

Report of the  
Assistant Operations Secretary

Compact Year 2004

Submitted to the  
Operations Committee

December 2004

Arkansas River Compact Administration

# ARKANSAS RIVER COMPACT ADMINISTRATION

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For Colorado

Rodney Kuharich, Denver  
James G. Rogers, Lamar

Thomas R. Pointon, Las Animas

Chairman and Federal Representative

Robin Jennison  
Healy Kansas

For Kansas

David L. Pope, Topeka  
David A. Brenn, Garden City

Randy Hayzlett, Lakin

December 1, 2004

Mr. James Rogers, Chairman  
Mr. David Brenn, Member  
Mr. Robin Jennison, Ex-officio Member  
Operations Committee  
Arkansas River Compact Administration

Re: CY 2004 Summary  
Assistant Operations Secretary Report

Gentlemen,

This report is to provide the Operations Committee with a review of the status of operations for CY 2004 from the perspective of the Assistant Operations Secretary. There continued to be significant efforts between the offices of the Operations Secretary (OS) and Assistant Operations Secretary (AOS) to resolve operational issues. This report will review those accomplishments and highlight some items that require additional effort.

## **Method to Measure Kansas Section II Deliveries**

The staffs of the Garden City Field Office and Colorado Water Division 2, the respective State local water officials, began the year with the goal of implementing a trial one year agreement that would provide a definite method to measure Kansas Section II releases. The staffs involved put forth significant efforts towards developing a method: exchanging data and proposals, and meeting on three separate occasions.

On March 24, 2004, the staffs met in Lamar, CO to discuss this measurement method. Discussions centered on a Kansas proposal distributed before the meeting. Various aspects of the proposal were discussed and it appeared concerns expressed by Colorado had been satisfactorily addressed. A draft agreement based on this apparent consensus was then emailed by the Assistant Operations Secretary to the Operations Secretary on March 30<sup>th</sup>. (*Agreement for Measurement of Kansas Section II Account Release for Determination of Transit Loss*, March 24, 2004). See Attachment A. Colorado negatively responded to this March 24<sup>th</sup> proposal on July 22<sup>nd</sup>. See Attachment B. Kevin Salter responded by providing comments in an email to Steve Witte dated July 29<sup>th</sup> to the concerns in Colorado's July 22<sup>nd</sup> letter. See Attachment C. No further

discussion have occurred on this issue and the Assistant Operations Secretary remains open to further discussions which would result in an agreement in this matter.

A principal element of the disagreement relates to how Stateline flows, both prior to and after the release, are counted in the measurement of Kansas Section II deliveries.

### **Dispute and Communication Process**

Process: Recommendations were jointly submitted to the Operations Committee concerning *Process to Address and Resolve Interstate Administrative Issues Related to the Arkansas River* by the Operations Secretary and the Assistant Operations Secretary (dated February 26, 2004). These recommendations were discussed with the Operations Committee at the April 13, 2004 meeting in Lamar, CO. The Operations Committee adopted these joint recommendations by letter dated August 19, 2004. See Attachment D.

Issues: Regarding outstanding operational issues, the Operations Committee asked both offices to sort the issues into three categories: “A” issues that can be resolved by staff; “B” issues that need to be addressed by another committee and “C” issues that staffs believe that they have taken as far as they can. This was jointly done and was submitted to the Operations Committee by letter dated February 5, 2004. See Attachment E.

The Operations Committee then asked that those issues be prioritized within two groupings: “A” issues and “B” & “C” issues. Those priorities were submitted to the Committee at the August 19, 2004 meeting by a joint letter of that same date. See Attachment F. The Committee then requested a paragraph for each of the “B” & “C” issues be provided by the staffs detailing the respective State’s position on these issues. This was done separately by each State and submitted by the November 1<sup>st</sup> deadline. See Attachment G.

### **Kansas Call for JMR Stored Water**

Kansas Run: A call for stored water in John Martin Reservoir (JMR) was initiated on March 26, 2004 by Kansas. Water was called from the Offset Account first, followed by the Kansas Section II account and ended with a short run of Offset Account water that had accumulated during the Section II release. An early release to Kansas was deemed the best opportunity to deliver stored water to the Stateline. This plan for releasing JMR account water was discussed at the March 24<sup>th</sup> meeting between staffs. A total of 19,345.38 AF was released to Kansas from accounts in JMR during a period of 17 days according to Colorado Division 2’s John Martin Accounting System (JMAS). Table A1 at the end of this document provides flow information for the period between March 19<sup>th</sup> and April 22<sup>nd</sup>.

Offset Account water and Kansas Section II water are accounted at the Stateline differently as provided for in the separate resolutions controlling the two different types of releases. The measurement of Offset Account deliveries does not include Stateline antecedent flows. In contrast, Section II deliveries are measured as equivalent Stateline

## **Additional Operational & Accounting Concerns**

There have been approximately twenty-five (25) operational issues identified by the Operations and Assistant Operations Secretaries. There continue to be numerous concerns with operations and accounting in CY 2003 and earlier years. If a particular issue raised by the Assistant Operations Secretary is not specifically mentioned in this report, it doesn't mean that there are no longer any concerns related to that issue. Until specifically resolved in the record, the issues remain unresolved.

Permanent Pool Delivery: A delivery was made into the permanent pool in August. The water was initially released from Twin Lakes and delivered to JMR. Kansas raised a concern about how this delivery was measured into JMR. The response did not provide any detail on the differences between the presumed delivery and the actual delivery. Additional review of this operation is needed.

Pass-through Accounting (Issue 41): Section II C of the 1980 Operation Plan provides, among other things, "... inflows shall, to the extent practical, be measured and released from the reservoir without temporary storage or averaging flows..." Kansas commends the Operations Secretary for including the pass-through tables in his CY 2003 report. The Assistant Operations Secretary again provided pass-through accounting for CY 2004 with the understanding that it will be included in this year's Operations Secretary report. The pass-through tables provided to the Operations Secretary were based on JMAS and information provided from the USGS and Corps of Engineers. A determination of compliance with Section II C of the 1980 Operating Plan is not possible from the Operations Secretary's report absent this information.

PWWSP Concerns (Issues 21 and 22): Kansas continues to have concerns about how the winter inflows are split between Compact conservation storage and the Pueblo Winter Water Storage Program (PWWSP). Kansas appreciates the Operations Secretary providing the split ratios in prior Operations Secretary reports and requests that this reporting continue. However, the split criteria should be determined in consultation with Kansas and must meet the standards in Section III of the 1980 Operating Plan which prohibits any reduction in waters that otherwise would be inflows to Compact storage.

The current PWWSP began on November 15, 2004. There have been a series of preliminary splits established and reported to Kansas, with the latest split established on November 28<sup>th</sup>. Kansas needs time to review the operation of this program and will provide concerns to the Colorado Division 2 office later.

CY 2002 Delivery (Issues 30 and 31): The Colorado Division Engineer and the Kansas Water Commissioner agreed that there was a delivery deficit in the Kansas Section II in CY 2002 but could not agree on the amount. The Kansas Water Commissioner calculated a delivery deficit of 4,603 AF and provided notice of this delivery deficit to the Division Engineer by letter dated March 4, 2003. See Attachment I. In that letter, Kansas stated its position that any delivery deficit for Kansas Section II should be replenished to the Kansas Section II account. The Division Engineer unilaterally determined a delivery deficit of 676 AF for Kansas Section II deliveries made in CY 2002. The Division Engineer has not provided an explanation of how the delivery deficit

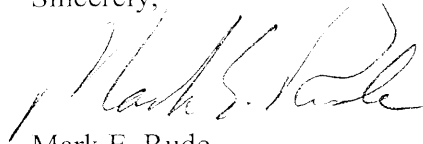
was determined. (Under the March 24, 2004 proposed method, this transit loss would have been 3,247 AF.)

The delivery deficit, as determined by the Division Engineer (676 AF), was initially placed in the Transit Loss Account on March 15, 2003. This water should have been replenished to the Kansas Section II Account, not the Transit Loss Account. The Kansas position is that any delivery deficits should be replenished to the Kansas Section II account was reiterated in a letter dated August 26, 2003 from Kevin Salter to Steve Witte. See Attachment J. In response, JMAS accounting shows that 400.57 AF was transferred On January 20, 2004, from the Transit Loss Account to the Kansas Section II. The 400.57 AF represents the 676.02 AF less evaporation.

### **Summary**

As is apparent from the foregoing discussion, essentially all of the significant issues dividing the States a year ago remain unresolved. Efforts by the staffs of both States should continue to resolve these issues and others not discussed in this report. I appreciate the Operations Committee's time and interest in working to resolve the issues of dispute and to facilitate communication.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark E. Rude", written over a horizontal line.

Mark E. Rude,  
Assistant Operations Secretary

Table A1: Data used to determine the satisfaction of Kansas Section II account deliveries.

Date	Offset Account Release (AF)	KS Sec. II Account Release (AF)	Transit Loss Account Release (AF)	Other Account Releases (AF)	Total Account Release from John Martin Reservoir (AF)	Ark River below John Martin Reservoir (AF)	Pass Thru (AF)	Mean Daily Stateline Flow (AF)
19-Mar	0.00	0.00	0.00	1.00	1.00	2.00	1.00	53.55
20-Mar	0.00	0.00	0.00	1.00	1.00	2.00	1.00	53.55
21-Mar	0.00	0.00	0.00	0.99	0.99	2.00	1.01	51.57
22-Mar	0.00	0.00	0.00	0.00	0.00	2.00	2.00	53.55
23-Mar	0.00	0.00	0.00	0.00	0.00	2.00	2.00	53.55
24-Mar	0.00	0.00	0.00	0.00	0.00	2.00	2.00	47.60
25-Mar	0.00	0.00	0.00	0.00	0.00	2.00	2.00	49.59
26-Mar	523.00	0.00	0.00	0.00	523.00	524.00	1.00	61.49
27-Mar	1164.00	0.00	0.00	0.00	1164.00	1164.00	0.00	61.49
28-Mar	1159.00	0.00	0.00	0.00	1159.00	1159.00	0.00	71.41
29-Mar	1176.87	0.00	0.00	40.50	1217.37	1217.00	(0.37)	283.64
30-Mar	1190.10	0.00	0.00	69.42	1259.52	1262.00	2.48	452.24
31-Mar	1190.10	0.00	0.00	74.80	1264.90	1264.00	(0.90)	581.17
1-Apr	1190.10	0.00	0.00	85.29	1275.39	1277.00	1.61	662.49
2-Apr	1211.92	0.00	0.00	120.90	1311.00	1311.00	0.00	721.99
3-Apr	1226.79	0.00	0.00	141.82	1331.92	1332.00	0.08	791.42
4-Apr	375.09	815.01	314.38	99.18	1603.66	1604.00	0.34	862.82
5-Apr	0.00	1190.10	495.88	238.68	1924.66	1929.00	4.34	967.95
6-Apr	0.00	1190.10	442.16	312.73	1944.99	1945.00	0.01	1243.65
7-Apr	0.00	1190.10	323.97	282.59	1796.66	1797.00	0.34	1342.83
8-Apr	0.00	1190.10	73.54	283.70	1547.34	1577.00	29.66	1307.13
9-Apr	0.00	1190.10	0.00	277.15	1467.25	1473.00	5.75	1237.70
10-Apr	0.00	1190.10	0.00	262.86	1452.96	1465.00	12.04	1166.30
11-Apr	436.06	605.25	0.00	232.13	1273.44	1320.00	46.56	1156.38
12-Apr	0.00	0.00	0.00	450.66	450.66	369.00	(81.66)	1110.76
13-Apr	0.00	0.00	0.00	357.17	357.17	619.00	261.83	747.78
14-Apr	0.00	0.00	0.00	415.81	415.81	578.00	162.19	460.17
15-Apr	0.00	0.00	0.00	349.25	349.25	516.00	166.75	368.93
16-Apr	0.00	0.00	0.00	347.15	347.15	370.00	22.85	299.51
17-Apr	0.00	0.00	0.00	205.93	205.93	224.00	18.07	253.89
18-Apr	0.00	0.00	0.00	204.44	204.44	222.00	17.56	222.15
19-Apr	0.00	0.00	0.00	173.50	173.50	222.00	48.50	198.35
20-Apr	0.00	0.00	0.00	178.05	178.05	222.00	43.95	180.50
21-Apr	0.00	0.00	0.00	183.88	183.88	224.00	40.12	158.68
22-Apr	0.00	0.00	0.00	13.09	13.09	178.00	164.91	168.60

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# **Agreement for Measurement of Kansas Section II Account Releases for Determination of Transit Loss**

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March 24, 2004

This agreement is the product of negotiations between the staffs of the Water Division 2, Colorado Division of Water Resources and the Garden City Field Office, Kansas Division of Water Resources and their joint commitment to have criteria by April 1, 2004 for Compact Year 2004.

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## Kansas Section II Account Release

"Releases of Kansas account water shall be measured at the Stateline as provided in Compact Article V E (3) allowing *appropriate arrival times*." (Italics added, 1980 Operating Plan). Compact Article V E (3) provides "... the releases to which Kansas is entitled shall be satisfied by an equivalent in Stateline flow."

A three-day lag will be used from the start of the Kansas Section II Account release to when the measurement of that release begins at the Stateline. The three-day lag is calculated as follows:

- Day 1 – Kansas Section II Account release begins
- Day 2 & 3 – the following two days
- Day 4 – measurement of the Kansas Section II Account mean daily release begins at midnight (0:00 hour) of this day

Adjustments to the Kansas Section II Account release will be handled in the same manner. There will be a corresponding three-day lag from the end of a Kansas Section II Account release, during which the measurement will continue at the Stateline, ending at the 24:00 hour of Day 4.

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## The Gaged Rates & Volumes and River Conditions

### Rates & Volumes

The 1980 Operating Plan states: "Kansas and the various Colorado ditches may demand the release of water contained in their respective accounts ...at *whatever rates* they desire." (Italics added, 1980 Operating Plan).

Recognizing there are fluctuations in river operations, Kansas Section II Account releases will be measured as mean daily flow rates at the Stateline gages and will be capped at 105% of Kansas Section II Account release. The equivalent Stateline measurement of a Kansas Section II Account release shall not exceed 100% of that release.

## River Conditions

“...When transit losses are deemed by the Colorado Division Engineer to be excessive, he shall so advise the receiving entity. Conversely, when river conditions are favorable for a delivery to Kansas, he shall so advise the Kansas Water Commissioner.” (Sec.II.D.5 1980 Operating Plan).

For the purposes of this agreement, the antecedent Stateline flow (antecedent flow) will be the average of the mean daily flows for the five full days preceding the Kansas Section II Account release. During periods when antecedent flow is less than 100 cfs, a measurement period will be allowed up to five full days from the termination of the Kansas Section II Account release and will be calculated as follows:

- Day 1 (partial day) – Kansas Section II Account release ends and equivalent Stateline flow is capped 105% of mean daily flow on this day
- Day 2 & 3 – measurement of equivalent Stateline flow is capped 105% of mean daily flow on this day
- Day 4 – measurement of equivalent Stateline flow is capped 105% of the equivalent mean daily flow on the last full day of Kansas Section II Account release
- Day 5 -- measurement of equivalent Stateline flow is capped 66% of the equivalent mean daily flow on the last full day of Kansas Section II Account release
- Day 6 -- measurement of equivalent Stateline flow is capped 33% of the equivalent mean daily flow on the last full day of Kansas Section II Account release

No Stateline flows will be used for measurement of the Kansas Section II Account release beyond the five full day period. The equivalent Stateline measurement of a Kansas Section II Account release shall not exceed 100% of that release.

## Data Collection and Evaluation

“... if *transit losses occur*, those losses shall be determined by the Colorado Division Engineer and a representative of the Kansas Division of Water Resources and shall be replenished from the Kansas transit loss account.” (Italics added, 1980 Operating Plan).

The mean daily real time Stateline USGS gage record will be used to determine if the Kansas Section II Account release was met with an equivalent in Stateline flow according to the above criteria. We will seek the necessary measurements by the USGS to facilitate this agreement.

At the conclusion of each Kansas Section II Account release, the Colorado Division Engineer and Kansas Water Commissioner will evaluate the results. A transit loss will be determined to have occurred if the volume of the Kansas Section II Account release measured in equivalent Stateline flow is less than the volume released from the Kansas Section II Account.

## **Procedures for Measuring Kansas Section II Account Releases for Determination of Transit Loss**

### **Antecedent Flow less than 100 cfs**

- B. The following is the procedure to be used for measuring a Kansas Section II Account release during antecedent Stateline flow conditions less than 100 cfs:
  1. The release will be measured at the Stateline using the sum of the daily mean flows of the Frontier Ditch and the Arkansas River at Coolidge using the lags, recession period and caps in this section.
  2. (a) The measurement of the release at the Stateline will be lagged by three-days. (b) The effects of any subsequent gate changes will use the same three-day lag.
  3. Measurement of daily Kansas Section II Account release using Stateline equivalent mean daily flow will be capped at 105% of that release.
  4. A measurement period up to five full days from the termination of the Kansas Section II Account release will be allowed. This period will be calculated as follows:
    - a. Day 1 (partial day) – Kansas Section II Account release ends and equivalent Stateline flow is capped 105% of mean daily release three days prior
    - b. Day 2 & 3 – measurement of equivalent Stateline flow is capped 105% of mean daily release three days prior
    - c. Day 4 – measurement of equivalent Stateline flow is capped 105% of the equivalent mean daily release on the last full day of Kansas Section II Account release
    - d. Day 5 -- measurement of equivalent Stateline flow is capped 66% of the equivalent mean daily release of the last full day of Kansas Section II Account release
    - e. Day 6 -- measurement of equivalent Stateline flow is capped 33% of the equivalent mean daily release of the last full day of Kansas Section II Account release
    - f. No Stateline flows will be used for measurement of the Kansas Section II Account release beyond this period.
  5. The equivalent Stateline measurement of a Kansas Section II Account release shall not exceed 100% of that release.
  6. A transit loss will be determined to have occurred if the volume of the Kansas Section II Account release measured in equivalent Stateline flow is less than the volume released from the Kansas Section II Account.
  7. Any transit losses that do occur are to be replenished to the Kansas Section II Account at the first opportunity as prescribed by the 1980 Operating Plan.

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Antecedent Flow equal to or greater than 100 cfs

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- A. The following is the procedure to be used for measuring a Kansas Section II Account release during antecedent Stateline flow conditions equal to or greater than 100 cfs:
1. The Kansas Section II Account release will be measured at the Stateline using the sum of the daily mean flows of Frontier Ditch and the Arkansas River at Coolidge using the lags and caps in this section.
  2. (a) The measurement of the Kansas Section II Account release will use a three-day lag time. (b) Subsequent changes in Kansas Section II Account release will use the same three-day lag period.
  3. Measurement of daily Kansas Section II Account releases using Stateline equivalent mean daily flow will be capped at 105% of that release.
  4. The Stateline measurement of Kansas Section II Account release will end three full days after the termination of the release from the Kansas Section II Account.
  5. The equivalent Stateline measurement of a Kansas Section II Account release shall not exceed 100% of that release.
  6. A transit loss will be determined to have occurred if the volume of the Kansas Section II Account release measured in equivalent Stateline flow is less than the volume released from the Kansas Section II Account.
  7. Any transit losses that do occur are to be replenished to the Kansas Section II Account at the first opportunity as prescribed by the 1980 Operating Plan.

This agreement is only for Compact Year (CY) 2004.

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Steven J. Witte, Operations Sec.

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Mark E. Rude, Asst. Operations Sec.

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Original \_\_\_\_ of 4

# STATE OF COLORADO

**WATER DIVISION 2****OFFICE OF THE STATE ENGINEER**

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Bill Owens  
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Steven J. Witte, P.E.  
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July 22, 2004

Kevin H. Salter  
Division of Water Resources  
Garden City Field Office  
2508 Johns Street  
Garden City, KS 67846-2804

**Re: Response to Kansas Proposal for Measurement of Kansas Section II  
Account Releases for Determination of Transit Losses**

Dear Kevin:

This letter will respond to the proposed "Agreement for Measurement of Kansas Section II Account Releases for Determination of Transit Loss" dated March 24, 2004, that you sent me by e-mail dated March 30, 2004 (marked "draft") and your letter to me, "Re: Measuring Kansas Section II Deliveries", also dated March 24, 2004.

**Kansas Section II Account Release**

You propose that a three-day lag be used from the start of a Kansas Section II account release to determine the appropriate time for a release to arrive at the Stateline and for measurement of that release to begin at the Stateline. You also propose that adjustments to the Kansas Section II account release be handled in the same manner and that there be a corresponding three-day lag from the end of a Kansas Section II release, during which the measurement will continue at the Stateline, ending at 24:00 hour of Day 4. You propose that the three-day travel time for the release to arrive at the Stateline be calculated as follows:

- Day 1 – Kansas Section II account release begins (regardless of the time during the day that the release begins).
- Day 2 & 3 – the following two days.
- Day 4 – measurement of the Kansas mean daily release begins at midnight (0:00 hour) of this day.

While the proposal appears to be an effort to simplify the procedure to determine the arrival time of a Kansas Section II account release, it does not appear to me that the proposal is consistent with the terms of the Compact and the 1980 Operating Plan or Tom Ley's evaluation.

Article V E (4) of the Compact states: "When water is released from John Martin Reservoir appropriate allowances as determined by the Administration shall be made for the intervals of time required for such water to arrive at the points of diversion and at the State line. (emphasis added)." Paragraph II E (4) of the 1980 Operating Plan states: "Releases of Kansas account water shall be measured at the Stateline as provided in Compact Article V E (3) allowing appropriate arrival times. . . .(emphasis added)"

It appears to me that the drafters of the Compact and the 1980 Operating Plan recognized that the time for the releases of water from John Martin Reservoir to reach the Stateline would vary depending on river conditions and directed that judgment be used to estimate the time required for releases to arrive at the Stateline. Tom Ley's evaluation of Kansas Section II account releases from John Martin Reservoir concluded that the typical travel time of a release wave from John Martin to the Stateline using a daily time step was two days and may have varied from 48 hours by as much as plus or minus 12 hours. As I understand your proposal, the three-day travel time could vary from 48 hours to 72 hours depending on the time during the day that the release begins or ends. Since hourly data are now available to determine the arrival of the release wave at the Stateline, I am inclined to think that it would be more appropriate to determine the arrival time for each release based on the observed increase in Stateline flow.

The most advantageous use of a fixed arrival time that has been suggested is in those instances when it is necessary to distinguish between the arrival of water released from another account either immediately before or after water released from the Kansas Section II account or for circumstances that cause Kansas to briefly interrupt and re-start a Section II release. However, I am not sure that the data supports the use of a three-day lagged measurement, as proposed.

#### **The Gaged Rates & Volumes and River Conditions - Rates & Volumes.**

Recognizing there are fluctuations in river operations, you propose that Kansas Section II account releases be measured as mean daily flow rates at the Stateline gages and be capped at 105% of the Kansas Section II account release, provided that, on a volumetric basis, the equivalent Stateline measurement of a Kansas Section II account release shall not exceed 100% of that release.

The agreements between the Kansas Water Commissioner and the Colorado Division Engineer experimented with an accounting procedure that allowed credit for Kansas' releases of up to 105% of the daily average flow and a credit for deliveries of up to seven days after the end of the run at John Martin Reservoir. Your proposal to measure Kansas Section II account releases based on mean daily flow rates capped at 105% of the Kansas Section II account release provides flexibility to measure a release from the Kansas Section II account by an equivalent in Stateline flow, given the difficulties in satisfying releases to which Kansas is entitled by an equivalent in Stateline flow. Based on Tom Ley's analysis, and given the difficulties in satisfying releases to which Kansas is entitled by an equivalent in Stateline flow, I think that capping the allowed credit for Kansas releases at up to 108% of the daily average flow would be more appropriate, although your proposal would be acceptable if a reasonable run-down period is allowed. However, for the purpose of determining transit losses on a Kansas Section II release, I see no reason why the equivalent Stateline measurement of a Kansas Section II account release should not exceed 100% of that release, although I could accept that limitation if a reasonable run-down period were also provided. See the discussion under river conditions below.

#### **- River Conditions.**

You propose that during periods when antecedent flow is less than 100 c.f.s., a measurement period be allowed up to five full days from the termination of a Kansas Section II account release and

calculated with reduced caps on Day 5 and Day 6, provided that no Stateline flows will be used for measurement of the Kansas Section II account release beyond the five full day period and that the equivalent Stateline measurement of a Kansas Section II account release shall not exceed 100% of that release.

The agreements between the Kansas Water Commissioner and the Colorado Division Engineer allowed a credit for deliveries of up to seven days after the end of the run at John Martin Reservoir. Your proposal would shorten the run-down period to no more than five days, would limit the extra days to periods when the antecedent flow is less than 100 c.f.s., and would impose caps on Days 5 and 6. For purposes of your proposal, the antecedent Stateline flow would be the average of the mean daily flows for the five full days preceding the Kansas Section II account release. I am not sure that I understand the basis for your proposal. Under Article V E (5) of the Compact, there shall be no allowance or accumulation of credits or debits for or against either State. This provision was based on the recognition that there would be inevitable variations in Stateline flow when releases to which Kansas is entitled were satisfied by an equivalent in Stateline flow and was a way to avoid bookkeeping and accounting disputes. Nevertheless, the 1980 Operating Plan requires a determination of "transit losses." The agreements between the Kansas Water Commissioner and the Colorado Division Engineer simplified the determination of "transit losses" by computing the volume of deliveries over the period of a run, which, in effect, included the inevitable variations in releases as measured at the Stateline in the determination of "transit losses." Those agreements also allowed the entire storage charge on "other water" stored in John Martin Reservoir to be transferred to the Kansas transit loss account. I think that determining "transit losses" by computing the volume of deliveries over the period of a run is reasonable, provided that a reasonable allowance is made for the daily variation in the measurement of equivalent Stateline flow (at least 105% of the mean daily flow), a reasonable run-down period is allowed, and a reasonable amount of water is transferred to the Kansas transit loss account.

The reason for a run-down period at the end of the run is to recognize that water released from the reservoir does not move downstream in a square wave when the release stops. The arrival response at a downstream point is distributed over time. As has been previously discussed, both the Compact and the 1980 Operating Plan contemplate allowances for appropriate arrival times in recognition of this phenomenon. Therefore, if we establish an accounting scheme that includes the inevitable variation in releases as measured at the Stateline in the determination of "transit losses" and cap the measurement of Kansas Section II account releases at 105% of the Kansas Section II release, it is important to allow a reasonable run-down period at the end of the run to prevent unreasonable calculations of "transit losses." In my opinion, a 6-10 day run-down period is reasonable (depending upon the antecedent streamflow conditions) with certain caps, but I do not agree that the inclusion of a run-down period should only be considered when antecedent flow is less than 100 c.f.s. The criteria you have proposed for determining antecedent flow and the limit on recognizing the additional days based on antecedent flow are not consistent with experience. In addition, experience has shown that an increase in the amount of water in the transit loss account is necessary if the inevitable variations in Stateline flow are included in measuring transit losses at the Stateline, particularly if the measurement of Kansas Section II account releases based on mean daily flow rates is capped at 105% of the Kansas Section II account releases. If Kansas wants greater reliability on a daily basis in receiving Kansas Section II account releases as measured by an equivalent in Stateline flow, the amount of water transferred to the transit loss account needs to be increased to accomplish that goal. Likewise, the attenuation of the release when the release stops needs to be recognized.

#### **Data Collection and Evaluation**

While I can agree that an after-the-fact evaluation of the volume of water credited to the satisfaction of a release for Kansas Section II account water should occur, that a comparison should be made to the volume released from the account to determine if a deficit or "transit loss" resulted, and, if so, that the deficit should then be replenished as soon as practicable in accordance with Section II E. (4) of the 1980 Operating Plan, this should not be construed as meaning that I agree that releases of water from

the Kansas transit loss account cannot be made concurrently with releases from the Kansas Section II account to ensure that the releases to which Kansas is entitled are satisfied by an equivalent in Stateline flow.

Finally, I want to point out an apparent misunderstanding of Colorado's proposal in your letter of March 24, 2004, regarding use of the "Livingston formula". You state that an advantage of the Kansas proposal is that it does not use the Livingston formula; however, Colorado's proposal does not rely on it either. Rather, in all of the evaluations of historical runs performed by Tom Ley, and in the proposals for Kansas Section II delivery crediting methods, including the revised draft Colorado proposal circulated April 13, 2004, Colorado has simply recommended adoption of the same criterion used by Livingston for the limited purpose of determining the allowable recession time period.

I am hopeful that these comments will assist you in understanding Colorado's position on these issues and will provide a basis for renewed efforts to reach an agreement.

Very truly yours,

Steven J. Witte



**From:** Salter, Kevin  
**Sent:** Thursday, July 29, 2004 2:44 PM  
**To:** 'Witte, Steve'; Rude, Mark  
**Cc:** Austin, George; Anderson, David; Barfield, Dave  
**Subject:** RE: Response to Kansas Proposal for KS Sect 2 Release Meas.

Steve,

I had hoped to receive these comments much earlier. It is more than a little disappointing in that I have tried to get feedback on this proposal in telephone conversations emails and in our June 24th meeting. We had even tentatively set an additional meeting time for 15 July to discuss this and other issues. We did not meet on 15 July since I didn't have your comments.

From my first review of this document, it appears to me that too much time has passed since our March meeting. The concerns expressed in your letter were addressed at that March meeting and it was my impression that there was a basic understanding and acceptance of this proposal. I was obviously under the wrong impression.

I think we will want to seriously consider if this is something that we want discussed at the upcoming Operations Committee meeting and if so, how. From your response, it appears that we don't agree even on the technical basis for this proposal. Your response doesn't offer any alternatives to what has been proposed through our previous joint discussions, nor does it recognize your contributions to the proposal. In fact, you even bring up as a concern something that you contributed to the proposal.

From my initial review of your letter, I would ask that you support some of the statements made:

Page 2, 4th paragraph: You state that you are unsure that the data supports the use of the proposed three day lag measurement. Both the Austin work and Ley report show that the Kansas account releases are satisfied three days after the release is terminated for the vast majority of those releases. Why are you unsure?

Page 2, 6th paragraph: I think that this paragraph is confusing. If it is your proposal that a 108% cap be used instead of the proposed 105% cap, then I think that is something that can be discussed. Are you requesting that a 108% cap be employed?

Page 2, bottom of: This entire discussion confuses the point. As I remember the March meeting, you suggested the two (2) day rundown period and agreed that time would be sufficient for this year. This is for the antecedent flows less than 100 cfs and the rundown time would end 5 days after the release had been terminated at the reservoir. If this is no longer your position, for the antecedent flow less than 100 cfs, then we need to discuss what a reasonable rundown period would look like. I would appreciate the supporting data for the length of that rundown period. To let you know, that supporting data should not be the use of the Livingston formula on its own, but also include an historical analysis of the rundown time required to satisfy Kansas demand.

Additionally, you spend quite a bit of time talking about various issues related to a reservoir measured run of water. Colorado has a benefit that it can use

whatever water is available to compose the Kansas release. This benefit is p12anced against the benefit of Kansas having its release measured at the Stateline. It would be of some interest to determine how much of the Kansas Section release is composed of reservoir water as compared to antecedent flow and other waters, as Colorado has the benefit of an equivalent Stateline flow.

If the credit is capped at something greater than 100%, and the delivery meets that performance, is any rundown period required? If yes, then why is a rundown period needed?

Additional comments

As pointed out in your response, we do need to discuss the transit loss account in some detail. We had separated these two issues to concentrate on developing a trial method to measure of Kansas Section 2. Is it now your position that the transit loss account discussion should be part of any trial agreement?

You have indicated that you should have control over the transit loss account. I feel that the transit loss account should be operated as mutually agreed to. Operations of the transit loss account shouldn't default to either party absent such agreement.

It appears that you would like to have a criteria set up in which no transit losses are measured and any shortcomings are taken care of on the front and/or tail end. Because of the multiple operations, which occur simultaneously with any release to Kansas, we need to have a criteria that both States can agree to and rely on.

Again, I believe that the points you have raised in this response were addressed at the March meeting. If we need to try again, and have a meeting between staffs to discuss the technical merits of this proposal, I would suggest the meeting occur towards the end of August or the first of September.

I note some inconstancies in your response that I have not addressed here. As a result, I feel that a more formal response is needed and will be provided at a future date. We should continue to work through this in the mean time. At this point, I question whether we should use the Operations Committee meeting to discuss technical issues such as this.

Kevin

-----Original Message-----

From: Witte, Steve [mailto:Steve.Witte@dwr.state.co.us]  
Sent: Thursday, July 22, 2004 6:06 PM  
To: Salter, Kevin; Rude, Mark  
Subject: Response to Kansas Proposal for KS Sect 2 Release Meas.

Gentlemen,

I intend to place in today's mail a response to KS proposal and communication dated March 24. In an attempt to provide you with as much review time as possible prior to the next meeting of the Operations Committee, I am providing you with an electronic version. Kevin should receive the signed letter within a few days.

I sincerely hope that we can continue the dialogue and arrive at a mutually acceptable procedure.

Steve

# ARKANSAS RIVER COMPACT ADMINISTRATION

307 South Fifth Street, Lamar, Colorado 81052

719-336-9696

Chairman and Federal Representative

For Colorado

Rodney Kuharich, Denver

James G. Rogers, Lamar

Thomas R. Pointon, Las Animas

Robin Jennison

Healy Kansas

For Kansas

David L. Pope, Topeka

David A. Brenn, Garden City

Randy Hayzlett, Lakin

August 19, 2004

Steve Witte  
Operations Secretary  
310 E Abriendo Ave, Suite B  
Pueblo, CO 81004-4226

Mark Rude,  
Assistant Operations Secretary  
2508 John  
Garden City, KS 67846-2804

Re: Adoption of Joint Recommendations of the Operations Secretary and Assistant  
Operations Secretary: Process to Address and Resolve Interstate Administrative  
Issues Related to the Arkansas River (February 26, 2004)

Gentlemen:

The Operations Committee recognizes the significant positive efforts of both States in developing the *Joint Recommendations of the Operations Secretary and Assistant Operations Secretary: Process to Address and Resolve Interstate Administrative Issues Related to the Arkansas River*, dated February 26, 2004 (hereafter referred to as *Joint Recommendations*). See Attached. These Joint Recommendations were presented at the April 13<sup>th</sup> meeting in Lamar, CO. This letter confirms the Operations Committee adoption of these *Joint Recommendations* except as modified below.


The *Joint Recommendations* were subject of quite a bit of discussion with regard to the recommendations contained. We were concerned with language in Item 4, Page 3 and wanted to have more Committee involvement. As a result of those discussions, Steve Witte and Dennis Montgomery suggested modifying the language as follows:

4. If the response and subsequent efforts do not satisfactorily resolve the concern or complaint, then the Operation Committee shall be advised and the matter may be submitted to the Operations Committee in compliance with paragraph 5 below.

We adopted the Joint Recommendations with the modified language as we are committed to advancing those issues that can be resolved. We are also committed to appropriately deal with those issues that cannot be resolved.

August 19, 2004

The effort each of you has made towards developing this process is appreciated. Through joint cooperation and dedicated to resolution of issues we are confident that the result will be in the interest of both States. If there are any questions with regard to this letter, the adopted recommendations, or their implementation, please feel free to contact us.

  
David Brenn, Chairman  
Jim Rogers, Member

1 of 2 originals

Enclosure

pc: Robin Jennison, ARCA  
Randy Hayzlett, ARCA  
Tom Pointon, ARCA  
David Pope, ARCA  
Rod Kuharich, ARCA  
Janet Anderson, ARCA  
Hal Simpson, CO DWR  
Steve Miller, CWCB  
Kevin Salter, KS DWR

**JOINT RECOMMENDATIONS OF THE**  
**OPERATIONS AND ASSISTANT OPERATIONS SECRETARIES**

PROCESSES TO ADDRESS AND RESOLVE INTERSTATE ADMINISTRATIVE  
ISSUES RELATED TO THE ARKANSAS RIVER

The following joint recommendations are made pursuant to Action Item 3 from the Arkansas River Compact Administration's Operations Committee Meeting on December 8, 2003:

The Operations Secretary submitted to the Operations Committee a "Special Report of the Operations Secretary – Concerning Processes to Resolve Administrative Issues, and a Proposal to Alternate the Offices of Operations Secretary and Assistant Operations Secretary," (hereafter referred to as *Special Report*). Kansas will review the Processes to address and resolve interstate administrative issues section of the Special Report, pages 4 to 7, and will confer with the Operations Secretary so that they can jointly make recommendations to the Operations Committee by March 1, 2004, concerning processes to address and resolve interstate administrative issues. The joint recommendations should address additional details on what is "good faith."

The Operations Secretary and the Assistant Operations Secretary believe that the following processes will improve communications between the States.

Operations Secretary and Assistant Operations Secretary Communications and Meetings

It is jointly recommended that the Operations Committee approve the following processes as guidelines concerning communications between the Operations Secretary and the Assistant Operations Secretary and their staffs.

It is agreed that two scheduled meetings between the Operations Secretary and Assistant Operations Secretary should occur each year, one in the spring and one in the fall. The spring meeting, scheduled for mid-April, would permit participants to review operations from November 1<sup>st</sup> to March 31<sup>st</sup>, consider the potential water supply, augmentation

plans, and discuss coordination of reservoir calls (especially Offset & Kansas Section II Accounts). The fall meeting, if held in the latter part of November, would be useful preparation for the annual meeting of the Arkansas River Compact Administration, allowing discussion and review of operations of the previous Compact Year, as well as those of the current Compact Year, including those pertaining to the Pueblo Winter Water Storage Program.

It is agreed that certain events during the year warrant an exchange of data or a more extensive exchange of information. These exchanges are necessary, as both officers are responsible for monitoring the operations of John Martin Reservoir using information available to them. The Operations Secretary, among his or her duties, has a duty to provide information, maintain open communications, and consult with the Assistant Operations Secretary in the performance of his or her duties. Examples of events or occasions that normally warrant consultation include:

- Decisions related to criterion for Summer Storage
- Spill events
- Verification of usable flows
- Demands for delivery of account water by Kansas
- Existence of advantageous / unfavorable conditions of flow
- Decisions related to temporary retention / by-pass of inflow
- Deliveries to the permanent recreation pool
- Exchanges justifying Trinidad storage

It is agreed that the Assistant Operations Secretary should assist the Operations Secretary in the performance of his or her duties subject to the mutual agreement of the Operations Secretary and the Assistant Operations Secretary. Any concerns should be raised in a timely manner and both officers should make good faith efforts to resolve such concerns through open communications.

We jointly recommend that the Operations Committee adopt the following guidelines regarding disputed interstate administration and John Martin Reservoir operational issues:

1. Questions, concerns or complaints relating to the inflow, storage, by-pass of inflow and / or release of water from John Martin Reservoir, the accounting of John Martin Reservoir operations, or other matters that relate to the interstate administration of the Arkansas River should be communicated promptly. Such concerns or complaints may be communicated orally or in writing.
2. A response addressing the matter should be provided within a reasonable time.
3. If the question, concern or complaint is not satisfactorily addressed by the response, good faith efforts should be made toward resolution. Good faith efforts include a mutually acceptable process that includes a time frame and a plan to resolve the issue. These efforts are to be characterized by respect, courtesy, openness, consideration, resourcefulness, conciliation and creativity. The process should continue as long as the participants perceive satisfactory progress toward resolution.
4. ~~If the response and subsequent efforts do not satisfactorily resolve the concern or complaint, then the matter may be submitted to the Operations Committee.~~

*See letter dated August 19, 2004 from Operations Committee for modified language.*

5. Concerns or complaints, together with any necessary supporting documentation, shall be presented in writing at least one week prior to the meeting in which the Operations Committee is to consider the matter. This information is to be presented to each member of the Operations Committee, the Operations Secretary, the Assistant Operations Secretary, and any other pertinent party.

#### Operations Committee Meetings

It is recommended that an additional meeting of the Operations Committee be scheduled each year. The primary purpose of this meeting would be to address ongoing operational issues. This meeting will allow for detailed issue review and disposition by the Operations Committee. Since the primary purpose of this meeting would be for the Operations Committee to address issues referred by the Operations Secretary and / or the Assistant Operations Secretary, the issues to be reviewed should be set out in advance with exchanges of background information and positions no later than one week before the scheduled meeting. We also recommend that the number of issues to be reviewed be limited, so that those issues can be advanced. It is recommended that this meeting occur in mid to late summer each year.

It may also prove beneficial for the Operations Committee to schedule another meeting that coincides with the mid-April meeting of the Operations Secretary and Assistant Operations Secretary, so that they can review the anticipated water conditions for the upcoming irrigation season.



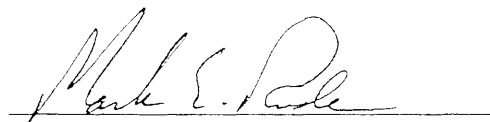
We recommend that the Operations Committee prepare and approve a written summary of each meeting, including a listing of issues addressed and any resolution or additional information requested on those items, a list of "Action Items," Operation Committee assignments, the person responsible for each assignment and any deadline(s) imposed. It is suggested that two non-participants, one from each State who are familiar with the issues and terminology, should be detailed to take notes of the meeting and prepare a summary. Experience has shown that an individual with legal expertise may facilitate the combining of separate notes into a single acceptable meeting summary.

### Reports

Written reports of the Operations Secretary and the Assistant Operations Secretary have served as a primary means of communication between the officers and the Operations Committee. Any reports for the preceding Compact Year to be considered by the Committee during the annual meeting of the Arkansas River Compact Administration should be submitted no later than December 1<sup>st</sup> each year to allow for their adequate review prior to the annual meeting.

  
Steven J. Witte, Operations Sec.

Date:

  
Mark E. Rude, Asst. Operations Sec.

Date: FEB. 26, 2004

Original 3 of 4

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# ARKANSAS RIVER COMPACT ADMINISTRATION

307 South Fifth Street, Lamar, Colorado 81052

719-336-9696

Chairman and Federal Representative

For Colorado

Rodney Kuharich, Denver  
James G. Rogers, Lamar

Thomas R. Pointon, Las Animas

Robin Jennison  
Healy Kansas

For Kansas

David L. Pope, Topeka  
David A. Brenn, Garden City

Randy Hayzlett, Lakin

February 5, 2004

David A. Brenn  
Chairman, Operations Committee  
1710 Pheasant Court  
Garden City, KS 67846

James G. Rogers  
Member, Operations Committee  
32259 County Road 13 (Route 2)  
Lamar, CO 81052

Gentlemen;

According to the action items from the 12/08/03 Operations Committee meeting, the Committee is to be informed of the status of issues by 3/01/04 following consultation between Kansas and the Operations Secretary. The status categories requested were:


- A) Issues capable of resolution
- B) Issues that may need to be addressed by another ARCA committee
- C) Issues that the staffs have taken as far as they can.

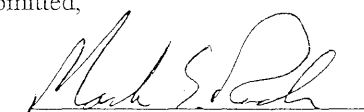
The Operations Secretary and the Assistant Operations Secretary jointly agreed to the following characterizations of the status of issues on February 5, 2004:

<u>Issue #</u>	<u>Description</u>	<u>Category</u>
20	Winter Water Account	C
21	Timely distribution of 35%	C
22	Criteria for Winter Water split	A
23	Reporting Winter Water split	Resolved
30	Determination of transit loss	A
31	Accounting to make up deficits	A
32	Use of transit loss account	A
40	Exchange of reservoir status accounting	Resolved
41	Non-reporting of pass-through	Resolved
42	Summer conservation storage transfer interrupt.	C
43	Winter conservation storage transfer interrupt.	C
50	Commencement of spill	C
51	Spill accounting	C
52	Upstream storage	B
53	Adjustments to inflow	C
54	Section II spill volume	A
60	Agreement B	B
61	Retroactive adjustments	C
62	OS report status 1994-2002	C
63	AOS report status 1998-2002	Remove
64	Purpose/timelines AOS reports	A
65	Defer ARCA annual meeting	A
66	Process for intro./resolving operational issues	A
67	Amend 1980 OP resolution or separate res.	C

#

Respectfully submitted,

  
Steven J. Witte, Operations Sec.

  
Mark E. Rude, Asst. Ops. Sec.

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# ARKANSAS RIVER COMPACT ADMINISTRATION

307 South Fifth Street, Lamar, Colorado 81052  
719-336-9696

Chairman and Federal Representative

For Colorado

Rodney Kuharich, Denver  
James G. Rogers, Lamar

Thomas R. Pointon, Las Animas

Robin Jennison  
Healy Kansas

For Kansas

David L. Pope, Topeka  
David A. Brenn, Garden City

Randy Hayzlett, Lakin

August 19, 2004

David A. Brenn  
Chairman, Operations Committee  
1710 Pheasant Court  
Garden City, KS 67846

James G. Rogers  
Member, Operations Committee  
32259 County Road 13 (Route 2)  
Lamar, CO 81052

Gentlemen:

At the April 13, 2004, Operations Committee meeting, the Committee requested that outstanding issues be prioritized. The prioritizations was to be done in two groups: one for those category "A" issues and another for category "B" & "C" issues as defined by the Joint letter dated February 5, 2004. It was recognized at the April meeting that some of the issues may be inter-related or that some issues might have to be resolved prior. The Operations Secretary and the Assistant Operations Secretary jointly agreed issues priority lists:

Issue #	Description	Category	Priority
30	Determination of transit loss on Kansas Section II releases	A	1
31	Which account that any Kansas Section II delivery deficits are to be replenished to	A	2
32	Use of transit loss account	A	3
22	Criteria for Winter Water split between PWWSP & Compact	A	4
54	Section II spill volume	A	5
Issue #	Description	Category	Priority
20	Winter water account of convenience	C	1a
21	Timely distribution of 35% storage charge	C	1b
67	Amend 1980 OP resolution or separate res.	C	2
61	Retroactive adjustments	C	3
62	OS report status 1994-2003	C	4
42	Summer conservation storage transfer interruption	C	5a
43	Winter conservation storage transfer interruption	C	5b
50	Commencement of spill event	C	6a
51	Spill accounting during flood control operations	C	6b
53	Adjustments to JMR inflow during times of spill	C	6c
10	Permanent Pool: How evaporation is charged	B	7
12	Permanent Pool: Possible new water source(s)	B	8
60	Agreement B	B	9
52	Upstream storage during JMR spill events	B	10

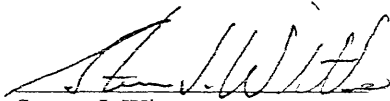
Since the last Operations Committee meeting, we discussed removing Issue 65 from consideration. Issue 65 was a proposal to move the Annual ARCA meeting to a later date. With the exchanges of data, information and the commitment to exchange annual reports we feel that it is not necessary to change the date of the Annual ARCA meeting.

P24

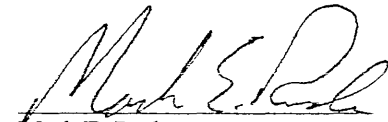
The other issues that were presented in the February 5, 2004 letter have been resolved and are listed below:

<u>Issue #</u>	<u>Description</u>	<u>Category</u>
23	Reporting Winter Water split	Resolved
40	Exchange of reservoir status accounting	Resolved
41	Non-reporting of pass-through	Resolved
63	AOS report status 1998-2002	Remove
64	Purpose/timelines AOS reports	Resolved
65	Defer ARCA annual meeting	Remove
66	Process for intro./resolving operational issues	Resolved

Respectfully submitted,



Steven J. Witte,  
Operations Secretary



Mark E. Rude,  
Assistant Operations Secretary

2 of 2 originals



# KANSAS

DEPARTMENT OF AGRICULTURE  
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

November 1, 2004

Dave Brenn  
1710 Pheasant Ct  
Garden City, KS 67846

James G. Rogers  
32259 County Road 13 (Route 2)  
Lamar CO 81052

RE: Corrected Paragraphs for "Category C" Issues

Dear Gentlemen:

Enclosed please find a corrected version of the Kansas position paragraphs for those issues that the State staffs have not been able to agree to and feel like they have been taken as far as they can. These issues have been referred to as "Category C" issues as identified in the joint letter to you dated February 5, 2004 from Steve Witte and Mark Rude. The enclosed paragraphs were requested at the August 19, 2004 meeting of the Operations Committee.

In the previous version of these paragraphs, I had incorrectly stated the "Winter Water" account for Section III had spilled in 1998. Steve Witte provided comments on a draft of this document that questioned whether water stored under the Pueblo Winter Water Storage Program (PWWSP) had spilled in 1998. I reviewed the Operations Secretary's accounting for John Martin Reservoir and have determined that water stored under the PWWSP had spilled during CY 2000. There was a winter spill in 1998, but the PWWSP did not store any water in John Martin Reservoir during CY 1998. I apologize for any confusion this may have caused.

DIVISION OF WATER RESOURCES    GARDEN CITY FIELD OFFICE    MARK E. RUDE, WATER COMMISSIONER  
2508 JOHNS STREET, GARDEN CITY, KS 67846-2804

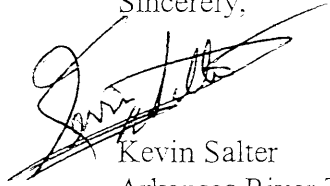
Voice 620-276-2901    Fax 620-276-9315

<http://www.accesskansas.org/kda/dwr/wa/GardenCityF0.htm>

Attachment G

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

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin Salter", written over a horizontal line.

Kevin Salter  
Arkansas River Team

KLS:kls

Enclosure

pc: Steve Witte  
David Pope  
Randy Hayzlett  
Lee Rolfs  
Mark E. Rude  
George Austin



**Issues #20 & 21: Winter Water Account of Convenience and the Timely Distribution of Section III Storage Charge during the Pueblo Winter Water Storage Program**

Issue #20: Colorado has created and utilized an account entitled “Winter Water” to receive deliveries made to John Martin Reservoir under the Pueblo Winter Water Storage Program. Even though it is delivered to the reservoir, that water is not immediately charged the 35% storage charge, as if it is held just outside the reservoir. See Issue #21 below. For this particular issue, there is a question on what is the status of this particular account as it is not authorized under the 1980 Operating Plan. This creates a couple of concerns: (1) where does this account fit into the order of spill and (2) can either State create an account(s) unilaterally?

Issue #21: Water delivered under the Pueblo Winter Water Storage Program (PWWSP) is not being charged the 35% storage charge as prescribed by the 1980 Operating Plan. Instead, it is held in a “Winter Water” account. See Issue #20 above. For Issue #21, the problem is that water delivered under Section III is not being immediately charged, therefore, any delivery deficits to the Kansas Section II account, the filling of the transit loss account to 1700 AF, and the distribution of the excess storage charge to the Kansas and Colorado Section II accounts are not being timely made. One result of this practice was the spilling of this ‘delivered’ water in CY 2000 which resulted in the loss of transit loss account water for that year. Under this way of operating, potentially Section II storage could be spilled. The practical effect is that water is not available to various water users when it should be.

**Issues #42 & 43: Interruption of releases from Conservation Storage to accounts during summer (#42) and winter (#43)**

Issue #42: The Operations Secretary has made it a practice to suspend transfers to Section II accounts if a ‘new’ event occurs. The Operations Secretary has suggested that this is to mimic the operations under the Compact. The 1980 Operating Plan by design changed the tools available for operations under the Compact. The mere presence of accounts has changed the demands placed on the reservoir. In reviewing the ARCA Annual reports, very seldom was the release of conservation storage suspended as the result of a precipitation runoff event as evidenced by increased Stateline flow. When there was an interruption, it does not appear such interruptions lasted for as long as two days. The accounts provide assurance that if water is not released, it will remain in the reservoir in that particular account. Thus, there is more of a propensity to suspend account releases when precipitation occurs with accounts in place, saving account water. Uninterrupted release to the accounts from conservations storage is required once such releases begin.

Issue #43: The Operations Secretary has suspended the transfer of water from conservation storage to the Section II accounts on November 1<sup>st</sup> (e.g., provide specific examples). The Operations Secretary has suggested that this is done to mimic operations

under the Compact. However, operations under the Compact differ from the operations under the 1980 Operating Plan. The 1980 Operating Plan provides that water users can release account water from John Martin Reservoir at any rate and any quantity at any time (provide cite). This suspension of water stored in a previous Compact Year limits the water available to call between November 1<sup>st</sup> and March 31<sup>st</sup>.

**Issues #50, 51 & 53: Issues associated with John Martin Reservoir during spill: commencement of a spill event (#50), spilling accounts (#51) and adjustment of JMR inflows.**

Issue #50: The commencement of a spill from John Martin Reservoir has been interpreted by the Operations Secretary to mean when water crosses over into the flood control storage space, rather than when that water has been released from the reservoir. We have pointed out the language in the 1980 Operating Plan that the spill event occurs when water is released from the project. Quite a bit of discussion has centered on the interpretation of “the project’s spillway,” rather than the actual issue: when is water lost from an account(s) under flood control operations? Applying the OS interpretation, water can be moved from accounts before any water is released by the Corps under flood control operations, thus accelerating the loss from the accounts. This issue affects Issues #51 & 53.

Issue #51: In order to accommodate the view that accounts are spilled into the flood control storage space, the Operations Secretary has created another account of convenience, this time the ‘flood pool’ account. Such an account is unnecessary as the various accounts should be spilled according to the operations of the Corps of Engineers. Flood control operations can begin before any water enters the flood control storage space. {check cite for this statement} The Operations Secretary’s approach confuses and complicates other authorized operations such as the evaporation charge. Water spilled from accounts should be accounted in the same manner as during ‘normal’ account operations, with inflows and releases from the project being used.

Issue #52: The practice of spilling the accounts into the ‘flood control storage space’ creates a Colorado vessel for exchange of water before it leaves the project. It creates a way to accelerate the spill and provide for ‘out of priority’ storage upstream of John Martin Reservoir. See Issues 50 & 51 above. Water that would have flowed into John Martin Reservoir is instead stored in upstream reservoirs and theoretical depletions to inflows to John Martin Reservoir are replaced with unauthorized transfers from accounts in John Martin Reservoir.

**Salter, Kevin**

**From:** Witte, Steve [Steve.Witte@dwr.state.co.us]  
**Sent:** Saturday, April 03, 2004 11:07 AM  
**To:** Rude, Mark  
**Cc:** Salter, Kevin; Anderson, David; Tyner, Bill; Morey, Monique  
**Subject:** RE: Section II release

Mark,

I attempted to contact you by phone earlier today.

I agree, it would be preferable to work together on determinations of transit loss. Have you determined that if the gate release remains constant as we begin to release water from the Kansas Section II account, that an equivalent Stateline flow will result without transit loss? If not, we have both determined that there will be transit losses. Then, the question is, how much transit loss is anticipated?...Thus far, the 600 cfs release of water from the Offset Account has resulted in a Stateline flow of 393 cfs (a delivery efficiency of 65.5%, the difference being 207 cfs) If this were Section II account water and the same delivery efficiency were applicable, would it not stand to reason that an additional 316 cfs needs to be added to the gate release to yield the 600 cfs desired by your water users under these circumstances? Given that I believe that stream flow conditions between John Martin Reservoir and the Stateline are now improved as compared to the those that existed a week ago, I think that a lesser amount of transit loss will occur and therefore have determined that an additional 250 cfs may be adequate to overcome the current flow difference at the Stateline that otherwise would be expected. This can be reevaluated on Monday. For the moment, at least, we will simply have to agree to disagree regarding the appropriate sequence and timing of when the replenishment from the Kansas transit loss account is to occur. We have had significant discussions on the use of the transit loss account, however, for various reasons, we have not yet successfully reached agreement on all issues. I believe that we have made progress and that those discussions should continue. I do not consider the decision to take the planned actions communicated to you to have been reached unilaterally. However, at this juncture a decision has to be made. According to the Administration's Bylaws, it is my duty as the Operation's Secretary to regulate the gates of John Martin Reservoir in accordance with the Compact and any operating plans adopted thereunder and determine transit losses. Your role as Assistant Operations Secretary is to assist the Operations Secretary. In this regard, I must act in accord with the long-standing practices and principles that best effect my understanding of the Compact and the operating plan resolutions of the Administration.

Hopefully, we can talk more about this on Monday.

Steve

-----Original Message-----

**From:** Rude, Mark [mailto:MRUDE@KDA.STATE.KS.US]  
**Sent:** Friday, April 02, 2004 5:09 PM  
**To:** Witte, Steve  
**Cc:** Kevin Salter; Anderson, David; Tyner, Bill; Morey, Monique  
**Subject:** RE: Section II release

We had significant discussions on the use of the transit loss account in our meeting March 26th in Lamar. It is preferable that we work together on the determinations of transit losses rather than your unilateral decisions. This issue is a mater under discussion between the two states and the use of the transit loss account needs to be a joint decision.

P30

It is not possible at this point to know what portion of transit losses are natural and what portion relate to other operations in Colorado. The transit loss account should not be used for other operations except as prescribed by mutual agreement. The extent your plan is influenced by the need for water from the transit loss account for other operations in Colorado, such as well augmentation, without mutual agreement is a matter of concern. The 1980 operating plan, which is our operating agreement, has transit loss determinations as a post delivery assessment. I'm sure this will be a matter of ongoing discussion.

-----Original Message-----

From: Witte, Steve [mailto:Steve.Witte@dwr.state.co.us]  
Sent: Friday, April 02, 2004 2:32 PM  
To: Rude, Mark  
Cc: Salter, Kevin; Anderson, David; Tyner, Bill; Morey, Monique  
Subject: Section II release

Dear Mark,

I am writing to advise you of actions that I plan to take to satisfy Kansas' demand for a release of 600 cfs from the Kansas Section II account by an equivalent in Stateline flow.

The release requested on March 26th from the Offset Account of approximately 600 cfs was made despite my advisory of unfavorable river conditions. The total Stateline flow this morning was only 371cfs.

Although the rate of delivery of water from the Offset Account appears to continue to increase, the rate of increase is small. Given the current river conditions and Kansas' stated intention to demand a release from its Section II account at the rate of 600 cfs upon the exhaustion of the Offset Account, which is estimated to occur sometime during the morning of Sunday, April 4th, in my judgment it is reasonable to anticipate that transit losses will occur and the release from the Kansas Section II account will not be satisfied by an equivalent in Stateline flow unless the transit losses are replenished from the Kansas transit loss account. I assume that you would not disagree that transit losses are to be expected under the current river conditions or that as much as 250 cfs may be needed to replenish the transit losses and to satisfy the Kansas release by an equivalent Stateline flow of approximately 600 cfs.

The second sentence of Section II E (4) of the 1980 Operating Plan states: "If transit losses occur, those losses shall be determined by the Colorado Division Engineer and a representative of the Kansas Division of Water Resources and shall be replenished from the Kansas transit loss account." I read this sentence to say that if transit losses occur, water from the Kansas transit loss account shall be released during the delivery from the Kansas Section II account to replenish the transit losses. As you know, the practice of releasing water from the Kansas transit loss account during a delivery of water from the Kansas Section II account is a long-standing one that has been effective to satisfy releases to which Kansas is entitled by an equivalent in Stateline flow. An e-mail message from David Anderson to Monique Morey dated April 1, 2004, suggests that the 1980 Operating Plan makes no provision for this operation and the Kansas transit loss account is meant to be used at the end of the run to make up any delivery deficits back into the Kansas Section II account. I do not agree with this interpretation of the 1980 Operating Plan. The third sentence of Section II E (4) states: "In the event that such losses at the end of the delivery are greater than the total in the Kansas transit loss account, then the deficit shall be made up from the next available transfers of other water under Subsection III D." As I read Section II E (4), and as it has been administered, releases from the Kansas transit loss account are to be made during the delivery to Kansas if transit losses occur. If, at the end of the delivery, the transit

losses are greater than the total in the Kansas transit loss account, then the deficit is to be made up from the next available transfers of other water under Section III D. It should be noted that Section II E (4) does not state that the deficit shall be transferred to the Kansas Section II account, as Mr. Anderson states. P31

Therefore, based on the current river conditions and the transit losses occurring on the release from the Offset Account, if Kansas demands a release from its Section II Account at the rate of 600 cfs, I intend to release 250 cfs from the Kansas transit loss account to replenish transit losses that will occur on the release from the Kansas Section II account. If Kansas should decide to reduce its demand from the Kansas Section II Account to 400 cfs upon the exhaustion of the Offset Account, I believe that transit losses will still occur on the release from the Kansas Section II account and it will still be necessary to release approximately 250 cfs from the Kansas transit loss account, at least initially, in order to satisfy the release to which Kansas is entitled by an equivalent Stateline flow of 400 cfs.

Sincerely,  
Steve Witte

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David L. Pope, Chief Engineer  
Division of Water Resources



Garden City Field Office  
Mark E. Rude, Water Commissioner  
2508 Johns Street  
Garden City, Kansas 67846-2804  
(620) 276-2901 FAX (620) 276-9315

KANSAS DEPARTMENT OF AGRICULTURE

March 4, 2003

Steve Witte  
Operations Secretary  
Arkansas River Compact Administration  
310 E. Abriendo Ave, Ste B  
Pueblo, CO 81006

RE: 2002 Transit Losses

Dear Steve:

In your Compact Year (CY) 2002 Operations Secretary Report you indicated that transfers of water due to delivery deficits were not made for several reasons, including no determination on the amount of transit losses that occurred and uncertainty as to the account the delivery deficit should be replaced. The purpose of this letter is to quantify the transit losses incurred during deliveries of Kansas Section II releases and reaffirm the Kansas position on the Water Issues Matrix that the delivery deficit should be restored to the Kansas Section II account as agreed to in our talks last year.

Attached are tables detailing releases made from the Kansas Section II account in CY2002. On these tables, the Section II and Transit Loss account releases, stateline flow, Kansas release measured at the stateline and the delivery deficit are detailed. The delivery deficit is the difference between the amount of water released from the account and the actual amount measured at the stateline.

For purposes of consistency in referring to different water deliveries, Kansas called for four releases from John Martin Reservoir (JMR) involving either Offset or Kansas Section II:

First Kansas Run:	Offset water release from April 10 <sup>th</sup> to April 19 <sup>th</sup> .
Second Kansas Run:	Section II release from May 1 <sup>st</sup> to May 6 <sup>th</sup> .
Third Kansas Run:	Section II release from June 17 <sup>th</sup> to July 1 <sup>st</sup> .
Fourth Kansas Run:	Offset water release from July 1 <sup>st</sup> to July 4 <sup>th</sup> .

This letter deals only with the delivery deficits associated with the Kansas Section II account releases which occurred during CY 2002.

### *Second Kansas Run*

The first Section II release began on Wednesday, May 1, 2002 @ 4:30 pm (CST) with a instantaneous release rate of 250 cfs. When determining the release from the Transit Loss account, the Division II staff ran the calculation that showed a 250 cfs release would yield 211 cfs at the stateline, suggesting a transit loss of 15.6%. A closer look at the river conditions, with Lamar having 20 cfs and Granada 20 cfs, suggested a 100 cfs release was more appropriate. The stateline flow peaked at 172 cfs (average daily) during the period of May 1<sup>st</sup> to May 9<sup>th</sup>. A concurrent release of 100 cfs was initiated from the Transit Loss account. On May 2<sup>nd</sup>, it was determined that the gate adjustment fell short of the additional 350 cfs release requested. Kevin Salter and Monique Moray agreed that the Kansas Section II account would be charged for a 190 cfs release over this period. On May 2<sup>nd</sup>, the accounting of the release was 250 cfs from the Kansas Section II account, and 75 cfs from the Transit Loss account. On May 3<sup>rd</sup>, the Section II release was cut to 200 cfs and the release from the Transit Loss was terminated. The 200 cfs Section II release was continued through the weekend and was terminated with the morning gate change on Monday morning, May 6<sup>th</sup>.

From Table 1, this Section II release is detailed. The Section II delivery deficit for this run was 437 acre feet, or a 22.3% loss on the 1,962 AF released from the Kansas Section II account. The total amount released from the Kansas Section II and the Transit Loss accounts between May 1<sup>st</sup> and May 6<sup>th</sup> was 2254 acre feet.

### *Third Kansas Run*

The second Section II release began on Monday, June 17, 2002 @ noon (CST) with a instantaneous release rate of 400 cfs. A concurrent release of 250 cfs was initiated from the Transit Loss account. It is my understanding that the Transit Loss account was reduced to 150 cfs on June 19<sup>th</sup> at the request of the Corp of Engineers, since a 250 cfs release from this account would have emptied at 9:00 pm. The Corps did not want to make a gate change during the evening hours. On June 20<sup>th</sup>, the Transit Loss account was emptied. The 400 cfs Section II release was continued until the Kansas Section II account was emptied on July 1<sup>st</sup> @ 12:50 pm (MST).

During this run, the stateline flow peaked at 270 cfs (average daily) during the period of June 17<sup>th</sup> to July 1<sup>st</sup>. Ultimately, only 67.5% of this Section II release was measured at the stateline.

From Table 2, this Section II release is detailed. The Section II delivery deficit for this run was 4,166 acre feet, or a loss of 37.4% on 11,137 AF released from the Kansas Section II account. The total amount released from the Kansas Section II and the Transit Loss accounts during this run was 12,365 acre feet.

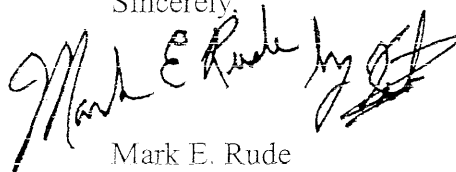


*Summary*

The combined delivery deficit for two Kansas Section II runs is 4,603 acre feet. This is the delivery deficit amount that will need to be made up when water is transferred to the Section III accounts. Pursuant to Section II E 4 of the 1980 Operating Plan, this is the amount of deficit that will need to be replenished when water is transferred to the Section III accounts. It is appropriate to replenish the Kansas Section II account because the delivery to the stateline was deficient by that amount.

Should you have any questions, please feel free to call this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark E. Rude", followed by a stylized flourish or initial.

Mark E. Rude  
Water Commissioner

MER:KLS:kls

Enclosures

pc: David Pope  
Hal Simpson

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# Analysis of May 1, 2002 Sec II Release

(Values in Acre-feet)

DATE	Sec II Release		Transit Loss Release		Stateline Flow	KS Release Meas @ Stateline		Delivery Deficit	
	Daily	Accum.	Daily	Accum.		Daily	Accum.	Daily	Accum.
4/30/02	0	0	0	0	151	0	0	0	0
5/1/02	118	118	61	61	147	0	0	0	0
5/2/02	448	565	169	230	141	0	0	0	0
5/3/02	438	1,003	61	292	149	144	144	-27	-27
5/4/02	397	1,400	0	292	256	256	400	192	165
5/5/02	397	1,797	0	292	341	341	741	97	262
5/6/02	165	1,962	0	292	329	329	1,071	67	329
5/7/02	0	1,962	0	292	327	327	1,398	69	399
5/8/02	0	1,962	0	292	276	127	1,525	38	437
5/9/02	0	1,962	0	292	210	0	1,525	0	437

The Sec II call of 225 cfs was initiated May 1, 2002 @ 4:30 p.m. and lasted until May 6, 2002 @ 10:00 a.m..

The Sec II water started arriving @ the SL May 3, 2002 @ 2:00 a.m. 54 hr travel time

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# Analysis of May 1, 2002 Sec II Release

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(Values in Acre-feet)

DATE	Sec II Release		Transit Loss Release		Stateline Flow	KS Release Meas @ Stateline		Delivery Deficit	
	Daily	Accum.	Daily	Accum.		Daily	Accum.	Daily	Accum.
6/16/02	0	0	0	0	89	0	0	0	0
6/17/02	397	397	248	248	99	0	0	0	0
6/18/02	793	1,190	496	744	87	0	0	0	0
6/19/02	793	1,984	373	1,117	137	89	89	308	308
6/20/02	793	2,777	111	1,228	417	417	505	377	685
6/21/02	793	3,570	0	1,228	506	506	1,011	288	972
6/22/02	793	4,364	0	1,228	482	482	1,493	311	1,284
6/23/02	793	5,157	0	1,228	468	468	1,961	325	1,609
6/24/02	793	5,951	0	1,228	502	502	2,463	292	1,900
6/25/02	793	6,744	0	1,228	506	506	2,969	288	2,188
6/26/02	793	7,537	0	1,228	528	528	3,497	266	2,454
6/27/02	793	8,331	0	1,228	534	534	4,030	260	2,714
6/28/02	793	9,124	0	1,228	528	528	4,558	268	2,981
6/29/02	793	9,918	0	1,228	520	520	5,075	274	3,255
6/30/02	793	10,711	0	1,228	516	516	5,591	278	3,533
7/1/02	426	11,137	0	1,228	536	536	6,127	259	3,791
7/2/02	0	11,137	0	1,228	555	555	6,682	238	4,029
7/3/02	0	11,137	0	1,228	555	289	6,971	138	4,166

The Sec II call of 400 cfs was initiated June 17, 2002 @ noon. The account was emptied July 1, 2002 @ 12:50 p.m.

The Sec II water started arriving @ the SL June 19, 2002 @ 3:00 p.m. 51 hr travel time

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# KANSAS

DEPARTMENT OF AGRICULTURE  
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

August 26, 2003

Steve Witte  
Operations Secretary  
Arkansas River Compact Administration  
310 E. Abriendo Ave, Ste B  
Pueblo, CO 81006

RE: Delivery Deficits in the Kansas  
Transit Loss Account

Dear Steve:

In our recent meetings, we have discussed which account should be credited if Kansas suffers delivery losses in excess of the quantity available in the Kansas Transit Loss account. Your interpretation of Section III.D., is that any delivery deficits should be made up to the Kansas Transit Loss account. I agree, however, I believe that the water should be immediately transferred from the Transit Loss account to the Kansas Section II account to *replenish* any outstanding delivery deficits.

Section II.E.(4) of the 1980 Operating Plan provides,

"Releases of Kansas account water shall be measured at the Stateline as provided in Compact Article V E (3) allowing appropriate arrival times. If transit losses occur, those losses shall be determined by the Colorado Division Engineer and a representative of the Kansas Division of Water Resources and shall be *replenished* from the Kansas transit loss account. *In the event that such losses at the end of the delivery are greater than the total in the Kansas transit loss account, then the deficit shall be made up from the next available transfers of other water under Subsection III D.*" *Emphasis added.*

Section III.D. of the 1980 Operating Plan provides,

"Thirty-five percent of all water deliveries to John Martin Reservoir, under Subsections III A, III B, and III C, herein, during any compact year shall be transferred into the accounts for Kansas transit losses, for Kansas, and for Colorado Water District 67 ditches at the time of delivery in the following manner: First, *transfers from deliveries shall make up deficits, if any, in the Kansas transit loss account which result from Subsection II E (4), herein, and shall then also fill the said Kansas transit loss account to the amount of 1,700 acre-feet.*

DIVISION OF WATER RESOURCES    GARDEN CITY FIELD OFFICE    MARK E. RUDE, WATER COMMISSIONER

2508 JOHNS STREET, GARDEN CITY, KS 67846-2804

Voice 620-276-2901    Fax 620-276-9315

<http://www.accesskansas.org/kda/dwr/wo/GardenCityFO.htm>

Attachment J

Then, of all such water delivered in excess of this specified amount, 11 percent of those deliveries shall be transferred to the Kansas account and 24 percent of those deliveries shall be transferred to the account of the Colorado Water District 67 ditches. Transfers into the accounts for Colorado Water District 67 ditches shall be distributed according to the percentages in Subsection II D (3), herein; except the Amity shall not share in distributions of deliveries under Subsection III A, herein." – *Emphasis added.*

These sections provide that if there is a transit loss (delivery deficit) on a Kansas release, then the extent of those losses are determined and replenished from the Transit Loss account. For example, if the delivery deficit is 600 AF and there is at least 600 AF in the Transit Loss account, then 600 AF is transferred to the Kansas Section II account, thus replenishing that account.

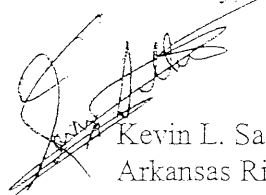
However, if a transit loss occurs that exceeds what is available in the Transit Loss account, then the deficit is to be replenished from the next available water under Section III.D., which in part provides:

*"First, transfers from deliveries shall make up deficits, if any, in the Kansas transit loss account which result from Subsection II E (4), herein, and shall then also fill the said Kansas transit loss account to the amount of 1,700 acre-feet."* – *Emphasis added*

Under this condition, the Kansas release as physically measured at the stateline resulted in a delivery deficit in an amount that exceeded the water available in the Transit Loss account. The Transit Loss account cannot fully *replenish* the Kansas Section II account. The actual deficit can only be attributable to the Kansas Section II account. Section III.D. is very clear that any deficit is to be made up first. After any deficit is made up, the 35% charge fills the Transit Loss account to 1700 AF. Please note that under this description, there does not exist an amount greater than 1700 AF in this account, because the transfer into and out of the Transit Loss account satisfies the outstanding delivery deficit first. This section even goes on to say that the 35% charge in excess of the 1700 AF is to be allocated between the Colorado and Kansas Section II accounts.

We have discussed the need to look at this language, and possibly propose clarifying language. The current language seems to provide a well defined process to address any delivery deficits that may occur as the result of a Kansas Section II release. Therefore, I do not see any need for clarifying language. Should you have any questions, please feel free to call this office.

Sincerely,



Kevin L. Salter, P.E.  
Arkansas River Team

KLS:klb

pc: Jim Rogers, ARCA Rep  
David Brenn, ARCA Rep