

ARKANSAS RIVER COMPACT ADMINISTRATION

Lamar, Colorado 81052

For Colorado

Chairman and Federal Representative

For Kansas

Jennifer Gimbel, Denver

Vacant

David Barfield, Topeka

Colin Thompson, Holly

Randy Hayzlett, Lakin

Matt Heimerich, Olney Springs

David A. Brenn, Garden City

November 29, 2012

Mr. David Brenn, Chairman
Mr. Colin Thompson, Member
Operations Committee
Arkansas River Compact Administration

Re: Compact Year 2012 Summary
Assistant Operations Secretary Report

Gentlemen,

In this letter report, I provide my perspective as Assistant Operations Secretary on operations that have occurred over the past Compact Year (CY), including communications, the Pueblo Winter Water Storage Program, Kansas Reservoir Call, Pass-thru & Status Accounting, Water Issues Matrix, Presumptive Depletion Factor Evaluation, and the Offset Account Joint Report.

Communications

The Operations Secretary, Assistant Operations Secretary, and their respective staff have set a goal of open and frequent communications regarding Arkansas River operational issues to foster a positive, collaborative, and productive working relationship.

Meetings: The Operations and Assistant Operations Secretaries met on three separate occasions: April 26, May 10, and November 14. These meetings were attended by staff from each State. Summaries of these meetings were not generated. Among the issues discussed at these meetings were: reservoir and river operations, augmentation plans, Colorado Irrigation Improvement Rules, Water Issues Matrix, the Livingston transit loss studies, the Pueblo Winter Water Storage Program (PWWSP), and Muddy Creek storage right.

Regular Communications: The States communicated throughout the year on a variety of topics including John Martin Accounting System (JMAS) data updates, stockwater releases from Trinidad Reservoir, PWWSP operational issues, JMR permanent pool deliveries, and Offset Account operations. Emails represented the primary means of communication.

Pueblo Winter Water Storage Program

Kansas has long been concerned about how the split between the Compact conservation storage and PWWSP water passing thru the Arkansas River at Las Animas USGS gage is determined. While both States have spent considerable time evaluating this issue, it has not been resolved. Kansas's key concern is whether or not water being stored under PWWSP includes water that would have otherwise been stored in Compact conservation storage. No new concerns were found during this CY and this is Issue 22 on the Water Issues Matrix.

For this Compact Year, Figure 1 shows the river flows and the Compact ratio from November 1, 2011 thru March 31, 2012. The PWWSP period is from November 15th through March 14th. The Compact share of the Arkansas River at Las Animas was unchanged at 31.64% after the initial transition period.

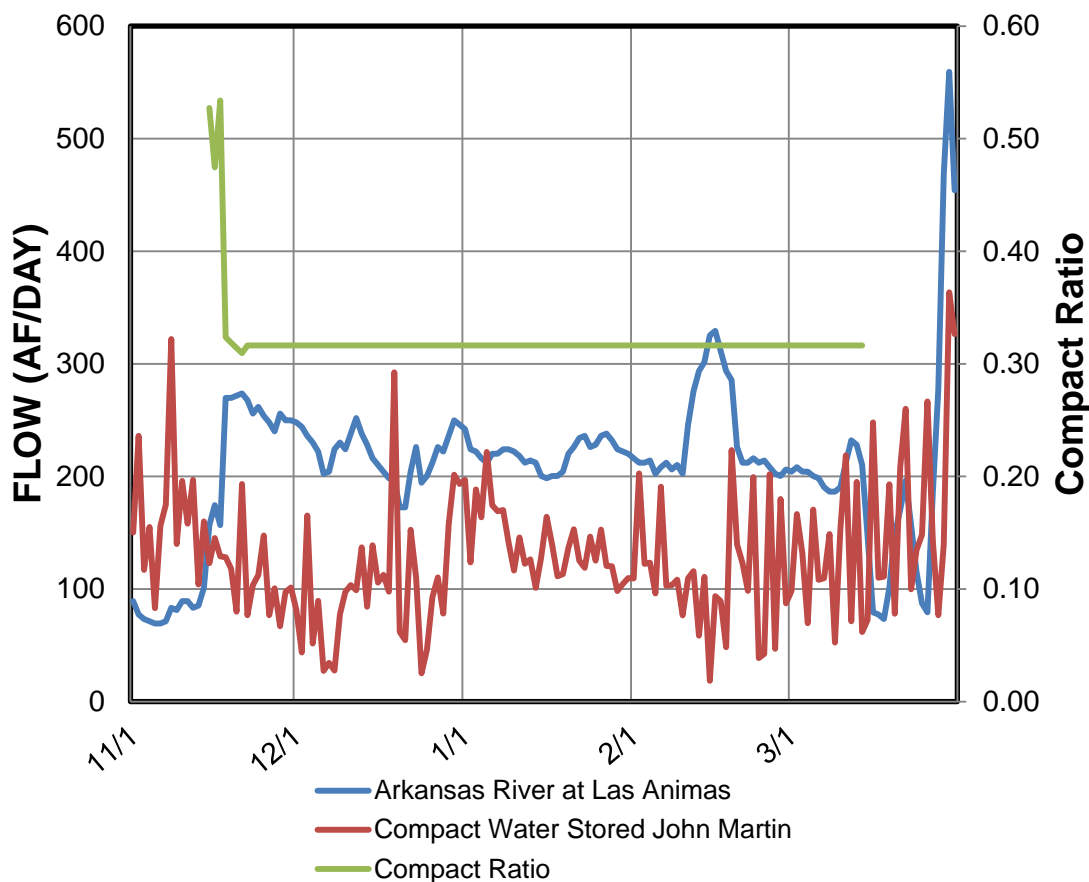


Figure 1 Arkansas River at Las Animas and Compact Conservation storage for the period of November 1, 2011 to March 31, 2012 and the Compact ratio of the Arkansas River at Las Animas flows for the period of November 15, 2011 to March 14, 2012.

Rachel Duran and I met with Steve Witte, Phil Reynolds, Jeanette Myers, and Lonnie Spady to review operations of the Las Animas Consolidated ditch on November 14, 2011. We reviewed the operations of this ditch focusing on the places where it can return water to the

Purgatoire River or Arkansas River below the Las Animas USGS gage. Two such locations were found where small amounts of water were being returned to the Arkansas River in the lower portion of the ditch. These return locations were the ditch itself and a drainage ditch.

Kansas Reservoir Call

Due to the dry river conditions, the limited account water supply available to Kansas, and the lack of summer precipitation-runoff events, there was not a call for either Kansas Section II or Offset Accounts in CY2012. In coming to this decision, the Kansas ditches and Kansas Division of Water Resources staff met. During this meeting, they reviewed the expected transit losses related to a potential delivery between John Martin Reservoir (JMR) and Kendall, Kansas, and the potential evaporation that would occur from these accounts from July 1, 2012 to July 1, 2013. These estimated transit loss and evaporation were approximately the same. The transit loss estimate did not include the additional transit losses that would be suffered to the individual ditch headgates and within the ditches themselves.

An additional consideration was the amount of Kansas Section II and Offset Account water available to Kansas. Based on April 1st balances, the combined 12,330 AF in these two accounts were the least amount available in the past ten years. Once the Compact conservation storage was completely distributed to the Section II Accounts on April 13th, there were no additional Compact conservation storage events.

Based on the above, the decision was made not to call for a reservoir release unless river conditions improved as the year progressed. Summer precipitation-runoff events were extremely limited and didn't produce much river flow. So there was not additional opportunity to call for the Kansas Section II and Offset Account water that was available.

The dry river conditions can be seen in Figure 2 which shows this year's Stateline monthly flows as compared to the long term average (1951-2011). Only 62 AF of Stateline flow occurred in September 2012, which is the lowest month and the only month with less than 100 AF on record (1951-2012). Figure 3 compares the 2012 monthly Stateline flows to the 1980-2011 monthly averages which is more representative of the conditions under the 1980 Operating Plan.

Pass-thru and Status Accounting

JMR daily inflow, storage, and outflow were tracked by the Garden City Field Office staff for CY2012. The final spreadsheet was provided to the Operations Secretary on November 15th for inclusion in the Operations Secretary's report. This spreadsheet tracks the amount (AF) of river flows; JMAS inflow & release; reservoir evaporation, storage, and release.

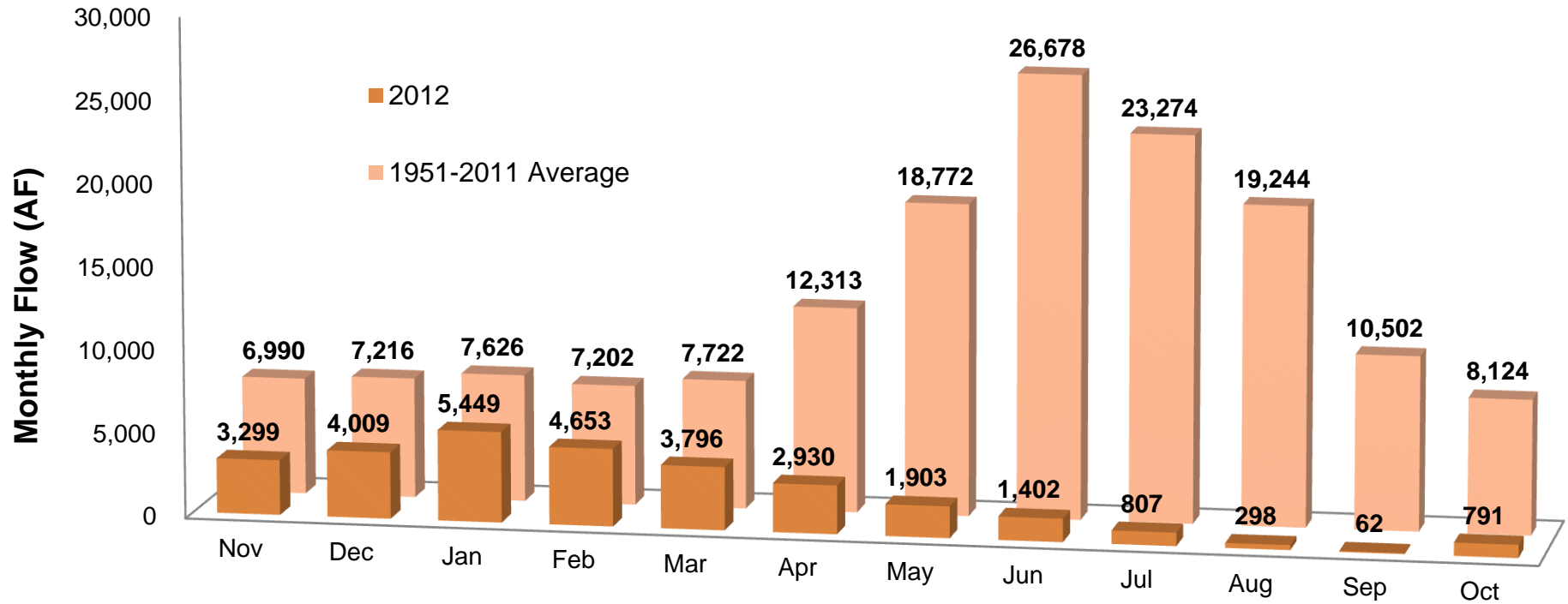


Figure 2 Comparison of Stateline monthly flows. Stateline flows are the combination of the Frontier Ditch and the Arkansas River near Coolidge flows.

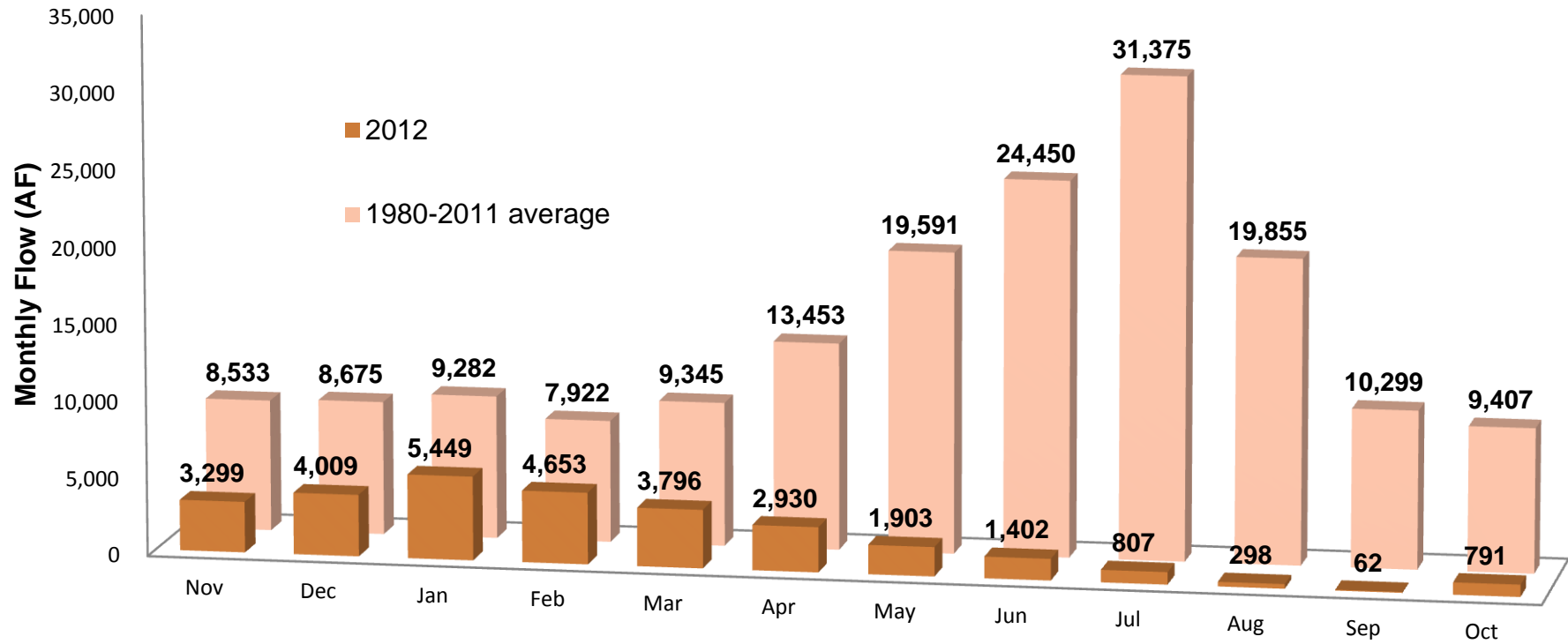


Figure 3 Comparison of Stateline monthly flows. Stateline flows are the combination of the Frontier Ditch and the Arkansas River near Coolidge flows.

The information in this spreadsheet was regularly updated and reviewed by the Garden City Field Office staff. The spreadsheet uses the tracked information to calculate: (1) gaged and ungaged inflows, (2) pass-thru, and (3) the reservoir “status.” The pass-thru represents that amount of JMR inflows which are not stored in any account and are released on downstream. The reservoir “status” represents the difference between the amount considered stored in JMAS and the amount shown as stored in John Martin Reservoir.

Water Issues Matrix

This is a joint work product of the States which is designed to track various disputed issues. These disputed issues are primarily concerned with JMR related operations and accounting. Approximately half have been resolved through the efforts of this Committee and others. The matrix currently has 35 issues, of which 11 are pending, six (6) have been removed or suspended, and 18 have been resolved.

In the past Compact Year, the Muddy Creek storage rights have been identified as a potential source of water for JMR permanent pool (Issue 14) and the matrix has been updated to reflect this. The current version of the matrix and issues summary table are attached to this report.

Offset Account Joint Report

The States have completed the first review of the Offset Account Operations. This review and joint report is required by the Judgment and Decree in *Kansas v. Colorado (Decree)*. This joint report will be separately presented to the Operations Committee and ARCA. I would like to thank Rachel Duran, Bill Tyner, and other staff from both States that helped to draft and complete this report.

Presumptive Depletion Factor Evaluation

Presumptive Depletion Factors (PDFs) are used to determine the amount of replacement water required under the Colorado Use Rules. Under the Colorado Use Rules, PDFs vary depending on the irrigation system type and whether the groundwater is supplemented with surface water. Appendix A.4 of the *Decree* lays out a PDF evaluation process to be used annually to adjust the PDF for the supplemental flood/furrow irrigation, starting this year. Colorado’s PDF evaluation determined that the PDF will be set at 38.1% for supplemental flood/furrow irrigation to be used in replacement plan year 2013. Kansas has accepted the use of this PDF.

Summary

In addition to the items above, the States were also involved in other issues related to the Compact and implementation of the *Decree*. Good communication is vital as the States work on these issues. The depth and breadth of these issues has taken time away from resolving the remaining matrix issues in this past Compact Year. We will continue to make efforts to resolve those remaining issues.

For the upcoming Compact Year, the States will work on documenting the resolution of reservoir-to-reservoir deliveries, implementing the Livingston transit loss application (TLAP), and on issues related to the Pueblo Winter Storage Program, especially as it impacts storage in John Martin Reservoir. I look forward to continuing to work with the Operations Secretary and his staff.

Sincerely,



Kevin L. Salter, P.E.
Assistant Operations Secretary

Attachments

This page intentionally blank

Water Issues Matrix

Pending JMR Accounting Issues	2
10 – Resolved.....	2
11 – Removed.....	2
12 – Consideration of new sources for permanent pool water – remaining Muddy Creek Storage Right	2
13 – Removed.....	3
20 – Resolved.....	3
21 – Resolved.....	3
22 – Criteria for determining Section III storage under the Pueblo Winter Water Storage Program (PWWSP).....	3
23 – Resolved.....	4
24 – Utilization of “Summer storage season” as defined by the 1980 Operating Plan ..	5
25 – Criteria for Summer storage event trigger – Section II. B 1	5
26 – Section II limitations on use made of account water to irrigation only	6
27 – First reference to Section II in Section III (A).....	6
30 – Resolved.....	6
31 – Resolved.....	6
32 – Resolved.....	6
33 – Transit loss on reservoir-to-reservoir deliveries	7
40 – Resolved.....	8
41 – Resolved.....	8
42 – Resolved.....	8
43 – Resolved.....	8
44 – City of Lamar regulating account	8
50 – Commencement of a spill event.....	9
51 – Resolved.....	9
52 – Upstream storage during JMR spill events	9
53 – Adjusted JMR inflows during times of spill.....	10
54 – Resolved.....	10
60 – Section II(C)(2) compliance (Agreement B)	10
61 – Resolved.....	11
62 – Resolved.....	11
63 – Removed.....	11
64 – Resolved.....	11
65 – Removed.....	11
66 – Resolved.....	11
67 – Resolved.....	11
70 – Trinidad Reservoir: Passing of inflows exceeding 1,000 cfs.....	11
Notes on Water Issues Matrix	12
Resolutions.....	12
Version	13

Pending JMR Accounting Issues

10 – Resolved -- Permanent Pool evaporation charges calculated by pro rata volume vs. incremental area
11 – Removed -- Transfer of Account water to Permanent Pool during flood control operations in JMR

12 – Consideration of new sources for permanent pool water – remaining Muddy Creek Storage Right	
<i>ARCA Committee</i>	Engineering
<i>Issue Category & Priority</i> ¹	B – 8
<i>Legal</i> ² – <i>Policy</i> ³ – <i>Technical</i> ⁴	Policy
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
<i>ARCA Committee or other general comment(s)</i>	
<p>Related to transfer of the remaining Muddy Creek Storage Right proposal:</p> <ul style="list-style-type: none"> • In June 2012, Grady McNeill suggested that they would bring a proposal to transfer the remaining 8,425 AF to the JMR permanent pool • In October 2012, Grady McNeill forwarded a proposed resolution to transfer the remaining portion • On 14 November 2012, CO Div 2, John Tonko, and KS DWR staff visited the Muddy Creek Reservoir, Muddy Creek and Rule Creek gage sites <p>Related to the Keesee proposal:</p> <ul style="list-style-type: none"> • LAWMA made a conceptual proposal at the December 2005 ARCA Annual Meeting • LAWMA provided additional detail for this proposal in February 2007 • Informal discussion between Kansas, LAWMA and Colorado • A timeline for discussion between Kansas & LAWMA was established at 2007 ARCA Annual meeting. • David Barfield letter (26 December 2007) • Matt Heimerich letter (January 7, 2008) • David Barfield provided a list of discussion items (email Jan 18, 2008) • Discussion between Barfield & Heimerich on proposal (call Feb 5, 2008) • Email from Matt (Feb 5, 2008) to Colorado team / Barfield agreed to provide a list of LAWMA Colorado Water Rights for use as a source for the permanent pool • LAWMA withdraws its request by letter dated (letter July 1, 2008) • LAWMA has an obligation to provide a source of water for the JMR Permanent Pool, so this issue remains active • David Barfield provides to Matt Heimerich principles that would guide Kansas evaluation (letter dated Nov 25, 2008) 	

¹ Categories: **A** – capable of resolution; **B** – may need to be addressed by an ARCA Committee other than Operations; and **C** – staffs have taken this issue as far as they can. The priority based on two groupings “A” issues and “B & C” issues. From memos dated 5 Feb 2004 and 19 August 2004 (Witte & Rude)

² **Legal** is defined as an issue that is not resolvable at this time or within ARCA

³ **Policy** is defined as an issue that needs to have input or guidance from either Operations Committee or ARCA

⁴ **Technical** is defined as an issue that can be resolved by the respective State staffs

13 – Removed -- 1980 Operating Plan’s Restriction on use of Section III related to Perm Pool	
20 – Resolved -- Winter Water Account of convenience	
21 – Resolved -- Timely distribution of Section III storage charge during Pueblo Winter Water Storage Program (PWWSP)	
22 – Criteria for determining Section III storage under the Pueblo Winter Water Storage Program (PWWSP)	
<i>ARCA Committee</i>	Operations
<i>Issue Category & Priority</i>	A – 4
<i>Legal – Policy – Technical</i>	Legal 1 st / Technical 2 nd
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
The criterion used by Colorado fails to adhere to what was established under the 1980 Operating Plan, specifically: “The Amity may store such water as it could otherwise divert from the Arkansas River for storage in the Great Plains Reservoir system ...” (Section III.A.) and for the Fort Lyon and Las Animas Consolidated they may deliver water under the PWWSP but “the delivery cannot include water that otherwise would have accumulated in conservation storage” (Sections III.B. and C.).	The criteria used to divide inflow to JMR into conservation storage/Section III is not provided in the 1980 Operating Plan, but has been continuously used. Since KS did not prove PWWSP caused injury, CO is reluctant to change.

<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
<p>ARCA should establish criteria for determining the water available for Section III storage in JMR to protect inflows to conservation storage. Water delivered to JMR under the PWWSP should meet those criteria.</p> <p>In 2007, a snowpack covered SE Colorado that would have prevented direct irrigation. This snowpack may have impacted off-channel storage as well.</p> <p>There appears to be a fairly consistent drop in flow on the Purgatoire River near Las Animas that appears to be related to the Las Animas Consolidated diversions. Visited the Las Animas Consolidated in Nov 2010 and didn't observe any significant returns to the Purgatoire above the USGS gage. Additional follow-up is needed.</p> <p>In November 2010 & 2011, visited the Las Animas Consolidated ditch service area with Colorado Div 2 staff. We found returns below the Ark @ Las Animas gage consistent with irrigation operations.</p> <p>In November 2011, Salter developed a spreadsheet to gage impacts of changes to the Ark @ Las Animas split between the Compact and PWWSP.</p> <p>In November 2012, we scheduled a visit to the Consolidated but didn't visit given the hydrologic conditions, dry Purgatoire River at the USGS gage and no water being used east of the highway.</p>	<p>Colorado consideration of changes may occur.</p>
<i>ARCA Committee or other general comment(s)</i>	
<p>The Operation Secretary and the Assistant Operation Secretary should continue to work on this issue (10 May 2002).</p>	

23 – Resolved --Reporting of Winter Water vs. Winter Compact storage split calculation

24 – Utilization of “Summer storage season” as defined by the 1980 Operating Plan	
<i>ARCA Committee</i>	Operations
<i>Issue Category & Priority</i>	
<i>Legal – Policy – Technical</i>	
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
The 1980 Operating Plan defines the "Summer storage season shall be the period of time commencing at the first exhaustion of conservation storage and continuing to and including the next succeeding October 31."	
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
The 1998 Operations Secretary’s Annual Report notes that the Operations Secretary deviate from ...	This is an aspect of Kansas’ complaint regarding Agreement B (Issue # 60), not a separate issue and therefore should be removed.
<i>ARCA Committee or other general comment(s)</i>	

25 – Criteria for Summer storage event trigger – Section II. B 1	
<i>ARCA Committee</i>	Operations Committee
<i>Issue Category & Priority</i>	na
<i>Legal – Policy – Technical</i>	technical
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
ARCA needs to address Section II. B (1) with respect to determination of “existing irrigation requirements” for ditches that no longer engage in irrigation. Also the criteria related to how the 1,000 AF over then existing irrigation requirements is applied.	Colorado law defines the extent of a water right based on historical use. Water rights submitted for adjudication of changed uses must meet standard of non-injury to other water users. This issue may be resolved by striking the word “irrigation” from the phrase quoted at left. The 1980 Operating Resolution should also be amended to add the words “per day” to follow “1000 AF”, to resolve the second concern
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
In general, this appears to be primarily a technical issue and we need to discuss the mechanics of how to quantify the “then existing irrigation requirements.” This issue does have some relationship with Issue 26	
<i>ARCA Committee or other general comment(s)</i>	

26 – Section II limitations on use made of account water to irrigation only	
<i>ARCA Committee</i>	Operations Committee
<i>Issue Category & Priority</i>	na
<i>Legal – Policy – Technical</i>	policy &/or legal
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
Use of Section 2 account water for uses other than irrigation is not allowed unless approved by ARCA. Such approval should be conditioned such that the historic flow regime of the river under irrigation is maintained and would be done on a case-by-case basis.	Colorado is not aware of any restrictions on the use of water stored in the respective Section II accounts of Kansas or the Colorado Water District 67 ditches. Water stored in the Section II accounts has been used to replace depletions from well pumping for many years without objection by Kansas.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
Both the Compact and the 1980 Operating Plan are predicated on irrigation use. Any changes need to maintain the flow regime of the river as if irrigation was the only use of the water. ARCA has governance over operations of John Martin Reservoir, including storage accounts created under the 1980 Operating Plan. Any deviations from irrigation operations need to have those operations approved by ARCA so that the flow regime of the river can be maintained. This issue does have some relationship with Issue 25.	
<i>ARCA Committee or other general comment(s)</i>	
xx	

27 – First reference to Section II in Section III (A)	
<i>ARCA Committee</i>	Operations Committee
<i>Issue Category & Priority</i>	na
<i>Legal – Policy – Technical</i>	Policy
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
The language in Section III.A is not consistent with other provisions of the 1980 Operating Plan. For example, Section II.G where water stored in Section III.A is called to spill specifically before the Section II account water.	The reference granting Amity permission to “store such water as it could otherwise divert for storage in the Great Plains Reservoir system in its account granted in Section II ” (emphasis added) appears to be inappropriate and is contrary to longstanding practice.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
<i>ARCA Committee or other general comment(s)</i>	
■ Added to matrix at direction of Operations Committee in Dec 2009	

30 – Resolved -- Determination of transit loss under Section II(E)(4)
31 – Resolved -- Sections II (E)(4) and III (D) are unclear as to where transfers to make up deficits should be made
32 – Resolved -- How should transit loss account be used?

33 – Transit loss on reservoir-to-reservoir deliveries	
<i>ARCA Committee</i>	Operations Committee
<i>Issue Category & Priority</i>	na
<i>Legal – Policy – Technical</i>	Technical
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
Given Livingston’s assumptions regarding the nature of the transit loss and other river operations that could consume “unconsumed” transit loss, the credited delivery for unconsumed transit loss to John Martin is too large. If there is an unconsumed transit loss portion that can be recovered, then the accounting for that portion should correspond with actual timing of when it is delivered to the JMR.	The 1978 Livingston Report provides a sound and reasonable basis for determining transit losses and should be relied upon until improved by a subsequent study.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
<p>Kansas’ basis described in 12/1/07 AOS Report to ARCA Operations Committee, pg 6-10. From that report:</p> <p>“The Livingston 1978 Report notes that the transit loss model simulates response during steady-state conditions and that during un-steady state condition the transit losses are approximations. Tributary inflows, canal diversions, or water table conditions are listed as factors that would affect transit losses (page 21 of Livingston 1978 Report). The report also notes that conditions that are significantly different from the conditions that existed at the time of the calibration release (Sept 1975) would also affect the accuracy of the transit loss estimation.</p> <p>In addition, Livingston 1978 Report noted an administrative decision was made by the Colorado State Engineer and the Southeastern Colorado Water Conservancy District for reservoir to headgate transit loss determinations. It was noted that some of the bank storage would return for an extended period, particularly for water that is temporarily stored in the river banks. This decision appears to reflect the difficulty in distinguishing water that was part of a release from natural flow soon after the end of the release.”</p> <p>Based on the above, it appears that other river operations may result in the delay of the unconsumed portion return to the river, or in the diversion and/or consumption of the unconsumed transit loss.</p> <p>Beginning in CY 2011, the Operations Secretary appears to have ceased the practice of recovering transit loss attributable to bank storage. We are discussing how to bring this issue to closure.</p>	<p>Colorado’s basis is described in a memorandum to the Operations Committee captioned: “Response to (2007) Assistant Operations Secretary’s Report.</p>

<i>ARCA Committee or other general comment(s)</i>
<ul style="list-style-type: none"> ■ Added to matrix at direction of Operations Committee in Dec 2008 ■ An investigation to determine transit losses and travel times of reservoir releases from Pueblo Reservoir to John Martin Reservoir is being conducted by Russell K. Livingston, to update a similar report he developed under the auspices of the U.S.G.S. in 1978. This investigation was commissioned by the Colorado Water Conservation Board, the Colorado Division of Water Resources, the Lower Arkansas River Valley Water Conservancy District and the Southeastern Colorado Water Conservancy District and is scheduled to be completed at the end of December 2010. Further discussion of this issue has been suspended by mutual consent pending consideration of the results of this investigation. ■ In CY 2011, Russ Livingston completed his transit loss study between Pueblo and John Martin Reservoirs.

40 – Resolved -- Exchange of daily reservoir status accounting
41 – Resolved -- Non-reporting of Section II(C)(1) determinations
42 – Resolved -- Summer season interruption of transfers from conservation storage to accounts
43 – Resolved -- Winter storage period interruption of transfers from summer conservation storage to accounts

44 – City of Lamar regulating account	
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
[Working on a current position related to the engineering report submitted in December 2007.]	City of Lamar requested a permanent account at December 2006 meeting of ARCA. Matter referred to the Engineering Committee.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
The City of Lamar should propose an account in JMR to allow for the re-regulation of flows from other releases. Consideration should be given to conditions contained in the minutes of 1989 ARCA Annual meeting and Kansas comments from ARCA Special Meeting May 2002.	An engineering proposal describing proposed operations was provided to the Engineering Committee in December 2007.
<i>ARCA Committee or other general comment(s)</i>	
City of Lamar renewed their request at the December 2006 ARCA Annual Meeting / ARCA referred to Engineering Committee / engineering report provided in December 2007	
<ul style="list-style-type: none"> ■ Colorado and Kansas provided comments on the City of Lamar's proposal in Dec 2008 	

50 – Commencement of a spill event	
<i>ARCA Committee</i>	Full ARCA
<i>Issue Category & Priority</i>	C – 6a
<i>Legal – Policy – Technical</i>	Policy
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
The language places the event on the physical operation of the projects control structure and not on the elevation of the water surface or some other trigger. Colorado’s timing of spill accounting is not suggested in the governing language.	Compact Article IV C (3) provides that the conservation pool will be operated for the benefit of water users in CO and KS...as provided by the Compact. See also, Art. IV C (2).
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
Rely on the physical operations of the project control structure to govern the loss of account water. No change to the language is required, unless clarifying language is desired.	Kansas’ position ignores Corps of Engineers exclusive authority to determine flood control releases when JMR surface elevation rises into flood pool space. Contrary to express language of 1980 Operating Plan, water does not “spill physically over the project’s spillway” during flood operations. Flood releases are normally made through the outlet works.
<i>ARCA Committee or other general comment(s)</i>	
OS recommendation 12/08/03: amend Section II G of 1980 Operating Resolution to clarify criteria defining the commencement of spill.	
Operations recommended moving this issue to Full ARCA. (14 December 2004)	
Moved to Special Engineering Committee pursuant ARCA 2005-01.	

51 – Resolved -- Spilling accounts

52 – Upstream storage during JMR spill events	
<i>ARCA Committee</i>	Administrative & Legal
<i>Issue Category & Priority</i>	B - 10
<i>Legal – Policy – Technical</i>	Legal
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
Upstream storage is not in priority until Section II accounts is completely spilled.	Compact not intended to impair use of water by either state if no material depletion to useable Stateline flows results. Apportioning water during flood operations may be a Compact issue for negotiation by ARCA, but is clearly not a 1980 Operating Plan issue to be determined by the Operations Committee. See earlier exchange of letters between Mr. Simpson and Mr. Pope on this issue.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
Discontinue the practice until authorized by resolution of ARCA.	
<i>ARCA Committee or other general comment(s)</i>	
OS recommendation 12/08/03: Operations Committee should refer this issue to the Administrative and Legal Committee.	
Operations Committee transferred this issue to the Administrative and Legal Committee by memo dated 8 October 2004.	

53 – Adjusted JMR inflows during times of spill	
<i>ARCA Committee</i>	ARCA
<i>Issue Category & Priority</i>	C – 6c
<i>Legal – Policy – Technical</i>	Policy*
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
The 1980 Operating Plan does not provide for these adjustments. *Only can be resolved if 52 is resolved	Adjustments to inflow are necessary to account for the effect of post-compact upstream storage during the period that JMR is spilling.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
Discontinue the practice until authorized by resolution of ARCA.	Inappropriate accounting related to conservation storage balances jeopardizes entitlements afforded by Compact Article V (f)
<i>ARCA Committee or other general comment(s)</i>	
OS recommendation 12/08/03: Operations Committee should table this matter until issue #52 is resolved.	
Operations recommended moving this issue to Full ARCA. (14 December 2004)	
Moved to Special Engineering Committee pursuant ARCA 2005-01.	

54 – Resolved -- Section II spill volume during summer storage season
--

60 – Section II(C)(2) compliance (Agreement B)	
<i>ARCA Committee</i>	Administrative & Legal
<i>Issue Category & Priority</i>	B - 9
<i>Legal – Policy – Technical</i>	Legal
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
District 67 priority calls under pre-JMR conditions are to occur when conservation storage is exhausted into accounts. Colorado does not comply with this requirement of the 1980 Operating Plan.	Agreement B is a separate document, not part of the 1980 Operating Plan, whereby Colorado water right owners agreed to subordinate certain aspects of their entitlement to enforce the priority of their water rights and is entirely consistent with administration of the priority system in Colorado. This issue is not properly before the Operations Committee.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
Operate according to the 1980 Operating Plan as written or propose changes to the plan for consideration by the administration.	Agreement B is necessary to maintain the respective benefits of JMR between Colorado water rights above and below JMR granted under the Compact. It is not inconsistent with the Compact, the 1980 Operating Plan, or administration by Colorado of its priority system.
<i>ARCA Committee or other general comment(s)</i>	
No further progress can be made at this time.	
OS recommendation 12/08/03: Committee should refer this matter to the Administrative and Legal Committee with a recommendation that no further consideration be given to this issue.	
Operations Committee transferred this issue to the Administrative and Legal Committee by memo dated 8 October 2004.	
Moved to Special Engineering Committee pursuant ARCA 2005-01.	

61 – Resolved – Retroactive adjustments of accounting for prior years if accounting methods are revised
62 – Resolved -- OS Report status for 1994 through 2006
63 – Removed -- Status of Assistant Operations Secretary Reports: 1998, 1999, 2000, 2001 & 2002
64 – Resolved -- Assistant Operations Secretary Reports: purpose and timeliness
65 – Removed -- Consider Moving Date of Annual Meetings to January or February
66 – Resolved -- Need for definite process for introducing and resolving operational issues
67 – Resolved -- When issues are resolved, is it in the form of separate resolutions and /or revisions to the 1980 Operating Plan?

70 – Trinidad Reservoir: Passing of inflows exceeding 1,000 cfs	
<i>ARCA Committee</i>	Operations
<i>Issue Category & Priority</i>	
<i>Legal – Policy – Technical</i>	
<i>Kansas Staff Position</i>	<i>Colorado Staff Position</i>
Releases exceeding 1,000 cfs should be passed as soon as possible, up to the channel capacity called for.	December 3, 1999 letter from Hal Simpson to USBR includes revised ‘Criteria for Temporary Detention and Subsequent Release of Flood Flows Below Flood Control Capacity...’ recognizes a 3000 cfs ‘non-damaging flow’ constraint directed by the Corps of Engineers by letter dated April 16, 1993.
<i>Kansas Staff Comments</i>	<i>Colorado Staff Comments</i>
Inflows to Trinidad Reservoir exceeded 1,000 cfs on two separate occasions in August 2004. Those releases should have been passed through the reservoir and may have triggered a summer storage event at John Martin Reservoir.	The Water Commissioner requested that the release of these inflows be made: beginning at 1,000 cfs on Friday afternoon, August 6, 2004. He requested that the release be increased to 1,500 cfs on Saturday afternoon. The Corps rating curve for a downstream gage had a maximum release of 1,000 cfs. The Corps should reconsider the allowable release criteria in light of the USBR’s October 2009 Hydraulic Modeling Results. There is no controversy at issue between the states. Furthermore, ARCA has no authority to determine the non-damaging flow below Trinidad Reservoir. Therefore, this matter should be removed from the matrix.
<i>ARCA Committee or other general comment(s)</i>	
A letter was received from the Corps, dated 1 Nov 2004. This letter explains the events in August and steps that have been and will be taken to assure these releases will be passed in the future.	
Moved to Special Engineering Committee pursuant ARCA 2005-01.	
Channel capacity study for the Purgatoire River below Trinidad Reservoir through Trinidad, Colorado, has been undertaken in 2008.	

Notes on Water Issues Matrix

Resolutions:

- ❖ ARCA Adopted Resolution 2006-01 (John Martin Reservoir Permanent Pool Evaporation Method) on 12 Dec 2006 based on ARCA Special Engineering Committee Recommendation A
- ❖ ARCA Adopted Resolution 2006-02 (Winter Water and District 67 Winter Water Storage Charge Holding Accounts in John Martin Reservoir) on 12 Dec 2006 based on ARCA Special Engineering Committee Recommendation B
Colorado should have a draft resolution on the Winter Water Program account. – May 2002
-- Kevin Salter responded to the Colorado draft resolution in October 2003
- ❖ ARCA Adopted Resolution 2006- 03 (Transfer of Conservation Storage to Section II Accounts
under the 1980 Operating Plan) on 12 Dec 2006 based on ARCA Special Engineering Committee Recommendation C
- ❖ ARCA Adopted Resolution 2006-04 (Section II Account Spill Volume) on 12 Dec 2006 based on ARCA Special Engineering Committee Recommendation D
- ❖ For Issues #31 and 32, ARCA Special Engineering Committee Recommendation E addresses clarification of the 1980 Operating Plan for these two issues.
Issue #31 has been resolved, but need to look at clarification of the 1980 Operating Plan. Steve Witte has drafted proposed resolution for this clarification.
-- Kevin Salter has presented an interpretation of the 1980 Operating Plan that may negate the need for a resolution or amendment in August 2003.
- ❖ City of Lamar is expected to submit at the May ARCA meeting a resolution for a regulating account in JMR.
 - Colorado indicated that this issue has been tabled indefinitely
 - LAWMA & DOW made presentation at December 2005 ARCA Annual Meeting
 - December 2006 ARCA referred renewed request to Engineering Committee

Version	Modification Date	Description of Modification(s)
		Issues #32 & 67 were added 24 October 2003 at a meeting between State staffs
2002issues_table09b.doc	14 June 2004	Incorporate changes suggested by Steve Witte as transmitted by email dated 21 Jan 2004. Change status of issues based on Joint categorization of issues document dated 5 Feb 2004. I also made formatting and grammatical changes (KLS).
2005issues_table09c.doc	19 August 2004 12 Nov 2004 19 April 2005	-- Add a Trinidad Issues category. Specifically, Issue #70, the passing of inflows exceeding 1,000 cfs. -- Show Issue 52 & 60 as being transferred to the Admin & Legal Committee. -- add Issue #13 & 24 (19 April 2005), make formatting changes to table, adjust according to 19August 2004 Joint Prioritization memo, rename columns combining Legal, Policy & Technical and adding ARCA Committee and issue categorization
2005issues_table09d_letter.doc	20 April 2005	-- Changed format to 8-1/2 by 11 inch and reorganize sections -- Add actions taken at ARCA CY2004 Annual meeting
2006issues_table09d_letter.doc	11 December 2006	-- Add actions proposed by the ARCA Special Engineering Committee (created by ARCA Resolution 2005-01) on Issues 10, 20, 21, 30, 32, 42, 43 & 54.
2006issues_table10a_letter.doc	18 December 2006	-- Add ARCA actions taken at the 2006 ARCA Annual meeting -- Remove issues resolved by ARCA accepting Special Engineering Committee recommendations
2006issues_table10b_letter.doc	19 December 2006	-- Steve Witte offered suggestions for modifications in conference call with Kevin Salter on this date.
2007issues_table10bb_letter.doc	11 April 2007	-- working draft -- added Issue #25 & 26 according to the Operations Committee instructions -- added ARCA Resolutions information -- added ARCA Special Engineering Committee Recommendations on 31 & 32
2007issues_table10c.doc	1 December 2007	-- added Table of Contents -- modified according to 19 Nov OS-AOS meeting
2008issues_table10d.doc 2008issues_table10e.doc	1 December 2008	-- updated issues / Recommendation G / added City of Lamar / removed resolved issue(s)
2009issues_table11a.doc	22 December 2008	-- added reservoir-to-reservoir delivery issue -- updated issues / ARCA resolution adopting Recommendation G
2010issues_table11c.doc	17 September 2010	-- added Issue 27 (Section III.A language) -- updated Issue 33 positions & comments
2011issues_table11d.doc	25 November 2011	-- update 22 & 33 language
2012issues_table11d.doc	26 November 2012	-- update 12 language

Water Issues Matrix Summary Table

Version Date : 11/29/2012

Issue #	Description	April 2005	Pending	Suspended	Removed	Resolved	ARCA Resolution	Comment
35	Totals	31	11	2	4	18		
10	Permanent Pool evaporation charges calculated by pro rata volume vs. incremental area	X				X	2006-01	Special Engineering Committee Recommendation A
11	Transfer of Account water to Permanent Pool during flood control operations in JMR	X			X			
12	Consideration of new sources for permanent pool water	X	x					In 2012, CDOW has proposed using the remaining portion of the Muddy Creek storage rights
13	1980 Operating Plan's Restriction on use of Section III related to Perm Pool	X			X			Steve Witte will review this to determine if it is still an issue.
20	Winter Water Account of convenience	X				X	2006-02	Special Engineering Committee Recommendation B
21	Timely distribution of Section III storage charge during Pueblo Winter Water Storage Program (PWWSP)	X				X	2006-02	Special Engineering Committee Recommendation B
22	Criteria for determining Section III storage under the Pueblo Winter Water Storage Program (PWWSP)	X	X					
23	Reporting of Winter Water vs. Winter Compact storage split calculation	X				X		See Joint Recommendations as transmitted by Operations Committee letter dated 19 August 2004.
24	Utilization of "Summer storage season" as defined by the 1980 Operating Plan	X	X					kls -- consider re-characterizing this issue under Issue 60 and remove as a separate issue per Steve's recommendation on 19 Nov 2007.
25	Criteria for Summer storage event trigger -- Section II.B 1		X					Placed on matrix in April 2007 / not currently before the Special Engineering Committee
26	Section II limitations on use made of account water to irrigation only		X					Placed on matrix in April 2007 / not currently before the Special Engineering Committee
27	First reference to Section II in Section III A appears to be inappropriate		X					Placed on matrix December 2009
30	Determination of transit loss under Section II(E)(4)	X				X		Resolved pursuant to an Agreement between State & Chief Engineers (December 2006).
31	Sections II (E)(4) and III (D) are unclear as to where transfers to make up deficits should be made	X				X	2007-05	Subject of Special Engineering Committee Recommendation E to be considered at the 2007 ARCA Annual meeting.

Water Issues Matrix Summary Table

Version Date : 11/29/2012

Issue #	Description	April 2005	Pending	Suspended	Removed	Resolved	ARCA Resolution	Comment
32	How should transit loss account be used?	X				X	2007-05	Subject of Special Engineering Committee Recommendation E to be considered at the 2007 ARCA Annual meeting.
33	Transit Loss on Reservoir-to-reservoir deliveries (e.g., deliveries of transmountain water to permanent pool)		X					Added in December 2008
40	Exchange of daily reservoir status accounting	X				X		See Joint Recommendations as transmitted by Operations Committee letter dated 19 August 2004.
41	Non-reporting of Section II(C)(1) determinations	X				X		See Joint Recommendations as transmitted by Operations Committee letter dated 19 August 2004.
42	Summer season interruption of transfers from conservation storage to accounts	X				X	2006-03	Special Engineering Committee Recommendation C
43	Winter storage period interruption of transfers from summer conservation storage to accounts	X				X	2006-03	Special Engineering Committee Recommendation C
44	City of Lamar regulating account	X		X				In Engineering Committee / pending further action by City of Lamar
50	Commencement of a spill event	X	X					
51	Spilling accounts	X				X	2007-06	Subject of Special Engineering Committee Recommendation F to be considered at the 2007 ARCA Annual meeting.
52	Upstream storage during JMR spill events	X	X					
53	Adjusted JMR inflows during times of spill	X	X					
54	Section II spill volume during summer storage season	X				X	2006-04	Special Engineering Committee Recommendation D
60	Section II(C)(2) compliance (Agreement B)	X	X					
61	Retroactive adjustments of accounting for prior years if accounting methods are revised	X				X	2008-03	Special Engineering Committee Recommendation G
62	OS Report status for 1994 through 2006	X				X	2008-03	Special Engineering Committee Recommendation G
63	Status of Assistant Operations Secretary Reports: 1998, 1999, 2000, 2001 & 2002	X			X			
64	Assistant Operations Secretary Reports: purpose and timeliness	X				X		See Joint Recommendations as transmitted by Operations Committee letter dated 19 August 2004.
65	Consider Moving Date of Annual Meetings to January or February	X			X			

Water Issues Matrix Summary Table

Version Date: 11/29/2012

Issue #	Description	April 2005	Pending	Suspended	Removed	Resolved	ARCA Resolution	Comment
66	Need for definite process for introducing and resolving operational issues	X				X		See Joint Recommendations as transmitted by Operations Committee letter dated 19 August 2004.
67	When issues are resolved, is it in the form of separate resolutions and /or revisions to the 1980 Operating Plan?	X				X		Process has been established to address resolution of issues as they were resolved.
70	Trinidad Reservoir: Passing of inflows exceeding 1,000 cfs	X		X				