 87504-2307

jdraper@montand.com

(505)986-2525 (direct)

(505)982-4289 (fax)

THIS COMMUNICATION MAY BE IN CONFIDENCE OR SUBJECT TO ATTORNEY-CLIENT PRIVILEGE OR MAY CONTAIN ATTORNEY WORK PRODUCT. UNLESS YOU ARE THE ADDRESSEE (OR AUTHORIZED TO RECEIVE FOR THE ADDRESSEE), YOU MAY NOT USE, COPY, OR DISCLOSE TO ANYONE THE COMMUNICATION OR ANY INFORMATION CONTAINED IN THE COMMUNICATION. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE ADVISE THE SEND BY REPLY E-MAIL TO jdraper@montand.com, AND DELETE THE COMMUNICATION. THANK YOU.

COMPACT RULES GOVERNING IMPROVEMENTS TO SURFACE WATER IRRIGATION SYSTEMS IN THE ARKANSAS RIVER BASIN IN COLORADO

ORDER OF THE STATE ENGINEER

BY THIS ORDER the State Engineer adopts the following rules and regulations to govern improvements to surface water irrigation systems in the Arkansas River Basin in Colorado to comply with Article IV-D of the Arkansas River Compact.

Rule 1. Title

The title of these Rules is "Compact Rules Governing Improvements to Surface Water Irrigation Systems in Arkansas River Basin in Colorado." The short title for these Rules is "Irrigation Improvement Rules," and they may be referred to herein collectively as the "Rules" or individually as a "Rule."

Rule 2. Authority

These Rules are promulgated pursuant to the authority granted the State Engineer in § 37-80-102(1)(a), § 37-80-104, and § 37-92-501, C.R.S., to ensure compliance with the terms of the Arkansas River Compact, 63 Stat. 145; § 37-69-101, et seq., C.R.S. (Compact).

Rule 3. Purpose

- A. The purpose of these Rules is to ensure that improvements to surface water irrigation systems in the Arkansas River Basin in Colorado comply with Article IV-D of the Compact.
- B. These Rules have as their objective the optimum use of waters of the Arkansas River in a manner consistent with preservation of the priority system of water rights while ensuring that the State of Colorado complies with the terms of the Compact.

Rule 4. Scope and Exceptions

- A. On or after the effective date of these Rules, water users must file an application and obtain approval from the Division Engineer before making an improvement to a surface water irrigation system. In addition, water users with a surface water sprinkler or surface water drip system installed on or after October 1, 1999, within the H-I Model Domain must file an application and obtain approval from the Division Engineer in order to continue using that sprinkler or drip system.
- B. These Rules apply throughout the drainage basin of the Arkansas River in Colorado.

- C. These Rules apply to any person or entity using, claiming, or in any manner asserting any right to use waters of the Arkansas River, as defined in Article III of the Compact, which includes its tributaries, under the authority of the State of Colorado in whole or in part for irrigation or for the replacement of depletions caused by ground water diversions, except as provided in paragraph D, E and F of this Rule.
- D. These Rules do not apply to diversions of ground water or to structures, facilities, equipment, or works used exclusively for the diversion, conveyance, or application of ground water.
- E. These Rules do not apply to surface water irrigation systems that serve less than one acre.
- F. These Rules apply to improvements to surface water irrigation systems within the Trinidad Dam and Reservoir Project, except that they do not apply to: (1) increases in off-farm transportation efficiency derived from improved facilities that are considered in the allocation of District Water Supply under the Operating Principles Trinidad Dam and Reservoir Project ("Operating Principles") and the Purgatoire River Water Conservancy District Operating Criteria ("Operating Criteria") or (2) any improvement that becomes expressly approved after the effective date of these Rules by duly-authorized amendment of the Operating Principles.

Rule 5. Definitions

A. As used in these Rules:

- 1. "Designated Agent" means a person or entity who is authorized by the owner or user of a surface water irrigation system to file an application or otherwise comply with these Rules.
- 2. "Division Engineer" means the Division Engineer for Water Division 2.
- 3. "H-I Model" means the Hydrologic-Institutional Model that is used to determine Compact compliance in accordance with the judgment and decree in *Kansas v. Colorado*, No. 105, Original, United States Supreme Court (Decree), as described in Appendix C.1 to the Decree, which includes the model documentation. The term "H-I Model" also includes any future updates and revisions to said model under the terms of the Decree.
- 4. "H-I Model Domain" means the geographic area in which the hydrologic and institutional processes simulated in the H-I Model occur, as shown on the attached map.

- 5. "Historical seepage losses or return flows" means the seepage losses and return flows that would occur from use of a surface water irrigation system in the absence of an improvement to the surface water irrigation system.
- 6. "Improvement to a surface water irrigation system" or "Improvement" means the following man-made changes to a surface water irrigation system: lining of canals and off-farm laterals; installation of pipelines to replace off-farm earthen ditches or laterals; application of chemicals to reduce canal or off-farm lateral losses; installation of head stabilization ponds and tailwater recovery pits, including those that facilitate reuse of surface water; installation of sprinkler systems, drip systems, or other irrigation technologies to replace flood and furrow irrigation methods; replacement of side-roll irrigation systems with center-pivot irrigation systems; replacement of impact sprinklers with spray nozzles; and adding surface water as an additional or exclusive source of supply to a sprinkler or drip system that only applied ground water prior to the effective date of these Rules, including to a sprinkler or drip system that was installed prior to October 1, 1999.

Other man-made changes, including but not limited to the following, are not considered an "improvement to a surface water irrigation system" under these Rules: lining of on-farm ditches and laterals, installation of on-farm underground pipe or gated pipe; crop selection; crop rotation; changes to plant population; irrigation scheduling; cultivation; application of fertilizers; and general maintenance activities, such as the control or eradication of vegetation; dredging of canals, ditches, laterals and reservoirs; repair or replacement of deteriorated pipe; repair or replacement of existing lining of canals or laterals; sluicing operations to remove sediment from canals; and similar practices.

- 7. "Irrigation" means the application of waters of the State in excess of natural precipitation to grow crops or other plant life for production of food, forage, or other uses, including revegetation and sod production but not including lawn irrigation.
- 8. "Irrigation System Analysis Model (ISAM)" means the peer-reviewed computer programs developed by the Division Engineer's Office to compare monthly water budgets of surface water irrigation systems with and without an improvement in order to evaluate the impacts of an improvement to a surface water irrigation system located within the H-I Model Domain. For surface water irrigation systems that are represented in the H-I Model, the ISAM incorporates the assumptions on canal and lateral losses, tailwater runoff, secondary evapotranspiration losses, soil moisture accounting, and irrigation efficiencies and the data on irrigated acreage, potential crop evapotranspiration, and effective precipitation used for those systems in the

H-I Model. For surface water irrigation systems within the H-I Model Domain that are not represented in the H-I Model, the ISAM uses assumptions and data for similar systems that are represented in the H-I Model.

The ISAM may incorporate or be used in conjunction with the unit response functions that were developed by the State and Division Engineers under Rule 8 of the Amended Rules and Regulations Governing the Diversion of Tributary Ground Water in the Arkansas River Basin, Colorado ("Use Rules"), to determine the timing and location of seepage losses and return flows. The ISAM may also incorporate or be used in conjunction with other peer-reviewed models or methods to determine the timing and location of seepage losses and return flows that are based upon sufficient and reliable engineering and/or scientific information, including the Ground Water Accounting Model used by the State and Division Engineers under the Use Rules and the Analytical Stream Depletion Model as described in the Ground Water Software Publication No. 1, Office of the State Engineer, Colorado Division of Water Resources, dated September, 1987 authored by Dewayne R. Schroeder. In these Rules, the term "ISAM" includes such unit response functions and such other peer-reviewed models or methods.

- 9. "Notification List" means the electronic contact information submitted by those persons who request notification of decisions or proceedings under these Rules.
- 10. "Off-farm" means those ditches, laterals, and pipelines that are not "on-farm."
- 11. "On-farm" means those ditches, laterals, and pipelines that are used to transport irrigation water within or along the borders of irrigated fields. Onfarm ditches and laterals do not include the main canal that conveys water from the decreed source to farm turnouts on the main canal or ditches and laterals that serve more than one water user.
- 12. "Subject water right" means the water right or rights, including shares in a mutual ditch or reservoir company, used with a surface water irrigation system to which an improvement has been made or is proposed. "Subject water right" includes the portion of a water right or water rights that a water user is entitled to use by contract or as the beneficial owner.
- 13. "Surface water irrigation system" means any and all structures, facilities, equipment, or works used to receive, deliver, control, apply, or return surface water for irrigation, including, but not limited to: dams; diversion works; canals; off-farm laterals; reservoirs; and farm-scale irrigation application facilities, such as sprinkler systems, drip systems, and head stabilization ponds. "Surface water irrigation system" includes

systems that also receive ground water in addition to surface water and systems that receive, deliver, control, or return surface water for the purpose of replacing depletions caused by diversions of tributary ground water.

B. Any term used in these Rules that is defined in Articles 69, 80, and 92 of Title 37, C.R.S., shall have the same meaning given therein unless the context requires otherwise.

Rule 6. Principles and Findings

- A. Article IV-D of the Compact states as follows: "This Compact is not intended to impede or prevent future beneficial development of the Arkansas River basin in Colorado and Kansas by Federal or State agencies, by private enterprise, or by combinations thereof, which may involve construction of dams, reservoirs and other works for the purposes of water utilization and control, as well as the improved or prolonged functioning of existing works: Provided, that the waters of the Arkansas River, as defined in Article III, shall not be materially depleted in usable quantity or availability for use to the water users in Colorado and Kansas under this Compact by such future development or construction."
- B. Article VII-A of the Compact states as follows: "Each State shall be subject to the terms of this Compact. Where the name of the State or the term 'State' is used in this Compact these shall be construed to include any person or entity of any nature whatsoever using, claiming or in any manner asserting any right to the use of the waters of the Arkansas River under the authority of that State."
- C. The State Engineer is responsible for discharging the obligations of the State of Colorado imposed by the Compact.
- D. Future beneficial development of the Arkansas River basin within the meaning of Article IV-D of the Compact includes improvements to surface water irrigation systems within the scope of these Rules. In making this finding, the State Engineer has been guided by the terms of the Compact and the decisions of the United States Supreme Court and its Special Master interpreting the Compact: See, e.g., Kansas v. Colorado (No. 105 Original), 514 U.S. 673 (1995); 533 U.S. 1 (2001); 543 U.S. 86 (2004); First Report (1994); Second Report (1997); Third Report (2000); Fourth Report (2003); and Fifth and Final Report (2008).
- E. Improvements to surface water irrigation systems within the scope of these Rules can materially deplete the waters of the Arkansas River in usable quantity or availability for use to the water users in Colorado and Kansas in violation of Article IV-D of the Compact by increasing beneficial consumptive use and reducing historical seepage losses or return flows to the Arkansas River.

- F. The Compact is deficient in establishing standards for administration within Colorado to provide for meeting its terms with respect to improvements to surface water irrigation systems and these Rules are necessary to ensure that the State of Colorado meets its Compact obligations.
- G. Compact Compliance Plans under these Rules do not authorize out-of-priority use of water and do not authorize replacement of depletions caused by out-of-priority use of water. See Simpson v. Bijou, 69 P.3d 50 (2003); § 37-92-308, C.R.S.
- H. In adopting these Rules, the State Engineer has been guided by the recognition that the Arkansas River Basin is a separate entity (§ 37-92-501(2)(a), C.R.S.); that the purpose of the Compact was to equitably divide and apportion between the States of Colorado and Kansas the waters of the Arkansas River and their control, conservation, and utilization for irrigation and other beneficial purposes (Article I-A); that the Compact deals only with the waters of the Arkansas River as defined in Article III of the Compact (Article IV-A); and that the Compact establishes no general principle or precedent with respect to any other interstate stream (Article VII-B).
- Rule 7. Requirement for Division Engineer Approval of Improvements to Surface Water Irrigation Systems
- A. On or after the effective date of these Rules, no improvement to a surface water irrigation system within the scope of these Rules shall be made unless the user makes an application in writing to the Division Engineer in accordance with Rule 8 or Rule 10 of these Rules for approval of the improvement and receives written approval from the Division Engineer allowing the improvement, except that improvements authorized by a general permit under Rule 11 only require written notice pursuant to the terms of the general permit, rather than an application.
- B. On or after the effective date of these Rules, any person who wants to continue using a sprinkler or drip irrigation system to apply surface water within the H-I Model Domain that was installed on or after October 1, 1999, but before the effective date of these Rules, must file an application in writing to the Division Engineer in accordance with Rule 8 or Rule 10 of these Rules for approval of the sprinkler or drip irrigation system and must receive written approval from the Division Engineer allowing the use of the sprinkler or drip irrigation system in accordance with these Rules. Ninety days after the effective date of these Rules, no sprinkler or drip irrigation system that is used to apply surface water within the H-I Model Domain and was installed on or after October 1, 1999, but before the effective date of these Rules, shall be used unless the owner or user has received written approval from the Division Engineer allowing the use of the sprinkler or drip irrigation system in accordance with these Rules.

C. In the event written approval of an improvement to a surface water irrigation system has not been given by the Division Engineer in accordance with a Rule 8 application or a Rule 10 Compact Compliance Plan and is not permitted under a general permit as provided in Rule 11 below, or if the Applicant is out of compliance with the terms and conditions of a written approval, the State or Division Engineer shall order the total or partial discontinuance of any diversion or use of the subject water right (but only to the extent that the water being diverted is used in connection with such improvement) or take other appropriate action authorized by law to prevent a violation of Article IV-D of the Compact. If the subject water right is based on contract or shares in a ditch or reservoir company, any such order will be issued to the person or entity responsible for the improvement.

Rule 8. Application Contents, Notice and Comment Period, and Timeline for Review

- A. An application for approval of an improvement shall be in a form to be prescribed by the State Engineer. The application shall describe the surface water irrigation system and the improvement in sufficient detail to allow the Division Engineer to evaluate the effect of the improvement and shall be signed by the owner or user of the surface water irrigation system or his or her Designated Agent. The Division Engineer prefers that the applicant submit the form and any exhibits electronically. An applicant is not required to submit an engineering report with an application, but the applicant may submit any relevant information, including a report from a licensed professional engineer or other qualified expert, information pertinent to the leaching requirement to prevent soil salinity from reaching harmful levels for land irrigated by the improvement, or information from the manufacturer, distributor, or installer describing the improvement and its effect on consumptive use of water or seepage losses and return flows. The application may also propose terms and conditions to be imposed on the use of the improvement or the use of the subject water right that will prevent a violation of Article IV-D of the Compact.
- B. As soon as practicable after the application is filed, the Division Engineer shall send a copy of the application and any exhibits, or information on where they are available to be reviewed, to all persons on the Notification List. Anyone may join the Notification List by submitting an email address to the Division Engineer's Office. The Division Engineer will consider comments on pending applications if they are received within 30 days after the application is sent to persons on the Notification List. The Division Engineer will also inform those on the Notification List of any hearing on an application and of any decision approving or denying an application or Compact Compliance Plan.
- C. Within ninety (90) calendar days of the receipt of an application, the Division Engineer will provide the applicant or his or her designated agent with a written

decision that may be in the form of approval, denial, or approval with terms and conditions. If the Division Engineer requires additional information from the applicant to evaluate the improvement, the Division Engineer shall notify the applicant, and the applicant shall have up to 90 calendar days from the date of the notification to provide the additional information and the time for the Division Engineer to provide the applicant with a written decision shall be extended for 90 calendar days from the date of the receipt of the additional information.

D. In making the determinations necessary to approve or deny an application, the Division Engineer shall not be required to hold or conduct a hearing, but the Division Engineer may hold or conduct a hearing if he determines a hearing is necessary or useful to make any such determination. All hearing procedures will be guided by the State Engineer's Procedural Regulations for adjudicatory procedures (2 CCR 402-5, Section 1.1.4), where applicable.

Rule 9. Standards for Division Engineer Review of Applications

- A. If the Division Engineer determines that an improvement will not materially deplete the waters of the Arkansas River in violation of Article IV-D of the Compact, he shall approve the application and allow the improvement. If the Division Engineer determines that an improvement will materially deplete the waters of the Arkansas River in violation of Article IV-D of the Compact, he shall deny the application and disallow the improvement unless terms and conditions can be imposed under Rule 9(C) below that will prevent such material depletion or the improvement is included in a Compact Compliance Plan approved by the Division Engineer in accordance with Rule 10 below. Once an improvement has been approved, no further application shall be required unless the Division Engineer revokes the approval for violation of a term and condition of the approval.
- B. To determine whether an improvement will materially deplete the waters of the Arkansas River in violation of Article IV-D of the Compact, the Division Engineer shall determine whether the improvement will increase consumptive use or will reduce the amount or change the timing or location of historical seepage losses and return flows from waters of the Arkansas River diverted, conveyed, stored, applied, or returned by the surface water irrigation system. The Division Engineer shall consider any relevant data or information submitted with the application, and may consider any change in non-beneficial consumptive use that would result from the improvement to the surface water irrigation system, to the extent permitted by law.
 - i. For surface water irrigation systems located within the H-I Model Domain, the Division Engineer shall use the ISAM for these determinations.

- a. There shall be a rebuttable presumption that the version of the ISAM in use at the time an application is filed accurately determines whether an improvement will increase consumptive use or will reduce the amount of historical seepage losses and return flows. However, the Division Engineer shall consider any farm-specific data or engineering analysis submitted by the applicant that varies from assumptions or data used in the ISAM and shall incorporate such data or engineering analysis if appropriate.
- b. The initial version of ISAM and its documentation shall be filed in the water court action concerning promulgation of these Rules. The Division Engineer shall update or revise the ISAM as appropriate to incorporate applicable changes to the H-I Model that have been approved in accordance with Section V of Appendix B to the Decree in Kansas v. Colorado and to incorporate new or updated data and/or engineering information for assumptions and data that are not derived from the H-I Model. Such update or revision shall be based on sufficient and reliable engineering and/or scientific information. The Division Engineer shall notify interested parties of any significant proposed changes to the ISAM through the Notification List and the DWR website. The Division Engineer shall make available electronic copies of the ISAM and associated data upon request, and shall allow reasonable time for peer review and responsive comments before using the updated or revised ISAM, unless it would be unreasonable not to use the updated or revised ISAM, e.g., where the updated or revised ISAM corrects an arithmetic error.
- ii. For surface water irrigation systems located outside the H-I Model Domain, the Division Engineer shall develop appropriate models or methods for these determinations. Said model or method shall be similar to the ISAM, but shall use data and information appropriate to the hydrologic and institutional circumstances of the surface water irrigation systems to be evaluated, based upon sufficient and reliable engineering and/or scientific information.
 - a. For surface water irrigation systems located outside the H-I Model Domain, there shall not be a rebuttable presumption that the version of the model or method in use at the time an application is filed accurately determines whether an improvement will increase consumptive use or will reduce the amount or change the timing or location of historical seepage losses and return flows unless the State Engineer files a request with the district court for Water Division 2 to establish such a rebuttable presumption, notice is given to interested persons, and the rebuttable presumption is established by order of the Court.

- b. The Division Engineer shall update or revise such model or method as appropriate to incorporate new or updated data and/or information. Such update or revision shall be based on sufficient and reliable engineering and/or scientific information. The Division Engineer shall notify interested persons of any significant update or revision to such model or method through the Notification List and the DWR website. The Division Engineer shall make available electronic copies and associated data upon request, and shall allow reasonable time for peer review and responsive comments before using a new, updated or revised model or method, unless it would be unreasonable not to use the new, updated or revised model or method, e.g., where the updated or revised model or method corrects an arithmetic error.
- C. The Division Engineer may approve an application and allow an improvement that would otherwise violate Article IV-D of the Compact if the Division Engineer determines that terms and conditions can be imposed on the use of the improvement or the use of the subject water right that will prevent a violation of Article IV-D of the Compact. Such terms and conditions may include a limitation on the use of the subject water right, including a limitation on the time, place, or method of use of the subject water right or the surface water irrigation system; a requirement to install, maintain and verify appropriate measuring devices; a requirement to periodically record and report measurements to the Division Engineer; a requirement for a periodic accounting; or such other terms and conditions as may be necessary to maintain historical seepage losses and return flows, such as discontinuing the irrigation of historically irrigated land. If delayed effects on historical seepage losses or return flows from an improvement are projected, the Division Engineer's approval shall specify the time period for which such terms and conditions must remain in effect to offset such effects in the event the applicant discontinues use of the improvement. The Division Engineer may adjust the terms and conditions of a Rule 8 approval within the first three years after approval, after which time the terms and conditions on applications approved without a Compact Compliance Plan may be modified only as necessary to comply with a final court order.
- D. In determining whether an improvement will cause a material depletion of Stateline flow under Article IV-D of the Compact, no reduction for usability shall be applied; provided, that no person or entity subject to these Rules shall be required to maintain historical seepage losses or return flows at the Stateline if John Martin Reservoir is spilling and Stateline water is passing Garden City, Kansas. See 2 Fifth and Final Report of the Special Master, Kansas v. Colorado, No. 105, Orig., U.S. Sup. Ct., Appendix J.2, at J.26.

Rule 10. Compact Compliance Plans

10

- A. In lieu of filing an application under Rule 8, any person subject to these Rules or an entity acting on behalf of such person or a group of such persons may submit a proposed Compact Compliance Plan (Plan) for review by the Division Engineer to prevent a violation of Article IV-D of the Compact from an improvement or group of improvements subject to Rule 7(A) or 7(B). The proposed Plan must specifically describe all improvements it is intended to cover. A copy of the form required by Rule 8.A, signed by the owner or user of the surface water irrigation system or his or her Designated Agent, must be maintained on file by the filing entity for each improvement to be covered under a proposed Plan and shall be available for inspection by the Division Engineer. The proposed Plan shall be in an electronic form. The Division Engineer shall send a copy of the proposed Plan and exhibits, or information on where they are available to be reviewed, to all persons on the Notification List.
- B. A Compact Compliance Plan may include use of water other than the subject water right to prevent a violation of Article IV-D of the Compact if the other water is imported water or other fully consumable water pursuant to the decree controlling the use of said water. However, if a proposed Compact Compliance Plan requires a change of water right or plan for augmentation, the Division Engineer will deny the application and direct the applicant to file an application for approval of a change of water right or plan for augmentation in accordance with § 37-92-302, C.R.S. If this occurs, the applicant must cease use of the improvement to the surface water irrigation system until an application has been approved under Rule 8 above, a substitute water supply plan has been duly approved under section 37-92-308, C.R.S., or the water judge has entered a decree approving a change of water right or plan for augmentation allowing the use of the surface water improvement.
- C. Within ninety (90) calendar days of the receipt of a proposed Compact Compliance Plan, the Division Engineer will provide the Plan applicant with a written decision that may be in the form of approval, denial, or approval with terms and conditions. If the Division Engineer requires additional information from the Plan applicant to evaluate the Compact Compliance Plan, the Division Engineer shall notify the applicant, and the applicant shall have up to 90 calendar days from the date of the notification to provide the additional information and the time for the Division Engineer to provide the Plan applicant with a written decision shall be extended for 90 calendar days from the date of the receipt of the additional information.
- D. If the Division Engineer determines that a proposed Compact Compliance Plan will prevent a violation of Article IV-D of the Compact from the improvement(s), he shall approve the Plan and allow the improvement(s). If the Division Engineer determines that a proposed Compact Compliance Plan will not prevent a violation of Article IV-D of the Compact from the improvement(s), he shall deny the Plan and disallow the improvement(s) unless terms and

- conditions, including but not limited to those described in Rule 9(C), can be imposed that will prevent such violation.
- E. Compact Compliance Plans shall require annual review and approval unless the Division Engineer determines that a longer period of approval is warranted, such as where the applicant owns or has a long-term right to use the source of water and controls or has a long-term right to use any storage space necessary to prevent a violation of Article IV-D of the Compact.
- F. Compact Compliance Plans approved by the Division Engineer shall require an annual accounting to the Division Engineer of the actual operations under the Plan during the prior year, including the change in historical seepage losses and return flows by month from each improvement covered under the Plan and the amount, time, and location of all water provided under the Plan to maintain historical seepage losses and return flows, as well as the projected monthly operations under the Plan for the upcoming year. The Division Engineer shall determine an appropriate "plan year" or 12 month period for operation under each approved Plan, and may grant temporary approval at the beginning of the plan year to allow verification of projected water availability or other assumptions in the plan. Improvements may be added and deleted from the Plan at any time by submitting a request for amendment of the Plan and receiving Division Engineer approval of the amendment.

Rule 11. General Permits

- A. The State Engineer may issue general permits to approve any type or category of improvements, including improvements in specific locations of the Arkansas River Basin, that the State Engineer determines will not materially deplete the waters of the Arkansas River in violation of Article IV-D of the Compact. The State Engineer has determined that the general permits attached to these Rules will be issued with the adoption of these Rules.
- B. The State Engineer may modify or revoke a general permit, in whole or in part, if the State Engineer determines, based upon sufficient and reliable engineering and/or scientific information, that the continued use of improvements authorized under the general permit will materially deplete the waters of the Arkansas River in violation of Article IV-D of the Compact without compliance with these Rules. However, no person or entity that made an improvement in reliance on a general permit shall be required to submit an application pursuant to these Rules for that improvement unless these Rules are amended to require such an application or as necessary to comply with an order of the United States Supreme Court.
- C. The State Engineer shall provide advance notice and opportunity to comment on any proposed issuance, revocation, or modification of any general permit via the Notification List, and shall provide notice of any new, revoked or modified

general permit to the water clerk for Water Division 2 so that such notice shall be included in the resume prepared by the water clerk and shall be included in the copy of the resume posted on the water court's web site prior to its effective date.

- Rule 12. Effect Of An Evaluation Under The Rules On A Determination Of The Historical Consumptive Use Of The Subject Water Right
- A. An evaluation of an improvement to a surface water irrigation system under these Rules to determine whether an improvement will materially deplete the waters of the Arkansas River in violation of Article IV-D of the Compact is not intended to be an evaluation of the historical consumptive use or return flows of the subject water right for the purpose of changing the subject water right.
- B. The Division Engineer's evaluation of an improvement to a surface water system pursuant to these Rules shall have no precedential effect in any proceeding to change the subject water right, including use of the subject water right in an exchange or plan for augmentation.

Rule 13. Process to Appeal a Decision Under These Rules

- A. Administrative review of decisions by the State and Division Engineers under these Rules shall be available if timely requested as provided below. Such review shall be guided by the adjudicatory procedures and reconsideration procedures set out in Rule 1.1.4 and 1.1.6 (A) of the State Engineer's Procedural Regulations (2 CCR 402-5) ("Procedural Regulations").
- B. If the Division Engineer denies an application or approves the application with terms and conditions, the applicant or any person adversely affected or aggrieved by the decision may appeal the Division Engineer's decision to the State Engineer within 30 days after the Division Engineer issues the decision. If the Division Engineer has not held a hearing on the application, the applicant or any person adversely affected or aggrieved by the decision may file a request for an adjudicatory hearing under the Procedural Regulations. The State Engineer may refer the matter to a Hearing Officer. If the Division Engineer has already held a hearing on the Application, the applicant or any person adversely affected or aggrieved by the decision may file a request for rehearing or reconsideration under the Procedural Regulations.
- C. If the State Engineer issues, revokes or modifies a general permit, any person adversely affected or aggrieved by the decision may file a request for an adjudicatory hearing under the State Engineer's Procedural Regulations, provided the request is filed by the end of the month following the month in which the notice of the issuance, revocation or modification of the general permit is included in the copy of the resume posted on the water court's web site. The State Engineer may refer the matter to a Hearing Officer.

- D. If the Division Engineer updates or revises a model or method as provided in Rule 9.B.i.b. or 9.b.ii.b., any person adversely affected or aggrieved by the update or revision may appeal to the State Engineer by filing a request for an adjudicatory hearing under the State Engineer's Procedural Regulations within 90 days after the update or revision is provided to those on the Notification List. The State Engineer may refer the matter to a Hearing Officer.
- E. The intent of Rule 13 is to provide a timelier and less expensive alternative to an applicant or person adversely affected or aggrieved by a decision of the Division Engineer or the State Engineer. Nothing herein is intended to preclude de novo review by the water judge of a decision by the Division Engineer or the State Engineer under these Rules.

Rule 14. Effect of Rules

Improvements to a surface water irrigation system subject to these Rules are not exempt from the requirements of any other lawful Rules or statutes governing the use of waters of the State in Water Division 2, whether now existing or hereafter adopted.

Rule 15. Variance

When the strict application of any provisions of these Rules would cause unusual hardship, the Division Engineer may grant a variance. No variance shall waive the requirement for Division Engineer substantive evaluation and approval of an improvement to a surface water irrigation system according to the standards set by these Rules. Any request for a variance shall be made in writing and shall state the basis for the requested variance. If the Division Engineer finds that the request is justifiable, the Division Engineer may issue a written order granting the variance and setting forth the terms and conditions on which the variance is granted.

Rule 16. Severability

If any Rule or part thereof is found to be invalid by a court of law, the remaining Rules shall remain in full force and effect, including any part thereof not found to be invalid.

Rule 17. Effective Date

These Rules shall take effect January 1, 2011, or sixty calendar days after publication in accordance with § 37-92-501(2)(g), C.R.S., whichever is later, and shall thereafter remain in effect until amended as provided by law. In the event that protests are filed with respect to these Rules in the time frame set by § 37-92-501(3), C.R.S., the effective date of such Rules shall be stayed until such protests are judicially resolved pursuant to the procedures set forth in § 37-92-304, C.R.S.

In the event such protests are resolved prior to January 1, 2011, applications required by these Rules may be submitted prior to the effective date of the Rules.

IT IS FURTHER ORDERED that any person who wishes to protest these proposed Rules may do so by filing a protest in writing with the Division 2 Water Clerk in Pueblo, Colorado, in the same manner as for the protest of a ruling of the referee. Any such protest must be filed by the end of the month following the month in which these Rules are published.

Dated this 30th day of September, 2009, by:

Dick Wolfe,

State Engineer/Director of Colorado Division of Water Resources

Dich Wolfe

Attachment 1: Map of H-I Model Domain referenced in Rule 5.A.4.

Attachment 2: General Permits referenced in Rule 11.A.

COLORADO STATE ENGINEER'S STATEMENT OF BASIS AND PURPOSE FOR THE PROPOSED IRRIGATION IMPROVEMENT RULES IN THE ARKANSAS RIVER BASIN IN COLORADO

State Engineer Dick Wolfe filed the <u>Compact Rules Governing Improvements to Surface</u>

<u>Water Irrigation Systems in Arkansas River Basin in Colorado</u> ("Irrigation Improvement Rules"
or "Rules") in the Division 2 Water Court on September 30, 2009. This Statement discusses the
State Engineer's authority to enact rules that regulate surface water irrigation system
improvements in Water Division 2; explains the need for the Irrigation Improvement Rules and
the public process for developing them; and summarizes how they will be implemented. ¹

I. AUTHORITY FOR THE IRRIGATION IMPROVEMENT RULES

The Irrigation Improvement Rules are designed to allow improvements to the efficiency of irrigation systems in the Arkansas River Basin while ensuring compliance with the Arkansas River Compact ("Compact"), § 37-69-101, C.R.S. (2009). The State Engineer adopted the Rules pursuant to the Compact rule-making authority. C.R.S. § 37-80-104 provides:

Compact requirements – state engineer's duties. The state engineer shall make and enforce such regulations with respect to deliveries of water as will enable the state of Colorado to meet its compact commitments. In those cases where the compact is deficient in establishing standards for administration within Colorado to provide for meeting its terms, the state engineer shall make such regulations as will be legal and equitable to regulate distribution among the appropriators within Colorado obligated to curtail diversions to meet compact commitments, so as to restore

Although no statement of basis and purpose is legally required, the State's team has prepared this accompanying Statement of Basis and Purpose to provide background on the Rules. Compact rules are promulgated following the same standards and procedures for rules enacted under the State Engineer's water rule authority, see C.R.S. § 37-92-501, and the Colorado Administrative Procedures Act does not apply. Kuiper v. Gould, 583 P.2d 910, 913 (1978); see also Simpson v. Bijou Irrigation Dist., 69 P.3d. 50, 55 (Colo. 2003). In the event of any conflict between this document and the text of the Rules, the text of the Rules supersedes.

lawful use conditions as they were before the effective date of the compact insofar as possible. § 37-80-104, C.R.S (2009).

As discussed more fully in Part II (A) and (B) below, the State Engineer has determined that improvements to surface water irrigation systems, such as sprinklers and drip systems that replace flood and furrow irrigation, or canal-lining that reduces seepage, have the potential to materially deplete the usable waters of the Arkansas River in violation of the Compact. See Rule 6(E). Article IV-D of the Compact provides that post-Compact water development in Colorado, including the "improved or prolonged functioning of existing works," is not to materially deplete usable Stateline flow. The State Engineer has determined that Compact rules are necessary to enforce Article IV-D, because the Compact itself does not establish standards for administration of improvements to surface water irrigation systems to ensure Compact compliance. See Rule 6(F). These findings establish the prerequisites for an exercise of the State Engineer's authority under § 37-80-104.

In addition, the State Engineer has been guided by the principles set out in § 37-92-501(2) for exercise of the rule-making power. In particular, the Irrigation Improvement Rules serve the important objective of "optimum use of water consistent with preservation of the priority system of water rights." See § 37-92-501(2)(e); see also Simpson v. Bijou, 69 P.3d at 69. These Rules serve optimum use by allowing water users to make investments in irrigation efficiency improvements with confidence that they will be in compliance with Compact obligations. Rule 10 serves optimum use by providing the mechanism for water users, or an entity acting on their behalf, to submit a Compact Compliance Plan. Such plans allow use of other water sources to maintain the historical seepage and return flows from the subject water rights, instead of reducing the diversion or consumption of the subject water rights.

II. THE RULES ARE NECESSARY TO ENSURE COMPACT COMPLIANCE

A. Irrigation Improvements are subject to the Compact's limit on future developments in Colorado.

Colorado and Kansas entered into the Compact in 1948 to apportion the waters of the Arkansas River and the benefits arising from the construction, operation, and maintenance of John Martin Reservoir. Compact, Article I. Article IV-D of the Compact governs future developments in the Arkansas River basin (Basin) in Colorado. It provides that:

This Compact is not intended to impede or prevent future beneficial development of the Arkansas River basin in Colorado and Kansas by Federal or State agencies, by private enterprise, or by combinations thereof, which may involve construction of dams, reservoirs, and other works for the purpose of water utilization and control, as well as the improved or prolonged functioning of existing works: Provided, that the waters of the Arkansas River, as defined in Article III, shall not be materially depleted in usable quantity or availability to the water users in Colorado and Kansas under this Compact by such future development or construction.

Compact, Article IV-D (emphasis added). The State of Colorado and each person or entity using water in the Basin are subject to this rule. Compact, Article VII-A.

Kansas sued Colorado for violations of the Compact in 1985. Colorado was found to have violated Article IV-D by allowing post-Compact well pumping. Kansas v. Colorado (No. 105, Original), 514 U.S. 673 (1995). In the first of five reports to the United States Supreme Court, Special Master Littleworth examined the meaning and scope of Article IV-D. Special Master Littleworth's First Report (July 1994), at 101, 107-08. He found that it protects the usable flows of the river as of the time of the Compact (including return flows from existing irrigation uses) from material depletion caused by any increased consumptive use in Colorado, including depletions caused by post-compact wells and the replacement of centrifugal with turbine pumps. Id. at 107-08. The Supreme Court affirmed this interpretation. Kansas v. Colorado, 514 U.S. 673, 691 (1995).

In that case, the States also disagreed on the amount of pumping allowed from the wells that were already in place as of the date of the Compact. The Court focused on the phrase "improved or prolonged functioning of existing works" in Article IV-D. Id. at 690. It held that "the clear language of Article IV-D" answered that question: "Improved and increased pumping by existing wells clearly falls within Article IV-D's prohibition against 'improved or prolonged functioning of existing works,' if such action results in 'materia[l] deplet[ions] in usable' river flows." Id. at 690.

Following the same rationale, improvements to the surface water irrigation systems that existed at the time of the Compact also fit the phrase "improved or prolonged functioning of existing works." Like the groundwater wells that were the subject of <u>Kansas v. Colorado</u>, they are subject to the limits of Article IV-D and need to be addressed. Id.

B. Irrigation Improvements have the potential to cause material depletions.

Increases in irrigation efficiency provide many benefits for Colorado water users, as did the technological advances in well pumping in the 1950s. They save money by reducing the need for hired labor, and they improve water quality by reducing irrigation runoff and seepage. The better water quality may in turn result in improved crop yields within the region.

Moreover, increasing irrigation efficiency has for years been cited as a promising way to address water scarcity problems in Colorado and throughout the Western United States. See, e.g., David H. Getches, Meeting Colorado's Water Requirements: An Overview of the Issues, in Tradition, Innovation and Conflict: Perspectives on Colorado Water Law at 11 (MacDonnell, ed.) (1986) (stating that "there should be great opportunities for finding supplies of water through increased agricultural efficiency"). Scholars and policymakers continuously emphasize that irrigation constitutes 86% of water use in Colorado, and assert that wasteful

irrigation methods can be tapped to solve water scarcity. Most of these scholars acknowledge the fact that a portion of any overapplied agricultural water returns to the stream and has already been appropriated by users below, so is not available to supply other uses. See, e.g. Getches, supra, at 11. "One user's inefficiency is often another user's water supply," especially in an overappropriated basin like the Arkansas. See, e.g., Frank A. Ward and Manuel Pulido-Velasquez, "Water Conservation in Irrigation Can Increase Water Use," in Proceedings of the National Academy of Sciences, Vol. 105, No. 47 (Nov. 25, 2008) 18215 at 18216.

The State Engineer supports efforts to increase irrigation efficiency in the Arkansas River Basin in Colorado as long as they do not violate Article IV-D of the Compact. The irrigation return flows from Colorado farms that were being used in Kansas in 1948 cannot now be consumed by improved irrigation practices in Colorado. With the Irrigation Improvement Rules in place, the State Engineer can provide the oversight necessary to allow Colorado water users to continue to improve the efficiency of surface water irrigation systems with confidence that they will be in compliance with the Compact.

A variety of factors affect whether a change in irrigation method will have an impact on historical seepage and return flows. Perhaps the most important factor is the sufficiency of the water supply to the field using the unimproved irrigation system. On a water-short farm, the water supply available to the farm does not provide a sufficient amount of water to meet the crop demand on all of the acres decreed for irrigation. In water short systems, when a more efficient method of irrigation is used, a greater portion of water applied will be delivered to the crop root zone and can be consumed by crop evapotranspiration. Certain improvements in efficiency on water-short systems will result in more water being made available for crop evapotranspiration, increasing the crop consumptive use of water applied for irrigation and reducing historical

seepage and return flows. This fact is well-established and is supported by a broad array of studies and research. See, e.g., Ward and Pulido-Velasquez, supra, at 18216 ("[I]rrigation technologies that apply water at optimal times and locations in the plant root zone increase crop consumptive use of water and crop yield as irrigation efficiency increases"); Chris Perry, "Efficient Irrigation; Inefficient Communication; Flawed Recommendations," in Irrigation and Drainage, Vol. 56 (2007) 367 at 369 ("an increase in efficiency frequently means that consumption by crops is increased because the service more precisely and uniformly matches the water needs of the crop").

In 2003, the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) began providing cost-sharing funds to farmers in the Arkansas Basin to purchase center pivot irrigation systems to improve their irrigation systems. As a result, there has been a recent rise in the number and type of irrigation system improvements in the Basin. For example, a review of aerial photographs taken in 1998 versus 2008 demonstrates that approximately 6,100 acres on ditches along the Arkansas River mainstem below Pueblo Reservoir have installed sprinkler systems on fields that previously were flood irrigated with surface water. See Study by Division 2 Office (April, 2009).

Beginning in 2006, Kansas officials informed the State Engineer and various Colorado representatives that they are concerned that the increased crop consumption allowed by these irrigation improvements will materially deplete Stateline flows in violation of the Compact. In response, the State Engineer's Office reviewed the extent of such irrigation system improvements in Division 2 and also conducted a series of computer model runs to determine the potential impact of various irrigation system improvements in Colorado on Stateline flows using the H-I Model, the tool approved by the United States Supreme Court for determining Compact

compliance for ground water pumping.² The Engineers concluded that the irrigation system improvements covered by the Rules have the potential to materially deplete usable Stateline flows in violation of Article IV-D of the Compact, and should be regulated.

III. PUBLIC DEVELOPMENT PROCESS FOR THE IRRIGATION IMPROVEMENT RULES

A first draft of "Efficiency Rules" was circulated for public comment in late 2007 under the previous Colorado State Engineer. Because of opposition at the time, the present State Engineer, Dick Wolfe, who was appointed to office on November 26, 2007, began meeting with the various water user groups concerned about that draft, and decided to convene a public Advisory Committee to address the concerns and find solutions. On May 12, 2008, the State Engineer issued an Order Establishing Advisory Committee for Arkansas River Compact Rules to Govern Improvements to Surface Water Irrigation Systems in the Arkansas River Basin. To ensure that the Advisory Committee included a wide representation of interests and expertise, the State Engineer invited 20 different organizations, including water districts, water user associations, State and federal agencies, and counties to nominate a member, and added Colorado's three Arkansas River Compact Administration representatives and several other water users, engineers and attorneys who practice in Division 2. There were a total of 32 members and 5 alternates on the Advisory Committee. See Exhibit A (membership list). Its tasks were:

1. To provide advice and recommendations to the State Engineer on rules and regulations to comply with the terms of Article IV-D

² The measure of compliance is a moving 10 year total of the annual depletions or accretions to usable Stateline flow computed using the H-I Model. <u>See</u> 543 U.S. 86, 103 (2004); see also, Special Master Littleworth's Fifth and Final Report (January 2008), Volume II, at page 3-4, Section I (B)(1), entered as final judgment and decree, 129 S.Ct. 1294 (March 9, 2009). The H-I Model may only be changed by agreement of the States or pursuant to the Dispute Resolution Procedure contained in Appendix H of that decree. Id. at page 5, Section I (B)(4).

of the Compact with regard to improvements to surface water irrigation systems in the Arkansas River basin in Colorado, including the following:

- a. Methods to evaluate improvements to surface water irrigation systems in the Arkansas River basin in Colorado to comply with the terms of Article IV-D of the Compact;
- b. Terms and conditions to prevent or replace depletions resulting from improvements to surface water irrigation systems in the Arkansas River basin in Colorado to comply with the terms of Article IV-D of the Compact.
- 2. To provide recommendations to the State Engineer on ways to achieve benefits from improving surface water irrigation systems in the Arkansas River basin, including but not limited to water quality benefits and labor-saving benefits, while still complying with the terms of Article IV-D of the Compact with regard to improvements to surface water irrigation systems in the Arkansas River basin in Colorado.

The Advisory Committee met five times in 2008 (July 9, July 30, September 19, Oct 22, Nov 13) and four times in 2009 (Feb 24, April 16 (by phone), June 22, and September 21). Each meeting resulted in significant substantive changes to the "Working Draft" of the Rules, which were sent back to the Committee members for their review and comment prior to the next meeting. Some of the more notable changes initiated by the Committee include: the retrospective aspect of the rules was narrowed to apply only to sprinklers and drip systems within the H-I Model Domain; the definition of "improvements" was significantly refined; the Irrigation System Analysis Model (discussed below) was developed to replace the need for applicants to pay for individualized engineering reports; the Notification List for electronic notice of all actions taken under the Rules was created; the administrative appeal procedures were detailed; the concept for Rule 10 Compact Compliance Plans was developed; and the Rule 11 General Permits were initiated.

In addition, the two subcommittees discussed below accomplished considerable work during the 15 month period:

A. The Engineering Subcommittee and the Irrigation System Analysis Model (ISAM):

A subcommittee of twelve (including ten engineers) began working in July 2008 to respond to the predominant concern that the State Engineer should not require each applicant to obtain an individualized engineering report. Water users felt that requiring each applicant to hire an engineer would be cost-prohibitive and impractical, and wanted an inexpensive way to evaluate applications. In response, the Division Engineer's Office developed the Irrigation System Analysis Model (ISAM) in conjunction with the Engineering Subcommittee. It is a spreadsheet tool that compares the water consumption under recent hydrologic conditions using the surface water irrigation system without the irrigation efficiency improvement with the consumption under the same conditions using the same system with the improvement. The Subcommittee met in July, September, October and November of 2008 and in February and April of 2009, to review and improve the ISAM.

The only information the applicant needs to provide to run the ISAM is how many acres the system irrigates; any change in acreage due to the improvement (such as drying up corners when converting from flood to sprinkler irrigation); the surface water right or rights used on that acreage, or the number of ditch shares if applicable; and whether there is supplemental irrigation from a well. By incorporating assumptions about canal and lateral losses, soil moisture accounting, etc. (see Rule 5.A.8 for the full list of assumptions imported from the H-I Model), the ISAM allows for a cost-effective evaluation of proposed improvements which is consistent with the H-I Model.

B. The Solutions Subcommittee and the Rule 10 Compact Compliance Plans:

A second subcommittee was selected by the Advisory Committee at its November 2008 meeting to find efficient and inexpensive ways to assist farmers with compliance under the

Rules. It focused on streamlining the procedures for filing applications, finding opportunities to ease the expense of compliance, and finding sources of water to be used for maintenance flows when an improvement is found to cause a reduction in historic return flows. The Solutions Subcommittee met on December 16, 2008, January 13, 2009, February 3, 2009, and February 6, 2009, and then submitted written recommendations to the Advisory Committee. **See Exhibit B, attached.** Many of these recommendations have already been implemented, and the State and Division Engineer's Offices will continue to follow these recommendations when implementing the Rules.

The Colorado Water Conservation Board (CWCB) immediately pursued funding to jumpstart these efforts. The CWCB's assistance is consistent with the its statutory missions to promote efficient water use and ensure Compact compliance C.R.S. § 37-60-106 (1)(i) and (r) (2009). In November of 2008, the CWCB voted to ask the Colorado legislature to appropriate \$250,000 out of the CWCB's Construction Fund for use in FY 2010 and beyond "to provide technical and financial assistance in addressing the effects of increasing agricultural water use efficiency in the Arkansas river basin, as established by the Colorado state engineer's promulgated rules, and formulate and implement cost-effective means to comply with the rules and specific measures to prevent potential compact violations." Senate Bill 09-125.

The CWCB has begun spending these funds to carry out Recommendation A and several other recommendations of the Solutions Subcommittee (see Exhibit B) in a contract with the Lower Arkansas Valley Water Conservancy District (Lower Ark District). The Lower Ark District will serve as a liaison between the water users and the Division Engineer's Office for Rules compliance. The Lower Ark District already hired Leonard Rice Engineers, Inc., in early 2009 to review the ISAM and begin developing Rule 10 Compact Compliance Plans. This role

dovetails with the Lower Ark District's mission to promote and protect agriculture in the Lower Arkansas Valley in Colorado, including by finding conservation solutions, promoting drip irrigation, and improving water quality.

IV. OVERVIEW OF THE RULES AND MECHANISMS FOR COMPLIANCE

A. Scope of the Rules; Definition of "Improvement":

The scope of the Rules is set out in Rule 4. The Rules mainly apply prospectively, i.e., to improvements installed after the effective date of the Rules. However, they also apply retrospectively to one category of existing improvements which the Engineers found has the potential to violate the Compact. Namely, sprinklers and drip systems installed within the H-I Model Domain after October 1, 1999 must receive approval to continue being used after the Rules become effective. Rule 4.A.

The Rules apply to the full geographic area that is subject to the Compact, which means all of Water Division 2 except for the Dry Cimarron River basin that flows into New Mexico.

Rule 4.B. The Rules are limited to improvements to surface water systems because improvements to groundwater systems are already addressed through the 1996 Use Rules. Rule 4.D. They do not apply to lawn irrigation or to irrigation of less than one acre. Rule 5.A.7 and 4.E. In addition, because the Bureau of Reclamation already reviews surface water irrigation in the Purgatoire River Water Conservation District (PRWCD) every ten years under the Trinidad Project Operating Principles, for the effect, if any, the operation of the Trinidad Project has had on other Colorado and Kansas water users, the Rules generally do not apply to the improvements within the PRWCD that are already being regulated through that process. Rule 4.F.

The key term "improvement" is defined in Rule 5.A.6. It includes certain methods of reducing seepage from canals and off-farm laterals, adding ponds for short-term storage of

surface water, replacing flood irrigation with sprinkler or drip systems, and certain upgrades to existing sprinkler systems. This definition was refined through the Advisory Committee process. Most notably, the Committee requested removal of gated pipe and certain other on-farm ditch structures from the definition. After study, the Engineers agreed to this change on the basis that improvements to on-farm ditches and use of gated pipe do not currently contribute to depletions of usable Stateline flow. The Committee also made several revisions to the language about upgrading sprinkler systems. Under the final definition, when a side roll sprinkler system is replaced with a center pivot system, and when the older impact-type sprinkler nozzles on either type of system (side roll or center pivot) are replaced with spray nozzles (whether on drops or not), the Rules apply and Division Engineer approval is required.

Rule 7 is the central rule which requires that covered surface water irrigation system improvements must be approved by the Division Engineer. The consequences of failure to receive approval include curtailment of the subject water right. The Advisory Committee process resulted in a revision to this rule to clarify that the Division Engineer will curtail a water right for failure to comply with the Rules only to the extent that the water being diverted is used in connection with the improvement at issue. Rule 7.C.

B. Three Paths to Division Engineer Approval of Covered Improvements:

The Rules are designed to provide irrigators with options and flexibility to comply with the Rules. If a surface water irrigation system improvement falls within the scope of the Rules and must be approved, the farmer has three potential ways to achieve compliance: under a Rule 8 individual application, a Rule 10 Compact Compliance Plan, or a Rule 11 General Permit.

1. Rule 8 Applications:

Rule 8 sets out the procedures for an application that is filed for a surface water system improvement. Rule 8 approvals cannot involve the use of any water source other than the subject water right (because use of another water source for maintenance flows would qualify it as a Rule 10 application). Rule 8 was changed early in the review process to remove the requirement that each Applicant hire a licensed engineer to prepare an engineering report on each improvement. It now provides that the Applicant may submit any additional information or data he wishes to have considered in the Division Engineer's review, but only the few pieces of information necessary for running the ISAM (see above) are required from each Applicant.

2. Rule 10 Plans:

Rule 10, the second option, is the Compact Compliance Plan that evolved out of the Advisory Committee process. It differs from a Rule 8 application in two key ways. First, it allows groups of farmers to join together and file one application. Addressing improvements in groups rather than individually provides financial and administrative benefits for both the irrigators and the Engineers.

Second, Rule 10 Plans can include use of other water than the subject water rights to maintain the historical seepage and return flows. "Subject water right" means the water right that is put to use via the irrigation systems being improved. Under Rule 8, the terms and conditions to maintain historical return flows are limited to uses of the subject water right, within the terms of its decree. Under Rule 10, other water can be used to maintain the full amount of the historical seepage and return flows from each improved surface water irrigation system to fulfill the requirements of Article IV-D of the Compact. However, if the other water will require a change of water right or plan for augmentation for this new use, then the Division Engineer

will deny the application and direct the applicant to file an application for approval of a change of water right or plan for augmentation in accordance with § 37-92-302, C.R.S.

Rule 9 gives the standards for Division Engineer review of applications, whether under Rule 8 or Rule 10. Under either rule, the Division Engineer will evaluate the effect of the improvements using the ISAM plus any additional information the applicant has provided. Rule 9.C discusses the terms and conditions that can be applied in either a Rule 8 or Rule 10 approval. It specifies that for Rule 8 approvals, the Engineers may only adjust the terms and conditions for the first three years after initial approval. This was a balance between the Engineers' need to be able to make necessary adjustments as they gain experience with this new process, and the irrigators' need for certainty when making investments in expensive system upgrades. For Rule 10 Plans, terms and conditions may be adjusted as necessary for each Plan year. Rule 10.E.

3. General Permits:

Alternatively, certain improvements may qualify for a general permit under Rule 11.

Rule 11 general permits allow the State Engineer to streamline the process for groups of improvements that he determines are within the scope of the rules but do not need to be evaluated individually because they will not cause a violation of the Compact. Advisory Committee members representing users with very senior water rights in the Upper Basin and users on tributaries that are controlled by a local call and that do not typically contribute flow to the mainstem of the Arkansas advocated for this streamlined approach to Rules compliance for such users. Three general permits have been adopted by the State Engineer. They will be effective on the effective date of the Rules, and are being submitted in water court along with the Rules.

For an improvement that is covered by a general permit, the irrigator need only file a notice that he is making the improvement and which general permit it qualifies under, but not an application under Rule 8 or 10. The notice will allow the Division Engineer to monitor the number of such improvements and periodically evaluate whether the permit remains appropriate, and also to check that the irrigator is not improperly increasing acres and is otherwise in compliance with Colorado water law when converting to the improved irrigation system.

CONCLUSION

The State Engineer has determined that certain improvements to surface water irrigation systems, such as sprinklers and drip systems that replace flood and furrow irrigation, or canallining that reduces seepage, have the potential to materially deplete the usable waters of the Arkansas River in violation of the Compact. The Irrigation Improvement Rules optimize use of the waters of the Arkansas River by allowing such improvements in a manner consistent with the terms of the Compact.

The State Engineer plans for the Rules to become effective on January 1, 2011, or after protests are judicially resolved, whichever is later. If protests are resolved prior to the effective date, the Division Engineer will begin accepting applications early from any irrigators who wish to get an early start on implementation. Rule 17.

EXHIBIT A:

DIVISION 2 COMPACT RULES ADVISORY COMMITTEE MEMBERSHIP AS OF JUNE 25, 2008:

Arkansas Basin Round	Tom Brubaker	Businessman (CEO, Valco Sand
Table		and Gravel)
Arkansas Ground Water	John Sliman	Owner Southwest Sod Farm;
Users Association		Excelsior and wells
(AGUA)		
Arkansas River Compact	Jennifer Gimbel	CWCB Director
Administration		·
	Steve Miller (staff)	
Arkansas River Compact	Matt Heimerich	Farmer; Colo. Canal & Crowley
Administration		County Commissioner
Arkansas River Compact	Colin Thompson	Farmer; Amity and wells
Administration		
Arkansas Valley Ditch	Dan Henrichs	Superintendent Highline Canal
Association		
Bent County	Burt Heckman	Farmer; Fort Lyon
	Mike Spady (alternate)	Farmer; Ft. Lyon & wells
Chaffee County	Tim Glenn	County Commissioner, advocate
		of right to ranch ordinances
Colo. Dept. of Health	Greg Naugle	Unit manager, watershed program
Water Quality Control		
Division	Randy Ristau (alternate)	
Colorado Department of	John Singletary	Realtor and farmer; small ditch
Agriculture		right and wells
	Cindy Lair (staff)	
Colorado State University	Dr. Tim Gates	Engineer; Professor in
		Engineering Dept. CSU
	Dr. Luis Garcia	
	(alternate)	Dept. Head
Colorado Water Protective	Matthew Proctor	Farmer; Catlin Canal and wells
and Development		
Association (CWPDA)		
Custer County	Sara Shields	Rancher
Las Animas County	Ken Torres	Rancher / Commissioner
Lower Arkansas Valley	Don McBee	Farmer; Fort Lyon
Watershed Association of		
Conservation Districts		
Lower Arkansas Water	Jay Winner	District Manager
Conservancy District		
Lower Arkansas Water	Bill Grasmick	Farmer; Lamar & wells

16 EXHIBIT A

Management Association (LAWMA)	Don Higbee (alternate)	Manager of LAWMA
Natural Resource	Frank Riggle	Asst. State Conservationist –
Conservation Service		Water
Otero County	Bob Bauserman	Retired Farmer; Colorado Canal
Prowers County	Dale Mauch	Farmer, Ft. Lyon
Pueblo County	Tom Rusler	Farmer, Bessemer Ditch
Purgatoire River Water Conservancy District	Jeris Danielson	Engineer, District Manager
Southeastern Colorado Water Conservancy District (SECWCD)	Scott Reed	Banker, SECWCD Board Member
United States Geological	Pat Edelman	Chief Pueblo Subdistrict- water
Survey		quality specialist
	Ken Watts (alternate)	
Upper Arkansas River	George Fosha	Rancher / Engineer
Watershed Association of		
Conservation Districts		
Upper Arkansas Water	Ken Baker	Attorney
Conservancy District		
Water District 67 Users	Glen Wilson	Farmer; Amity
Association		
Discretionary # 1	Steve Leonhardt	Attorney SECWCD
Discretionary # 2	Bill Warmack	Engineer (Applegate)
Discretionary # 3	Ryan Hemphill	Farmer; Ft. Lyon / Engineer
Discretionary # 4	Don Steerman	Attorney WD 67 Users
Discretionary # 5	Gary Steen	Engineer- Fountain Mutual
		Irrigation Company

Others who participated significantly in the development of the Rules:

Bob Hamilton	Engineer, SECWCD
Fred Heckman	Farmer, Ft. Lyon Canal
John Hill	Attorney, AVDA
Alix Joseph	Attorney, SECWCD
John Lefferdink	Attorney, Ft. Lyon Canal
Brady McElroy	NRCS
Steve Monson	Attorney, Chaffee County and Fountain Mutual Irr. Co.
Peter Nichols	Attorney, Lower Ark Valley WCD
Terry Scanga	Manager, Upper Ark WCD
Lorenz Sutherland	NRCS
Julianne Woldridge	Attorney, PRWCD and Upper Ark WCD

17 EXHIBIT A

EXHIBIT B:

Feb 6, 2009

The Solutions Sub-Committee makes the following recommendations to the Arkansas River Irrigation Consumption Rules Advisory Committee:

- A. The Sub-Committee supports and appreciates the willingness of the Lower Arkansas Valley Water Conservancy District (LAVWCD) to establish ongoing means and methods to assist farmers and ranchers in complying with the Rules, including the development of individual and group Rule 10 Compliance Plans and to enter into intergovernmental agreements between itself and entities outside of its specific boundaries when necessary to support the development of group Rule 10 Compliance Plans throughout the Arkansas River Basin.
- B. The Sub-Committee also supports the Upper Arkansas Water Conservancy District's intent to take the lead on compliance efforts for irrigators above Pueblo.
- C. The Sub-Committee also encourages the formation of group Rule 10 Compliance Plans in areas such as the Upper Basin, Fountain Creek and the Purgatoire River.
- D. Water users should be free to choose to apply for Rule 10 Compact Compliance Plans as individuals or as a group of water users, as a member of a water user association, a shareholder in a ditch company, or in any other combination that is determined to be beneficial as experience is gained.
- E. Approval of General Permits, Rule 7 Plans³, and Rule 10 Compliance Plans should be non-expiring and not require applicants to resubmit redundant information on a yearly basis to the extent practicable. The State Engineer's goal is to make the approval process as simple and as streamlined as possible. Ultimately there will be only one application filed for each improvement, or group of improvements, with annual updates of projected irrigation, maintenance flows and accounting, under either an individual plan or a group plan.
- F. The Sub-Committee recommends that group Rule 10 Compliance Plans should include terms and conditions that allow the group to take credit for *accretions* in return flows at appropriate times and locations due to improvements covered under the same Rule 10 Plan or by agreement with another Plan.
- G. For improvements to irrigation systems diverting from the mainstem below Pueblo Reservoir or diverting from tributaries to the mainstem below La Junta, the Rule 10 Compliance Plans should require maintenance flows to be provided in the same general location as the pre-improvement return flows to the fullest extent reasonably possible. For improvements to systems located upstream of Pueblo Reservoir or upon a tributary to the mainstem above La Junta, providing the maintenance flows by releasing water from Pueblo Reservoir will suffice where reasonably necessary due to lack of available storage or water supplies upstream or upon a tributary above La Junta. In determining "reasonably necessary," the costs and locations of storage and supplies upstream shall be evaluated and a determination shall be made based on whether provision of maintenance flows upstream or on the tributary is materially more expensive or otherwise burdensome on the applicant than release of maintenance flows from Pueblo Reservoir. Storage

18 EXHIBIT B

³ "Rule 8 Plans" were called "Rule 7 Plans" at the time these Subcommittee Recommendations were written.

- releases in Rule 10 Compliance Plans should be administered as necessary to assure Compact Compliance.
- H. The Sub-Committee recommends the LAVWCD use Fry-Ark return flows as a source of water for maintenance flows to the greatest extent possible, recognizing that Fry-Ark return flows may only be used to benefit water users within Southeastern District boundaries, consistent with Southeastern's policies and other conditions on use of these return flows, and recognizing the need to balance the use of these waters for this purpose with well users' historical reliance on such water for their well replacement plans. The Sub-Committee requests the Southeastern District and ditch companies to cooperate with LAVWCD to facilitate the use of these return flows in Rule 10 Compliance Plans where eligible.
- I. The Sub-Committee recognizes the significant work of the Engineering Subcommittee to peer-review and refine the Irrigation System Analysis Model (ISAM), including the parameters adopted from the H-I Model and whether they were correctly applied. The Sub-Committee recognizes the ISAM must be consistent with the legal constraints of Kansas v. Colorado, including the H-I Model.
- J. The Sub-Committee recognizes that the LAVWCD will hire an engineer soon, either inhouse and/or consulting, to attend the Engineering Sub-Committee meetings and to review the models, data, and assumptions Division 2 has developed in consultation with the Engineering Sub-Committee and proposes to use to evaluate compliance with the Proposed Rules, as well as to assist in developing group and individual Rule 10 Compliance Plans, and to assist farmers and ranchers in analyzing whether to file as individuals or as part of a group.
- K. The Sub-Committee recommends LAVWCD's engineer(s) begin investigating and evaluating other potential sources of water for use in Rule 10 Compliance Plans, in addition to Fry-Ark return flows, including: water banks, interruptible supply agreements, crop fallowing, acquisition of LAWMA shares, Tri-state's LAWMA shares, private sources, Pueblo Board of Water Works resources, and dry-up of low-yield farm land. Lower Ark and the Division Engineer's Office should meet with LAWMA soon regarding the potential for use of LAWMA shares in Rule 10 Plans.
- L. The Division Engineer's Office should begin working cooperatively with the LAVWCD to develop application forms and generic and specific individual and group compliance plans so that they will be ready by January 2010 for implementation in March of 2010.
- M. The LAVWCD should work directly with the irrigators who are covered by the Rules, handling the communications necessary to develop and update the compliance plan(s), and providing irrigators with engineering assistance that is independent of the Division Engineer's Office.
- N. The LAVWCD should meet with administrative members of the Lower Arkansas Water Management Association, Colorado Water Protective Development Association, and/or Arkansas Groundwater Users Association to begin educating itself in best business practices for the development and administration of water user plans.
- O. Irrigators who are likely to be subject to the Rules and who do not expect to join a group plan or develop an individual plan with the assistance of the LAVWCD should begin planning now to obtain appropriate sources of water to effect necessary compliance with the Rules in the 2010 irrigation season.

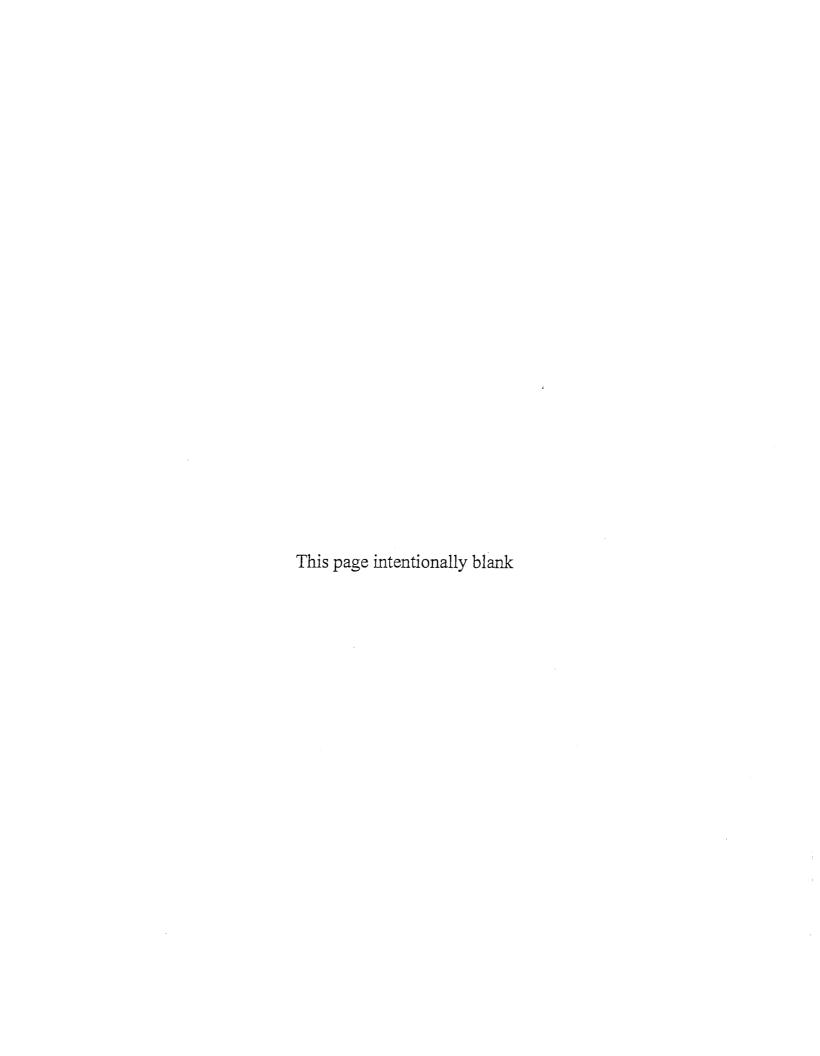
19 EXHIBIT B

- P. The Sub-Committee supports the State Engineer's determination to enforce the Rules prospectively and not retroactively, which will ease the initial burden of compliance.
- Q. Ditch companies should consider exercising in April 2009 their right of first refusal on part or all of their Fry Ark Return Flows, from which some lagged flows will be available for use in 2010 for compliance plans.
- R. LAVWCD, the Colorado Water Conservation Board and the State and Division Engineers' Offices, should work cooperatively to examine and pursue any and all avenues to obtain funding for engineering services, water supplies, and storage for Compact Compliance Plans, including from State and Federal appropriations, grants and loans, and specifically the USDA Agricultural Water Enhancement Program (AWEP).
- S. The Sub-Committee supports the CWCB's request in S.B. 09-125 for \$250,000 in the 2009 Projects Bill to support the LAVWCD's efforts to develop compliance plans and otherwise to assist the irrigators in complying with the Rules. The Sub-Committee recognizes that it may take three to five years to refine Rule 10 Compliance Plans so that they reach the same level of acceptance and routine operation now evident in well replacement plans, and that the LAVWCD will need financial assistance during that period to work effectively with irrigators and the Division Engineer to reach that state of compliance.
- T. LAVWCD should project and plan for long term Compact compliance requirements under the Rules, so that farmers can have confidence that their Rule 10 Compliance Plan will be adequate for the long term.
- U. Although the evaluation of each improvement will be on a farm-by-farm basis, the LAVWCD should create models for each ditch system to estimate the impact of a installing an improvement and drying up some land, such as one to four corners for a circle sprinkler, as offsets, so that farmers can come into the LAVWCD office and estimate how much a Rule 10 Compliance Plan for an improvement will cost annually, and for some reasonable period into the future.

20 EXHIBIT B

Exhibit H

Annual Meeting



Lamar, Colorado 81052

For Colorado

Chairman and Federal Representative

For Kansas

Jennifer Gimbel, Denver Colin Thompson, Holly Matt Heimerich, Olney Springs Robin Jennison Healy, Kansas

David Barfield, Topeka Randy Hayzlett, Lakin David A. Brenn, Garden City

RESOLUTION 2009 - O

Regarding Fourth Extension of the Term of the **Special Engineering Committee**

WHEREAS, pursuant to Bylaw Article V.5., the Arkansas River Compact Administration by Resolution created the "Special Engineering Committee" at its December 2005 Annual Meeting to resolve certain accounting and interpretation issues arising from the Resolution Concerning an Operating Plan for John Martin Reservoir ("1980 Operating Plan"); and

WHEREAS, the Special Provisions of the 2005 Resolution creating the Committee specify that: "Term: The Special Engineering Committee shall be authorized for a period expiring on Dec. 31, 2006. ARCA may extend this period by Resolution adopted at any regular or special ARCA meeting prior to such date"; and

WHEREAS, on December 12, 2006 at the 2006 Annual Meeting the Administration adopted Resolution 2006-07 extending the term of the Special Engineering Committee until December 31, 2007; and

WHEREAS, on December 11, 2007 at the 2007 Annual Meeting the Administration adopted Resolution 2007-04 extending the term of the Special Engineering Committee until December 31, 2008; and

WHEREAS, on December 9, 2008 at the 2008 Annual Meeting the Administration adopted Resolution 2008-04 extending the term of the Special Engineering Committee until December 31, 2009; and

WHEREAS, Committee has successfully resolved disputed issues placed before it during its term and disputed issues still remain with the potential for further agreement.

NOW THEREFORE, BE IT RESOLVED that the Arkansas River Compact Administration does hereby extend the term of the Special Engineering Committee for one full year to expire on December 31, 2010. All other Special Provisions of the 2005 Resolution shall remain unchanged and govern the actions of the Special Engineering Committee during this third extension throughout 2010. 2010.

ADOPTED by the Arkansas River Compact Administration at its 2009 Annual Meeting on December 8, 2009 in Garden City, Kansas.

Robin Jennison, Chairman

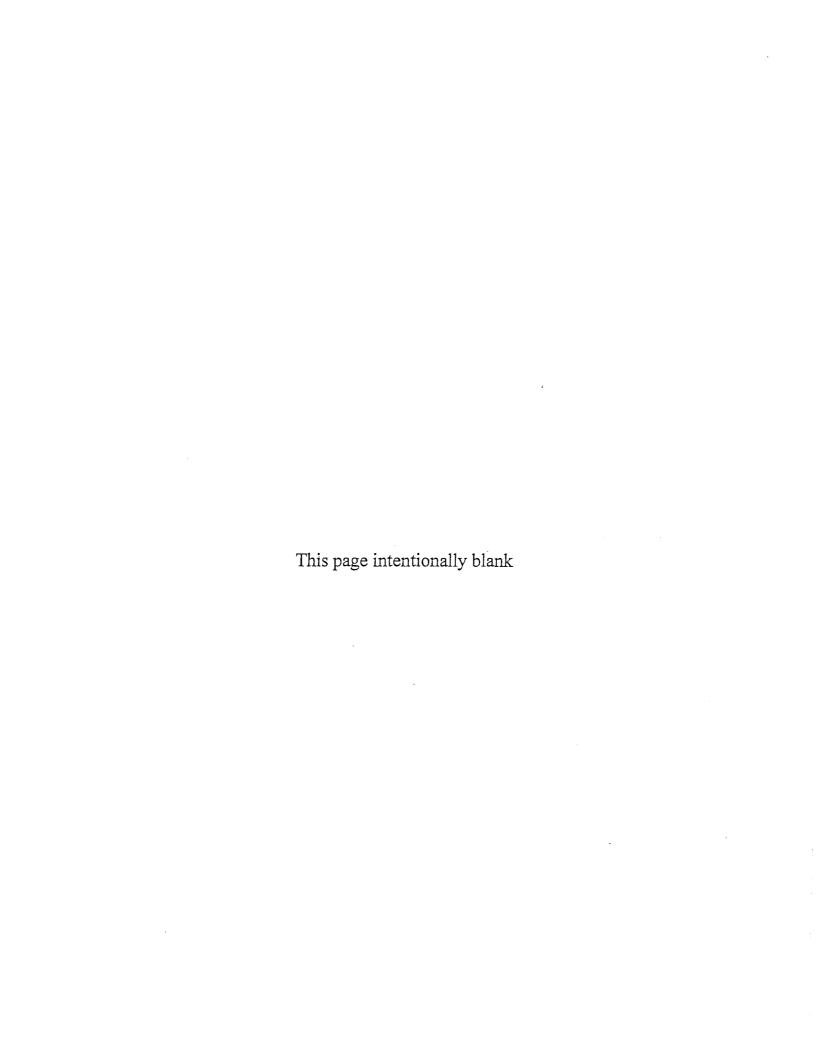
Arkansas River Compact Administration

Stephanie Gonzales, Recording Secretary

Arkansas River Compact Administration

Exhibit I

Annual Meeting



Ten-Year Accounting of Depletions and Accretions to Usable Stateline Flow 1998-2007

1	2	. 3	4	5	6	7	8	9
		H-I Model		Offse	et Account Cre	dits ²		Remaining
Year of Ten-		Usable Depletion/	Stateline Delivery to	Evaporation		Applied to Post-1985		Usable Depletion/
year Cycle	Model Year	Accretion ¹	Kansas	Credit	Gross Credit ³	Depletions ⁴	Net Credit ⁵	Accretion ⁶
1	1998	2,703	0	0	0	663	-663	3,366
2	1999	-4,500	0	0	0	45	-45	-4,455
3	2000	2,022	1,277	17	1,294	964	330	1,692
4	2001	12,116	1,714	62	1,776	352	1,424	10,692
5	2002	8,525	2,098	22	2,120	222	1,898	6,627
6	2003	3,299	0	0	0	210	-210	3,509
7	2004	-3,442	6,565	1,850	8,415	260	8,155	-11,597
8	2005	-2,039	11,220	93	11,313	607	10,706	-12,745
9	2006	-1,493	8,507	0	8,507	619	7,888	-9,381
10	2007	-301	6,650	0	6,650	1,025	5,625	-5,926
Total		16,890	38,031	2,044	40,075	4,967	35,108	-18,218
	Shor	tfall for 2008						0

Water quantities are in acre-ft

¹ Positive values in Columns 3 and 9 reflect depletions; negative values, accretions. H-I Model results in Column 3 for 2007 are based on input file "update2007july.dat."

² Positive values in Columns 4, 5, 6, and 8 reflect credits; negative values, debits.

³ Column 6 is the sum of Columns 4 and 5.

⁴ Column 7, a positive value, is the amount of Offset Credit applied to Post-1985 depletions, determined pursuant to Appendix A.3 of the 2009 Judgment and Decree in KS v CO.

⁵ Column 8 is Column 6 minus Column 7

⁶ Column 9 is Column 3 minus Column 8

Exhibit J

Annual Meeting

This page intentionally blank

Ten-Year Accounting of Depletions and Accretions to Usable Stateline Flow 1999-2008

1	2	3	4	5	6	7	8	9
		H-I Model		Offs	et Account Cre	dits ²		Remaining
Vacr of Top		Usable Depletion/	Stateline	Evaporation		Applied to Post-1985		Usable Depletion/
Year of Ten- year Cycle	Model Year	Accretion ¹	Delivery to Kansas	Evaporation Credit	Gross Credit ³	Depletions ⁴	Net Credit ⁵	Accretion ⁶
1	1999	-4,500	0	0	0	45	-45	-4,455
2	2000	2,022	1,277	17	1,294	964	330	1,692
3	2001	12,116	1,714	62	1,776	352	1,424	10,692
4	2002	8,525	2,098	22	2,120	222	1,898	6,627
5	2003	3,299	0	0	0	210	-210	3,509
6	2004	-3,442	6,565	1,850	8,415	260	8,155	-11,597
7	2005	-2,039	11,220	93	11,313	607	10,706	-12,745
8	2006	-1,493	8,507	0	8,507	619	7,888	-9,381
9	2007	-301	6,650	0	6,650	1,025	5,625	-5,926
10	2008	-2,198	11,617	0	11,617	1,288	10,329	-12,527
Total		11,989	49,648	2,044	51,692	5,592	46,100	-34,111
	Shor	tfall for 2009						0

Water quantities are in acre-ft

¹ Positive values in Columns 3 and 9 reflect depletions; negative values, accretions. H-I Model results in Column 3 for 2008 are based on input file "update2008august.dat."

² Positive values in Columns 4, 5, 6, and 8 reflect credits; negative values, debits.

³ Column 6 is the sum of Columns 4 and 5.

⁴ Column 7, a positive value, is the amount of Offset Credit applied to Post-1985 depletions, determined pursuant to Appendix A.3 of the 2009 Judgment and Decree in KS v CO.

⁵ Column 8 is Column 6 minus Column 7

⁶ Column 9 is Column 3 minus Column 8

Exhibit K

Annual Meeting



Arkansas River Compact Administration Operations Committee Action Items December 07, 2009 Garden City, KS

- 1. The committee instructed Steve Miller, Sandra Vaughn and Chelsea Juricek to produce a typewritten list of action items for this committee meeting.
- The committee received the Compact Year (CY) 2008 reports of the
 Operations Secretary and Assistant Operations Secretary. The Committee
 also received the 2008 report for the Offset Account.
- 3. The committee took no action on the CY 2007 and CY 2008 Operations Secretary's Reports.
- 4. The committee recommends to ARCA to include the Ten-Year Accounting tables in the annual report. Specifically, include the 1998-2007 table for CY 2008; and include the 1999-2008 table for CY 2009.
- 5. The committee recommends to ARCA that the Special Engineering Committee be extended for calendar year 2009.
- 6. At the request of the Steve Witte, Operations Secretary, the Committee agreed to the addition of an additional item on the water issues matrix related to Section III A of the 1980 Operating Plan.

	Damil Brenn
Colin Thompson, Chair	David Brenn, Member
Date: 25/9 Kul Jennison, Chair	Date: 12/08/09
. / /	11

Date: 12/8/09

No. _____ of 4 originals

Ten-Year Accounting of Depletions and Accretions to Usable Stateline Flow 1998-2007

11	2	3	4	5	6	7	8	9
	,	H-I Model		Offse	et Account Cre	dits ²		Remaining
Year of Ten- year Cycle	Model Year	Usable Depletion/ Accretion ¹	Stateline Delivery to Kansas	Evaporation Credit	Gross Credit ³	Applied to Post-1985 Depletions ⁴	Net Credit ⁵	Usable Depletion/ Accretion ⁶
1	1998	2,703	0	0	0	663	-663	3,366
2	1999	-4,500	0	0	0	45	-45	-4,455
3	2000	2,022	1,277	17	1,294	964	330	1,692
4	2001	12,116	1,714	62	1,776	352	1,424	10,692
5	2002	8,525	2,098	22	2,120	222	1,898	6,627
6	2003	3,299	0	0	0	210	-210	3,509
7	2004	-3,442	6,565	1,850	8,415	260	8,155	-11,597
8	2005	-2,039	11,220	93	11,313	607	10,706	-12,745
9	2006	-1,493	8,507	0	8,507	619	7,888	-9,381
10	2007	-301	6,650	0	6,650	1,025	5,625	-5,926
Total		16,890	38,031	2,044	40,075	4,967	35,108	-18,218
	Shor	tfall for 2008						0

Water quantities are in acre-ft

¹ Positive values in Columns 3 and 9 reflect depletions; negative values, accretions. H-I Model results in Column 3 for 2007 are based on input file "update2007july.dat."

² Positive values in Columns 4, 5, 6, and 8 reflect credits; negative values, debits.

³ Column 6 is the sum of Columns 4 and 5.

⁴ Column 7, a positive value, is the amount of Offset Credit applied to Post-1985 depletions, determined pursuant to Appendix A.3 of the 2009 Judgment and Decree in KS v CO.

⁵ Column 8 is Column 6 minus Column 7

⁶ Column 9 is Column 3 minus Column 8

Ten-Year Accounting of Depletions and Accretions to Usable Stateline Flow 1999-2008

1	2	3	4	5	6	7	8	9
		H-I Model		Offs	et Account Cre	dits ²		Remaining
Year of Ten- year Cycle	Model Year	Usable Depletion/ Accretion ¹	Stateline Delivery to Kansas	Evaporation Credit	Gross Credit ³	Applied to Post-1985 Depletions ⁴	Net Credit ⁵	Usable Depletion/ Accretion ⁶
1	1999	-4,500	0	0	0	45	-45	-4,455
2	2000	2,022	1,277	17	1,294	964	330	1,692
3	2001	12,116	1,714	62	1,776	352	1,424	10,692
4	2002	8,525	2,098	22	2,120	222	1,898	6,627
5	2003	3,299	0	0	0	210	-210	3,509
6	2004	-3,442	6,565	1,850	8,415	260	8,155	-11,597
7	2005	-2,039	11,220	93	11,313	607	10,706	-12,745
8	2006	-1,493	8,507	0	8,507	619	7,888	-9,381
9	2007	-301	6,650	0	6,650	1,025	5,625	-5,926
10	2008	-2,198	11,617	0	11,617	1,288	10,329	-12,527
Total		11,989	49,648	2,044	51,692	5,592	46,100	-34,111
	Shor	tfall for 2009						0

Water quantities are in acre-ft

¹ Positive values in Columns 3 and 9 reflect depletions; negative values, accretions. H-I Model results in Column 3 for 2008 are based on input file "update2008august.dat."

² Positive values in Columns 4, 5, 6, and 8 reflect credits; negative values, debits.

³ Column 6 is the sum of Columns 4 and 5.

⁴ Column 7, a positive value, is the amount of Offset Credit applied to Post-1985 depletions, determined pursuant to Appendix A.3 of the 2009 Judgment and Decree in KS v CO.

⁵ Column 8 is Column 6 minus Column 7

⁶ Column 9 is Column 3 minus Column 8

Exhibit L

Annual Meeting



Arkansas River Compact Administration Engineering Committee Action Items December 07, 2009 Garden City, KS

The committee instructed Steve Miller, Sandra Vaughn and Chelsea Juricek to produce a typewritten list of action items for this Engineering Committee meeting.

- The committee recommends to ARCA that the Kansas letter regarding the Tri-State decree, dated September 11, 2008, be made an exhibit in the 2009 Compact meeting transcript.
- The committee recommends that the issue of a new source of water for the
 Permanent Pool be removed from the Engineering Committee agenda, pending
 contact with an ARCA representative with a request to be placed on its agenda in
 the future.
- 3. The committee recommends that ARCA include the 2009 letters exchanged between the States of Kansas and Colorado regarding the Irrigation Improvement Rules as an exhibit to the 2009 transcript. Those letters specifically include, along with the proposed rules and the Statement of Basis and purpose:
 - a. February 16, 2009 Kansas comments (Draper) on Nov 2008 draft
 - b. March 17, 2009 Colorado response (McDonald) to Kansas Feb 16th letter
 - c. June 12, 2009 Kansas comments (Draper) on May 12th draft
 - d. Sept10, 2009 Colorado email response (McDonald) to Sept 8th Kansas comments (Draper email & attachment) on Statement of Basis & Purpose
 - e. Sept 30, 2009 the filed Irrigation Improvement Rules
 - f. Sept 30, 2009 the filed Statement of Basis and Purpose
- 4. The committee recognizes the value of the Special Engineering Committee and recommends to ARCA that the Special Engineering Committee be extended for calendar year 2010.

David Barfield, Chair

Date: 12/8/09

Mat Heimerich, Member

 $\rho_{
m ate:}$ / 2 / 4 / 0 8

Robin Jennison, Chair

Date: 1 4 8 / 09

No. 4 of 4 originals

Exhibit M

Annual Meeting



Arkansas River Compact Administration Administrative & Legal Committee Action Items December 07, 2009 Garden City, KS

- It was noted that Jennifer Gimbel was unavoidably absent; therefore Matt Heimerich sat in her place. Randy Hayzlett chaired the meeting in Ms. Gimbel's absence.
- 2) The committee instructed Steve Miller, Sandra Vaughn and Chelsea Juricek to produce a typewritten list of action items for this committee meeting.
- 3) Financial
 - a. The committee recommends approving the audit report for the Fiscal Year 2008-09 (July 1, 2008 to June 30, 2009).
 - b. The committee recommends ARCA approval of and authorizes Stephanie Gonzales to sign the USGS Joint Funding Agreements for both Colorado and Kansas.
 - c. The committee recommends to ARCA that Stephanie Gonzales sign the approved budget and assessments for the current Fiscal Year 2009-10.

4) Minutes/Transcripts:

- a. The committee recommends ARCA approve the minutes and transcripts for the November 2006 Special Meeting, December 2006 Annual Meeting, December 2007 Annual Meeting, and December 2008 Annual Meeting.
- 5) For the upcoming CY 2010 the committee recommends that ARCA give the Administrative and Legal Committee the authority to approve backlogged annual reports for completion and printing.
- 6) The committee approved the slate of officers and committee chairmen for 2010:
 - a. Officer to be Vice-chair: Randy Hayzlett, Recording Secretary-Treasurer: Stephanie Gonzales, Operations Secretary: Steve Witte, and Assistant Operations Secretary: Kevin Salter

- b. Committee Chairs, Compact Year 2010: Engineering: Matt Heimerich as Chair, Operations: David Brenn as Chair, Administrative & Legal: Randy Hayzlett as Chair.
- 7) The committee recommends that both States review and offer final comments and grammar edits to the 1980 Operating Plan by January 29, 2010. On February 11, 2010, ARCA will hold a special telephonic meeting to consider adoption of the revised 1980 Operating Plan.
- 8) The committee recommends to ARCA that the Special Engineering Committee be extended for calendar year 2010.

Landy L	Han O.A.
Randy Hayzlett,	Acting Chair

Date: 62 / 08 / 10 //

Robin Jennison, Chair

Date: 12/8/09

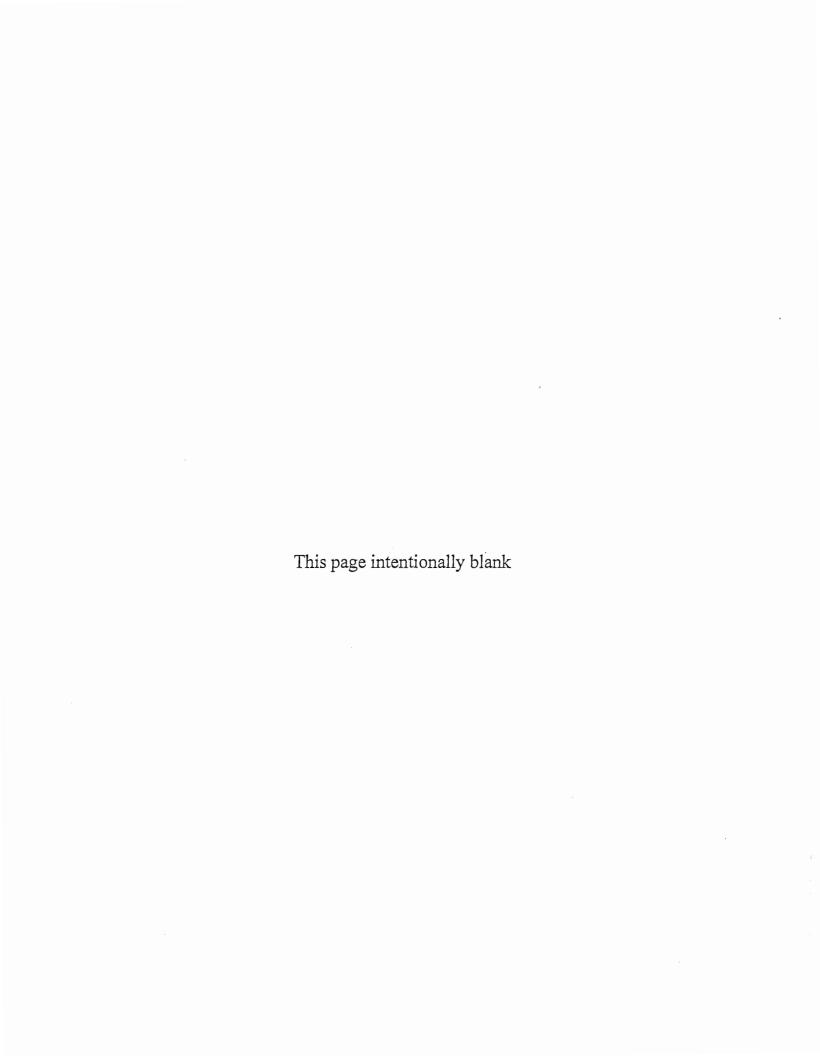
Matt Heimerich

oate:

No. 3 of 4 originals

Exhibit N

Annual Meeting



Audited Financial Statements

June 30, 2009

Approved 12/8/09

TABLE OF CONTENTS June 30, 2009

	Page
Independent Auditor's Report	1
Statement of Assets, Liabilities, and Fund Balance - Cash Basis	2
Statement of Revenues and Expenses with Budget Comparison	3
Changes in Cash Balance - Statement of Receipts and Disbursements	4
Notes to Financial Statements	5

STATEMENT OF REVENUES and EXPENSES with BUDGET COMPARISON

For the Budget Year July 1, 2008 to June 30, 2009

	ACTUAL	BUDGET	OVER (UNDER)
D CA (CA III ICC	ACIONE		Constant
REVENUES			
Revenues from Assessments:			
Colorado 60%	57,600	57,600	0
Kansas 40%	38,400	38,400	0
Interest	638	1,000	(362)
Miscellaneous	0	0	0
TOTAL REVENUES	96,638	97,000	(362)
EXPENDITURES			
Professional Service Contracts:			
Treasurer	2,000	2,000	0
Recording Secretary	2,000	2,000	0
Operations Secretary	5,440	6,100	(660)
Auditor Fee	700	500	200
Court Reporter (transcripts)	1,496	2,000	(504)
Gauging Stations & Studies:	ŕ	ŕ	` '
U.S. Geological Survey - Colorado District	59,111	(Note 3) 44,000	15,111
U.S. Geological Survey - Kansas District	7,700	8,000	(300)
State of Colorado Satellite System	12,400	11,200	1,200
Operating Expenses:	,	,	
Treasurer Bond	100	100	0
Printing Annual Report	0	500	(500)
Telephone	0	100	(100)
Miscellaneous Office Expense	24	100	(76)
Postage/Copying/Supplies	213	400	(187)
Meetings	75	500	(425)
Travel	0	0	Ò
Rent	600	600	0
Other:			
Equipment	0	0	0
Contingency	0	2,000	(2,000)
Litigation	0	0	0
Special Projects & Studies	0	0	0
TOTAL EXPENDITURES	91,859	80,100	11,759
NET INCREASE IN FUND BALANCE	4,779	16,900	(12,121)
Fund Balance at Beginning of Year	51,462		
Fund Balance at End of Year	56,241		



Members NSA PASC Certified Public Accountants

Gary L. Anderson, C.P.A.
Cynthia S. Anderson, A.B.A., A.T.P.
Howard Hampson, P.A.
Ronald D. Anderson, P.A., Retired

INDEPENDENT AUDITOR'S REPORT

November 20, 2009

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

We have audited the accompanying statements of assets, liabilities and equity - cash basis - of the <u>Arkansas River Compact Administration as of June 30, 2009</u>, and the related statements of revenue collected and expenses paid for the year then ended. These financial statements are the responsibility of the Administration's management. Our responsibility is to express an opinion on these financial statements based on our audit.

Our examination was made in accordance with generally accepted auditing standards and accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As described in Note 1a, these financial statements were prepared on the basis of cash receipts and disbursements, which is a comprehensive basis of accounting other than generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly, in all material respects, the assets and liabilities - cash basis - of the Arkansas River Compact Administration as of June 30, 2009 and its revenue collected and expenses paid during the year then ended, on the basis of accounting described in Note 1a.

Anderson & Company, P.C.

STATEMENT of ASSETS, LIABILITIES, and FUND BALANCE - CASH BASIS

	June 30	June 30	June 30
	2009	2008	2007
ASSETS			
Cash in Bank	56,241	51,462	50,266
TOTAL ASSETS	56,241	51,462	50,266
LIABILITIES			
None	0	0	0
FUND BALANCE			
Unrestricted Fund Balance	56,241	51,462	50,266
TOTAL FUND BALANCE	56,241	51,462	50,266

CHANGES IN CASH BALANCE STATEMENT OF RECEIPTS AND DISBURSEMENTS

For the Year Ended June 30, 2009

CASH BALANCE - July 1, 2008		51,462
RECEIPTS		
Revenues from Assessments	96,000	
Interest	638	
Miscellaneous	0	
TOTAL RECEIPTS		96,638
DISBURSEMENTS		
Professional Service Contracts	11,636	
Gauging Stations & Studies	79,211	
Operating Expenses	1,012	
Other	0	
TOTAL DISBURSEMENTS		(91,859)
RECEIPTS in EXCESS of DISBURSEMENTS	4,779	
CASH BALANCE - June 30, 2009		56,241

NOTES TO FINANCIAL STATEMENTS June 30, 2009

NOTE 1 Organization:

The Arkansas River Compact was formed in 1948 to settle existing disputes and remove causes of future controversy between Colorado and Kansas concerning the waters of the Arkansas River and their control, conservation and utilization for irrigation and other beneficial purposes.

NOTE 2 Summary of significant accounting policies:

- a. The Arkansas River Compact Administration (the Compact) maintains financial records using the cash basis of accounting. By using the cash basis of accounting, certain revenues are recognized when received rather than when earned, and certain expenses and purchases of assets are recognized when cash is disbursed rather than when the obligation is incurred.
- b. The Statement of Receipts and Disbursements is shown only to reconcile the beginning and ending cash balances. It is not intended to reflect income and expense recognition. Income and expenses are reflected in the Statement of Revenues and Expenses with Budget Comparison.

NOTE 3 Cost of Gauging Stations - USGS Colorado District:

It should be noted that the expense of gauging stations is reflected in the financial statements on the cash basis of accounting. However, some of payments made this fiscal year are for charges not due until the following fiscal year. The compact has been reporting its costs and expenses consistently on the cash basis, which may not be consistent with budgeted amounts.

Exhibit O

Annual Meeting



Lamar, Colorado 81052

For Colorado

Jennifer Gimbel, Denver

Colin Thompson, Holly
Matthew Heimerich, Olney Springs

Chairman and Federal Representative
Robin Jennison; Healy, Kansas
Robin Jennison; Healy, Kansas

For Kansas David Barfield, Topeka Randy Hayzlett, Lakin David A. Brenn, Garden City

FY 2011 - 2012 BUDGET

			(July 1, 2011 - June 30, 2012)	
			IDITURES	
,	٩.	-	OFESSIONAL SERVICE CONTRACTS	
_		1.	Treasurer	\$2,00
		2.	Recording Secretary	\$2,00
		3.	Operations Secretary	\$6,10
_		4.	Auditor Fee	\$70
+		5.	Court Reporter Fee	\$2,000
1		-	subtotal services	\$12,800
E	3.	GA	GING STATIONS & STUDIES	# 50.000
+		7.	U.S.G.S. Colorado District Joint Funding [est.= 3/4 of 2011JFA, 1/4 of 2012 JFA]	\$50,000
-		2.	U.S.G.S. Kansas District Joint Funding [est.= 3/4 of 2011 JFA, 1/4 of 2012 JFA]	\$9,000
- -		3.	State of Colorado Satellite System [7/1/11 - 6/30/12]	\$12,400
+			subtotal gaging	\$71,400
C	<u>). </u>	t	ERATING EXPENSES	
Ļ		1.	Treasurer Bond	\$100
Ļ		2.	Annual Report Printing	\$500
		3.	Telephone	\$100
		4.	Miscellaneous Office Expense	\$100
		5.	Postage/Copying/Supplies	\$400
		6.	Meetings	\$500
1		7.	Travel	\$0
<u> </u>		8.	Rent	\$600
_			subtotal operating	\$2,300
D			HER	
-		1	Equipment	\$0
-		2	Contingency	\$2,000
Ļ		3	Litigation	\$0
	- 1	4.	Special Projects and Studies	\$0
			subtotal other	\$2,000
-			TOTAL ALL EXPENDITURES	\$88,500
_		MC		
Α			SESSMENTS	057.000
			Colorado (60%)	\$57,600
	- [2	2.	Kansas (40%)	\$38,400
_		_	subtotal assessments	\$96,000
Β.			HER	CE00
ļ			Interest Earnings Miscellaneous	\$500
		••	subtotal other	\$0 \$500
-			TOTAL ALL INCOME	\$96,500
C	ΔS	HR	ESERVE BALANCE	450,300
<u>O</u> :			IMATED BALANCE JULY 1, 2011	\$90,300
Д. В.			REASE FROM PRIOR BALANCE	4 30,300
			DITION TO BALANCE	\$8,000
D.			DJECTED BALANCE JUNE 30, 2012	\$98,300
			the Arkansas River Compact Administration at its Dec. 8, 2009 Annual	
J		lic	uni bonzales 1280°	3
	Y			1
ρh	<i>a</i> h	ie (Gonzales, Recording Secretary and Treasurer Date	