February 2, 2006 – Discussion with Kansas

Mike Thompson
Ann Bleed
Justin LaVene
Craig Scott
Mike Delka
Brad Edgerton
David Barfield
Lee Orton

Steve Raunschauger
Kenny Nelson –
David Pope
Lee Rolfs
Gordon Aycock –
Scott Ross
John Draper

Board members
Elton Hobson
Gary Hausladen
Brad Peterson

John Chaffin
Scott Guenthner
Lynette Smith
Janie McCathey
Jim Beadnell
Patrick Berger

Bleed – Ann – background of idea about Bostwick buy-out for delivery to Kansas

Pope – Are interested in receiving additional water. If they have a full understanding it could proceed.

Pope – ① O+M cost shift would not be fair since KS should have gotten more water anyway. The issue is the 3 year averaging of costs between KBID + NBID. Sample worksheet from USBR – $64,500 shift.

② Harlan C.L. storage, natural flow + if water supply improved during the summer would that also be available for KS? Supply Increase

Bleed – ≈ We're working on it.

③ Compact Accounting – Harlan County Reservoir Evap. Computations. Settlement Stipulation substitute supply would share in EVAP still for Superior, then NE

Includes offsetting Superior Canal lands with GW would still cause NE to share in evap.? So, how will we split the evap. cost?

Pope — (4) Understanding between the states - a hold harmless type provision - No relief implied under the Compact (Waiver Language)

Pope — (5) KS would expect that Storage would continue to be protected & juniors limited. Carriage Loss

Barfield — (6) Deliveries to Hardy - not in play if KS Bostwick takes the water.

Kenny Nelson — - Evap. Comment & How much river loss between Harlan & Guide Rock?

Mike Delka
Lee Orton — Nothing else needs to be discussed at this time

Steve Raumschangen - nothing further as long as the agreement is only to transfer water between KBID & NBID

Bleed - Let's lay out a task list

Rolfs - Any need for a rule or computation change?

Bleed - No.

Feb. 2, 2006

Tasks -

① Craig Scott – will work of carriage loss

② Each state Huddle — Harlan County Evap. process

③ Each State Huddle – O+M Costs worked out with Districts, maybe we need to agree on a procedure Historically Based on total diversions for each District

④ Attorneys – Hold harmless clause

⑤ Nebraska – extra water supply during sumner (issue) contract issue

Pick a day to meet – Feb. 13 9:00AM Central
D. Barfield will get a line.
Marv Swanda will sub. for Steve R.

Gordon Aycock, Barfield, Swanda, Steve Ramschanga, D. Pope
Kenny Nelsen: KBID@courtland.net

Mike T. send out e-mail addresses

Monday Feb. 6 3:30 PM – work with Orton on PP + water supply definition

- Forwarded by Justin Lavene/AGO/NEBRLN on 02/01/2006 04:16 PM -

David, Ann and others,

Below are details for tomorrow's call between Kansas, Nebraska, and the Bureau to discuss Republican River issues.

It is NOT a toll-free number.

Please pass it on to anyone not on the list that needs to be. Call me with questions.

Thanks.

David Barfield
785-296-3830

Date: Thursday, February 02, 2006

4:00 p.m. Central Std Time

Dial-in Number: 1-712-432-2000 (Iowa)

Participant Access Code: 89423

File Under Bostwick ~~Jan 24, 2006~~ Feb. 2, 2006 O+M Charges

SPREADSHEET NOTES:

Attached are two spreadsheets that split the Harlan County Dam COE's O&M charges between the two Bostwick Districts.

NOTE:
The Corp of Engineer's O&M charges for Harlan County Dam are split between the two Bostwick Districts based on total annual diversions by each District. The annual diversions as shown are from the Annual Operating Plan (Table 6). These reported diversions include all water available to the Districts, including natural flow and storage from Lovewell and Harlan County dams.

The spreadsheet is used to determine percentage splits between the Districts based on a three year running average, for example – actual diversions for years 2003 through 2005 are the basis for the 26% NE Bostwick and 74% Kansas Bostwick that are used for splitting the 2007 calendar year O&M charges.

On each of the spreadsheets the actual annual diversions for each of the Districts are shown through and including water years 2005.

SPREADSHEET EXAMPLE 1:

This spreadsheet is based on NE Bostwick being shown as not diverting any water in 2006. This spreadsheet shows all Bostwick Division water being diverted by KS Bostwick. The amount of 46,600 acre feet is based on assumption of 2006 water equal to 2005 plus release of all storage in Harlan County (about 15,700 acre feet). (Note – numbers won't exactly add up because of system losses to diversion measuring point.) Estimates for 2007 and 2008 have to be included to determine outyear impacts due to 3 year running average. Estimates for 2007 and 2008 are assumed to equal 2005 diversions for both Districts. This accounting results in NE Bostwick having 9.1% to 8.4% split in years 2008 through 2010. (Note: The accounting for 2006 water has no effect to O&M split for years 2006 and 2007.)

SPREADSHEET EXAMPLE 2:

This spreadsheet is based on NE Bostwick being shown as diverting all water available to NE Bostwick in 2006. The amount of 13,800 acre feet for NE Bostwick is based on assumption of 2006 water equal to 2005 plus release of Harlan County storage available to NE Bostwick (about 10,100 acre feet). The amount of 32,800 acre feet for KS Bostwick is based on assumption of 2006 water equal to 2005 plus release of Harlan County storage available to KS Bostwick (about 5,600 acre feet). (Note – numbers won't exactly add up because of system losses to diversion measuring point.) Estimates for 2007 and 2008 have to be included to determine outyear impacts due to 3 year running average. Estimates for 2007 and 2008 are assumed to equal 2005 diversions for both Districts. This accounting results in NE Bostwick having 21% to 20.8% split in years

2008 through 2010. (Note: The accounting for 2006 water has no effect to O&M split for years 2006 and 2007.)

Following are actual COE's O&M charges that are split between the Bostwick Districts for years 2003 and 2004; and estimates for years 2005 and 2006:

Actual 2003 = $151,056
Actual 2004 = $142,323
Estimated 2005 = $172,400
Estimated 2006 = $161,175
For 2007 assume $5,000 increase = $166,000
For 2008 assume $5,000 increase = $171,000
For 2009 assume $5,000 increase = $176,000
For 2010 assume $5,000 increase = $181,000

NE BOSTWICK's SHARE OF COE'S O&M CHARGES:

	EXAMPLE 1	**EXAMPLE 2**	**DIFFERENCE**
2008: ($171K)	9.1% = $15,600	21% = $35,900	$20,300
2009: ($176K)	8.4% = $14,800	20.8% = $36,600	$21,800
2010: ($181K)	8.4% = $15,200	20.8% = $37,600	$22,400
		TOTAL	**$64,500**

KS BOSTWICK's SHARE OF COE'S O&M CHARGES:

	EXAMPLE 1	**EXAMPLE 2**	**DIFFERENCE**
2008: ($171K)	90.9% = $155,400	79.0% = $135,100	$20,300
2009: ($176K)	91.6% = $161,200	79.2% = $139,400	$21,800
2010: ($181K)	91.6% = $165,800	79.2% = $143,400	$22,400
		TOTAL	**$64,500**

NOTE: These are estimated amounts, only intended to provide general understanding of potential impacts to both Districts based on water accounting and division of O&M charges.

COST DISTRIBUTION PERCENTAGES

EXAMPLE 1

Corps of Engineers
HARLAN COUNTY DAM

Revised: 1/20/2006

Year	Bostwick in Nebraska (1) Annual Diversions	Bostwick in Nebraska 3-Year Total Diversions	Kansas-Bostwick No.2 (3) Annual Diversions	Kansas-Bostwick No.2 3-Year Total Diversions	Total Annual Diersions	3-Year Total Diversions	Percentage Distribution Nebraska	Percentage Distribution Kansas	Use For Year
1972	48,713	--	50,701	--	99,414	--	--	--	--
1973	53,569	--	50,635	--	104,204	--	--	--	--
1974	56,204	158,486	80,126	181,462	136,330	339,948	46.6%	53.4%	--
1975	52,810	162,583	79,574	210,335	132,384	372,918	43.6%	56.4%	--
1976	66,885	175,899	110,406	270,106	177,291	446,005	39.4%	60.6%	--
1977	40,226	159,921	59,353	249,333	99,579	409,254	39.1%	60.9%	--
1978	50,356	157,467	71,009	240,768	121,365	398,235	39.5%	60.5%	--
1979	33,418	124,000	56,927	187,289	90,345	311,289	39.8%	60.2%	--
1980	55,360	139,134	83,490	211,426	138,850	350,560	39.7%	60.3%	--
1981	27,916	116,694	52,661	193,078	80,577	309,772	37.7%	62.3%	--
1982	39,776	123,052	66,436	202,587	106,212	325,639	37.8%	62.2%	1984
1983	52,238	119,930	83,964	203,061	136,202	322,991	37.1%	62.9%	1985
1984	58,875	150,889	84,092	234,492	142,967	385,381	39.2%	60.8%	1986
1985	51,553	162,666	60,331	228,387	111,884	391,053	41.6%	58.4%	1987
1986	58,665	169,093	69,133	213,556	127,798	382,649	44.2%	55.8%	1988
1987	47,181	157,399	67,334	196,798	114,515	354,197	44.4%	55.6%	1989
1988	62,288	168,134	90,207	226,674	152,495	394,808	42.6%	57.4%	1990
1989	48,740	158,209	68,414	225,955	117,154	384,164	41.2%	58.8%	1991
1990	41,837	152,865	80,909	239,530	122,746	392,395	39.0%	61.0%	1992
1991	39,993	130,570	64,110	213,433	104,103	344,003	38.0%	62.0%	1993
1992	25,471	107,301	20,323	165,342	45,794	272,643	39.4%	60.6%	1994
1993	17,718	83,182	30,542	114,975	48,260	198,157	42.0%	58.0%	1995
1994	55,207	98,396	71,277	122,142	126,484	220,538	44.6%	55.4%	1996
1995	62,291	135,216	80,129	181,948	142,420	317,164	42.6%	57.4%	1997
1996	46,764	164,262	71,942	223,348	118,706	387,610	42.4%	57.6%	1998
1997	53,121	162,176	74,549	226,620	127,670	388,796	41.7%	58.3%	1999
1998	53,122	153,007	75,370	221,861	128,492	374,868	40.8%	59.2%	2000
1999	55,797	162,040	80,163	230,082	135,960	392,122	41.3%	58.7%	2001
2000	67,992	176,911	95,161	250,694	163,153	427,605	41.4%	58.6%	2002
2001	48,226	172,015	72,700	248,024	120,926	420,039	41.0%	59.0%	2003
2002	43,863	160,081	72,634	240,495	116,497	400,576	40.0%	60.0%	2004
2003	28,776	120,865	53,191	198,525	81,967	319,390	37.8%	62.2%	2005
2004	5,800	78,439	30,913	156,738	36,713	235,177	33.4%	66.6%	2006
2005	4,712	39,288	27,780	111,884	32,492	151,172	26.0%	74.0%	2007
est 2006	0	10,512	46,600	105,293	46,600	115,805	9.1%	90.9%	2008
est 2007	4,712	9,424	27,780	102,160	32,492	111,584	8.4%	91.6%	2009
est 2008	4,712	9,424	27,780	102,160	32,492	111,584	8.4%	91.6%	2010
Data to fill in columns (1) and (3) can be found in Table 6 of AOP									

COST DISTRIBUTION PERCENTAGES

EXAMPLE 2

Corps of Engineers
HARLAN COUNTY DAM

Revised: 1/20/2006

Year	Bostwick in Nebraska (1) Annual Diversions	3-Year Total Diversions	Kansas Bostwick No.2 (3) Annual Diversions	3-Year Total Diversions	Total Annual Diersions	3-Year Total Diversions	Percentage Distribution Nebraska	Kansas	Use For Year
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2004	5,800	78,439	30,913	156,738	36,713	235,177	33.4%	66.6%	2006
2005	4,712	39,288	27,780	111,884	32,492	151,172	26.0%	74.0%	2007
est 2006	13,800	24,312	32,800	91,493	46,600	115,805	21.0%	79.0%	2008
est 2007	4,712	23,224	27,780	88,360	32,492	111,584	20.8%	79.2%	2009
est 2008	4,712	23,224	27,780	88,360	32,492	111,584	20.8%	79.2%	2010
Data to fill in columns (1) and (3) can be found in Table 6 of AOP									

P31

Jan 25, 2006 NE & KS Conference Call

Pre-Call mtg w/ Cookson, LaRane, Bleed, Andersen, Thompson, Diers, Edgerton

Bostwick to Bostwick is within the concensus plan

NEPA covers reservoir releases & shouldn't be a major hurdle

NE wants to make it advantageous to KS users as possible

If KS BID doesn't want water, would KS be interested in water to Hardy & beyond?

KS has a minimum flow issue below Hardy & may still be interested in augmented water supply.

Supporting Documents:

① Water Supply better defined or perhaps 53,000 Identify Gibb

② Prevented Plant activities referenced

Conference Call w/ KS Scott Ross, David Pope, Lee Rolfs, David Barfield, John Draper

www.freeconference.com

A. Bleed a) NE would pay NE BID to not irrigate w/ storage or N.F.

b) Would that be of interest to KS

D. Pope a) What would be included?

b) Need to check w/ KS BID - staffing issue is a problem (MT NOTE: could NE BID offer staff? or FCID...)

c) Would NE BID be irrigated by GW or would they be required to go completely dryland?

d) Want to do a good job to est. the net yield, so they would be able to adequately explain the package. If increased GW results from no SW deliveries, then net would be less.

D. Barfield a) 10,118 AF is est. in Reservoir now

D. Barfield b) Can't get 30 cfs (Nat. flow) down the canal very efficiently in June + August (outside of storage delivery)

D. Cookson a) We want to find out how best to deliver the water most efficiently.

D. Barfield c) Not completely sure what we are proposing
d) Kenny would need enough to make a run at delivering enough water, including adding staff
e) How would accounting work?

A. Blea c) We wanted to get some understanding if you are willing to pursue a deal + then we can talk details

D. Barfield f) increase NE alloc w/o increasing CU
g) KSBID is concerned about increased O+M from USBR if NEBID doesn't take water - 3 yr. running avg between KSBID+NEBID (maybe NE can offer labor in lieu of $)

D. Pope e) KSBID may want water

D. Cookson b) If KS wants water at Hardy vs KSBID taking it, We are open to considering other options with KS

D. Pope f) may be preferable to divert water at Guide Rock
g) Compact Compliance issue - KS may have to worry about the water Short Year, + they aren't forgetting overall Compact compliance

D. Cookson c) Dry Year leasing was a part of the settlement discussions

D. Barfield h) Can you run water to Hardy under the Contracts?

A. Blead d) We need to know what KS wants + act accordingly

D. Pope - protect releases from ACL + admin. junior rights

A. Blead e) we would

D. Barfield i) What priority date would be use

j) Protect to Hardy too? What about GW pumping from G. R. to Hardy.

k.) Is NE BID irrigators going to pump to beat the band?

l.) Substitute Water supply part of settlement → Water Short Year alternate diversion option

Scott Ross a) Are there a lot of wells between Guide Rock + Hardy

Brad Edgerton a) Allocations + energy costs would limit.

D. Barfield m) Blue Guide Rock no moratorium

A. Blead f) Allocations apply

D. Pope h) Is it your understanding that USBR is relatively flexible to move water from NE to KS?

A. Blead (g) Concensus plan allows BID transfer + Hardy option is not ruled out

Next ① Talk with KS BID
② when should we include Kenny

D. Pope i) Yeah, what about time frame are you looking at?

A. Blad h) We're working on an answer...

D. Pope j) we'll check our legal position + also look at what ever win/win situation we can come up with. We'll get busy looking at what our needs are
k) we will talk to KSBID + look at Hardy option + then get back to you w/ the U.S.B.R.

A. Blad i) Next week?

D. Pope l) Sure - find a date w/ Bureau

John Draper a) Documenting what we are doing at some point.

Scott Ross b) Do we need to talk to Hal?

Ann B. j) Later
D. Pope m) Later

D. Barfield m) No real account issues

D. Pope n) Settlement - advise KS of Water Short Year action needs to be done.

① Labor Problem
② Bostwick land 100% dryland?
Net Yield needs definition
③ Nat. Flow not enough for canal ~ 30cfs historically
④ Accounting Changes?
⑤ O+M Increase for KS BID
⑥ KS water short year compliance
⑦ Priority Date + Protection if released to Hardy
⑧ USBR contracts allow pass GP?

(9) Water Short Year Alternate Diversion Option in Settlement Appendix M

(10) Below Guide Rock Moratorium

(11) Nebraska Must Notify KS of its Water Short Year Plans

D. Pope a) Media Coverage of Rep. River issues - what is proposed by Congressmen + A.G.s from KS + NE meeting?

J. Lavene a) We are not apprised of what is happening

D. Pope b) Let's wrap it up since Ann had to leave to speak with the Governor (Heineman)

Center Pivot	17%
LEPA	10%

c) Federal Canals

Computed Beneficial Consumptive Use of diversions by Federal canals will be calculated as shown in Attachment 7. For each Bureau of Reclamation Canal the field deliveries shall be subtracted from the diversion from the river to determine the canal losses. The field delivery shall be multiplied by one minus an average system efficiency for the district to determine the loss of water from the field. Eighty-two percent of the sum of the field loss plus the canal loss shall be considered to be the return flow from the canal diversion. The assumed field efficiencies and the amount of the field and canal loss that reaches the stream may be reviewed by the RRCA and adjusted as appropriate to insure their accuracy.

d) Non-irrigation Uses

Any non-irrigation uses diverting or pumping more than 50 acre-feet per year will be required to measure diversions. Non-irrigation uses diverting more than 50 Acre-feet per year will be assessed a Computed Beneficial Consumptive Use of 50% of what is pumped or diverted, unless the entity presents evidence to the RRCA demonstrating a different percentage should be used.

e) Evaporation from Federal Reservoirs

Net Evaporation from Federal Reservoirs will be calculated as follows:

(1) Harlan County Lake, Evaporation Calculation

April 1 through October 31:

Evaporation from Harlan County Lake is calculated by the Corps of Engineers on a daily basis from April 1 through October 31. Daily readings are taken from a Class A evaporation pan maintained near the project office. Any precipitation recorded at the project office is added to the pan reading to obtain the actual evaporation amount. The pan value is multiplied by a pan coefficient that varies by month. These values are:

March	.56
April	.52
May	.53
June	.60
July	.68
August	.78
September	.91
October	1.01

The pan coefficients were determined by studies the Corps of Engineers conducted a number of years ago. The result is the evaporation in inches. It is divided by 12 and multiplied by the daily lake surface area in acres to obtain the evaporation in Acre-feet. The lake surface area is determined by the 8:00 a.m. elevation reading applied to the lake's area-capacity data. The area-capacity data is updated periodically through a sediment survey. The last survey was completed in December 2000.

November 1 through March 31

During the winter season, a monthly total evaporation in inches has been determined. The amount varies with the percent of ice cover. The values used are:

HARLAN COUNTY LAKE

Estimated Evaporation in Inches
Winter Season -- Monthly Total

PERCENTAGE OF ICE COVER

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
JAN	0.88	0.87	0.85	0.84	0.83	0.82	0.81	0.80	0.78	0.77	0.76
FEB	0.90	0.88	0.87	0.86	0.85	0.84	0.83	0.82	0.81	0.80	0.79
MAR	1.29	1.28	1.27	1.26	1.25	1.24	1.23	1.22	1.21	1.20	1.19
OCT	4.87			NO ICE							
NOV	2.81			NO ICE							
DEC	1.31	1.29	1.27	1.25	1.24	1.22	1.20	1.18	1.17	1.16	1.14

The monthly total is divided by the number of days in the month to obtain a daily evaporation value in inches. It is divided by 12 and

Printed Jan. 25, 2006

multiplied by the daily lake surface area in acres to obtain the evaporation in Acre-feet. The lake surface area is determined by the 8:00 a.m. elevation reading applied to the lake's area-capacity data. The area-capacity data is updated periodically through a sediment survey. The last survey was completed in December 2000.

To obtain the net evaporation, the monthly precipitation on the lake is subtracted from the monthly gross evaporation. The monthly precipitation is calculated by multiplying the sum of the month's daily precipitation in inches by the average of the end of the month lake surface area for the previous month and the end of the month lake surface area for the current month in acres and dividing the result by 12 to obtain the precipitation for the month in acre feet.

The total annual net evaporation (Acre-feet) will be charged to Kansas and Nebraska in proportion to the annual diversions made by the Kansas Bostwick Irrigation District and the Nebraska Bostwick Irrigation District during the time period each year when irrigation releases are being made from Harlan County Lake. In the event Nebraska chooses to substitute supply for the Superior Canal from Nebraska's allocation below Guide Rock in Water-Short Year Administration years, the amount of the substitute supply will be included in the calculation of the split as if it had been diverted to the Superior Canal at Guide Rock.

(2) Evaporation Computations for Bureau of Reclamation Reservoirs

The Bureau of Reclamation computes the amount of evaporation loss on a monthly basis at Reclamation reservoirs. The following procedure is utilized in calculating the loss in Acre-feet.

An evaporation pan reading is taken each day at the dam site. This measurement is the amount of water lost from the pan over a 24-hour period in inches. The evaporation pan reading is adjusted for any precipitation recorded during the 24-hour period. Instructions for determining the daily pan evaporation are found in the "National Weather Service Observing Handbook No. 2 – Substation Observations." All dams located in the Kansas River Basin with the exception of Bonny Dam are National Weather Service Cooperative Observers. The daily evaporation pan readings are totaled at the end of each month and converted to a "free water surface" (FWS) evaporation, also referred to as "lake" evaporation. The FWS evaporation is determined by multiplying the observed pan evaporation by a coefficient of .70 at each of the reservoirs. This

Excerpts from Settlement Stipulation & Appendices Relating to Water Short Year Administration

Administration is in effect, pursuant to Subsection V.B.1.a., will become final for that year as of June 30.

2. Nebraska action in Water-Short Year Administration:

a. During Water-Short Year Administration, Nebraska will limit its Computed Beneficial Consumptive Use above Guide Rock to not more than Nebraska's Allocation that is derived from sources above Guide Rock, and Nebraska's share of any unused portion of Colorado's Allocation (no entitlement to Colorado's unused Allocation is implied or expressly granted by this provision). To accomplish this limitation, Nebraska may use one or more of the following measures:

i. supplementing water for Nebraska Bostwick Irrigation District by providing alternate supplies from below Guide Rock or from outside the Basin;

ii. adjusting well allocations for alluvial Wells above Guide Rock;

iii. adjusting multi-year well allocations for non-alluvial Wells above Guide Rock;

iv. reducing use of storage by Nebraska Bostwick Irrigation District above Guide Rock;

v. dry year leasing of water rights that divert at or above Guide Rock, or;

vi. any other measures that would help Nebraska limit Computed Beneficial Consumptive Use above Guide Rock to not more than that portion of Nebraska's allocation that is derived from sources above

Guide Rock and would (1) produce water above Harlan County Lake; (2) produce water below Harlan County Lake and above Guide Rock that can be diverted during the Bostwick irrigation season; or (3) produce water that can be stored and is needed to fill Lovewell Reservoir.

b. Nebraska may offset any Computed Beneficial Consumptive Use in excess of its Allocation that is derived from sources above Guide Rock with Imported Water Supply Credit. If Nebraska chooses to exercise its option to offset with Imported Water Supply Credit, Nebraska will receive credit only for Imported Water Supply that: (1) produces water above Harlan County Lake; (2) produces water below Harlan County Lake and above Guide Rock that can be diverted during the Bostwick irrigation season; (3) produces water that can be stored and is needed to fill Lovewell Reservoir; or (4) Kansas and Nebraska will explore crediting water that is otherwise useable by Kansas.

c. During Water-Short Year Administration, Nebraska will also limit its Computed Beneficial Consumptive Use in the Sub-basins to the sum of Nebraska's specific Sub-basin Allocations and 48.9% of the sum of the Unallocated Supply from those same Sub-basins.

d. In years projected to be subject to Water-Short Year Administration, Nebraska will advise the other States and the United States no later than April 30 of measures Nebraska plans to take for that year and the anticipated water yield from those measures. In each Water-Short Year Administration year, Nebraska will advise the other States and the United States no later than June 30 of the measures it has taken or will take

for the year and the anticipated water yield from those measures.

e. For purposes of determining Nebraska's compliance with Subsection V.B.2.:

i. Virgin Water Supply, Computed Water Supply, Allocations and Computed Beneficial Consumptive Use will be calculated on a two-year running average, as computed above Guide Rock, with any Water-Short Year Administration year treated as the second year of the two-year running average and using the prior year as the first year; or

ii. as an alternative, Nebraska may submit an Alternative Water-Short Year Administration Plan to the RRCA in accordance with the procedures set forth in Appendix M. The RRCA may modify Appendix M in any manner consistent with this Stipulation and the Compact.

f. If, in the first year after Water-Short Year Administration is no longer in effect, the Compact accounting shows that Nebraska's Computed Beneficial Consumptive Use as calculated above Guide Rock in the previous year exceeded its annual Allocation above Guide Rock, and, for the current year, the expected or actual supply from Harlan County Lake, calculated pursuant to Subsection V.B.1.a., is greater than 119,000 Acre-feet but less than 130,000 Acre-feet, then Nebraska must either make up the entire amount of the previous year's Computed Beneficial Consumptive Use in excess of its Allocation, or the amount of the deficit needed to provide a projected supply in Harlan County Lake of at least 130,000 Acre-feet, whichever is less.

g. If in any month during the year, the projected or actual irrigation supply from Harlan County Lake is equal to or greater than 119,000 Acre-feet, Nebraska may, at its discretion, cease the administrative action called for in this agreement in Subsection V.B.2.a.; provided, however, that any Alternative Water-Short Year Administration Plan shall be subject to the requirements set forth in Appendix M.

3. Colorado action: In those years when Water-Short Year Administration is in effect, Colorado agrees to limit its use of the flexibility identified in Subsection IV.B., to the extent that any portion of Colorado's Allocation from Beaver Creek cannot be used on any other Sub-basin in Colorado.

4. Northwest Kansas action: In those years when Water-Short Year Administration is in effect, Kansas agrees to (1) measure compliance in Northwest Kansas on a two-year average, using the current and the previous year, and (2) limit Computed Beneficial Consumptive Use in the Sub-basins to the sum of Kansas' specific Sub-basin Allocations and 51.1% of the sum of the Unallocated Supply from those same Sub-basins and 51.1% of any unused portion of Colorado's Allocation (no entitlement to Colorado's unused Allocation is implied or expressly granted by this provision), or determine compliance in such other manner as agreed to by the RRCA.

VI. Soil and Water Conservation Measures

A. For the purposes of Compact accounting the States will calculate the evaporation from Non-Federal Reservoirs located in an area that contributes run-off to the Republican River above Harlan County Lake, in accordance with the methodology set forth in the RRCA Accounting Procedures.

B. In order to attempt to develop information that may allow the States to assess the impacts of Non-Federal Reservoirs and land

described in Subsections IV.A.2.a.-d. The Computed Beneficial Consumptive Use of surface water from Federal Reservoir and Non-Federal Reservoir evaporation shall be the net reservoir evaporation from the reservoirs, as described in Subsections IV.A.2.e.-f.

For Sub-basins where the gage designated in Section II. is near the confluence with the Main Stem, each State's Sub-basin Computed Beneficial Consumptive Use of surface water shall be the State's Computed Beneficial Consumptive Use of surface water above the Sub-basin gage. For Medicine Creek, Sappa Creek, Beaver Creek and Prairie Dog Creek, where the gage is not near the confluence with the Main Stem, each State's Computed Beneficial Consumptive Use of surface water shall be the sum of the State's Computed Beneficial Consumptive Use of surface water above the gage, and its Computed Beneficial Consumptive Use of surface water between the gage and the confluence with the Main Stem.

E. Calculation to Determine Compact Compliance Using Five-Year Running Averages

Each year, using the procedures described herein, the RRCA will calculate the Annual Allocations by Designated Drainage Basin and total for each State, the Computed Beneficial Consumptive Use by Designated Drainage Basin and total for each State and the Imported Water Supply Credit that a State may use in that year. These results for the current Compact accounting year as well as the results of the previous four accounting years and the five-year average of these results will be displayed in the format shown in Table 3.

F. Calculations To Determine Colorado's and Kansas's Compliance with the Sub-basin Non-Impairment Requirement

The data needed to determine Colorado's and Kansas's compliance with the Sub-basin non-impairment requirement in Subsection IV.B.2. of the Stipulation are shown in Tables 4.A. and B.

G. Calculations To Determine Projected Water Supply

1. Procedures to Determine Water Short Years

The Bureau of Reclamation will provide each of the States with a monthly or, if requested by any one of the States, a more frequent update of the projected or actual irrigation supply from Harlan County Lake for that irrigation season using the methodology described in the Harlan County Lake Operation Consensus Plan, attached as Appendix K to the Stipulation. The steps for the calculation are as follows:

Step 1. At the beginning of the calculation month (1) the total projected inflow for the calculation month and each succeeding month through the end of May shall be added to the previous end of month Harlan County Lake content and (2) the total projected 1993 level evaporation loss for the calculation month and each succeeding month through the end of May shall then be subtracted. The total projected inflow shall be the 1993 level average monthly inflow or the running average monthly inflow for the previous five years, whichever is less.

Step 2. Determine the maximum irrigation water available by subtracting the sediment pool storage (currently 164,111 Acre-feet) and adding the summer sediment pool evaporation (20,000 Acre-feet) to the result from Step 1.

Step 3. For October through January calculations, take the result from Step 2 and using the Shared Shortage Adjustment Table in Attachment 2 hereto, determine the preliminary irrigation water available for release. The calculation using the end of December content (January calculation month) indicates the minimum amount of irrigation water available for release at the end of May. For February through June calculations, subtract the maximum irrigation water available for the January calculation month from the maximum irrigation water available for the calculation month. If the result is negative, the irrigation water available for release (January calculation month) stays the same. If the result is positive the preliminary irrigation water available for release (January calculation month) is increased by the positive amount.

Step 4. Compare the result from Step 3 to 119,000 Acre-feet. If the result from Step 3 is less than 119,000 Acre-feet Water Short Year Administration is in effect.

Step 5. The final annual Water-Short Year Administration calculation determines the total estimated irrigation supply at the end of June (calculated in July). Use the result from Step 3 for the end of May irrigation release estimate, add the June computed inflow to Harlan County Lake and subtract the June computed gross evaporation loss from Harlan County Lake.

2. Procedures to Determine 130,000 Acre Feet Projected Water Supply

To determine the preliminary irrigation supply for the October through June calculation months, follow the procedure described in steps 1 through 4 of the "Procedures to determine Water Short Years" Subsection III. G. 1. The result from step 4 provides the forecasted water supply, which is compared to 130,000 Acre-feet. For the July through September calculation months, use the previous end of calculation month preliminary irrigation supply, add the previous month's Harlan County Lake computed inflow and subtract the previous month's computed gross evaporation loss from Harlan County Lake to determine the current preliminary irrigation supply. The result is compared to 130,000 Acre-feet.

H. Calculation of Computed Water Supply, Allocations and Computed Beneficial Consumptive Use Above and Below Guide Rock During Water-Short Administration Years.

For Water-Short-Administration Years, in addition to the normal calculations, the Computed Water Supply, Allocations, Computed Beneficial Consumptive Use and Imported Water Supply Credits shall also be calculated above Guide Rock as shown in Table 5C. These calculations shall be done in the same manner as in non-Water-Short Administration years except that water supplies originating below Guide Rock shall not be included in the calculations of water supplies originating above Guide Rock. The calculations of Computed Beneficial Consumptive Uses shall be also done in the same manner as in non-Water-Short Administration years except that Computed Beneficial Consumptive Uses from diversions below Guide Rock shall not be included. The depletions from the water diverted by the Superior and Courtland Canals at the Superior-Courtland Diversion Dam shall be included in the calculations of Computed Beneficial Consumptive Use above Guide Rock. Imported Water Supply Credits above Guide Rock, as described in Sub-section III.I., may be used as offsets against the Computed Beneficial Consumptive Use above Guide Rock by the State providing the Imported Water Supply Credits.

The Computed Water Supply of the Main Stem reach between Guide Rock and the Hardy gage shall be determined by taking the difference in stream flow at Hardy and Guide Rock, adding Computed Beneficial Consumptive Uses in the reach (this does not include the Computed Beneficial Consumptive Use from the Superior and Courtland Canal diversions), and subtracting return flows from the Superior and Courtland Canals in the reach. The Computed Water Supply above Guide Rock shall be determined by subtracting the Computed Water Supply of the Main Stem reach between Guide Rock and the Hardy gage from the total Computed Water Supply. Nebraska's Allocation above Guide Rock shall be determined by subtracting 48.9% of the Computed Water Supply of the Main Stem reach between Guide Rock and the Hardy gage from Nebraska's total Allocation. Nebraska's Computed Beneficial Consumptive Uses above Guide Rock shall be determined by subtracting Nebraska's Computed Beneficial Consumptive Uses below Guide Rock from Nebraska's total Computed Beneficial Consumptive Use.

I. Calculation of Imported Water Supply Credits During Water-Short Year Administration Years.

Imported Water Supply Credit during Water-Short Year Administration years shall be calculated consistent with Subsection V.B.2.b. of the Stipulation,

The following methodology shall be used to determine the extent to which Imported Water Supply Credit, as calculated by the RRCA Groundwater Model, can be credited to the State importing the water during Water-Short Year Administration years.

1. Monthly Imported Water Supply Credits

The RRCA Groundwater Model will be used to determine monthly Imported Water Supply Credits by State in each Sub-basin and for the Main Stem. The values for each Sub-basin will include all depletions and accretions upstream of the confluence with the Main Stem. The values for the Main Stem will include all depletions and accretions in stream reaches not otherwise accounted for in a Sub-basin. The values for the Main Stem will be computed separately for the reach 1) above Harlan County Dam, 2) between Harlan County Dam and Guide Rock, and 3) between Guide Rock and the Hardy gage. The Imported Water Supply Credit shall be the difference in stream flow for two runs of the model: a) the "base" run and b) the "no State import" run.

During Water-Short Year Administration years, Nebraska's credits in the Sub-basins shall be determined as described in Section III. A. 3.

2. Imported Water Supply Credits Above Harlan County Dam

Nebraska's Imported Water Supply Credits above Harlan County Dam shall be the sum of all the credits in the Sub-basins and the Main Stem above Harlan County Dam.

3. Imported Water Supply Credits Between Harlan County Dam and Guide Rock During the Irrigation Season

a. During Water-Short Year Administration years, monthly credits in the reach between Harlan County Dam and Guide Rock shall be determined as the differences in the stream flows between the two runs at Guide Rock.

b. The irrigation season shall be defined as starting on the first day of release of water from Harlan County Lake for irrigation use and ending on the last day of release of water from Harlan County Lake for irrigation use.

c. Credit as an offset for a State's Computed Beneficial Consumptive Use above Guide Rock will be given to all the Imported Water Supply accruing in the reach between Harlan County Dam and Guide Rock during the irrigation season. If the period of the irrigation season does not coincide with the period of modeled flows, the amount of the Imported Water Supply credited during the irrigation season for that month shall be the total monthly modeled Imported Water Supply Credit times the number of days

in the month occurring during the irrigation season divided by the total number of days in the month.

4. **Imported Water Supply Credits Between Harlan County Dam and Guide Rock During the Non-Irrigation Season**

a. Imported Water Supply Credit shall be given between Harlan County Dam and Guide Rock during the period that flows are diverted to fill Lovewell Reservoir to the extent that imported water was needed to meet Lovewell Reservoir target elevations.

b. Fall and spring fill periods shall be established during which credit shall be given for the Imported Water Supply Credit accruing in the reach. The fall period shall extend from the end of the irrigation season to December 1. The spring period shall extend from March 1 to May 31. The Lovewell target elevations for these fill periods are the projected end of November reservoir level and the projected end of May reservoir level for most probable inflow conditions as indicated in Table 4 in the current Annual Operating Plan prepared by the Bureau of Reclamation.

c. The amount of water needed to fill Lovewell Reservoir for each period shall be calculated as the storage content of the reservoir at its target elevation at the end of the fill period minus the reservoir content at the start of the fill period plus the amount of net evaporation during this period minus White Rock Creek inflows for the same period.

d. If the fill period as defined above does not coincide with the period of modeled flows, the amount of the Imported Water Supply Credit during the fill period for that month shall be the total monthly modeled Imported Water Supply Credit times the number of days in the month occurring during the fill season divided by the total number of days in the month.

e. The amount of non-imported water available to fill Lovewell Reservoir to the target elevation shall be the amount of water available at Guide Rock during the fill period minus the amount of the Imported Water Supply Credit accruing in the reach during the same period.

f. The amount of the Imported Water Supply Credit that shall be credited against a State's Consumptive Use shall be the amount of water imported by that State that is available in the reach during the fill period or the amount of water needed to reach Lovewell Reservoir target elevations minus the amount of non-imported water available during the fill period, whichever is less.

5. **Other Credits**

Kansas and Nebraska will explore crediting Imported Water Supply that is otherwise useable by Kansas.

J. Calculations of Compact Compliance in Water-Short Year Administration Years

During Water-Short Year Administration, using the procedures described in Subsections III.A-D, the RRCA will calculate the Annual Allocations for each State, the Computed Beneficial Consumptive Use by each State, and Imported Water Supply Credit that a State may use to offset Computed Beneficial Consumptive Use in that year. The resulting annual and average values will be calculated as displayed in Tables 5 A-C and E.

If Nebraska is implementing an Alternative Water-Short-Year Administration Plan, data to determine Compact compliance will be shown in Table 5D. Nebraska's compliance with the Compact will be determined in the same manner as Nebraska's Above Guide Rock compliance except that compliance will be based on a three-year running average of the current year and previous two year calculations. In addition, Table 5 D. will display the sum of the previous two-year difference in Allocations above Guide Rock and Computed Beneficial Consumptive Uses above Guide Rock minus any Imported Water Credits and compare the result with the Alternative Water-Short-Year Administration Plan's expected decrease in Computed Beneficial Consumptive Use above Guide Rock. Nebraska will be within compliance with the Compact as long as the three-year running average difference in Column 8 is positive and the sum of the previous year and current year deficits above Guide Rock are not greater than the expected decrease in Computed Beneficial Consumptive Use under the plan.

IV. Specific Formulas

A. Computed Beneficial Consumptive Use

1. Computed Beneficial Consumptive Use of Groundwater: the Computed Beneficial Consumptive Use caused by groundwater diversion shall be determined by the RRCA Groundwater Model as described in Subsection III.D.1.

2. Computed Beneficial Consumptive Use of Surface Water: the Computed Beneficial Consumptive Use of surface water shall be calculated as follows:

a. Computed Beneficial Consumptive Use from diversions by non- federal canals shall be 60 percent of the diversion; the return flow shall be 40 percent of the diversion

b. Computed Beneficial Consumptive Use from small individual surface water pumps shall be 75 percent of the diversion; return flows will be 25 percent of the diversion unless a state provides data on the amount of different system

Table 5C Nebraska Compliance During Water-Short Year Administration

Nebraska								
Year	Allocation			Computed Beneficial Consumptive Use (CBCU)			Credits from Imported Water	Difference Between Allocation and Consumptive Use Minus Imported Water Supply Above Guide Rock
Column	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
	State Wide Allocation	Allocation below Guide Rock	State Wide Allocation above Guide Rock	State Wide CBCU	CBCU below Guide Rock	State Wide CBCU above Guide Rock	Credits above Guide Rock	Col 3 – (Col 6 – Col 7)
Previous Year								
Current Year								
Average								

Table 5D: Nebraska Compliance Under a Alternative Water-Short Year Administration Plan

Year	Allocation			Computed Beneficial Consumptive Use (CBCU)			Credits from Imported Water	Difference Between Allocation and Consumptive Use Minus Imported Water Supply Above Guide Rock
Column	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
	State Wide Allocation	Allocation below Guide Rock	State Wide Allocation above Guide Rock	State Wide CBCU	CBCU below Guide Rock	State Wide CBCU above Guide Rock	Credits above Guide Rock	Col 3 – (Col 6 - Col 7)
Year = -2								
Year = -1								
Current Year								
Three-Year Average								
Sum of Previous Two-year Difference								
Expected Decrease in CBCU Under Plan								

Appendix M
Alternative Water-Short Year Administration

1. When the projected water supply pursuant to the methodology described in Subsection V.A.2.in the Stipulation is less than 130,000 Acre-feet, in lieu of the requirements of Subsection V.B.2.e.i.of the Stipulation, Nebraska may elect to implement a Plan for Reduction of Computed Beneficial Consumptive Uses (Plan) approved pursuant to paragraph 3.

2. Each Plan shall indicate the actions which Nebraska would undertake to reduce its Computed Beneficial Consumptive Uses from the base condition and the amount of reduction expected from those actions. A Plan's designed reductions in Computed Beneficial Consumptive Uses shall be evaluated by the RRCA using methods consistent with the RRCA Accounting Procedures and the RRCA Groundwater Model.

3. Nebraska may submit one or more Plans to the RRCA and the RRCA shall take action regarding such Plan(s) pursuant to the schedule below. Nebraska must submit new plans or modifications to existing Plans to the RRCA prior to August 1 for the RRCA's consideration. The RRCA must take action on new Plans or modifications to existing plans prior to Nov. 1 of that same year. Once approved, a Plan shall expire three years from the January 1 following the Plans approval. After a Plan expires, Nebraska may submit the same Plan to the RRCA according to the above schedule. The RRCA may approve multiple Plans.

4. If Nebraska elects to implement a Plan, Nebraska will provide notice to the RRCA by April 1of its intention to implement a Plan for that year.
If an approved Plan is implemented, Nebraska's Computed Beneficial Consumptive Use of its Allocation above Guide Rock in Water-Short Year Administration shall be calculated on a three year running average of the current year plus the previous two years. Notwithstanding compliance under a three year running average, the two year sum of Nebraska's current and previous year's Computed Beneficial Consumptive Use in excess of its Allocation above Guide Rock, pursuant to Subsection V.B.2., of the Stipulation shall not exceed the amount of Computed Beneficial Consumptive Use that the Plan was designed to reduce above Guide Rock.

5. For any year in which Nebraska implements an approved Plan, such Plan shall be in effect for the remainder of the year unless the projected supply rises above 130,000 Acre-feet. At such time, Nebraska may revoke the Plan by

notifying the RRCA. If Nebraska revokes a Plan, the provisions of Subsection V.B.2.e.i., if applicable, shall be in effect. If Nebraska revokes a Plan during the year, it may not resume the Plan in that year.

6. Nebraska may not elect this Alternative Water-Short Year Administration in any year if in the previous year, Water-Short Year Administration was in effect pursuant to Subsection V.B.1.b. and Nebraska failed to elect the Alternative Water-Short Year Administration in that year.

from Well Moratorium Section

i. Wells to which a right or permit is transferred in accordance with state law, provided however, that the new Well:

(i) consumes no more water than the Historic Consumptive Use of water under the right or permit that is being transferred; and

(ii) is not a transfer of a right or permit that would cause an increased stream depletion upstream of Trenton Dam.

Nebraska will calculate Historic Consumptive Use in the manner proposed in Appendix F. Nebraska shall not change its proposed method of calculating Historic Consumptive Use before providing notice to the RRCA;

j. Wells for expansion of municipal and industrial uses. Any new Wells for these purposes shall be counted against the State's Allocation and, to the extent a State is consuming its full Allocation, other uses shall be reduced to stay within the State's Allocation; and

k. Wells acquired or constructed by a State for the sole purpose of offsetting stream depletions in order to comply with its Compact Allocations. Provided that, such Wells shall not cause any new net depletion to stream flow either annually or long-term. The determination of net depletions from these Wells will be computed by the RRCA Groundwater Model and included in the State's Computed Beneficial Consumptive Use. Augmentation plans and related accounting procedures submitted under this Subsection III.B.1.k. shall be approved by the RRCA prior to implementation.

RECLAMATION
Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation
Nebraska - Kansas Area Office

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Date: 1-24-06

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DEPARTMENT OF NATURAL RESOURCES

To: Ann Bleed
NE DNR

To: Dave Barfield
Div. of Water Resources
Dave: Fax: 785-296-1176

Ann Fax: 402-471-2900

From: Steve Ronshaugen

Code: NKAO

E-mail:

Phone: 308-389-5304

Message:

Ann / Dave:

Enclosed are draft spreadsheets & explanation on how the Harlan Co. Dam COE's OEM charges are split between Bostwick Districts. These spreadsheets & explanations are meant to show process - had to make 'assumptions' for total costs & outyear water to show entire thing related to '2006' accounting of water. Any questions - call. Thanks

Steve

Received Time Jan. 24. 3:14PM

SPREADSHEET NOTES:

Attached are two spreadsheets that split the Harlan County Dam COE's O&M charges between the two Bostwick Districts.

NOTE:
The Corp of Engineer's O&M charges for Harlan County Dam are split between the two Bostwick Districts based on total annual diversions by each District. The annual diversions as shown are from the Annual Operating Plan (Table 6). These reported diversions include all water available to the Districts, including natural flow and storage from Lovewell and Harlan County dams.

The spreadsheet is used to determine percentage splits between the Districts based on a three year running average, for example – actual diversions for years 2003 through 2005 are the basis for the 26% NE Bostwick and 74% Kansas Bostwick that are used for splitting the 2007 calendar year O&M charges.

On each of the spreadsheets the actual annual diversions for each of the Districts are shown through and including water years 2005.

SPREADSHEET EXAMPLE 1:

This spreadsheet is based on NE Bostwick being shown as not diverting any water in 2006. This spreadsheet shows all Bostwick Division water being diverted by KS Bostwick. The amount of 46,600 acre feet is based on assumption of 2006 water equal to 2005 plus release of all storage in Harlan County (about 15,700 acre feet). (Note – numbers won't exactly add up because of system losses to diversion measuring point.) Estimates for 2007 and 2008 have to be included to determine outyear impacts due to 3 year running average. Estimates for 2007 and 2008 are assumed to equal 2005 diversions for both Districts. This accounting results in NE Bostwick having 9.1% to 8.4% split in years 2008 through 2010. (Note: The accounting for 2006 water has no effect to O&M split for years 2006 and 2007.)

SPREADSHEET EXAMPLE 2:

This spreadsheet is based on NE Bostwick being shown as diverting all water available to NE Bostwick in 2006. The amount of 13,800 acre feet for NE Bostwick is based on assumption of 2006 water equal to 2005 plus release of Harlan County storage available to NE Bostwick (about 10,100 acre feet). The amount of 32,800 acre feet for KS Bostwick is based on assumption of 2006 water equal to 2005 plus release of Harlan County storage available to KS Bostwick (about 5,600 acre feet). (Note – numbers won't exactly add up because of system losses to diversion measuring point.) Estimates for 2007 and 2008 have to be included to determine outyear impacts due to 3 year running average. Estimates for 2007 and 2008 are assumed to equal 2005 diversions for both Districts. This accounting results in NE Bostwick having 21% to 20.8% split in years

2008 through 2010. (Note: The accounting for 2006 water has no effect to O&M split for years 2006 and 2007.)

Following are actual COE's O&M charges that are split between the Bostwick Districts for years 2003 and 2004; and estimates for years 2005 and 2006:

Actual 2003 = $151,056
Actual 2004 = $142,323
Estimated 2005 = $172,400
Estimated 2006 = $161,175
For 2007 assume $5,000 increase = $166,000
For 2008 assume $5,000 increase = $171,000
For 2009 assume $5,000 increase = $176,000
For 2010 assume $5,000 increase = $181,000

NE BOSTWICK's SHARE OF COE'S O&M CHARGES:

	EXAMPLE 1	EXAMPLE 2	DIFFERENCE
2008: ($171K)	9.1% = $15,600	21% = $35,900	$20,300
2009: ($176K)	8.4% = $14,800	20.8% = $36,600	$21,800
2010: ($181K)	8.4% = $15,200	20.8% = $37,600	$22,400
		TOTAL	**$64,500**

KS BOSTWICK's SHARE OF COE'S O&M CHARGES:

	EXAMPLE 1	EXAMPLE 2	DIFFERENCE
2008: ($171K)	90.9% = $155,400	79.0% = $135,100	$20,300
2009: ($176K)	91.6% = $161,200	79.2% = $139,400	$21,800
2010: ($181K)	91.6% = $165,800	79.2% = $143,400	$22,400
		TOTAL	**$64,500**

NOTE: These are estimated amounts, only intended to provide general understanding of potential impacts to both Districts based on water accounting and division of O&M charges.

COST DISTRIBUTION PERCENTAGES

EXAMPLE 1

Corps of Engineers
HARLAN COUNTY DAM

Revised: 1/20/2006

Draft

Year	Bostwick in Nebraska (1) Annual Diversions	3-Year Total Diversions	Kansas-Bostwick No. 2 (3) Annual Diversions	3-Year Total Diversions	Total Annual Diersions	3-Year Total Diversions	Percentage Nebraska	Distribution Kansas	Use For Year
1972	48,713	--	50,701	--	99,414	--	--	--	--
1973	53,569	--	50,635	--	104,204	--	--	--	--
1974	56,204	158,486	80,126	181,462	136,330	339,948	46.6%	53.4%	--
1975	52,810	162,583	79,574	210,335	132,384	372,918	43.6%	56.4%	--
1976	66,885	175,899	110,406	270,106	177,291	446,005	39.4%	60.6%	--
1977	40,226	159,921	59,353	249,333	99,579	409,254	39.1%	60.9%	--
1978	50,356	157,467	71,009	240,768	121,365	398,235	39.5%	60.5%	--
1979	33,418	124,000	56,927	187,289	90,345	311,289	39.8%	60.2%	--
1980	55,360	139,134	83,490	211,426	138,850	350,560	39.7%	60.3%	--
1981	27,916	116,694	52,661	193,078	80,577	309,772	37.7%	62.3%	--
1982	39,776	123,052	66,436	202,587	106,212	325,639	37.8%	62.2%	1984
1983	52,238	119,930	83,964	203,061	136,202	322,991	37.1%	62.9%	1985
1984	58,875	150,889	84,092	234,492	142,967	385,381	39.2%	60.8%	1986
1985	51,553	162,666	60,331	228,387	111,884	391,053	41.6%	58.4%	1987
1986	58,665	169,093	69,133	213,556	127,798	382,649	44.2%	55.8%	1988
1987	47,181	157,399	67,334	196,798	114,515	354,197	44.4%	55.6%	1989
1988	62,288	168,134	90,207	226,674	152,495	394,808	42.6%	57.4%	1990
1989	48,740	158,209	68,414	225,955	117,154	384,164	41.2%	58.8%	1991
1990	41,837	152,865	80,909	239,530	122,746	392,395	39.0%	61.0%	1992
1991	39,993	130,570	64,110	213,433	104,103	344,003	38.0%	62.0%	1993
1992	25,471	107,301	20,323	165,342	45,794	272,643	39.4%	60.6%	1994
1993	17,718	83,182	30,542	114,975	48,260	198,157	42.0%	58.0%	1995
1994	55,207	98,396	71,277	122,142	126,484	220,538	44.6%	55.4%	1996
1995	62,291	135,216	80,129	181,948	142,420	317,164	42.6%	57.4%	1997
1996	46,764	164,262	71,942	223,348	118,706	387,610	42.4%	57.6%	1998
1997	53,121	162,176	74,549	226,620	127,670	388,796	41.7%	58.3%	1999
1998	53,122	153,007	75,370	221,861	128,492	374,868	40.8%	59.2%	2000
1999	55,797	162,040	80,163	230,082	135,960	392,122	41.3%	58.7%	2001
2000	67,992	176,911	95,161	250,694	163,153	427,605	41.4%	58.6%	2002
2001	48,226	172,015	72,700	248,024	120,926	420,039	41.0%	59.0%	2003
2002	43,863	160,081	72,634	240,495	116,497	400,576	40.0%	60.0%	2004
2003	28,776	120,865	53,191	198,525	81,967	319,390	37.8%	62.2%	2005
2004	5,800	78,439	30,913	156,738	36,713	235,177	33.4%	66.6%	2006
2005	4,712	39,288	27,780	111,884	32,492	151,172	26.0%	74.0%	2007
est 2006	0	10,512	46,600	105,293	46,600	115,805	9.1%	90.9%	2008
est 2007	4,712	9,424	27,780	102,160	32,492	111,584	8.4%	91.6%	2009
est 2008	4,712	9,424	27,780	102,160	32,492	111,584	8.4%	91.6%	2010
Data to fill in columns (1) and (3) can be found in Table 6 of AOP									

COST DISTRIBUTION PERCENTAGES

EXAMPLE 2

Corps of Engineers
HARLAN COUNTY DAM

Draft

Revised: 1/20/2006

Year	Bostwick in Nebraska (1) Annual Diversions	Bostwick in Nebraska 3-Year Total Diversions	Kansas Bostwick No.2 (3) Annual Diversions	Kansas Bostwick No.2 3-Year Total Diversions	Total Annual Diersions	3-Year Total Diversions	Percentage Distribution Nebraska	Percentage Distribution Kansas	Use For Year
1972	48,713	--	50,701	--	99,414	--	--	--	--
1973	53,569	--	50,635	--	104,204	--	--	--	--
1974	56,204	158,486	80,126	181,462	136,330	339,948	46.6%	53.4%	--
1975	52,810	162,583	79,574	210,335	132,384	372,918	43.6%	56.4%	--
1976	66,885	175,899	110,406	270,106	177,291	446,005	39.4%	60.6%	--
1977	40,226	159,921	59,353	249,333	99,579	409,254	39.1%	60.9%	--
1978	50,356	157,467	71,009	240,768	121,365	398,235	39.5%	60.5%	--
1979	33,418	124,000	56,927	187,289	90,345	311,289	39.8%	60.2%	--
1980	55,360	139,134	83,490	211,426	138,850	350,560	39.7%	60.3%	--
1981	27,916	116,694	52,661	193,078	80,577	309,772	37.7%	62.3%	--
1982	39,776	123,052	66,436	202,587	106,212	325,639	37.8%	62.2%	1984
1983	52,238	119,930	83,964	203,061	136,202	322,991	37.1%	62.9%	1985
1984	58,875	150,889	84,092	234,492	142,967	385,381	39.2%	60.8%	1986
1985	51,553	162,666	60,331	228,387	111,884	391,053	41.6%	58.4%	1987
1986	58,665	169,093	69,133	213,556	127,798	382,649	44.2%	55.8%	1988
1987	47,181	157,399	67,334	196,798	114,515	354,197	44.4%	55.6%	1989
1988	62,288	168,134	90,207	226,674	152,495	394,808	42.6%	57.4%	1990
1989	48,740	158,209	68,414	225,955	117,154	384,164	41.2%	58.8%	1991
1990	41,837	152,865	80,909	239,530	122,746	392,395	39.0%	61.0%	1992
1991	39,993	130,570	64,110	213,433	104,103	344,003	38.0%	62.0%	1993
1992	25,471	107,301	20,323	165,342	45,794	272,643	39.4%	60.6%	1994
1993	17,718	83,182	30,542	114,975	48,260	198,157	42.0%	58.0%	1995
1994	55,207	98,396	71,277	122,142	126,484	220,538	44.6%	55.4%	1996
1995	62,291	135,216	80,129	181,948	142,420	317,164	42.6%	57.4%	1997
1996	46,764	164,262	71,942	223,348	118,706	387,610	42.4%	57.6%	1998
1997	53,121	162,176	74,549	226,620	127,670	388,796	41.7%	58.3%	1999
1998	53,122	153,007	75,370	221,861	128,492	374,868	40.8%	59.2%	2000
1999	55,797	162,040	80,163	230,082	135,960	392,122	41.3%	58.7%	2001
2000	67,992	176,911	95,161	250,694	163,153	427,605	41.4%	58.6%	2002
2001	48,226	172,015	72,700	248,024	120,926	420,039	41.0%	59.0%	2003
2002	43,863	160,081	72,634	240,495	116,497	400,576	40.0%	60.0%	2004
2003	28,776	120,865	53,191	198,525	81,967	319,390	37.8%	62.2%	2005
2004	5,800	78,439	30,913	156,738	36,713	235,177	33.4%	66.6%	2006
2005	4,712	39,288	27,780	111,884	32,492	151,172	26.0%	74.0%	2007
est 2006	13,800	24,312	32,800	91,493	46,600	115,805	21.0%	79.0%	2008
est 2007	4,712	23,224	27,780	88,360	32,492	111,584	20.8%	79.2%	2009
est 2008	4,712	23,224	27,780	88,360	32,492	111,584	20.8%	79.2%	2010
Data to fill in columns (1) and (3) can be found in Table 6 of AOP									