Republican River Compact Administration

Compact Accounting

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Notes on future work:
Link the input page for returns from Bureau projects to Attachment 7

KAN. EXHIBIT 22
Kan v. Neb. & Colo., No. 126, Orig.
Arbitration Initiated 10/21/08

	A	B	C
1	**Calendar Year**		2003
2			
3	**Groundwater Data**		
4	North Fork Subbasin	GW CBCU Colorado	14,023
5		GW CBCU Kansas	17
6		GW CBCU Nebraska	1,402
7	Arikaree Subbasin	GW CBCU Colorado	242
8		GW CBCU Kansas	100
9		GW CBCU Nebraska	508
10	Buffalo Subbasin	GW CBCU Colorado	265
11		GW CBCU Kansas	0
12		GW CBCU Nebraska	3,338
13	Rock Subbasin	GW CBCU Colorado	59
14		GW CBCU Kansas	0
15		GW CBCU Nebraska	3,419
16	South Fork Subbasin	GW CBCU Colorado	12,115
17		GW CBCU Kansas	5,351
18		GW CBCU Nebraska	1,347
19	Frenchman Subbasi	GW CBCU Colorado	37
20		GW CBCU Kansas	0
21		GW CBCU Nebraska	85,647
22	Driftwood Subbasin	GW CBCU Colorado	0
23		GW CBCU Kansas	0
24		GW CBCU Nebraska	1,391
25	Red Willow Subbasi	GW CBCU Colorado	0
26		GW CBCU Kansas	0
27		GW CBCU Nebraska	7,815
28	Medicine Creek Sub	GW CBCU Colorado	0
29		GW CBCU Kansas	0
30		GW CBCU Nebraska	21,139
31	Beaver Subbasin	GW CBCU Colorado	0
32		GW CBCU Kansas	274
33		GW CBCU Nebraska	777
34	Sappa Subbasin	GW CBCU Colorado	0
35		GW CBCU Kansas	-274
36		GW CBCU Nebraska	500
37	Prairie Dog Subbasi	GW CBCU Colorado	0
38		GW CBCU Kansas	1,679
39		GW CBCU Nebraska	0
40	Mainstem Subbasin	GW CBCU Colorado	132
41		GW CBCU Kansas	110
42		GW CBCU Nebraska Above Guide Rock	74,323
43		GW CBCU Nebraska Below Guide Rock	2,559
44			
45	**Import Water Data**		
46	North Fork Subbasin	Imported Water Nebraska	0
47	Arikaree Subbasin	Imported Water Nebraska	0
48	Buffalo Subbasin	Imported Water Nebraska	0
49	Rock Subbasin	Imported Water Nebraska	0
50	South Fork Subbasin	Imported Water Nebraska	0
51	Frenchman Subbasi	Imported Water Nebraska	0
52	Driftwood Subbasin	Imported Water Nebraska	0
53	Red Willow Subbasi	Imported Water Nebraska	20
54	Medicine Creek Sub	Imported Water Nebraska	9,423
55	Beaver Subbasin	Imported Water Nebraska	0
56	Sappa Subbasin	Imported Water Nebraska	0
57	Prairie Dog Subbasi	Imported Water Nebraska	0
58	Mainstem Subbasin	Imported Water Nebraska Above Guide Rock	337
59		Imported Water Nebraska Below Guide Rock	0
60		Total	9,780
61	**SW Pumping Data**		
62	North Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	2,410
63		SW Diversions - Irrigation - Small Pumps - Colorado	0
64		SW Diversions - M&I - Colorado	0
65	Arikaree Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
66		SW Diversions - Irrigation - Small Pumps - Colorado	0
67		SW Diversions - M&I - Colorado	0
68		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
69		SW Diversions - Irrigation - Small Pumps - Kansas	0
70		SW Diversions - M&I - Kansas	0
71		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
72		SW Diversions - Irrigation - Small Pumps - Nebraska	0
73		SW Diversions - M&I - Nebraska	0
74	Buffalo Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
75		SW Diversions - Irrigation - Small Pumps - Colorado	0
76		SW Diversions - M&I - Colorado	0
77		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	587
78		SW Diversions - Irrigation - Small Pumps - Nebraska	70
79		SW Diversions - M&I - Nebraska	0
80	Rock Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
81		SW Diversions - Irrigation - Small Pumps - Nebraska	0
82		SW Diversions - M&I - Nebraska	0
83	South Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	996
84		SW Diversions - Irrigation - Small Pumps - Colorado	0
85		SW Diversions - M&I - Colorado	0
86		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
87		SW Diversions - Irrigation - Small Pumps - Kansas	39
88		SW Diversions - M&I - Kansas	0
89		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0

	A	B	C
1	**Calendar Year**		2003
2			
90		SW Diversions - Irrigation - Small Pumps - Nebraska	0
91		SW Diversions - M&I - Nebraska	0
92	Frenchman Subbasi	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
93		SW Diversions - Irrigation - Small Pumps - Nebraska	3
94		SW Diversions - M&I - Nebraska	0
95	Driftwood Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
96		SW Diversions - Irrigation - Small Pumps - Kansas	0
97		SW Diversions - M&I - Kansas	0
98		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
99		SW Diversions - Irrigation - Small Pumps - Nebraska	0
100		SW Diversions - M&I - Nebraska	0
101	Red Willow Subbasi	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
102		SW Diversions - Irrigation - Small Pumps - Nebraska	341
103		SW Diversions - M&I - Nebraska	0
104	Medicine Creek Sub	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
105		SW Diversions - Irrigation - Small Pumps - Nebraska	291
106		SW Diversions - M&I - Nebraska	0
107		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
108		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	106
109		SW Diversions - M&I - Nebraska - Below Gage	0
110	Beaver Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
111		SW Diversions - Irrigation - Small Pumps - Colorado	0
112		SW Diversions - M&I - Colorado	0
113		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
114		SW Diversions - Irrigation - Small Pumps - Kansas	26
115		SW Diversions - M&I - Kansas	0
116		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
117		SW Diversions - Irrigation - Small Pumps - Nebraska	0
118		SW Diversions - M&I - Nebraska	0
119		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	
120		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	
121		SW Diversions - M&I - Nebraska - Below Gage	
122	Sappa Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
123		SW Diversions - Irrigation - Small Pumps - Kansas	14
124		SW Diversions - M&I - Kansas	0
125		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
126		SW Diversions - Irrigation - Small Pumps - Nebraska	0
127		SW Diversions - M&I - Nebraska	0
128		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
129		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	20
130		SW Diversions - M&I - Nebraska - Below Gage	0
131	Prairie Dog Subbasi	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
132		SW Diversions - Irrigation - Small Pumps - Kansas	273
133		SW Diversions - M&I - Kansas	548
134		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
135		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	59
136		SW Diversions - M&I - Nebraska - Below Gage	0
137	Mainstem Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
138		SW Diversions - Irrigation - Small Pumps - Kansas	1,064
139		SW Diversions - M&I - Kansas	0
140		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	3,719
141		SW Diversions - Irrigation - Small Pumps - Nebraska	1,401
142		SW Diversions - M&I - Nebraska	0
143		SW Diversions - Irrigation - Non-Federal Canals - Nebraska Below Guide Rock	0
144		SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	1,562
145		SW Diversions - M&I - Nebraska - Below Guide Rock	0
146			
147	**Non-Federal SW Consumptive Use**		
148		% Non-Federal Canal Diversion Consumed	60%
149		% Small Surface Water Pumps Consumed	75%
150		% Municipal And Industrial SW Consumed	50%
151			
152	**Non-Federal Reservoir Evaporation Data**		
153	North Fork Subbasir	Non-Federal Reservoir Evaporation - Colorado	0
154		Non-Federal Reservoir Evaporation - Nebraska	
155	Arikaree Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
156		Non-Federal Reservoir Evaporation - Kansas	0
157		Non-Federal Reservoir Evaporation - Nebraska	0
158	Buffalo Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
159		Non-Federal Reservoir Evaporation - Nebraska	0
160	Rock Subbasin	Non-Federal Reservoir Evaporation - Nebraska	0
161	South Fork Subbasi	Non-Federal Reservoir Evaporation - Colorado	0
162		Non-Federal Reservoir Evaporation - Kansas	0
163		Non-Federal Reservoir Evaporation - Nebraska	0
164	Frenchman Subbasi	Non-Federal Reservoir Evaporation - Nebraska	0
165	Driftwood Subbasin	Non-Federal Reservoir Evaporation - Kansas	0
166		Non-Federal Reservoir Evaporation - Nebraska	0
167	Red Willow Subbasi	Non-Federal Reservoir Evaporation - Nebraska	0
168	Medicine Creek Sub	Non-Federal Reservoir Evaporation - Nebraska	0
169		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
170	Beaver Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
171		Non-Federal Reservoir Evaporation - Kansas	0
172		Non-Federal Reservoir Evaporation - Nebraska	0
173		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
174	Sappa Subbasin	Non-Federal Reservoir Evaporation - Kansas	0
175		Non-Federal Reservoir Evaporation - Nebraska	0
176		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0

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1	**Calendar Year**		2003
2			
177	Prairie Dog Subbasi	Non-Federal Reservoir Evaporation - Kansas	0
178		Non-Federal Reservoir Evaporation - Nebraska	0
179	Mainstem Subbasin	Non-Federal Reservoir Evaporation - Kansas	0
180		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
181			
182	**Stream Gage Data**		
183	North Fork Subbasir	North Fork Republican River At Colorado-Nebraska State Line	17,700
184	Arikaree Subbasin	Arikaree River At Haigler	1,060
185	Buffalo Subbasin	Buffalo Creek Near Haigler	2,090
186	Rock Subbasin	Rock Creek At Parks	4,710
187	South Fork Subbasi	South Fork Republican River Near Benkelman	905
188	Frenchman Subbasi	Frenchman Creek At Culbertson	13,360
189	Driftwood Subbasin	Driftwood Creek Near McCook	1,100
190	Red Willow Subbasi	Red Willow Creek Near Red Willow	3,970
191	Medicine Creek Sub	Medicine Creek Below Harry Strunk	19,850
192	Beaver Subbasin	Beaver Creek Near Beaver City	220
193	Sappa Subbasin	Sappa Creek Near Stamford	179
194	Prairie Dog Subbasi	Prairie Dog Creek Near Woodruff	1,087
195	Mainstem Subbasin	Republican River At Guide Rock	21,346
196		Republican River Near Hardy	52,394
197		White Rock Creek Above Lovewell	20,959
198			
199	**Flood Flow Data**		
200	North Fork Subbasir	North Fork Flood Flow	0
201	Arikaree Subbasin	Arikaree Flood Flow	0
202	Buffalo Subbasin	Buffalo Flood Flow	0
203	Rock Subbasin	Rock Flood Flow	0
204	South Fork Subbasi	Southfork Flood Flow	0
205	Frenchman Subbasi	Frenchman Flood Flow	0
206	Driftwood Subbasin	Driftwood Flood Flow	0
207	Red Willow Subbasi	Red Willow Flood Flow	0
208	Medicine Creek Sub	Medicine Creek Flood Flow	0
209	Beaver Subbasin	Beaver Flood Flow	0
210	Sappa Subbasin	Sappa Flood Flow	0
211	Prairie Dog Subbasi	Prairie Dog Flood Flow	0
212	Mainstem Subbasin	Mainstem Flood Flow	0
213			
214	**Reservoir Data**		
215	South Fork Subbasi	Bonny Reservoir Evaporation	3,375
216		Bonny Reservoir Change In Storage	-2,226
217	Frenchman Subbasi	Enders Reservoir Evaporation	1,485
218		Enders Reservoir Change In Storage	-218
219	Red Willow Subbasi	Hugh Butler Lake Evaporation	2,377
220		Hugh Butler Lake Change In Storage	2,947
221	Medicine Creek Sub	Harry Strunk Lake Evaporation	3,755
222		Harry Strunk Lake Change In Storage	-3,385
223	Prairie Dog Subbasi	Keith Sebelius Lake Evaporation	2,823
224		Keith Sebelius Lake Change In Storage	-4,338
225	Mainstem Subbasin	Swanson Lake Evaporation	6,086
226		Swanson Lake Change In Storage	-4,735
227		Harlan County Evaporation	23,664
228		Harlan County Change In Storage	-47,110
229		Lovewell Reservoir Ev charged to the Republican River	670
230			
231	**Canal Data**		
232	North Fork Subbasir	Haigler Canal Diversions - Colorado	1,948
233		Haigler Canal Diversions - Nebraska	4,965
234		Haigler Canal Diversions	6,913
235	South Fork Subbasi	Hale Ditch Diversions	0
236	Frenchman Subbasi	Champion Canal Diversions	0
237		Riverside Canal Diversions	1,838
238		Culbertson Canal Diversions	8,002
239		Culbertson Canal Extension Diversions	0
240		Culbertson Canal % Return Flow	0.56
241		Culbertson Canal Extension % Return Flow	1.00
242	Driftwood Subbasin	Meeker-Driftwood Canal Diversions	0
243		Meeker-Driftwood Canal % Return Flow	1.00
244	Red Willow Subbasi	Red Willow Canal Diversions	0
245		Red Willow Canal % Return Flow	1.00
246	Prairie Dog Subbasi	Almena Canal Diversions	3,379
247		Almena Canal % Return Flow	0.52
248	Mainstem Subbasin	Bartley Canal Diversion	0
249		Bartley Canal % Return Flow	1.00
250		Cambridge Canal Diversion	18,332
251		Cambridge Canal % Return Flow	0.51
252		Naponee Canal Diversion	2,162
253		Naponee Canal % Return Flow	0.53
254		Franklin Canal Diversion	15,262
255		Franklin Canal % Return Flow	0.64
256		Franklin Pump Canal Diversions	1,687
257		Franklin Pump Canal % Return Flow	0.57
258		Superior Canal Diversions	8,174
259		Superior Canal % Return Flow	0.57
260			
261		Courtland Canal Diversions At Headgate	66,500
262		Diversions to Nebraska Courtland	1,591
263		Nebraska Courtland % Return Flow	0.33

	A	B	C
1	**Calendar Year**		2003
2			
264		Courtland Canal, Loss in NE assigned to upper Courtland KS	2,841
265		Courtland Canal, Loss in NE assigned to delivery to Lovewell	10,116
266		Courtland Canal At Kansas-Nebraska State Line	51,952
267		Courtland Canal Diversions to the Upper Courtland District	17,511
268		Courtland Canal Above Lovewell % Return Flow	0.52
269		Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to L	10,687
270		Courtland Canal Deliveries To Lovewell Reservoir	26,596
271		Diversions of Republican River water from Lovewell Reservoir to the Courtland	21,270
272		Courtland Canal Below Lovewell % Return Flow	0.46
273			
274		**To allocate Harlan County evaporation:**	
275		Kansas Bostwick Diversions During Irrigation Season	27,100
276		Nebraska Bostwick Diversions During Irrigation Season	28,844

	A	B
1	**North Fork Republican River Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	14023
7	GW CBCU Kansas	17
8	GW CBCU Nebraska	1402
9		
10	**Surface Water Data**	
11	North Fork Republican River At Colorado-Nebraska State Line	17700
12	Haigler Canal Diversions - Colorado	1948
13	SW Diversions - Irrigation -Non-Federal Canals- Colorado	2410
14	SW Diversions - Irrigation - Small Pumps - Colorado	0
15	SW Diversions - M&I - Colorado	0
16	Haigler Canal Diversions - Nebraska	4965
17	Non-Federal Reservoir Evaporation - Colorado	0
18	North Fork Flood Flow	0
19		
20	**Consumptive Use Calculations**	
21	**Colorado**	
22	Haigler Canal CBCU	1168.8
23	SW CBCU - Irrigation - Non Federal Canals	1446
24	SW CBCU - Irrigation - Small Pumps	0
25	SW CBCU - M&I	0
26	Non-Federal Reservoir Evaporation	0
27	SW CBCU	2615
28	GW CBCU	14023
29	Total CBCU	16640
30		
31	**Kansas**	
32	GW CBCU	17
33	Total CBCU	20
34		
35	**Nebraska**	
36	Haigler Canal CBCU	2979
37	SW CBCU	2979
38	GW CBCU	1402
39	Total CBCU	4380
40		
41	**Totals**	
42	Total SW CBCU	5594
43	Total GW CBCU	15442
44	Total Basin CBCU	21036
45		
46	**Virgin Water Supply**	
47	North Fork Republican River At Colorado-Nebraska State Line	17700
48	Nebraska Haigler Canal Return Flow To Main Stem	1986
49	Colorado CBCU	16640
50	Kansas CBCU	20
51	Nebraska CBCU	4380
52	Imported Water	0
53	Virgin Water Supply	40730
54	Adjustment For Flood Flows	0
55	Computed Water Supply	40730
56		
57	**Allocations**	
58	Colorado Percent Of Allocation	22.4%
59	Colorado Allocation	9120
60	Kansas Percent Of Allocation	0.0%
61	Kansas Allocation	0
62	Nebraska Percent Of Allocation	24.6%
63	Nebraska Allocation	10020
64	Total Basin Allocation	19140
65	Percent Of Supply Not Allocated	53.0%
66	Quantity Of Unallocated Supply	21590

	A	B
1	**Arikaree River Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	242
7	GW CBCU Kansas	100
8	GW CBCU Nebraska	508
9		
10	**Surface Water Data**	
11	Arikaree River At Haigler	1060
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Colorado	0
22	Non-Federal Reservoir Evaporation - Kansas	0
23	Non-Federal Reservoir Evaporation - Nebraska	0
24	Arikaree Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	SW CBCU - Irrigation - Non Federal Canals	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	0
32	SW CBCU	0
33	GW CBCU	242
34	Total CBCU	240
35		
36	**Kansas**	
37	SW CBCU - Irrigation - Non Federal Canals	0
38	SW CBCU - Irrigation - Small Pumps	0
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	0
41	SW CBCU	0
42	GW CBCU	100
43	Total CBCU	100
44		
45	**Nebraska**	
46	SW CBCU - Irrigation - Non Federal Canals	0
47	SW CBCU - Irrigation - Small Pumps	0
48	SW CBCU - M&I	0
49	Non-Federal Reservoir Evaporation	0
50	SW CBCU	0
51	GW CBCU	508
52	Total CBCU	510
53		
54	**Totals**	
55	Total SW CBCU	0
56	Total GW CBCU	850
57	Total Basin CBCU	850
58		
59	**Virgin Water Supply**	
60	Arikaree River At Haigler	1060
61	Colorado CBCU	240
62	Kansas CBCU	100
63	Nebraska CBCU	510
64	Imported Water	0
65	Virgin Water Supply	1910
66	Adjustment For Flood Flows	0
67	Computed Water Supply	1910
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	78.5%
71	Colorado Allocation	1500
72	Kansas Percent Of Allocation	5.1%
73	Kansas Allocation	100
74	Nebraska Percent Of Allocation	16.8%
75	Nebraska Allocation	320
76	Total Basin Allocation	1920
77	Percent Of Supply Not Allocated	-0.4%
78	Quantity Of Unallocated Supply	-10

	A	B
1	**Buffalo Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	265
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3338
9		
10	**Surface Water Data**	
11	Buffalo Creek Near Haigler	2090
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	587
16	SW Diversions - Irrigation - Small Pumps - Nebraska	70.2
17	SW Diversions - M&I - Nebraska	0
18	Non-Federal Reservoir Evaporation - Colorado	0
19	Non-Federal Reservoir Evaporation - Nebraska	0
20	Buffalo Flood Flow	0
21		
22	**Consumptive Use Calculations**	
23	**Colorado**	
24	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
25	SW Diversions - Irrigation - Small Pumps - Colorado	0
26	SW Diversions - M&I - Colorado	0
27	Non-Federal Reservoir Evaporation - Colorado	0
28	SW CBCU	0
29	GW CBCU	265
30	Total CBCU	270
31		
32	**Kansas**	
33	GW CBCU	0
34	Total CBCU	0
35		
36	**Nebraska**	
37	SW CBCU - Irrigation - Non Federal Canals	352.2
38	SW CBCU - Irrigation - Small Pumps	53
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	0
41	SW CBCU	405
42	GW CBCU	3338
43	Total CBCU	3740
44		
45	**Totals**	
46	Total SW CBCU	405
47	Total GW CBCU	3603
48	Total Basin CBCU	4010
49		
50	**Virgin Water Supply**	
51	Buffalo Creek Near Haigler	2090
52	Colorado CBCU	270
53	Kansas CBCU	0
54	Nebraska CBCU	3740
55	Imported Water	0
56	Virgin Water Supply	6100
57	Adjustment For Flood Flows	0
58	Computed Water Supply	6100
59		
60	**Allocations**	
61	Colorado Percent Of Allocation	0.0%
62	Colorado Allocation	0
63	Kansas Percent Of Allocation	0.0%
64	Kansas Allocation	0
65	Nebraska Percent Of Allocation	33.0%
66	Nebraska Allocation	2010
67	Total Basin Allocation	2010
68	Percent Of Supply Not Allocated	67.0%
69	Quantity Of Unallocated Supply	4090

	A	B
1	**Rock Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	59
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3419
9		
10	**Surface Water Data**	
11	Rock Creek At Parks	4710
12	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
13	SW Diversions - Irrigation - Small Pumps - Nebraska	0
14	SW Diversions - M&I - Nebraska	0
15	Non-Federal Reservoir Evaporation - Nebraska	0
16	Rock Flood Flow	0
17		
18	**Consumptive Use Calculations**	
19	**Colorado**	
20	GW CBCU	59
21	Total CBCU	60
22		
23	**Kansas**	
24	GW CBCU	0
25	Total CBCU	0
26		
27	**Nebraska**	
28	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	0
32	SW CBCU	0
33	GW CBCU	3419
34	Total CBCU	3420
35		
36	**Totals**	
37	Total SW CBCU	0
38	Total GW CBCU	3478
39	Total Basin CBCU	3480
40		
41	**Virgin Water Supply**	
42	Rock Creek At Parks	4710
43	Colorado CBCU	60
44	Kansas CBCU	0
45	Nebraska CBCU	3420
46	Imported Water	0
47	Virgin Water Supply	8190
48	Adjustment For Flood Flows	0
49	Computed Water Supply	8190
50		
51	**Allocations**	
52	Colorado Percent Of Allocation	0.0%
53	Colorado Allocation	0
54	Kansas Percent Of Allocation	0.0%
55	Kansas Allocation	0
56	Nebraska Percent Of Allocation	40.0%
57	Nebraska Allocation	3280
58	Total Basin Allocation	3280
59	Percent Of Supply Not Allocated	60.0%
60	Quantity Of Unallocated Supply	4910

	A	B
1	**South Fork Republican River Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	12115
7	GW CBCU Kansas	5351
8	GW CBCU Nebraska	1347
9		
10	**Surface Water Data**	
11	South Fork Republican River Near Benkelman	905
12	Bonny Reservoir Evaporation	3375
13	Bonny Reservoir Change In Storage	-2226
14	Hale Ditch Diversions	0
15	SW Diversions - Irrigation -Non-Federal Canals- Colorado	996
16	SW Diversions - Irrigation - Small Pumps - Colorado	0
17	SW Diversions - M&I - Colorado	0
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	39
20	SW Diversions - M&I - Kansas	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
22	SW Diversions - Irrigation - Small Pumps - Nebraska	0
23	SW Diversions - M&I - Nebraska	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	0
26	Non-Federal Reservoir Evaporation - Nebraska	0
27	Southfork Flood Flow	0
28		
29	**Consumptive Use Calculations**	
30	**Colorado**	
31	Hale Ditch CBCU	0
32	SW CBCU - Irrigation - Non Federal Canals	597.6
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	Bonny Reservoir Evaporation	3375
37	SW CBCU	3973
38	GW CBCU	12115
39	Total CBCU	16090
40		
41	**Kansas**	
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	29.25
44	SW CBCU - M&I	0
45	Non-Federal Reservoir Evaporation	0
46	SW CBCU	29
47	GW CBCU	5351
48	Total CBCU	5380
49		
50	**Nebraska**	
51	SW CBCU - Irrigation - Non Federal Canals	0
52	SW CBCU - Irrigation - Small Pumps	0
53	SW CBCU - M&I	0
54	Non-Federal Reservoir Evaporation	0
55	SW CBCU	0
56	GW CBCU	1347
57	Total CBCU	1350
58		
59	**Totals**	
60	Total SW CBCU	4002
61	Total GW CBCU	18813
62	Total Basin CBCU	22810
63		
64	**Virgin Water Supply**	
65	South Fork Republican River Near Benkelman	905
66	Colorado CBCU	16090
67	Kansas CBCU	5380
68	Nebraska CBCU	1350
69	Bonny Reservoir Change In Storage	-2226
70	Imported Water	0
71	Virgin Water Supply	21500
72	Adjustment For Flood Flows	0
73	Computed Water Supply	23730
74		
75	**Allocations**	
76	Colorado Percent Of Allocation	44.4%
77	Colorado Allocation	10540
78	Kansas Percent Of Allocation	40.2%
79	Kansas Allocation	9540
80	Nebraska Percent Of Allocation	1.4%
81	Nebraska Allocation	330
82	Total Basin Allocation	20410
83	Percent Of Supply Not Allocated	14.0%
84	Quantity Of Unallocated Supply	3320

	A	B
1	**Frenchman Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	37
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	85647
9		
10	**Surface Water Constants**	
11	Culbertson Canal % Return Flow	56%
12	Culbertson Canal Extension % Return Flow	100%
13		
14	**Surface Water Data**	
15	Frenchman Creek At Culbertson	13360
16	Enders Reservoir Evaporation	1485
17	Enders Reservoir Change In Storage	-218
18	Champion Canal Diversions	0
19	Riverside Canal Diversions	1838
20	Culbertson Canal Diversions	8002
21	Culbertson Canal Extension Diversions	0
22	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
23	SW Diversions - Irrigation - Small Pumps - Nebraska	3.09
24	SW Diversions - M&I - Nebraska	0
25	Non-Federal Reservoir Evaporation - Nebraska	0
26	Frenchman Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	37
31	Total CBCU	40
32		
33	**Kansas**	
34	GW CBCU	0
35	Total CBCU	0
36		
37	**Nebraska**	
38	Champion Canal CBCU	0
39	Riverside Canal CBCU	1102.8
40	Culbertson Canal CBCU	3520.9
41	Culbertson Canal Extension CBCU	0
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	2
44	SW CBCU - M&I	0
45	Enders Reservoir Evaporation	1485
46	Non-Federal Reservoir Evaporation	0
47	SW CBCU	6111
48	GW CBCU	85647
49	Total CBCU	91760
50		
51	**Totals**	
52	Total SW CBCU	6111
53	Total GW CBCU	85684
54	Total Basin CBCU	91790
55		
56	**Virgin Water Supply**	
57	Frenchman Creek At Culbertson	13360
58	17% Culbertson Canal Return Flow to Main Stem	762
59	100% Culbertson Canal Extension Return Flow to Main Stem	0
60	Colorado CBCU	40
61	Kansas CBCU	0
62	Nebraska CBCU	91760
63	Enders Reservoir Change In Storage	-218
64	Imported Water	0
65	Virgin Water Supply	105700
66	Adjustment For Flood Flows	0
67	Computed Water Supply	105920
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	0.0%
71	Colorado Allocation	0
72	Kansas Percent Of Allocation	0.0%
73	Kansas Allocation	0
74	Nebraska Percent Of Allocation	53.6%
75	Nebraska Allocation	56770
76	Total Basin Allocation	56770
77	Percent Of Supply Not Allocated	46.4%
78	Quantity Of Unallocated Supply	49150

	A	B
1	**Driftwood Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	1391
9		
10	**Surface Water Constants**	
11	Meeker-Driftwood Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Driftwood Creek Near McCook	1100
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	Meeker-Driftwood Canal Diversions	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
20	SW Diversions - Irrigation - Small Pumps - Nebraska	0
21	SW Diversions - M&I - Nebraska	0
22	Non-Federal Reservoir Evaporation - Kansas	0
23	Non-Federal Reservoir Evaporation - Nebraska	0
24	Driftwood Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	GW CBCU	0
29	Total CBCU	0
30		
31	**Kansas**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	SW CBCU	0
37	GW CBCU	0
38	Total CBCU	0
39		
40	**Nebraska**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	0
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	0
45	SW CBCU	0
46	GW CBCU	1391
47	Total CBCU	1390
48		
49	**Totals**	
50	Total SW CBCU	0
51	Total GW CBCU	1391
52	Total Basin CBCU	1390
53		
54	**Virgin Water Supply**	
55	Driftwood Creek Near McCook	1100
56	24% Meeker Driftwood Canal Return	0
57	Colorado CBCU	0
58	Kansas CBCU	0
59	Nebraska CBCU	1390
60	Imported Water	0
61	Virgin Water Supply	2490
62	Adjustment For Flood Flows	0
63	Computed Water Supply	2490
64		
65	**Allocations**	
66	Colorado Percent Of Allocation	0.0%
67	Colorado Allocation	0
68	Kansas Percent Of Allocation	6.9%
69	Kansas Allocation	170
70	Nebraska Percent Of Allocation	16.4%
71	Nebraska Allocation	410
72	Total Basin Allocation	580
73	Percent Of Supply Not Allocated	76.7%
74	Quantity Of Unallocated Supply	1910

	A	B
1	**Red Willow Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	20
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	7815
9		
10	**Surface Water Constants**	
11	Red Willow Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Red Willow Creek Near Red Willow	3970
15	Hugh Butler Lake Evaporation	2377
16	Hugh Butler Lake Change In Storage	2947
17	Red Willow Canal Diversions	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	341
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Nebraska	0
22	Red Willow Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	Red Willow Canal CBCU (10%)	0
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	256
37	SW CBCU - M&I	0
38	Hugh Butler Lake Evaporation (10%)	238
39	Non-Federal Reservoir Evaporation	0
40	SW CBCU	493
41	GW CBCU	7815
42	Total CBCU	8310
43		
44	**Totals**	
45	Total SW CBCU	493
46	Total GW CBCU	7815
47	Total Basin CBCU	8310
48		
49	**Virgin Water Supply**	
50	Red Willow Creek Near Red Willow	3970
51	Red Willow Canal CBCU (90%)	0
52	Colorado CBCU	0
53	Kansas CBCU	0
54	Nebraska CBCU	8310
55	Hugh Butler Lake Change In Storage	2947
56	Hugh Butler Lake Evaporation (90%)	2139.3
57	90% Red Willow Canal Return Flow To Main Stem	0
58	Imported Water	20
59	Virgin Water Supply	17350
60	Adjustment For Flood Flows	0
61	Computed Water Supply	14400
62		
63	**Allocations**	
64	Colorado Percent Of Allocation	0.0%
65	Colorado Allocation	0
66	Kansas Percent Of Allocation	0.0%
67	Kansas Allocation	0
68	Nebraska Percent Of Allocation	19.2%
69	Nebraska Allocation	2760
70	Total Basin Allocation	2760
71	Percent Of Supply Not Allocated	80.8%
72	Quantity Of Unallocated Supply	11640

	A	B
1	**Medicine Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	9423
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	21139
9		
10	**Surface Water Data**	
11	Medicine Creek Below Harry Strunk	19850
12	Harry Strunk Lake Evaporation	3755
13	Harry Strunk Lake Change In Storage	3385
14	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
15	SW Diversions - Irrigation - Small Pumps - Nebraska	291
16	SW Diversions - M&I - Nebraska	0
17	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
18	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	106
19	SW Diversions - M&I - Nebraska - Below Gage	0
20	Non-Federal Reservoir Evaporation - Nebraska	0
21	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
22	Medicine Creek Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	SW CBCU - Irrigation - Non Federal Canals	0
35	SW CBCU - Irrigation - Small Pumps	218
36	SW CBCU - M&I	0
37	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
38	SW CBCU - Irrigation - Small Pumps - Below Gage	80
39	SW CBCU - M&I - Below Gage	0
40	Non-Federal Reservoir Evaporation	0
41	Non-Federal Reservoir Evaporation - Below gage	0
42	SW CBCU	298
43	GW CBCU	21139
44	Total CBCU	21440
45		
46	**Totals**	
47	Total SW CBCU	298
48	Total GW CBCU	21139
49	Total Basin CBCU	21440
50		
51	**CBCU Below Gage**	
52	SW CBCU Below The Gage	80
53	Total	80
54		
55	**Virgin Water Supply**	
56	Medicine Creek Below Harry Strunk	19850
57	Colorado CBCU	0
58	Kansas CBCU	0
59	Nebraska CBCU	21440
60	SW CBCU Below The Gage	80
61	Harry Strunk Lake Change In Storage	3385
62	Harry Strunk Lake Evaporation	3755
63	Imported Water	9423
64	Virgin Water Supply	38930
65	Adjustment For Flood Flows	0
66	Computed Water Supply	35550
67		
68	**Allocations**	
69	Colorado Percent Of Allocation	0.0%
70	Colorado Allocation	0
71	Kansas Percent Of Allocation	0.0%
72	Kansas Allocation	0
73	Nebraska Percent Of Allocation	9.1%
74	Nebraska Allocation	3240
75	Total Basin Allocation	3240
76	Percent Of Supply Not Allocated	90.9%
77	Quantity Of Unallocated Supply	32310

	A	B
1	**Beaver Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	274
8	GW CBCU Nebraska	777
9		
10	**Surface Water Data**	
11	Beaver Creek Near Beaver City	220
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	26
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	0
26	Non-Federal Reservoir Evaporation - Nebraska	0
27	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
28	Beaver Flood Flow	0
29		
30	**Consumptive Use Calculations**	
31	**Colorado**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	SW CBCU	0
37	GW CBCU	0
38	Total CBCU	0
39		
40	**Kansas**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	19.5
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	0
45	SW CBCU	20
46	GW CBCU	274
47	Total CBCU	290
48		
49	**Nebraska**	
50	SW CBCU - Irrigation - Non Federal Canals	0
51	SW CBCU - Irrigation - Small Pumps	0
52	SW CBCU - M&I	0
53	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
54	SW CBCU - Irrigation - Small Pumps - Below Gage	0
55	SW CBCU - M&I - Below Gage	0
56	Non-Federal Reservoir Evaporation	0
57	Non-Federal Reservoir Evaporation - Below gage	0
58	SW CBCU	0
59	GW CBCU	777
60	Total CBCU	780
61		
62	**CBCU Below Gage**	
63	SW CBCU Below The Gage	0
64	Total	0
65		
66	**Totals**	
67	Total SW CBCU	20
68	Total GW CBCU	1051
69	Total Basin CBCU	1070
70		
71	**Virgin Water Supply**	
72	Beaver Creek Near Beaver City	220
73	Colorado CBCU	0
74	Kansas CBCU	290
75	Nebraska CBCU	780
76	SW CBCU Below The Gage	0
77	Imported Water	0
78	Virgin Water Supply	1290
79	Adjustment For Flood Flows	0
80	Computed Water Supply	1290
81		
82	**Allocations**	
83	Colorado Percent Of Allocation	20.0%
84	Colorado Allocation	260
85	Kansas Percent Of Allocation	38.8%
86	Kansas Allocation	500
87	Nebraska Percent Of Allocation	40.6%
88	Nebraska Allocation	520
89	Total Basin Allocation	1280

	A	B
1	**Beaver Creek Sub-Basin**	2003
2		
90	Percent Of Supply Not Allocated	0.6%
91	Quantity Of Unallocated Supply	10

	A	B
1	**Sappa Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	-274
8	GW CBCU Nebraska	500
9		
10	**Surface Water Data**	
11	Sappa Creek Near Stamford	179.11552
12	Beaver Creek Near Beaver City	220
13	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
14	SW Diversions - Irrigation - Small Pumps - Kansas	14
15	SW Diversions - M&I - Kansas	0
16	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
17	SW Diversions - Irrigation - Small Pumps - Nebraska	0
18	SW Diversions - M&I - Nebraska	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
20	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	19.8
21	SW Diversions - M&I - Nebraska - Below Gage	0
22	Non-Federal Reservoir Evaporation - Kansas	0
23	Non-Federal Reservoir Evaporation - Nebraska	0
24	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
25	Sappa Flood Flow	0
26		
27	**Consumptive Use Calculations**	
28	**Colorado**	
29	GW CBCU	0
30	Total CBCU	0
31		
32	**Kansas**	
33	SW CBCU - Irrigation - Non Federal Canals	0
34	SW CBCU - Irrigation - Small Pumps	10.5
35	SW CBCU - M&I	0
36	Non-Federal Reservoir Evaporation	0
37	SW CBCU	11
38	GW CBCU	-274
39	Total CBCU	-260
40		
41	**Nebraska**	
42		
43	SW CBCU - Irrigation - Non Federal Canals	0
44	SW CBCU - Irrigation - Small Pumps	0
45	SW CBCU - M&I	0
46	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
47	SW CBCU - Irrigation - Small Pumps - Below Gage	15
48	SW CBCU - M&I - Below Gage	0
49	Non-Federal Reservoir Evaporation	0
50	Non-Federal Reservoir Evaporation - Below gage	0
51	SW CBCU	15
52	GW CBCU	500
53	Total CBCU	510
54		
55	**CBCU Below Gage**	
56	SW CBCU Below The Gage	15

	A	B
1	**Sappa Creek Sub-Basin**	2003
2		
57	Total	15
58		
59	**Totals**	
60	Total SW CBCU	25
61	Total GW CBCU	226
62	Total Basin CBCU	251
63		
64	**Virgin Water Supply**	
65	Sappa Creek Near Stamford	179
66	Beaver Creek Near Beaver City	220
67	Colorado CBCU	0
68	Kansas CBCU	-260
69	Nebraska CBCU	510
70	SW CBCU Below The Gage	15
71	Imported Water	0
72	Virgin Water Supply	190
73	Adjustment For Flood Flows	0
74	Computed Water Supply	190
75		
76	**Allocations**	
77	Colorado Percent Of Allocation	0.0%
78	Colorado Allocation	0
79	Kansas Percent Of Allocation	41.1%
80	Kansas Allocation	80
81	Nebraska Percent Of Allocation	41.1%
82	Nebraska Allocation	80
83	Total Basin Allocation	160
84	Percent Of Supply Not Allocated	17.8%
85	Quantity Of Unallocated Supply	30

	A	B
1	**Prairie Dog Creek Sub-Basin**	2003
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	1679
8	GW CBCU Nebraska	0
9		
10	**Surface Water Constants**	
11	Almena Canal % Return Flow	52%
12		
13	**Surface Water Data**	
14	Prairie Dog Creek Near Woodruff	1087.45
15	Keith Sebelius Lake Evaporation	2823
16	Keith Sebelius Lake Change In Storage	-4338
17	Almena Canal Diversions	3379
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	273
20	SW Diversions - M&I - Kansas	548
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	59.2
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Kansas	0
25	Non-Federal Reservoir Evaporation - Nebraska	0
26	Prairie Dog Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Kansas**	
34	Almena Canal CBCU	1621.92
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	204.75
37	SW CBCU - M&I	274
38	Keith Sebelius Lake Evaporation	2823
39	Non-Federal Reservoir Evaporation	0
40	SW CBCU	4924
41	GW CBCU	1679
42	Total CBCU	6600
43		
44	**Nebraska**	
45	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
46	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	44.4
47	SW Diversions - M&I - Nebraska - Below Gage	0
48	Non-Federal Reservoir Evaporation	0
49	SW CBCU	44
50	GW CBCU	0
51	Total CBCU	40

	A	B
1	**Prairie Dog Creek Sub-Basin**	2003
2		
52		
53	**CBCU Below Gage**	
54	SW CBCU Below The Gage	44
55	Total	44
56		
57	**Totals**	
58	Total SW CBCU	4968
59	Total GW CBCU	1679
60	Total Basin CBCU	6647
61		
62	**Virgin Water Supply**	
63	Prairie Dog Creek Near Woodruff	1087
64	Colorado CBCU	0
65	Kansas CBCU	6600
66	Nebraska CBCU	40
67	SW CBCU Below The Gage	44
68	Keith Sebelius Lake Change In Storage	-4338
69	Imported Water	0
70	Virgin Water Supply	3350
71	Adjustment For Flood Flows	0
72	Computed Water Supply	7690
73		
74	**Allocations**	
75	Colorado Percent Of Allocation	0.0%
76	Colorado Allocation	0
77	Kansas Percent Of Allocation	45.7%
78	Kansas Allocation	3510
79	Nebraska Percent Of Allocation	7.6%
80	Nebraska Allocation	580
81	Total Basin Allocation	4090
82	Percent Of Supply Not Allocated	46.7%
83	Quantity Of Unallocated Supply	3600

	A	B	C
1	**Mainstem Sub-Basin**	**2003**	
2			
3	**Input Data**		
4	**Groundwater / Model Data**		
5	Imported Water Nebraska Above Guide Rock	337	
6	GW CBCU Colorado	132	
7	GW CBCU Kansas	110	
8	GW CBCU Nebraska Above Guide Rock	74323	
9	GW CBCU Nebraska Below Guide Rock	2559	
10	GW CBCU Nebraska	76882	
11			
12	**Surface Water Constants**		
13	Meeker-Driftwood Canal % Return Flow	100%	
14	Culbertson Canal % Return Flow	56%	
15	Culbertson Canal Extension % Return Flow	100%	
16	Red Willow Canal % Return Flow	100%	
17	Bartley Canal % Return Flow	100%	
18	Cambridge Canal % Return Flow	51%	
19	Naponee Canal % Return Flow	53%	
20	Franklin Canal % Return Flow	64%	
21	Franklin Pump Canal % Return Flow	57%	
22	Superior Canal % Return Flow	57%	
23	Nebraska Courtland % Return Flow	33%	
24	Courtland Canal Above Lovewell % Return Flow	52%	
25	Courtland Canal Below Lovewell % Return Flow	46%	
26			
27	**Surface Water Data**		
28	Surface Water Gages		
29	Republican River Near Hardy	52394	
30	North Fork Republican River At Colorado-Nebraska State Line	17700	
31	Arikaree River At Haigler	1060	
32	Buffalo Creek Near Haigler	2090	
33	Rock Creek At Parks	4710	
34	South Fork Republican River Near Benkelman	905	
35	Frenchman Creek At Culbertson	13360	
36	Driftwood Creek Near McCook	1100	
37	Red Willow Creek Near Red Willow	3970	
38	Medicine Creek Below Harry Strunk	19850	
39	Sappa Creek Near Stamford	179	
40	Prairie Dog Creek Near Woodruff	1087	
41	White Rock Creek Above Lovewell	20959	
42	Reservoir Data		
43	Swanson Lake Evaporation	6086	
44	Swanson Lake Change In Storage	4735	
45	Hugh Butler Lake Evaporation	2377	
46	Harry Strunk Lake Evaporation	3755	
47	Harlan County Evaporation	23664	
48	Harlan County Change In Storage	-47110	
49	Lovewell Reservoir Ev charged to the Republican River	670	
50	Canal Diversion Data		
51	Bartley Canal Diversion	0	
52	Cambridge Canal Diversion	18332	
53	Naponee Canal Diversion	2162	
54	Franklin Canal Diversion	15262	
55	Franklin Pump Canal Diversions	1687	
56	Superior Canal Diversions	8174	
57			
58	Courtland Canal Diversions At Headgate	66500	
59	Diversions to Nebraska Courtland	1591	
60	Courtland Canal, Loss in NE assigned to upper Courtland KS	2841	Included in attachme
61	Courtland Canal, Loss in NE assigned to delivery to Lovewell	10116	
62	Courtland Canal At Kansas-Nebraska State Line	51952	
63	Courtland Canal Diversions to the Upper Courtland District	17511	
64	Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to Lovewell	10687	
65	Courtland Canal Deliveries To Lovewell Reservoir	26596	
66	Diversions of Republican River water from Lovewell Reservoir to the Courtland Canal below Lovewell	21270	
67			
68	Kansas Bostwick Diversions During Irrigation Season	27100	
69	Nebraska Bostwick Diversions During Irrigation Season	28844	
70			
71	Meeker-Driftwood Canal Diversions	0	

	A	B	C
1	**Mainstem Sub-Basin**	**2003**	
2			
72	Red Willow Canal Diversions	0	
73	Culbertson Canal Diversions	8002	
74	Culbertson Canal Extension Diversions	0	
75	Haigler Canal Diversions - Nebraska	4965	
76	Kansas Surface Water Data		
77	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0	
78	SW Diversions - Irrigation - Small Pumps - Kansas	1064	
79	SW Diversions - M&I - Kansas	0	
80	Non-Federal Reservoir Evaporation - Kansas	0	
81	Nebraska Surface Water Data		
82	SW Diversions - Irrigation - Non-Federal Canals - Nebraska - Mainstem	3719	
83	SW Diversions - Irrigation - Small Pumps - Nebraska - Mainstem	1401	
84	SW Diversions - M&I - Nebraska - Mainstem	0	
85	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0	
86	Mainstem Flood Flow	0	
87			
88	**Calculations**		
89	Return Flow From Courtland Canal To Republican River Above Hardy From Kansas	779	
90	Courtland Canal Transportation Loss in NE assigned to the Upper Courtland KS that does not recharge	511	
91	Courtland Canal Transportation Loss in NE assigned to deliveries to Lovewell that does not recharge	1821	
92	Courtland Canal Transportation Loss from the Stateline to Lovewell that does not return	1924	
93	Net Evaporation From Lovewell Reservoir Charged To Republican River	375	
94	Percent Kansas Bostwick Diversions During Irrigation Season	48.44%	
95	Percent Nebraska Diversions During Irrigation Season	51.56%	
96	Net Evaporation From Harlan County Reservoir Charged To Kansas	11463	
97	Net Evaporation From Harlan County Reservoir Charged To Nebraska	12201	
98			
99	**Consumptive Use Calculations**		
100	**Colorado**		
101	GW Depletion	132	
102	Total CU	130	
103			
104	**Kansas**		
105	Net Evaporation From Harlan County Reservoir Charged To Kansas	11463	
106	Courtland Canal Transportation Loss in NE assigned to deliveries to Lovewell that does not recharge	1821	
107	Courtland Canal Above Lovewell CBCU	8440	
108	Courtland Canal Transportation Loss from the Stateline to Lovewell that does not return	1924	
109	Net Evaporation From Lovewell Charged To Kansas	670	
110	Courtland Canal Below Lovewell CBCU	11557	
111	SW CBCU - Irrigation - Non Federal Canals	0	
112	SW CBCU - Irrigation - Small Pumps	798	
113	SW CBCU - M&I	0	
114	Non-Federal Reservoir Evaporation - Kansas	0	
115	SW CBCU	36673	
116	GW CBCU	110	
117	Total CBCU	36780	
118			
119	**Nebraska**		
120	NE Courtland Canal CBCU (includes transportation loss)	1072	
121	Superior Canal CBCU	3515	
122	Franklin Pump Canal CBCU	725	
123	Franklin Canal CBCU	5494	
124	Naponee Canal CBCU	1016	
125	Cambridge Canal Diversion	8983	
126	Bartley Canal Diversion	0	
127	Meeker-Driftwood Canal CBCU	0	
128	Red Willow Canal Diversions (90%)	0	
129	SW CBCU - Irrigation - Non Federal Canals	2231	
130	SW CBCU - Irrigation - Small Pumps	1051	
131	SW CBCU - M&I	0	
132	Harry Strunk Lake Evaporation	3755	
133	Swanson Lake Evaporation	6086	
134	Hugh Butler Lake Evaporation (90%)	2139	
135	Harlan County Evaporation Charged To Nebraska	12201	
136	Non-Federal Reservoir Evaporation	0	
137	SW CBCU	48269	
138	GW CBCU	76882	
139	Total CBCU	125150	

	A	B	C
1	**Mainstem Sub-Basin**	**2003**	
2			
140			
141	**Totals**		
142	Total SW CBCU	84942	
143	Total GW CBCU	77124	
144	Total Basin CBCU	162070	
145			
146	**Virgin Water Supply**		
147	Republican River Near Hardy	52394	
148	North Fork Republican River At Colorado-Nebraska State Line	17700	
149	Arikaree River At Haigler	1060	
150	Buffalo Creek Near Haigler	2090	
151	Rock Creek At Parks	4710	
152	South Fork Republican River Near Benkelman	905	
153	Frenchman Creek At Culbertson	13360	
154	Driftwood Creek Near McCook	1100	
155	Red Willow Creek Near Red Willow	3970	
156	Medicine Creek Below Harry Strunk	19850	
157	Sappa Creek Near Stamford	179	
158	Prairie Dog Creek Near Woodruff	1087	
159			
160	Colorado CBCU	130	
161	Kansas CBCU Above Stateline	14593	
162	Nebraska CBCU	125150	
163			
164	90% Red Willow Canal CBCU - Nebraska	0	
165	90% Hugh Butler Lake Evap	2139	
166	Harry Strunk Lake Evaporation	3755	
167			
168	CBCU Below Medicine Creek Gage	80	
169	CBCU Below Beaver Creek Gage	0	
170	CBCU Below Sappa Creek Gage	15	
171	CBCU Below Prairie Dog Gage	44	
172			
173	Harlan County Change In Storage	-47110	
174	Swanson Lake Change In Storage	4735	
175			
176	Haigler Canal Return Flow To Mainstem	1986	
177	Culbertson Canal Return Flow To Mainstem	762	
178	Culbertson Canal Extension Return Flow To Mainstem	0	
179	Meeker - Driftwood Canal Return Flow To Driftwood Creek	0	
180	Red Willow Canal Return Flow To Mainstem	0	
181			
182	Courtland Canal At Kansas-Nebraska State Line	51952	
183	Return Flow To Republican River Above Hardy From Kansas	779.28	
184			
185	Imported Water	337	
186	Virgin Water Supply	126213	
187	Adjustment For Flood Flows	0	
188	Computed Water Supply	168590	
189			
190	**Allocations**		
191	Colorado Percent Of Allocation	0	
192	Colorado Allocation	0	
193	Kansas Percent Of Allocation	51.1%	
194	Kansas Allocation	86150	
195	Nebraska Percent Of Allocation	48.9%	
196	Nebraska Allocation	82440	
197	Total Basin Allocation	168590	
198	Percent Of Supply Not Allocated	0.0%	
199	Quantity Of Unallocated Supply	0	

Table 1: Annual Virgin and Computed Water Supply, Allocations, and Computed Beneficial Consumptive Uses by State, Main Stem, and Sub-Basin

2003	Virgin Water	Computed	Allocations				Computed Beneficial Consumptive Use		
Basin	Supply	Water Supply	Colorado	Kansas	Nebraska	Unallocated	Colorado	Kansas	Nebraska
North Fork	40,730	40,730	9,120	0	10,020	21,590	16,640	20	4,380
Arikaree	1,910	1,910	1,500	100	320	-10	240	100	510
Buffalo	6,100	6,100	0	0	2,010	4,090	270	0	3,740
Rock	8,190	8,190	0	0	3,280	4,910	60	0	3,420
South Fork	21,500	23,730	10,540	9,540	330	3,320	16,090	5,380	1,350
Frenchman	105,700	105,920	0	0	56,770	49,150	40	0	91,760
Driftwood	2,490	2,490	0	170	410	1,910	0	0	1,390
Red Willow	17,350	14,400	0	0	2,760	11,640	0	0	8,310
Medicine	38,930	35,550	0	0	3,240	32,310	0	0	21,440
Beaver	1,290	1,290	260	500	520	10	0	290	780
Sappa	190	190	0	80	80	30	0	-260	510
Prairie Dog	3,350	7,690	0	3,510	580	3,600	0	6,600	40
Main Stem	126,210	168,590	0	86,150	82,440	0	130	36,780	125,150
Total All Basins	373,940	416,780	21,420	100,050	162,760	132,550	33,470	48,910	262,780
Main Stem Including Unallocated		301,140	0	153,880	147,260				
Tqtal	373,940	416,780	21,420	167,780	227,580	0	33,470	48,910	262,780

Table 2: Original Compact Virgin Water Supply and Allocations

Basin	Virgin Water Supply	Colorado Allocation	% of Basin Supply	Kansas Allocation	% of Basin Supply	Nebraska Allocation	% of Basin Supply	Unallocated	% of Basin Supply
North Fork	44,700	10,000	22.4%			11,000	24.6%	23,700	53.0%
Arikaree	19,610	15,400	78.5%	1,000	5.1%	3,300	16.8%	-90	-0.4%
Buffalo	7,890					2,600	33.0%	5,290	67.0%
Rock	11,000					4,400	40.0%	6,600	60.0%
South Fork	57,200	25,400	44.4%	23,000	40.2%	800	1.4%	8,000	14.0%
Frenchman	98,500					52,800	53.6%	45,700	46.4%
Driftwood	7,300			500	6.9%	1,200	16.4%	5,600	76.7%
Red Willow	21,900					4,200	19.2%	17,700	80.8%
Medicine	50,800					4,600	9.1%	46,200	90.9%
Beaver	16,500	3,300	20.0%	6,400	38.8%	6,700	40.6%	100	0.6%
Sappa	21,400			8,800	41.1%	8,800	41.1%	3,800	17.8%
Prairie Dog	27,600			12,600	45.7%	2,100	7.6%	12,900	46.7%
Tributaries Sub-Total	384,000							175,500	
Main Stem	94,500								
Main Stem + Unallocated	270,000			138,000	51.1%	132,000	48.9%		
Total	478,900	54,100		190,300		234,500			

Table 3A: Colorado's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	21,420	33,470	NA	-12,050
2004			NA	
2005			NA	
2006			NA	
2007			NA	
Average	21,420	33,470		-12,050

Table 3B: Kansas's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	167,780	48,910	NA	118,870
2004			NA	
2005			NA	
2006			NA	
2007			NA	
Average	167,780	48,910		118,870

Table 3C: Nebraska's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	227,580	262,780	9,780	-25,420
2004				
2005				
2006				
2007				
Average	227,580	262,780	9,780	-25,420

Table 4A: Colorado's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
North Fork			NA	0		0
Arikaree			NA	0		0
South Fork			NA	0		0
Beaver			NA	0		0

Table 4B: Kansas's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Unused Allocation from Colorado (5-year running average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply (5-year running average)	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
Arikaree				NA	0		0
South Fork				NA	0		0
Driftwood				NA	0		0
Beaver				NA	0		0
Sappa				NA	0		0
Prairie Dog				NA	0		0

N9171
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Table 5A: Colorado's Compliance During Water-Short Year Administration

Year	Allocation - Allocation Beaver	Computed Beneficial Consumptive Use - CBCU Beaver	Imported Water Supply Credit - IWS Beaver	Allocation - (CBCU - IWS Credit)
1999			NA	0
2000			NA	0
2001			NA	0
2002			NA	0
2003			NA	0
Average	#DIV/0!	#DIV/0!	NA	0

Table 5B: Kansas's Compliance During Water-Short Year Administration

Year	Allocation			Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS)
	Sub-Basin Total	Kansas's Share of Unallocated Supply	Total			
1999			0		NA	0
2000			0		NA	0
2001			0		NA	0
2002			0		NA	0
2003			0		NA	0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0

Table 5E: Nebraska's Tributary Compliance During Water-Short Year Administration

Year	Allocation			Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS)
	Sub-Basin Total	Nebraska's Share of Unallocated Supply	Total			
1999			0			0
2000			0			0
2001			0			0
2002			0			0
2003			0			0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0

Table 5C: Nebraska's Compliance During Water-Short Year Administration

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
2002			0			0		0
2003			0			0		0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0

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

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
2001			0			0		0
2002			0			0		0
2003			0			0		0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0

Attachment 6: Computing Water Supplies and Consumptive Use Above Guide Rock

Total Mainstem CWS	Hardy Gage	Superior Courtland Diversion Dam	Courtland Canal Diversions	Superior Canal Diversion	Courtland Canal Returns	Superior Canal Returns	Total Bostwick Returns Below Guide Rock	NE CBCU Below Guide Rock	KS CBCU Below Ruide Rock	Total CBCU Below Guide Rock	Gain Guide Rock to Hardy	VWS Guide Rock to Hardy	Mainstem VWS Above Hardy	NE MS Allocation Above Hardy	KS MS Allocation Above Hardy	Nebraska Guide Rock to Hardy Allocation	Kansas Guide Rock to Hardy Allocation
168,590	52,394	21,346	66,500	8,174	11,829	4,659	16,488	3,731	908	4,639	19,199	23,837	192,427	11,656	98,330	11,656	12,181

COURTLAND CANAL	
Return Flow From Courtland Canal To Republican River Above Hardy From Kansas	779
Return Flow From Courtland Canal To Republican River Above Hardy From Nebraska	11,050
Courtland Canal Diversions At Headgate	66500
Courtland Canal At Kansas-Nebraska State Line	51952
NE Courtland Canal CBCU (includes transportation loss)	1,072
Superior Canal CBCU	3,515

NEBRASKA	
SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	1,562
SW Diversions - M&I - Nebraska - Below Guide Rock	0
SW Return - Irrigation	390.5
SW Return - M&I	0
GW CBCU Nebraska Below Guide Rock	2559

KANSAS	
SW CBCU - Irrigation - Small Pumps	798
SW CBCU - M&I	0
GW CBCU Kansas	110

2003
Attachment 7: Calculations of Return Flows from Bureau of Reclamation Canals

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11
Canal	Canal Diversion	Spill to Waste-Way	Field Deliveries	Canal Loss	Average Field Loss Factor	Field Loss	Total Loss from District	Percent Field and Canal Loss That Returns to the Stream	Total return to Stream from Canal and Field Loss	Return as Percent of Canal Diversion
Name Canal	Headgate Diversion	Sum of measured spills to river	Sum of Deliveries to the field	Col 2 - Col 4	1 -Weighted Average Efficiency of Application System for the District*	Col 4 x Col 6	Col 5 + Col 7	Estimated Percent Loss*	Col 8 x Col 9	Col 10/Col 2
Example	100	5	60	40	30%	18	58	82%	48	48%
Culbertson	8002		3576	4426	30%	1073	5499	82%	4509	56%
Culbertson Extension	0		0	0	30%	0	0	82%	0	100%
Meeker - Driftwood	0		0	0	30%	0	0	82%	0	100%
Red Willow	0		0	0	30%	0	0	82%	0	100%
Bartley	0		0	0	30%	0	0	82%	0	100%
Cambridge	18332		10023	8309	30%	3007	11316	82%	9279	51%
Naponee	2162		1173	989	35%	411	1400	82%	1148	53%
Franklin	15262		5144	10118	35%	1800	11918	82%	9773	64%
Franklin Pump	1687		793	894	35%	278	1172	82%	961	57%
Almena	3379		1759	1620	30%	528	2148	82%	1761	52%
Superior	8174		3622	4552	31%	1123	5675	82%	4653	57%
Nebraska Courtland	1591		1245	346	23%	286	632	82%	519	33%
Courtland Canal Above Lovewell (KS)	17511		8375	9136	23%	1926	11062	82%	9071	52%
Courtland Canal Below Lovewell	35606		20490	15116	23%	4713	19829	82%	16260	46%

* The average field efficiencies for each district and percent loss that returns to the stream may be reviewed and, if necessary, changed by the RRCA to improve the accuracy of the estimates.

Impacts 2003 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	242	100	508	0
Beaver	0	274	777	0
Buffalo	265	0	3338	0
Driftwood	0	0	1391	0
Frenchman	37	0	81210	0
North Fork	14023	17	1402	0
Above Swanson	112	-40	17979	0
Swanson - Harlan	0	53	27271	144
Harlan - Guide Rock	0	0	27709	181
Guide Rock - Hardy	0	59	2559	0
Medicine	0	0	20684	9423
Prairie Dog	0	1137	0	0
Red Willow	0	0	6056	20
Rock	59	0	3419	0
Sappa	0	-274	500	0
South Fork	10790	5351	1347	0
Hugh Butler	0	0	1759	0
Bonny	1325	0	0	0
Keith Sebelius	0	542	0	0
Enders	0	0	4437	0
Harlan	0	38	881	12
Harry Strunk	0	0	455	0
Swanson	20	0	483	0
Mainstem	**108**	**77**	**75517**	**320**
Total	**26872**	**7274**	**204164**	**9782**
MS's 4 reaches + 2 reservoirs	132	110	76882	337
NE above Guide Rock			74323	337
Total of individual sub-basins	26873	7257	204165	9780

COURTLAND CANAL ABOVE LOVEWELL

Revised for Compact Accounting Calculations: Dec. 17, 20(

2003

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Records	Records	District	(3 + 4)	(2 - 5)	District	Records	(7 + 8)	(3 - 9)	6-(6x(3/5))	(6-11)x(7/9)	(6-11-12)	(10 x 7/9)	(10 - 14)	(4 + 11)	(7 + 12 + 14)	(8 + 13 + 15)	(16+17+18)
										ALLOCATION OF LOSSES					TOTAL ALLOCATION ABOVE LOVEWELL			(= 2)
										LOSS IN NEBRASKA			LOSS IN KANSAS					C
			NEB			KAN	DEL			Courtland Canal 0.7 to 15.1			Courtland Canal 15.1 to 34.8		Courtland Canal 0.7 to 34.8			H
	Court	Court	Bost	Total	Total	Bost	to	Total	Total									E
	Canal	Canal	Use	out	Loss	Use	Lovewell	out	Loss									C
Month	0.7	15.1	Main Canal 0.7 to 15.1	flow in NEB	in NEB 0.7 to 15.1	Main Canal 15.1 to 34.	Court Canal 34.8	flow in KAN	in KAN 15.1 to 34.	NEB Bost	KAN Bost	USBR	KAN Bost	USBR	NEB Bost	KAN Bost	USBR	K
January	5203	4271	0	4271	932	0	3355	3355	916	0	0	932	0	916	0	0	5203	5203
February	2548	2163	0	2163	385	0	1740	1740	423	0	0	385	0	423	0	0	2548	2548
March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
April	5313	4144	0	4144	1169	0	3167	3167	977	0	0	1169	0	977	0	0	5313	5313
May	7233	5699	0	5699	1534	0	4231	4231	1468	0	0	1534	0	1468	0	0	7233	7233
June	5453	4169	0	4169	1284	0	1426	1426	2743	0	0	1284	0	2743	0	0	5453	5453
July	15543	12073	940	13013	2530	8704	2061	10765	1308	182	1898	450	1058	250	1122	11660	2761	15543
August	10511	8423	394	8817	1694	4590	3288	7878	545	75	943	676	318	227	469	5851	4191	10511
September	3365	2472	0	2472	893	0	1582	1582	890	0	0	893	0	890	0	0	3365	3365
October	3064	2129	0	2129	935	0	1189	1189	940	0	0	935	0	940	0	0	3064	3064
November	3880	2950	0	2950	930	0	2006	2006	944	0	0	930	0	944	0	0	3880	3880
December	4387	3459	0	3459	928	0	2550	2550	909	0	0	928	0	909	0	0	4387	4387
Total	66500	51952	1334	53286	13214	13294	26595	39889	12063	257	2841	10116	1376	10687	1591	17511	47398	66500

34

BOSTWICK DIVISION
FRANKLIN UNIT

	HARLAN COUNTY LAKE						FRANKLIN CANAL		NAPONEE CANAL	
	Data from Corps of Engineers									
	(AF)	(AF)	(AF)	(in.)	(Inches)	(AF)	Release To Canal	Delivered To Farms	Release To Canal	Delivered To Farms
Month	Inflow	Outflow	Gross Evap.	Pan Evap.	Precip.	EOM Content	(AF)	(AF)	(AF)	(AF)
Jan.	280	0	652	1.22	0.21	160,085	0	0	0	0
Feb.	1,974	0	675	1.26	0.39	161,384	0	0	0	0
Mar.	3,729	0	944	1.75	0.30	164,168	0	0	0	0
Apr.	8,073	0	2,469	4.52	3.44	169,771	0	0	0	0
May	8,499	0	2,641	4.73	2.23	175,629	0	0	0	0
June	7,855	1,490	3,378	5.87	4.48	178,616	0	0	0	0
July	3,223	32,760	6,880	13.95	1.09	142,202	9,899	2,759	1,488	797
Aug.	1,184	16,987	5,126	10.57	1.83	121,273	5,363	2,385	674	376
Sep.	873	0	4,406	7.27	1.39	117,739	0	0	0	0
Oct.	2,221	0	4,384	6.80	0.89	115,579	0	0	0	0
Nov.	422	0	1,718	0.00	0.37	114,283	0	0	0	0
Dec.	97	0	1,034	0.00	0.08	113,346	0	0	0	0
TOTAL	38,430	51,237	34,307	58	16.70	--	15,262	5,144	2,162	1,173

NOTE: Acres irrigated 2003: Franklin Canal - 11,262 acres; Naponee Canal - 1,628 acres.

BOSTWICK DIVISION (Continued)
SUPERIOR-COURTLAND UNIT

	FRANKLIN PUMP CANAL		SUPERIOR CANAL			COURTLAND CANAL - ABOVE LOVEWELL			
						NEBRASKA USE		KANSAS USE	
	Diverted To Canal	Delivered To Farms	Diverted To Canal	Delivered To Farms	Total Diversion	Total	Delivered To Farms	Diversion To Canal	Delivered To Farms
Month	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)
Jan.	0	0	0	0	5,203	0	0	0	0
Feb.	0	0	0	0	2,548	0	0	0	0
Mar.	0	0	0	0	0	0	0	0	0
Apr.	0	0	0	0	5,313	0	0	0	0
May	0	0	0	0	7,233	0	0	0	0
June	0	0	501	0	5,453	0	0	0	0
July	1,184	544	5,194	2,290	15,543	1,054	879	11,715	5,363
Aug.	503	249	2,479	1,332	10,511	437	366	5,870	3,012
Sep.	0	0	0	0	3,365	0	0	0	0
Oct.	0	0	0	0	3,064	0	0	0	0
Nov.	0	0	0	0	3,880	0	0	0	0
Dec.	0	0	0	0	4,387	0	0	0	0
TOTAL	1,687	793	8,174	3,622	66,500	1,491	1,245	17,585	8,375

NOTE: Acres irrigated 2003: Franklin Pump Canal - 2,106 acres; Superior Canal - 5,972 acres.
Courtland Canal-Nebraska use - 1,967 acres.
Courtland Canal-Kansas use - 13,433 acres.

BOSTWICK DIVISION (Continued)
COURTLAND UNIT

	LOVEWELL RESERVOIR								COURTLAND (Below)	
	Total Inflow	Outflow	Gross Evap.	(in.)	Precip.	End of Month Content	Est. Flow from White Rock	Inflow from Courtland	Release To Canal	Delivered To Farms
Month	(AF)	(AF)	(AF)	Pan Evap.	(Inches)	(AF)	Creek (AF)	34.8 (AF)	(AF)	(AF)
Jan.	3,653	12	161	1.02	0.26	3,480	298	3,355	0	0
Feb.	2,965	11	201	1.20	0.77	6,233	1,225	1,740	0	0
Mar.	587	12	369	2.15	1.51	6,439	587	0	0	0
Apr.	4,297	17	660	3.72	2.52	10,059	1,130	3,167	0	0
May	5,778	588	927	4.92	3.70	14,322	1,546	4,232	472	0
June	10,676	4,163	1,382	6.88	10.84	19,453	9,250	1,426	3,647	0
July	3,191	20,887	2,016	11.25	0.26	-259	1,130	2,061	19,015	12,118
Aug.	4,930	13,330	1,083	8.09	4.30	-9,742	1,642	3,288	12,472	8,372
Sep.	4,040	19	701	5.03	4.78	-6,422	2,458	1,582	0	0
Oct.	1,427	16	601	4.57	0.83	-5,612	238	1,189	0	0
Nov.	2,888	12	357	0.00	1.92	-3,093	882	2,006	0	0
Dec.	3,123	12	174	0.00	0.73	-156	573	2,550	0	0
TOTAL	47,555	39,079	8,632	48.83	32.42	--	20,959	26,596	35,606	20,490

NOTE: Acres irrigated 2003: Courtland Canal below Lovewell - 26,991 acres.

Republican River Compact Administration

Compact Accounting

Spreadsheet name: RRCA Accounting for 2004

Last update: 25-Jul-05

	A	B	C
1	**Calendar Year**		2004
2			
3	**Groundwater Data**		
4	North Fork Subbasin	GW CBCU Colorado	14,373
5		GW CBCU Kansas	16
6		GW CBCU Nebraska	1,446
7	Arikaree Subbasin	GW CBCU Colorado	353
8		GW CBCU Kansas	116
9		GW CBCU Nebraska	431
10	Buffalo Subbasin	GW CBCU Colorado	290
11		GW CBCU Kansas	0
12		GW CBCU Nebraska	3,333
13	Rock Subbasin	GW CBCU Colorado	58
14		GW CBCU Kansas	0
15		GW CBCU Nebraska	3,581
16	South Fork Subbasin	GW CBCU Colorado	12,874
17		GW CBCU Kansas	5,781
18		GW CBCU Nebraska	1,202
19	Frenchman Subbasin	GW CBCU Colorado	39
20		GW CBCU Kansas	0
21		GW CBCU Nebraska	89,727
22	Driftwood Subbasin	GW CBCU Colorado	0
23		GW CBCU Kansas	0
24		GW CBCU Nebraska	1,479
25	Red Willow Subbasin	GW CBCU Colorado	0
26		GW CBCU Kansas	0
27		GW CBCU Nebraska	8,221
28	Medicine Creek Subbasin	GW CBCU Colorado	0
29		GW CBCU Kansas	0
30		GW CBCU Nebraska	21,296
31	Beaver Subbasin	GW CBCU Colorado	0
32		GW CBCU Kansas	205
33		GW CBCU Nebraska	1,278
34	Sappa Subbasin	GW CBCU Colorado	0
35		GW CBCU Kansas	-205
36		GW CBCU Nebraska	556
37	Prairie Dog Subbasin	GW CBCU Colorado	0
38		GW CBCU Kansas	1,824
39		GW CBCU Nebraska	0
40	Mainstem Subbasin	GW CBCU Colorado	-1,269
41		GW CBCU Kansas	399
42		GW CBCU Nebraska Above Guide Rock	78,183
43		GW CBCU Nebraska Below Guide Rock	2,382
44			
45	**Import Water Data**		
46	North Fork Subbasin	Imported Water Nebraska	0
47	Arikaree Subbasin	Imported Water Nebraska	0
48	Buffalo Subbasin	Imported Water Nebraska	0
49	Rock Subbasin	Imported Water Nebraska	0
50	South Fork Subbasin	Imported Water Nebraska	0
51	Frenchman Subbasin	Imported Water Nebraska	0
52	Driftwood Subbasin	Imported Water Nebraska	0
53	Red Willow Subbasin	Imported Water Nebraska	25
54	Medicine Creek Subbasin	Imported Water Nebraska	9,522
55	Beaver Subbasin	Imported Water Nebraska	0
56	Sappa Subbasin	Imported Water Nebraska	0
57	Prairie Dog Subbasin	Imported Water Nebraska	0
58	Mainstem Subbasin	Imported Water Nebraska Above Guide Rock	834
59		Imported Water Nebraska Below Guide Rock	0
60		Total	10,381
61	**SW Pumping Data**		
62	North Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	2,889
63		SW Diversions - Irrigation - Small Pumps - Colorado	0
64		SW Diversions - M&I - Colorado	0
65	Arikaree Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
66		SW Diversions - Irrigation - Small Pumps - Colorado	0
67		SW Diversions - M&I - Colorado	0
68		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
69		SW Diversions - Irrigation - Small Pumps - Kansas	0
70		SW Diversions - M&I - Kansas	0
71		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
72		SW Diversions - Irrigation - Small Pumps - Nebraska	0
73		SW Diversions - M&I - Nebraska	0
74	Buffalo Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
75		SW Diversions - Irrigation - Small Pumps - Colorado	0
76		SW Diversions - M&I - Colorado	0
77		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	334
78		SW Diversions - Irrigation - Small Pumps - Nebraska	56
79		SW Diversions - M&I - Nebraska	0
80	Rock Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
81		SW Diversions - Irrigation - Small Pumps - Nebraska	0
82		SW Diversions - M&I - Nebraska	0
83	South Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	1,283
84		SW Diversions - Irrigation - Small Pumps - Colorado	0
85		SW Diversions - M&I - Colorado	0
86		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
87		SW Diversions - Irrigation - Small Pumps - Kansas	25
88		SW Diversions - M&I - Kansas	0
89		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0

	A	B	C
1	**Calendar Year**		2004
2			
90		SW Diversions - Irrigation - Small Pumps - Nebraska	0
91		SW Diversions - M&I - Nebraska	0
92	Frenchman Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
93		SW Diversions - Irrigation - Small Pumps - Nebraska	21
94		SW Diversions - M&I - Nebraska	0
95	Driftwood Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
96		SW Diversions - Irrigation - Small Pumps - Kansas	0
97		SW Diversions - M&I - Kansas	0
98		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
99		SW Diversions - Irrigation - Small Pumps - Nebraska	16
100		SW Diversions - M&I - Nebraska	0
101	Red Willow Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
102		SW Diversions - Irrigation - Small Pumps - Nebraska	167
103		SW Diversions - M&I - Nebraska	0
104	Medicine Creek Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
105		SW Diversions - Irrigation - Small Pumps - Nebraska	255
106		SW Diversions - M&I - Nebraska	0
107		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
108		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	58
109		SW Diversions - M&I - Nebraska - Below Gage	0
110	Beaver Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
111		SW Diversions - Irrigation - Small Pumps - Colorado	0
112		SW Diversions - M&I - Colorado	0
113		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
114		SW Diversions - Irrigation - Small Pumps - Kansas	22
115		SW Diversions - M&I - Kansas	0
116		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
117		SW Diversions - Irrigation - Small Pumps - Nebraska	0
118		SW Diversions - M&I - Nebraska	0
119		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
120		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
121		SW Diversions - M&I - Nebraska - Below Gage	0
122	Sappa Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
123		SW Diversions - Irrigation - Small Pumps - Kansas	28
124		SW Diversions - M&I - Kansas	0
125		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
126		SW Diversions - Irrigation - Small Pumps - Nebraska	20
127		SW Diversions - M&I - Nebraska	0
128		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
129		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
130		SW Diversions - M&I - Nebraska - Below Gage	0
131	Prairie Dog Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
132		SW Diversions - Irrigation - Small Pumps - Kansas	87
133		SW Diversions - M&I - Kansas	496
134		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
135		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	44
136		SW Diversions - M&I - Nebraska - Below Gage	0
137	Mainstem Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
138		SW Diversions - Irrigation - Small Pumps - Kansas	668
139		SW Diversions - M&I - Kansas	0
140		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	3,066
141		SW Diversions - Irrigation - Small Pumps - Nebraska	1,931
142		SW Diversions - M&I - Nebraska	0
143		SW Diversions - Irrigation - Non-Federal Canals - Nebraska Below Guide Rock	0
144		SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	689
145		SW Diversions - M&I - Nebraska - Below Guide Rock	0
146			
147	**Non-Federal SW Consumptive Use**		
148		% Non-Federal Canal Diversion Consumed	60%
149		% Small Surface Water Pumps Consumed	75%
150		% Municipal And Industrial SW Consumed	50%
151			
152	**Non-Federal Reservoir Evaporation Data**		
153	North Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	46
154		Non-Federal Reservoir Evaporation - Nebraska	2331
155	Arikaree Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
156		Non-Federal Reservoir Evaporation - Kansas	40.5
157		Non-Federal Reservoir Evaporation - Nebraska	0
158	Buffalo Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
159		Non-Federal Reservoir Evaporation - Nebraska	21.7
160	Rock Subbasin	Non-Federal Reservoir Evaporation - Nebraska	64
161	South Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
162		Non-Federal Reservoir Evaporation - Kansas	284.5
163		Non-Federal Reservoir Evaporation - Nebraska	0
164	Frenchman Subbasin	Non-Federal Reservoir Evaporation - Nebraska	244.1
165	Driftwood Subbasin	Non-Federal Reservoir Evaporation - Kansas	6.6
166		Non-Federal Reservoir Evaporation - Nebraska	8.2
167	Red Willow Subbasin	Non-Federal Reservoir Evaporation - Nebraska	155.4
168	Medicine Creek Subbasin	Non-Federal Reservoir Evaporation - Nebraska	233.2
169		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	3.6
170	Beaver Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
171		Non-Federal Reservoir Evaporation - Kansas	134.7
172		Non-Federal Reservoir Evaporation - Nebraska	23.4
173		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
174	Sappa Subbasin	Non-Federal Reservoir Evaporation - Kansas	278.3
175		Non-Federal Reservoir Evaporation - Nebraska	22.3
176		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	7.3

	A	B	C
1	**Calendar Year**		2004
2			
177	Prairie Dog Subbasin	Non-Federal Reservoir Evaporation - Kansas	371.1
178		Non-Federal Reservoir Evaporation - Nebraska	17.4
179	Mainstem Subbasin	Non-Federal Reservoir Evaporation - Kansas	147.9
180		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	340
181			
182	**Stream Gage Data**		
183	North Fork Subbasin	North Fork Republican River At Colorado-Nebraska State Line	19,759
184	Arikaree Subbasin	Arikaree River At Haigler	341
185	Buffalo Subbasin	Buffalo Creek Near Haigler	2,276
186	Rock Subbasin	Rock Creek At Parks	5,419
187	South Fork Subbasin	South Fork Republican River Near Benkelman	0
188	Frenchman Subbasin	Frenchman Creek At Culbertson	19,926
189	Driftwood Subbasin	Driftwood Creek Near McCook	1,201
190	Red Willow Subbasin	Red Willow Creek Near Red Willow	3,555
191	Medicine Creek Subbasin	Medicine Creek Below Harry Strunk	23,300
192	Beaver Subbasin	Beaver Creek Near Beaver City	163
193	Sappa Subbasin	Sappa Creek Near Stamford	84
194	Prairie Dog Subbasin	Prairie Dog Creek Near Woodruff	147
195	Mainstem Subbasin	Republican River At Guide Rock	15,019
196		Republican River Near Hardy	41,964
197		White Rock Creek Above Lovewell	***16,691***
198			
199	**Flood Flow Data**		
200	North Fork Subbasin	North Fork Flood Flow	0
201	Arikaree Subbasin	Arikaree Flood Flow	0
202	Buffalo Subbasin	Buffalo Flood Flow	0
203	Rock Subbasin	Rock Flood Flow	0
204	South Fork Subbasin	Southfork Flood Flow	0
205	Frenchman Subbasin	Frenchman Flood Flow	0
206	Driftwood Subbasin	Driftwood Flood Flow	0
207	Red Willow Subbasin	Red Willow Flood Flow	0
208	Medicine Creek Subbasin	Medicine Creek Flood Flow	0
209	Beaver Subbasin	Beaver Flood Flow	0
210	Sappa Subbasin	Sappa Flood Flow	0
211	Prairie Dog Subbasin	Prairie Dog Flood Flow	0
212	Mainstem Subbasin	Mainstem Flood Flow	0
213			
214	**Reservoir Data**		
215	South Fork Subbasin	Bonny Reservoir Evaporation	3,158
216		Bonny Reservoir Change In Storage	-2,906
217	Frenchman Subbasin	Enders Reservoir Evaporation	967
218		Enders Reservoir Change In Storage	300
219	Red Willow Subbasin	Hugh Butler Lake Evaporation	2,026
220		Hugh Butler Lake Change In Storage	2,800
221	Medicine Creek Subbasin	Harry Strunk Lake Evaporation	2,059
222		Harry Strunk Lake Change In Storage	-300
223	Prairie Dog Subbasin	Keith Sebelius Lake Evaporation	2,089
224		Keith Sebelius Lake Change In Storage	-1,000
225	Mainstem Subbasin	Swanson Lake Evaporation	2,588
226		Swanson Lake Change In Storage	3,900
227		Harlan County Evaporation	17,017
228		Harlan County Change In Storage	-6,200
229		Lovewell Reservoir Ev charged to the Republican River	1,110
230			
231	**Canal Data**		
232	North Fork Subbasin	Haigler Canal Diversions - Colorado	2,072
233		Haigler Canal Diversions - Nebraska	3,732
234		Haigler Canal Diversions	***5,804***
235	South Fork Subbasin	Hale Ditch Diversions	0
236	Frenchman Subbasin	Champion Canal Diversions	0
237		Riverside Canal Diversions	1,443
238		Culbertson Canal Diversions	8,674
239		Culbertson Canal Extension Diversions	0
240		Culbertson Canal % Return Flow	66%
241		Culbertson Canal Extension % Return Flow	100%
242	Driftwood Subbasin	Meeker-Driftwood Canal Diversions	0
243		Meeker-Driftwood Canal % Return Flow	100%
244	Red Willow Subbasin	Red Willow Canal Diversions	0
245		Red Willow Canal % Return Flow	100%
246	Prairie Dog Subbasin	Almena Canal Diversions	0
247		Almena Canal % Return Flow	100%
248	Mainstem Subbasin	Bartley Canal Diversion	0
249		Bartley Canal % Return Flow	100%
250		Cambridge Canal Diversion	21,964
251		Cambridge Canal % Return Flow	52%
252		Naponee Canal Diversion	0
253		Naponee Canal % Return Flow	100%
254		Franklin Canal Diversion	0
255		Franklin Canal % Return Flow	100%
256		Franklin Pump Canal Diversions	0
257		Franklin Pump Canal % Return Flow	100%
258		Superior Canal Diversions	5,800
259		Superior Canal % Return Flow	68%
260			
261		Courtland Canal Diversions At Headgate	***31,501***
262		Diversions to Nebraska Courtland	0
263		Nebraska Courtland % Return Flow	100%

	A	B	C
1	Calendar Year		2004
2			
264		Courtland Canal, Loss in NE assigned to upper Courtland KS	184
265		Courtland Canal, Loss in NE assigned to delivery to Lovewell	5,877
266		Courtland Canal At Kansas-Nebraska State Line	*25,440*
267		Courtland Canal Diversions to the Upper Courtland District	779
268		Courtland Canal Above Lovewell % Return Flow	*79%*
269		Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to Lovewell	*10,715*
270		Courtland Canal Deliveries To Lovewell Reservoir	*14,130*
271		Diversions of Republican River water from Lovewell Reservoir to the Courtland Canal below Lovewell	25,590
272		Courtland Canal Below Lovewell % Return Flow	*0.50*
273			
274		To allocate Harlan County evaporation:	
275		Kansas Bostwick Diversions During Irrigation Season (2001-2003 average, no diversion in 2004)	41,081
276		Nebraska Bostwick Diversions During Irrigation Season (2001-2003 average, no diversion in 2004)	40,187

	A	B
1	**North Fork Republican River Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	14373
7	GW CBCU Kansas	16
8	GW CBCU Nebraska	1446
9		
10	**Surface Water Data**	
11	North Fork Republican River At Colorado-Nebraska State Line	19759
12	Haigler Canal Diversions - Colorado	2072
13	SW Diversions - Irrigation -Non-Federal Canals- Colorado	2888.7
14	SW Diversions - Irrigation - Small Pumps - Colorado	0
15	SW Diversions - M&I - Colorado	0
16	Haigler Canal Diversions - Nebraska	3732
17	Non-Federal Reservoir Evaporation - Colorado	46.163333
18	North Fork Flood Flow	0
19		
20	**Consumptive Use Calculations**	
21	**Colorado**	
22	Haigler Canal CBCU	1243.2
23	SW CBCU - Irrigation - Non Federal Canals	1733.22
24	SW CBCU - Irrigation - Small Pumps	0
25	SW CBCU - M&I	0
26	Non-Federal Reservoir Evaporation	46.163333
27	SW CBCU	3023
28	GW CBCU	14373
29	Total CBCU	17400
30		
31	**Kansas**	
32	GW CBCU	16
33	Total CBCU	20
34		
35	**Nebraska**	
36	Haigler Canal CBCU	2239.2
37	SW CBCU	2239
38	GW CBCU	1446
39	Total CBCU	3690
40		
41	**Totals**	
42	Total SW CBCU	5262
43	Total GW CBCU	15835
44	Total Basin CBCU	21097
45		
46	**Virgin Water Supply**	
47	North Fork Republican River At Colorado-Nebraska State Line	19759
48	Nebraska Haigler Canal Return Flow To Main Stem	1493
49	Colorado CBCU	17400
50	Kansas CBCU	20
51	Nebraska CBCU	3690
52	Imported Water	0
53	Virgin Water Supply	42360
54	Adjustment For Flood Flows	0
55	Computed Water Supply	42360
56		
57	**Allocations**	
58	Colorado Percent Of Allocation	22.4%
59	Colorado Allocation	9490
60	Kansas Percent Of Allocation	0.0%
61	Kansas Allocation	0
62	Nebraska Percent Of Allocation	24.6%
63	Nebraska Allocation	10420
64	Total Basin Allocation	19910
65	Percent Of Supply Not Allocated	53.0%
66	Quantity Of Unallocated Supply	22450

	A	B
1	**Arikaree River Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	353
7	GW CBCU Kansas	116
8	GW CBCU Nebraska	431
9		
10	**Surface Water Data**	
11	Arikaree River At Haigler	341
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Colorado	0
22	Non-Federal Reservoir Evaporation - Kansas	40.5
23	Non-Federal Reservoir Evaporation - Nebraska	0
24	Arikaree Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	SW CBCU - Irrigation - Non Federal Canals	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	0
32	SW CBCU	0
33	GW CBCU	353
34	Total CBCU	350
35		
36	**Kansas**	
37	SW CBCU - Irrigation - Non Federal Canals	0
38	SW CBCU - Irrigation - Small Pumps	0
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	40.5
41	SW CBCU	41
42	GW CBCU	116
43	Total CBCU	160
44		
45	**Nebraska**	
46	SW CBCU - Irrigation - Non Federal Canals	0
47	SW CBCU - Irrigation - Small Pumps	0
48	SW CBCU - M&I	0
49	Non-Federal Reservoir Evaporation	0
50	SW CBCU	0
51	GW CBCU	431
52	Total CBCU	430
53		
54	**Totals**	
55	Total SW CBCU	41
56	Total GW CBCU	900
57	Total Basin CBCU	940
58		
59	**Virgin Water Supply**	
60	Arikaree River At Haigler	341
61	Colorado CBCU	350
62	Kansas CBCU	160
63	Nebraska CBCU	430
64	Imported Water	0
65	Virgin Water Supply	1280
66	Adjustment For Flood Flows	0
67	Computed Water Supply	1280
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	78.5%
71	Colorado Allocation	1000
72	Kansas Percent Of Allocation	5.1%
73	Kansas Allocation	70
74	Nebraska Percent Of Allocation	16.8%
75	Nebraska Allocation	220
76	Total Basin Allocation	1290
77	Percent Of Supply Not Allocated	-0.4%
78	Quantity Of Unallocated Supply	-10

	A	B
1	**Buffalo Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	290
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3333
9		
10	**Surface Water Data**	
11	Buffalo Creek Near Haigler	2276
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	334
16	SW Diversions - Irrigation - Small Pumps - Nebraska	55.7
17	SW Diversions - M&I - Nebraska	0
18	Non-Federal Reservoir Evaporation - Colorado	0
19	Non-Federal Reservoir Evaporation - Nebraska	21.7
20	Buffalo Flood Flow	0
21		
22	**Consumptive Use Calculations**	
23	**Colorado**	
24	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
25	SW Diversions - Irrigation - Small Pumps - Colorado	0
26	SW Diversions - M&I - Colorado	0
27	Non-Federal Reservoir Evaporation - Colorado	0
28	SW CBCU	0
29	GW CBCU	290
30	Total CBCU	290
31		
32	**Kansas**	
33	GW CBCU	0
34	Total CBCU	0
35		
36	**Nebraska**	
37	SW CBCU - Irrigation - Non Federal Canals	200.4
38	SW CBCU - Irrigation - Small Pumps	42
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	21.7
41	SW CBCU	264
42	GW CBCU	3333
43	Total CBCU	3600
44		
45	**Totals**	
46	Total SW CBCU	264
47	Total GW CBCU	3623
48	Total Basin CBCU	3890
49		
50	**Virgin Water Supply**	
51	Buffalo Creek Near Haigler	2276
52	Colorado CBCU	290
53	Kansas CBCU	0
54	Nebraska CBCU	3600
55	Imported Water	0
56	Virgin Water Supply	6170
57	Adjustment For Flood Flows	0
58	Computed Water Supply	6170
59		
60	**Allocations**	
61	Colorado Percent Of Allocation	0.0%
62	Colorado Allocation	0
63	Kansas Percent Of Allocation	0.0%
64	Kansas Allocation	0
65	Nebraska Percent Of Allocation	33.0%
66	Nebraska Allocation	2040
67	Total Basin Allocation	2040
68	Percent Of Supply Not Allocated	67.0%
69	Quantity Of Unallocated Supply	4130

	A	B
1	**Rock Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	58
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3581
9		
10	**Surface Water Data**	
11	Rock Creek At Parks	5419
12	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
13	SW Diversions - Irrigation - Small Pumps - Nebraska	0
14	SW Diversions - M&I - Nebraska	0
15	Non-Federal Reservoir Evaporation - Nebraska	64
16	Rock Flood Flow	0
17		
18	**Consumptive Use Calculations**	
19	**Colorado**	
20	GW CBCU	58
21	Total CBCU	60
22		
23	**Kansas**	
24	GW CBCU	0
25	Total CBCU	0
26		
27	**Nebraska**	
28	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	64
32	SW CBCU	64
33	GW CBCU	3581
34	Total CBCU	3650
35		
36	**Totals**	
37	Total SW CBCU	64
38	Total GW CBCU	3639
39	Total Basin CBCU	3700
40		
41	**Virgin Water Supply**	
42	Rock Creek At Parks	5419
43	Colorado CBCU	60
44	Kansas CBCU	0
45	Nebraska CBCU	3650
46	Imported Water	0
47	Virgin Water Supply	9130
48	Adjustment For Flood Flows	0
49	Computed Water Supply	9130
50		
51	**Allocations**	
52	Colorado Percent Of Allocation	0.0%
53	Colorado Allocation	0
54	Kansas Percent Of Allocation	0.0%
55	Kansas Allocation	0
56	Nebraska Percent Of Allocation	40.0%
57	Nebraska Allocation	3650
58	Total Basin Allocation	3650
59	Percent Of Supply Not Allocated	60.0%
60	Quantity Of Unallocated Supply	5480

	A	B
1	**South Fork Republican River Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	12874
7	GW CBCU Kansas	5781
8	GW CBCU Nebraska	1202
9		
10	**Surface Water Data**	
11	South Fork Republican River Near Benkelman	0
12	Bonny Reservoir Evaporation	3158.1
13	Bonny Reservoir Change In Storage	-2900
14	Hale Ditch Diversions	0
15	SW Diversions - Irrigation -Non-Federal Canals- Colorado	1283.3
16	SW Diversions - Irrigation - Small Pumps - Colorado	0
17	SW Diversions - M&I - Colorado	0
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	25
20	SW Diversions - M&I - Kansas	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
22	SW Diversions - Irrigation - Small Pumps - Nebraska	0
23	SW Diversions - M&I - Nebraska	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	284.5
26	Non-Federal Reservoir Evaporation - Nebraska	0
27	Southfork Flood Flow	0
28		
29	**Consumptive Use Calculations**	
30	**Colorado**	
31	Hale Ditch CBCU	0
32	SW CBCU - Irrigation - Non Federal Canals	769.98
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	Bonny Reservoir Evaporation	3158.1
37	SW CBCU	3928
38	GW CBCU	12874
39	Total CBCU	16800
40		
41	**Kansas**	
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	18.75
44	SW CBCU - M&I	0
45	Non-Federal Reservoir Evaporation	284.5
46	SW CBCU	303
47	GW CBCU	5781
48	Total CBCU	6080
49		
50	**Nebraska**	
51	SW CBCU - Irrigation - Non Federal Canals	0
52	SW CBCU - Irrigation - Small Pumps	0
53	SW CBCU - M&I	0
54	Non-Federal Reservoir Evaporation	0
55	SW CBCU	0
56	GW CBCU	1202
57	Total CBCU	1200
58		
59	**Totals**	
60	Total SW CBCU	4231
61	Total GW CBCU	19857
62	Total Basin CBCU	24090
63		
64	**Virgin Water Supply**	
65	South Fork Republican River Near Benkelman	0
66	Colorado CBCU	16800
67	Kansas CBCU	6080
68	Nebraska CBCU	1200
69	Bonny Reservoir Change In Storage	-2900
70	Imported Water	0
71	Virgin Water Supply	21180
72	Adjustment For Flood Flows	0
73	Computed Water Supply	24080
74		
75	**Allocations**	
76	Colorado Percent Of Allocation	44.4%
77	Colorado Allocation	10690
78	Kansas Percent Of Allocation	40.2%
79	Kansas Allocation	9680
80	Nebraska Percent Of Allocation	1.4%
81	Nebraska Allocation	340
82	Total Basin Allocation	20710
83	Percent Of Supply Not Allocated	14.0%
84	Quantity Of Unallocated Supply	3370

	A	B
1	**Frenchman Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	39
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	89727
9		
10	**Surface Water Constants**	
11	Culbertson Canal % Return Flow	66%
12	Culbertson Canal Extension % Return Flow	100%
13		
14	**Surface Water Data**	
15	Frenchman Creek At Culbertson	19926
16	Enders Reservoir Evaporation	966.6
17	Enders Reservoir Change In Storage	300
18	Champion Canal Diversions	0
19	Riverside Canal Diversions	1443
20	Culbertson Canal Diversions	8674
21	Culbertson Canal Extension Diversions	0
22	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
23	SW Diversions - Irrigation - Small Pumps - Nebraska	21
24	SW Diversions - M&I - Nebraska	0
25	Non-Federal Reservoir Evaporation - Nebraska	244.1
26	Frenchman Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	39
31	Total CBCU	40
32		
33	**Kansas**	
34	GW CBCU	0
35	Total CBCU	0
36		
37	**Nebraska**	
38	Champion Canal CBCU	0
39	Riverside Canal CBCU	865.8
40	Culbertson Canal CBCU	2962.5
41	Culbertson Canal Extension CBCU	0
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	16
44	SW CBCU - M&I	0
45	Enders Reservoir Evaporation	967
46	Non-Federal Reservoir Evaporation	244.1
47	SW CBCU	5055
48	GW CBCU	89727
49	Total CBCU	94780
50		
51	**Totals**	
52	Total SW CBCU	5055
53	Total GW CBCU	89766
54	Total Basin CBCU	94820
55		
56	**Virgin Water Supply**	
57	Frenchman Creek At Culbertson	19926
58	17% Culbertson Canal Return Flow to Main Stem	971
59	100% Culbertson Canal Extension Return Flow to Main Stem	0
60	Colorado CBCU	40
61	Kansas CBCU	0
62	Nebraska CBCU	94780
63	Enders Reservoir Change In Storage	300
64	Imported Water	0
65	Virgin Water Supply	116020
66	Adjustment For Flood Flows	0
67	Computed Water Supply	115720
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	0.0%
71	Colorado Allocation	0
72	Kansas Percent Of Allocation	0.0%
73	Kansas Allocation	0
74	Nebraska Percent Of Allocation	53.6%
75	Nebraska Allocation	62030
76	Total Basin Allocation	62030
77	Percent Of Supply Not Allocated	46.4%
78	Quantity Of Unallocated Supply	53690

	A	B
1	**Driftwood Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	1479
9		
10	**Surface Water Constants**	
11	Meeker-Driftwood Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Driftwood Creek Near McCook	1201
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	Meeker-Driftwood Canal Diversions	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
20	SW Diversions - Irrigation - Small Pumps - Nebraska	15.5
21	SW Diversions - M&I - Nebraska	0
22	Non-Federal Reservoir Evaporation - Kansas	6.6
23	Non-Federal Reservoir Evaporation - Nebraska	8.2
24	Driftwood Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	GW CBCU	0
29	Total CBCU	0
30		
31	**Kansas**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	6.6
36	SW CBCU	7
37	GW CBCU	0
38	Total CBCU	10
39		
40	**Nebraska**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	12
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	8.2
45	SW CBCU	20
46	GW CBCU	1479
47	Total CBCU	1500
48		
49	**Totals**	
50	Total SW CBCU	26
51	Total GW CBCU	1479
52	Total Basin CBCU	1510
53		
54	**Virgin Water Supply**	
55	Driftwood Creek Near McCook	1201
56	24% Meeker Driftwood Canal Return	0
57	Colorado CBCU	0
58	Kansas CBCU	10
59	Nebraska CBCU	1500
60	Imported Water	0
61	Virgin Water Supply	2710
62	Adjustment For Flood Flows	0
63	Computed Water Supply	2710
64		
65	**Allocations**	
66	Colorado Percent Of Allocation	0.0%
67	Colorado Allocation	0
68	Kansas Percent Of Allocation	6.9%
69	Kansas Allocation	190
70	Nebraska Percent Of Allocation	16.4%
71	Nebraska Allocation	440
72	Total Basin Allocation	630
73	Percent Of Supply Not Allocated	76.7%
74	Quantity Of Unallocated Supply	2080

	A	B
1	**Red Willow Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	25
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	8221
9		
10	**Surface Water Constants**	
11	Red Willow Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Red Willow Creek Near Red Willow	3555
15	Hugh Butler Lake Evaporation	2025.5
16	Hugh Butler Lake Change In Storage	2800
17	Red Willow Canal Diversions	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	167
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Nebraska	155.4
22	Red Willow Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	Red Willow Canal CBCU (10%)	0
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	125
37	SW CBCU - M&I	0
38	Hugh Butler Lake Evaporation (10%)	203
39	Non-Federal Reservoir Evaporation	155.4
40	SW CBCU	483
41	GW CBCU	8221
42	Total CBCU	8700
43		
44	**Totals**	
45	Total SW CBCU	483
46	Total GW CBCU	8221
47	Total Basin CBCU	8700
48		
49	**Virgin Water Supply**	
50	Red Willow Creek Near Red Willow	3555
51	Red Willow Canal CBCU (90%)	0
52	Colorado CBCU	0
53	Kansas CBCU	0
54	Nebraska CBCU	8700
55	Hugh Butler Lake Change In Storage	2800
56	Hugh Butler Lake Evaporation (90%)	1822.95
57	90% Red Willow Canal Return Flow To Main Stem	0
58	Imported Water	25
59	Virgin Water Supply	16850
60	Adjustment For Flood Flows	0
61	Computed Water Supply	14050
62		
63	**Allocations**	
64	Colorado Percent Of Allocation	0.0%
65	Colorado Allocation	0
66	Kansas Percent Of Allocation	0.0%
67	Kansas Allocation	0
68	Nebraska Percent Of Allocation	19.2%
69	Nebraska Allocation	2700
70	Total Basin Allocation	2700
71	Percent Of Supply Not Allocated	80.8%
72	Quantity Of Unallocated Supply	11350

	A	B
1	**Medicine Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	9522
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	21296
9		
10	**Surface Water Data**	
11	Medicine Creek Below Harry Strunk	23300
12	Harry Strunk Lake Evaporation	2058.9
13	Harry Strunk Lake Change In Storage	-300
14	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
15	SW Diversions - Irrigation - Small Pumps - Nebraska	255
16	SW Diversions - M&I - Nebraska	0
17	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
18	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	57.5
19	SW Diversions - M&I - Nebraska - Below Gage	0
20	Non-Federal Reservoir Evaporation - Nebraska	233.2
21	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	3.6
22	Medicine Creek Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	SW CBCU - Irrigation - Non Federal Canals	0
35	SW CBCU - Irrigation - Small Pumps	191
36	SW CBCU - M&I	0
37	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
38	SW CBCU - Irrigation - Small Pumps - Below Gage	43
39	SW CBCU - M&I - Below Gage	0
40	Non-Federal Reservoir Evaporation	233.2
41	Non-Federal Reservoir Evaporation - Below gage	3.6
42	SW CBCU	471
43	GW CBCU	21296
44	Total CBCU	21770
45		
46	**Totals**	
47	Total SW CBCU	471
48	Total GW CBCU	21296
49	Total Basin CBCU	21770
50		
51	**CBCU Below Gage**	
52	SW CBCU Below The Gage	47
53	Total	47
54		
55	**Virgin Water Supply**	
56	Medicine Creek Below Harry Strunk	23300
57	Colorado CBCU	0
58	Kansas CBCU	0
59	Nebraska CBCU	21770
60	SW CBCU Below The Gage	47
61	Harry Strunk Lake Change In Storage	-300
62	Harry Strunk Lake Evaporation	2058.9
63	Imported Water	9522
64	Virgin Water Supply	37260
65	Adjustment For Flood Flows	0
66	Computed Water Supply	37560
67		
68	**Allocations**	
69	Colorado Percent Of Allocation	0.0%
70	Colorado Allocation	0
71	Kansas Percent Of Allocation	0.0%
72	Kansas Allocation	0
73	Nebraska Percent Of Allocation	9.1%
74	Nebraska Allocation	3420
75	Total Basin Allocation	3420
76	Percent Of Supply Not Allocated	90.9%
77	Quantity Of Unallocated Supply	34140

	A	B
1	**Beaver Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	205
8	GW CBCU Nebraska	1278
9		
10	**Surface Water Data**	
11	Beaver Creek Near Beaver City	163
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	22
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	134.7
26	Non-Federal Reservoir Evaporation - Nebraska	23.4
27	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
28	Beaver Flood Flow	0
29		
30	**Consumptive Use Calculations**	
31	**Colorado**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	SW CBCU	0
37	GW CBCU	0
38	Total CBCU	0
39		
40	**Kansas**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	16.5
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	134.7
45	SW CBCU	151
46	GW CBCU	205
47	Total CBCU	360
48		
49	**Nebraska**	
50	SW CBCU - Irrigation - Non Federal Canals	0
51	SW CBCU - Irrigation - Small Pumps	0
52	SW CBCU - M&I	0
53	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
54	SW CBCU - Irrigation - Small Pumps - Below Gage	0
55	SW CBCU - M&I - Below Gage	0
56	Non-Federal Reservoir Evaporation	23.4
57	Non-Federal Reservoir Evaporation - Below gage	0
58	SW CBCU	23
59	GW CBCU	1278
60	Total CBCU	1300
61		
62	**CBCU Below Gage**	
63	SW CBCU Below The Gage	0
64	Total	0
65		
66	**Totals**	
67	Total SW CBCU	175
68	Total GW CBCU	1483
69	Total Basin CBCU	1660
70		
71	**Virgin Water Supply**	
72	Beaver Creek Near Beaver City	163
73	Colorado CBCU	0
74	Kansas CBCU	360
75	Nebraska CBCU	1300
76	SW CBCU Below The Gage	0
77	Imported Water	0
78	Virgin Water Supply	1820
79	Adjustment For Flood Flows	0
80	Computed Water Supply	1820
81		
82	**Allocations**	
83	Colorado Percent Of Allocation	20.0%
84	Colorado Allocation	360
85	Kansas Percent Of Allocation	38.8%
86	Kansas Allocation	710
87	Nebraska Percent Of Allocation	40.6%
88	Nebraska Allocation	740
89	Total Basin Allocation	1810

	A	B
1	**Beaver Creek Sub-Basin**	2004
2		
90	Percent Of Supply Not Allocated	0.6%
91	Quantity Of Unallocated Supply	10

	A	B
1	**Sappa Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	-205
8	GW CBCU Nebraska	556
9		
10	**Surface Water Data**	
11	Sappa Creek Near Stamford	84
12	Beaver Creek Near Beaver City	163
13	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
14	SW Diversions - Irrigation - Small Pumps - Kansas	28
15	SW Diversions - M&I - Kansas	0
16	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
17	SW Diversions - Irrigation - Small Pumps - Nebraska	19.6
18	SW Diversions - M&I - Nebraska	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
20	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
21	SW Diversions - M&I - Nebraska - Below Gage	0
22	Non-Federal Reservoir Evaporation - Kansas	278.3
23	Non-Federal Reservoir Evaporation - Nebraska	22.3
24	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	7.3
25	Sappa Flood Flow	0
26		
27	**Consumptive Use Calculations**	
28	**Colorado**	
29	GW CBCU	0
30	Total CBCU	0
31		
32	**Kansas**	
33	SW CBCU - Irrigation - Non Federal Canals	0
34	SW CBCU - Irrigation - Small Pumps	21
35	SW CBCU - M&I	0
36	Non-Federal Reservoir Evaporation	278.3
37	SW CBCU	299
38	GW CBCU	-205
39	Total CBCU	90
40		
41	**Nebraska**	
42		
43	SW CBCU - Irrigation - Non Federal Canals	0
44	SW CBCU - Irrigation - Small Pumps	15
45	SW CBCU - M&I	0
46	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
47	SW CBCU - Irrigation - Small Pumps - Below Gage	0
48	SW CBCU - M&I - Below Gage	0
49	Non-Federal Reservoir Evaporation	22.3
50	Non-Federal Reservoir Evaporation - Below gage	7.3
51	SW CBCU	37
52	GW CBCU	556
53	Total CBCU	590
54		
55	**CBCU Below Gage**	
56	SW CBCU Below The Gage	7

	A	B
1	**Sappa Creek Sub-Basin**	2004
2		
57	Total	7
58		
59	**Totals**	
60	Total SW CBCU	336
61	Total GW CBCU	351
62	Total Basin CBCU	687
63		
64	**Virgin Water Supply**	
65	Sappa Creek Near Stamford	84
66	Beaver Creek Near Beaver City	163
67	Colorado CBCU	0
68	Kansas CBCU	90
69	Nebraska CBCU	590
70	SW CBCU Below The Gage	7
71	Imported Water	0
72	Virgin Water Supply	590
73	Adjustment For Flood Flows	0
74	Computed Water Supply	590
75		
76	**Allocations**	
77	Colorado Percent Of Allocation	0.0%
78	Colorado Allocation	0
79	Kansas Percent Of Allocation	41.1%
80	Kansas Allocation	240
81	Nebraska Percent Of Allocation	41.1%
82	Nebraska Allocation	240
83	Total Basin Allocation	480
84	Percent Of Supply Not Allocated	17.8%
85	Quantity Of Unallocated Supply	110

	A	B
1	**Prairie Dog Creek Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	1824
8	GW CBCU Nebraska	0
9		
10	**Surface Water Constants**	
11	Almena Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Prairie Dog Creek Near Woodruff	147
15	Keith Sebelius Lake Evaporation	2088.8
16	Keith Sebelius Lake Change in Storage	-1000
17	Almena Canal Diversions	0
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	87
20	SW Diversions - M&I - Kansas	496
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	44.3
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Kansas	371.1
25	Non-Federal Reservoir Evaporation - Nebraska	17.4
26	Prairie Dog Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Kansas**	
34	Almena Canal CBCU	0
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	65.25
37	SW CBCU - M&I	248
38	Keith Sebelius Lake Evaporation	2089
39	Non-Federal Reservoir Evaporation	371.1
40	SW CBCU	2773
41	GW CBCU	1824
42	Total CBCU	4600
43		
44	**Nebraska**	
45	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
46	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	33.225
47	SW Diversions - M&I - Nebraska - Below Gage	0
48	Non-Federal Reservoir Evaporation	17.4
49	SW CBCU	51
50	GW CBCU	0
51	Total CBCU	50

	A	B
1	**Prairie Dog Creek Sub-Basin**	2004
2		
52		
53	**CBCU Below Gage**	
54	SW CBCU Below The Gage	51
55	Total	51
56		
57	**Totals**	
58	Total SW CBCU	2824
59	Total GW CBCU	1824
60	Total Basin CBCU	4648
61		
62	**Virgin Water Supply**	
63	Prairie Dog Creek Near Woodruff	147
64	Colorado CBCU	0
65	Kansas CBCU	4600
66	Nebraska CBCU	50
67	SW CBCU Below The Gage	51
68	Keith Sebelius Lake Change In Storage	-1000
69	Imported Water	0
70	Virgin Water Supply	3750
71	Adjustment For Flood Flows	0
72	Computed Water Supply	4750
73		
74	**Allocations**	
75	Colorado Percent Of Allocation	0.0%
76	Colorado Allocation	0
77	Kansas Percent Of Allocation	45.7%
78	Kansas Allocation	2170
79	Nebraska Percent Of Allocation	7.6%
80	Nebraska Allocation	360
81	Total Basin Allocation	2530
82	Percent Of Supply Not Allocated	46.7%
83	Quantity Of Unallocated Supply	2220

	A	B
1	**Mainstem Sub-Basin**	2004
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska Above Guide Rock	834
6	GW CBCU Colorado	-1269
7	GW CBCU Kansas	399
8	GW CBCU Nebraska Above Guide Rock	78183
9	GW CBCU Nebraska Below Guide Rock	2382
10	GW CBCU Nebraska	80565
11		
12	**Surface Water Constants**	
13	Meeker-Driftwood Canal % Return Flow	100%
14	Culbertson Canal % Return Flow	66%
15	Culbertson Canal Extension % Return Flow	100%
16	Red Willow Canal % Return Flow	100%
17	Bartley Canal % Return Flow	100%
18	Cambridge Canal % Return Flow	52%
19	Naponee Canal % Return Flow	100%
20	Franklin Canal % Return Flow	100%
21	Franklin Pump Canal % Return Flow	100%
22	Superior Canal % Return Flow	68%
23	Nebraska Courtland % Return Flow	100%
24	Courtland Canal Above Lovewell % Return Flow	79%
25	Courtland Canal Below Lovewell % Return Flow	50%
26		
27	**Surface Water Data**	
28	Surface Water Gages	
29	Republican River Near Hardy	41964
30	North Fork Republican River At Colorado-Nebraska State Line	19759
31	Arikaree River At Haigler	341
32	Buffalo Creek Near Haigler	2276
33	Rock Creek At Parks	5419
34	South Fork Republican River Near Benkelman	0
35	Frenchman Creek At Culbertson	19926
36	Driftwood Creek Near McCook	1201
37	Red Willow Creek Near Red Willow	3555
38	Medicine Creek Below Harry Strunk	23300
39	Sappa Creek Near Stamford	84
40	Prairie Dog Creek Near Woodruff	147
41	White Rock Creek Above Lovewell	16691
42	Reservoir Data	
43	Swanson Lake Evaporation	2588
44	Swanson Lake Change In Storage	3900
45	Hugh Butler Lake Evaporation	2026
46	Harry Strunk Lake Evaporation	2059
47	Harlan County Evaporation	17017
48	Harlan County Change In Storage	-6200
49	Lovewell Reservoir Ev charged to the Republican River	1110
50	Canal Diversion Data	
51	Bartley Canal Diversion	0
52	Cambridge Canal Diversion	21964
53	Naponee Canal Diversion	0
54	Franklin Canal Diversion	0
55	Franklin Pump Canal Diversions	0
56	Superior Canal Diversions	5800
57		
58	Courtland Canal Diversions At Headgate	31501
59	Diversions to Nebraska Courtland	0
60	Courtland Canal, Loss in NE assigned to upper Courtland KS	184
61	Courtland Canal, Loss in NE assigned to delivery to Lovewell	5877
62	Courtland Canal At Kansas-Nebraska State Line	25440
63	Courtland Canal Diversions to the Upper Courtland District	779

	A	B
1	**Mainstem Sub-Basin**	2004
2		
64	Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to Lovewell	10715
65	Courtland Canal Deliveries To Lovewell Reservoir	14130
66	Diversions of Republican River water from Lovewell Reservoir to the Courtland Canal below Lovewell	25590
67		
68	Kansas Bostwick Diversions During Irrigation Season (2001-2003 average, no diversion in 2004)	41081
69	Nebraska Bostwick Diversions During Irrigation Season (2001-2003 average, no diverison in 2004)	40187
70		
71	Meeker-Driftwood Canal Diversions	0
72	Red Willow Canal Diversions	0
73	Culbertson Canal Diversions	8674
74	Culbertson Canal Extension Diversions	0
75	Haigler Canal Diversions - Nebraska	3732
76	Kansas Surface Water Data	
77	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
78	SW Diversions - Irrigation - Small Pumps - Kansas	668
79	SW Diversions - M&I - Kansas	0
80	Non-Federal Reservoir Evaporation - Kansas	148
81	Nebraska Surface Water Data	
82	SW Diversions - Irrigation - Non-Federal Canals - Nebraska - Mainstem	3066
83	SW Diversions - Irrigation - Small Pumps - Nebraska - Mainstem	1931
84	SW Diversions - M&I - Nebraska - Mainstem	0
85	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	340
86	Mainstem Flood Flow	0
87		
88	**Calculations**	
89	Return Flow From Courtland Canal To Republican River Above Hardy From Kansas	382
90	Courtland Canal Transportation Loss in NE assigned to the Upper Courtland KS that does not recharge	33
91	Courtland Canal Transportation Loss in NE assigned to deliveries to Lovewell that does not recharge	1058
92	Courtland Canal Transportation Loss from the Stateline to Lovewell that does not return	1929
93	Net Evaporation From Lovewell Reservoir Charged To Republican River	509
94	Percent Kansas Bostwick Diversions During Irrigation Season	50.55%
95	Percent Nebraska Diversions During Irrigation Season	49.45%
96	Net Evaporation From Harlan County Reservoir Charged To Kansas	8602
97	Net Evaporation From Harlan County Reservoir Charged To Nebraska	8415
98		
99	**Consumptive Use Calculations**	
100	**Colorado**	
101	GW Depletion	-1269
102	Total CU	-1270
103		
104	**Kansas**	
105	Net Evaporation From Harlan County Reservoir Charged To Kansas	8602
106	Courtland Canal Transportation Loss in NE assigned to deliveries to Lovewell that does not recharge	1058
107	Courtland Canal Above Lovewell CBCU	162
108	Courtland Canal Transportation Loss from the Stateline to Lovewell that does not return	1929
109	Net Evaporation From Lovewell Charged To Kansas	1110
110	Courtland Canal Below Lovewell CBCU	12894
111	SW CBCU - Irrigation - Non Federal Canals	0
112	SW CBCU - Irrigation - Small Pumps	501
113	SW CBCU - M&I	0
114	Non-Federal Reservoir Evaporation - Kansas	148
115	SW CBCU	26403
116	GW CBCU	399
117	Total CBCU	26800
118		
119	**Nebraska**	
120	NE Courtland Canal CBCU (includes transportation loss)	0
121	Superior Canal CBCU	1868
122	Franklin Pump Canal CBCU	0

	A	B
1	**Mainstem Sub-Basin**	2004
2		
123	Franklin Canal CBCU	0
124	Naponee Canal CBCU	0
125	Cambridge Canal Diversion	10442
126	Bartley Canal Diversion	0
127	Meeker-Driftwood Canal CBCU	0
128	Red Willow Canal Diversions (90%)	0
129	SW CBCU - Irrigation - Non Federal Canals	1840
130	SW CBCU - Irrigation - Small Pumps	1448
131	SW CBCU - M&I	0
132	Harry Strunk Lake Evaporation	2059
133	Swanson Lake Evaporation	2588
134	Hugh Butler Lake Evaporation (90%)	1823
135	Harlan County Evaporation Charged To Nebraska (2001-2003 average, no diversion in 2004)	8415
136	Non-Federal Reservoir Evaporation	340
137	SW CBCU	30823
138	GW CBCU	80565
139	Total CBCU	111390
140		
141	**Totals**	
142	Total SW CBCU	57226
143	Total GW CBCU	79695
144	Total Basin CBCU	136920
145		
146	**Virgin Water Supply**	
147	Republican River Near Hardy	41964
148	North Fork Republican River At Colorado-Nebraska State Line	19759
149	Arikaree River At Haigler	341
150	Buffalo Creek Near Haigler	2276
151	Rock Creek At Parks	5419
152	South Fork Republican River Near Benkelman	0
153	Frenchman Creek At Culbertson	19926
154	Driftwood Creek Near McCook	1201
155	Red Willow Creek Near Red Willow	3555
156	Medicine Creek Below Harry Strunk	23300
157	Sappa Creek Near Stamford	84
158	Prairie Dog Creek Near Woodruff	147
159		
160	Colorado CBCU	-1270
161	Kansas CBCU Above Stateline	10342
162	Nebraska CBCU	111390
163		
164	90% Red Willow Canal CBCU - Nebraska	0
165	90% Hugh Butler Lake Evap	1823
166	Harry Strunk Lake Evaporation	2059
167		
168	CBCU Below Medicine Creek Gage	47
169	CBCU Below Beaver Creek Gage	0
170	CBCU Below Sappa Creek Gage	7
171	CBCU Below Prairie Dog Gage	51
172		
173	Harlan County Change In Storage	-6200
174	Swanson Lake Change In Storage	3900
175		
176	Haigler Canal Return Flow To Mainstem	1493
177	Culbertson Canal Return Flow To Mainstem	971
178	Culbertson Canal Extension Return Flow To Mainstem	0
179	Meeker - Driftwood Canal Return Flow To Driftwood Creek	0
180	Red Willow Canal Return Flow To Mainstem	0
181		
182	Courtland Canal At Kansas-Nebraska State Line	25440

	A	B
1	**Mainstem Sub-Basin**	2004
2		
183	Return Flow To Republican River Above Hardy From Kansas	381.6
184		
185	Imported Water	834
186	Virgin Water Supply	102101
187	Adjustment For Flood Flows	0
188	Computed Water Supply	104400
189		
190	**Allocations**	
191	Colorado Percent Of Allocation	0
192	Colorado Allocation	0
193	Kansas Percent Of Allocation	51.1%
194	Kansas Allocation	53350
195	Nebraska Percent Of Allocation	48.9%
196	Nebraska Allocation	51050
197	Total Basin Allocation	104400
198	Percent Of Supply Not Allocated	0.0%
199	Quantity Of Unallocated Supply	0

Table 1: Annual Virgin and Computed Water Supply, Allocations, and Computed Beneficial Consumptive Uses by State, Main Stem, and Sub-Basin

2004	Virgin Water	Computed	Allocations				Computed Beneficial Consumptive Use		
Basin	Supply	Water Supply	Colorado	Kansas	Nebraska	Unallocated	Colorado	Kansas	Nebraska
North Fork	42,360	42,360	9,490	0	10,420	22,450	17,400	20	3,690
Arikaree	1,280	1,280	1,000	70	220	-10	350	160	430
Buffalo	6,170	6,170	0	0	2,040	4,130	290	0	3,600
Rock	9,130	9,130	0	0	3,650	5,480	60	0	3,650
South Fork	21,180	24,080	10,690	9,680	340	3,370	16,800	6,080	1,200
Frenchman	116,020	115,720	0	0	62,030	53,690	40	0	94,780
Driftwood	2,710	2,710	0	190	440	2,080	0	10	1,500
Red Willow	16,850	14,050	0	0	2,700	11,350	0	0	8,700
Medicine	37,260	37,560	0	0	3,420	34,140	0	0	21,770
Beaver	1,820	1,820	360	710	740	10	0	360	1,300
Sappa	590	590	0	240	240	110	0	90	590
Prairie Dog	3,750	4,750	0	2,170	360	2,220	0	4,600	50
Main Stem	102,100	104,400	0	53,350	51,050	0	-1,270	26,800	111,390
Total All Basins	361,220	364,620	21,540	66,410	137,650	139,020	33,670	38,120	252,650
Main Stem Including Unallocated		243,420	0	124,390	119,030				
Total	361,220	364,620	21,540	137,450	205,630	0	33,670	38,120	252,650

Table 2: Original Compact Virgin Water Supply and Allocations

Basin	Virgin Water Supply	Colorado Allocation	% of Basin Supply	Kansas Allocation	% of Basin Supply	Nebraska Allocation	% of Basin Supply	Unallocated	% of Basin Supply
North Fork	44,700	10,000	22.4%			11,000	24.6%	23,700	53.0%
Arikaree	19,610	15,400	78.5%	1,000	5.1%	3,300	16.8%	-90	-0.4%
Buffalo	7,890					2,600	33.0%	5,290	67.0%
Rock	11,000					4,400	40.0%	6,600	60.0%
South Fork	57,200	25,400	44.4%	23,000	40.2%	800	1.4%	8,000	14.0%
Frenchman	98,500					52,800	53.6%	45,700	46.4%
Driftwood	7,300			500	6.9%	1,200	16.4%	5,600	76.7%
Red Willow	21,900					4,200	19.2%	17,700	80.8%
Medicine	50,800					4,600	9.1%	46,200	90.9%
Beaver	16,500	3,300	20.0%	6,400	38.8%	6,700	40.6%	100	0.6%
Sappa	21,400			8,800	41.1%	8,800	41.1%	3,800	17.8%
Prairie Dog	27,600			12,600	45.7%	2,100	7.6%	12,900	46.7%
Tributaries Sub-Total	384,000							175,500	
Main Stem	94,500								
Main Stem + Unallocated	270,000			138,000	51.1%	132,000	48.9%		
Total	478,900	54,100		190,300		234,500			

Table 3A: Colorado's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	21,420	33,470	NA	-12,050
2004	21,540	33,670	NA	-12,130
2005			NA	
2006			NA	
2007			NA	
Average	21,480	33,570		-12,090

Table 3B: Kansas's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	167780	48,910	NA	118,870
2004	137,450	38,120	NA	99,330
2005			NA	
2006			NA	
2007			NA	
Average	152,620	43,520		109,100

Table 3C: Nebraska's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	227,580	262,780	9,780	-25,420
2004	205,630	252,650	10,380	-36,640
2005				
2006				
2007				
Average	216,610	257,720	10,080	-31,030

Table 4A: Colorado's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
North Fork			NA	0		0
Arikaree			NA	0		0
South Fork			NA	0		0
Beaver			NA	0		0

Table 4B: Kansas's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Unused Allocation from Colorado (5-year running average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply (5-year running average)	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
Arikaree				NA	0		0
South Fork				NA	0		0
Driftwood				NA	0		0
Beaver				NA	0		0
Sappa				NA	0		0
Prairie Dog				NA	0		0

Table 5A: Colorado's Compliance During Water-Short Year Administration

Year	Allocation - Allocation Beaver	Computed Beneficial Consumptive Use - CBCU Beaver	Imported Water Supply Credit - IWS Beaver	Allocation - (CBCU - IWS Credit)
2000			NA	0
2001			NA	0
2002			NA	0
2003			NA	0
2004			NA	0
Average	#DIV/0!	#DIV/0!	NA	0

Table 5B: Kansas's Compliance During Water-Short Year Administration

Year	Allocation			Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS)
	Sub-Basin Total	Kansas's Share of Unallocated Supply	Total			
2000			0		NA	0
2001			0		NA	0
2002			0		NA	0
2003			0		NA	0
2004			0		NA	0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0

Table 5E: Nebraska's Tributary Compliance During Water-Short Year Administration

Year	Allocation			Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS)
	Sub-Basin Total	Nebraska's Share of Unallocated Supply	Total			
2000			0			0
2001			0			0
2002			0			0
2003			0			0
2004			0			0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0

Table 5C: Nebraska's Compliance During Water-Short Year Administration

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
2003			0			0		0
2004			0			0		0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0

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

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
2002			0			0		0
2003			0			0		0
2004			0			0		0
Average	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0

Attachment 6: Computing Water Supplies and Consumptive Use Above Guide Rock

Total Mainstem CWS	Hardy Gage	Superior Courtland Diversion Dam	Courtland Canal Diversions	Superior Canal Diversion	Courtland Canal Returns	Superior Canal Returns	Total Bostwick Returns Below Guide Rock	NE CBCU Below Guide Rock	KS CBCU Below Ruide Rock	Total CBCU Below Guide Rock	Gain Guide Rock to Hardy	VWS Guide Rock to Hardy	Mainstem VWS Above Hardy	NE MS Allocation Above Hardy	KS MS Allocation Above Hardy	Nebraska Guide Rock to Hardy Allocation	Kansas Guide Rock to Hardy Allocation
104,400	41,964	15,019	31,501	5,800	5,352	3,932	9,283	2,899	900	3,799	21,461	25,259	129,659	12,352	66,256	12,352	12,907

COURTLAND CANAL	
Return Flow From Courtland Canal To Republican River Above Hardy From Kansas	382
Return Flow From Courtland Canal To Republican River Above Hardy From Nebraska	4,970
Courtland Canal Diversions At Headgate	31501
Courtland Canal At Kansas-Nebraska State Line	25440
NE Courtland Canal CBCU (includes transportation loss)	0
Superior Canal CBCU	1,868

NEBRASKA	
SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	689
SW Diversions - M&I - Nebraska - Below Guide Rock	0
SW Return - Irrigation	172.25
SW Return - M&I	0
GW CBCU Nebraska Below Guide Rock	2382

KANSAS	
SW CBCU - Irrigation - Small Pumps	501
SW CBCU - M&I	0
GW CBCU Kansas	399

2004
Attachment 7: Calculations of Return Flows from Bureau of Reclamation Canals

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11
Canal	Canal Diversion	Spill to Waste-Way	Field Deliveries	Canal Loss	Average Field Loss Factor	Field Loss	Total Loss from District	Percent Field and Canal Loss That Returns to the Stream	Total return to Stream from Canal and Field Loss	Return as Percent of Canal Diversion
Name Canal	Headgate Diversion	Sum of measured spills to river	Sum of Deliveries to the field	Col 2 - Col 4	1 -Weighted Average Efficiency of Application System for the District*	Col 4 x Col 6	Col 5 + Col 7	Estimated Percent Loss*	Col 8 x Col 9	Col 10/Col 2
Example	100	5	60	40	30%	18	58	82%	48	48%
Culbertson	8674		2441	6233	30%	732	6965	82%	5712	66%
Culbertson Extension	0		0	0	30%	0	0	82%	0	100%
Meeker - Driftwood	0		0	0	30%	0	0	82%	0	100%
Red Willow	0		0	0	30%	0	0	82%	0	100%
Bartley	0		0	0	30%	0	0	82%	0	100%
Cambridge	21964		11304	10660	30%	3391	14051	82%	11522	52%
Naponee	0		0	0	35%	0	0	82%	0	100%
Franklin	0		0	0	35%	0	0	82%	0	100%
Franklin Pump	0		0	0	35%	0	0	82%	0	100%
Almena	0		0	0	30%	0	0	82%	0	100%
Superior	5800		1457	4343	31%	452	4795	82%	3932	68%
Nebraska Courtland	0		0	0	23%	0	0	82%	0	100%
Courtland Canal Above Lovewell (KS)	3268		144	3124	23%	33	3157	82%	2589	79%
Courtland Canal Below Lovewell	30134		15456	14678	23%	3555	18233	82%	14951	50%

* The average field efficiencies for each district and percent loss that returns to the stream may be reviewed and, if necessary, changed by the RRCA to improve the accuracy of the estimates.

Impacts 2004 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	353	116	431	0
Beaver	0	205	1278	0
Buffalo	290	0	3333	0
Driftwood	0	0	1479	0
Frenchman	39	0	85199	0
North Fork	14373	16	1446	0
Above Swanson	-1287	201	13809	0
Swanson - Harlan	0	91	33956	622
Harlan - Guide Rock	0	0	29155	198
Guide Rock - Hardy	0	71	2382	0
Medicine	0	0	20898	9522
Prairie Dog	0	1328	0	0
Red Willow	0	0	6448	25
Rock	58	0	3581	0
Sappa	0	-205	556	0
South Fork	11532	5781	1202	0
Hugh Butler	0	0	1773	0
Bonny	1342	0	0	0
Keith Sebelius	0	496	0	0
Enders	0	0	4528	0
Harlan	0	36	776	14
Harry Strunk	0	0	398	0
Swanson	18	0	487	0
Mainstem	**-1294**	**368**	**79303**	**815**
Total	**26715**	**8150**	**213115**	**10386**
MS's 4 reaches + 2 reservoirs	-1269	399	80565	834
NE above Guide Rock			78183	834
Total of individual sub-basins	26718	8136	213115	10381

COURTLAND CANAL ABOVE LOVEWELL

Revised 2-8-05

2004

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Records	Records	District	(3 + 4)	(2 - 5)	District	Records	(7 + 8)	(3 - 9)	6-(6x(3/5))	(6-11)x(7/9)	(6-11-12)	(10 x 7/9)	(10 - 14)	(4 + 11)	(7 + 12 + 14)	(8 + 13 + 15)	(16+17+18)
										ALLOCATION OF LOSSES					TOTAL ALLOCATION ABOVE LOVEWELL			(= 2)
										LOSS IN NEBRASKA			LOSS IN KANSAS					C
			NEB			KAN	DEL			Courtland Canal 0.7 to 15.1			Courtland Canal 15.1 to 34.8		Courtland Canal 0.7 to 34.8			H
			Bost	Total	Total	Bost	to	Total	Total									E
	Court	Court	Use	out	Loss	Use	Lovewell	out	Loss									C
	Canal	Canal	Main	flow	in	Main	Court	flow	in									K
Month	0.7	15.1	Canal 0.7 to 15.1	in NEB	NEB 0.7 to 15.1	Canal 15.1 to 34.	Canal 34.8	in KAN	KAN 15.1 to 34.	NEB Bost	KAN Bost	USBR	KAN Bost	USBR	NEB Bost	KAN Bost	USBR	
January	4530	3601	0	3601	929	0	2685	2685	916	0	0	929	0	916	0	0	4530	4530
February	2350	1914	0	1914	436	0	1398	1398	516	0	0	436	0	516	0	0	2350	2350
March	1950	1514	0	1514	436	0	1128	1128	386	0	0	436	0	386	0	0	1950	1950
April	5439	4551	0	4551	888	0	3776	3776	775	0	0	888	0	775	0	0	5439	5439
May	3910	3043	0	3043	867	0	2150	2150	893	0	0	867	0	893	0	0	3910	3910
June	1302	1005	0	1005	297	0	104	104	901	0	0	297	0	901	0	0	1302	1302
July	1779	1730	0	1730	49	43	230	273	1457	0	8	41	229	1228	0	280	1499	1779
August	186	35	0	35	151	11	0	11	24	0	151	0	24	0	0	186	0	186
September	525	184	0	184	341	0	0	0	184	0	0	341	0	184	0	0	525	525
October	2557	2129	0	2129	428	0	0	0	2129	0	0	428	0	2129	0	0	2557	2557
November	3204	2950	0	2950	254	90	831	921	2029	0	25	229	198	1831	0	313	2891	3204
December	3769	2784	0	2784	985	0	1828	1828	956	0	0	985	0	956	0	0	3769	3769
Total	31501	25440	0	25440	6061	144	14130	14274	11166	0	184	5877	451	10715	0	779	30722	31501

BOSTWICK DIVISION
FRANKLIN UNIT

	HARLAN COUNTY LAKE					FRANKLIN CANAL		NAPONEE CANAL	
	Data from Corps of Engineers								
	(AF)	(AF)	(AF)	(Inches)	(AF)	Release To Canal	Delivered To Farms	Release To Canal	Delivered To Farms
Month	Inflow	Outflow	Gross Evap.	Precip.	OM Conter	(AF)	(AF)	(AF)	(AF)
Jan.	833	0	468	0.80	113,706	0	0	0	0
Feb.	819	0	460	0.68	114,066	0	0	0	0
Mar.	2,489	0	755	1.99	115,795	0	0	0	0
Apr.	2,638	0	1,989	2.02	116,443	0	0	0	0
May	2,638	0	2,563	2.86	116,731	0	0	0	0
June	1,650	0	4,243	2.30	114,139	0	0	0	0
July	4,354	0	2,780	4.09	114,715	0	0	0	0
Aug.	2,009	0	5,177	1.41	111,546	0	0	0	0
Sep.	3,917	0	6,558	2.63	108,905	0	0	0	0
Oct.	1,993	0	2,818	2.30	108,081	0	0	0	0
Nov.	1,567	0	1,773	1.75	107,874	0	0	0	0
Dec.	192	0	1,017	0.00	107,050	0	0	0	0
TOTAL	25,099	0	30,601	22.83	--	0	0	0	0

NOTE: Acres irrigated 2004: Franklin Canal - 0 acres; Naponee Canal - 0 acres.

BOSTWICK DIVISION (Continued)
SUPERIOR-COURTLAND UNIT

	FRANKLIN PUMP CANAL		SUPERIOR CANAL			COURTLAND CANAL - ABOVE LOVEWELL			
						NEBRASKA USE		KANSAS USE	
	Diverted To Canal	Delivered To Farms	Diverted To Canal	Delivered To Farms	Total Diversion	Total	Delivered To Farms	Diversion To Canal	Delivered To Farms
Month	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)
Jan.	0	0	0	0	4,530	0	0	0	0
Feb.	0	0	0	0	2,350	0	0	0	0
Mar.	0	0	0	0	1,950	0	0	0	0
Apr.	0	0	0	0	5,439	0	0	0	0
May	0	0	554	0	3,910	0	0	0	0
June	0	0	1,961	241	1,302	0	0	0	0
July	0	0	2,077	711	1,779	0	0	280	43
Aug.	0	0	1,015	456	186	0	0	186	11
Sep.	0	0	193	49	525	0	0	0	0
Oct.	0	0	0	0	2,557	0	0	2,536	0
Nov.	0	0	0	0	3,204	0	0	266	90
Dec.	0	0	0	0	3,769	0	0	0	0
TOTAL	0	0	5,800	1,457	31,501	0	0	3,268	144

NOTE: Acres irrigated 2004: Franklin Pump Canal - 0 acres; Superior Canal - 3,127 acres.
Courtland Canal-Nebraska use - 0 acres.
Courtland Canal-Kansas use - 1,107 acres.

BOSTWICK DIVISION (Continued)
COURTLAND UNIT

	LOVEWELL RESERVOIR							COURTLAND (Below)	
	Total Inflow	Outflow	Gross Evap.	Precip.	End of Month Content	Est. Flow from White Rock	Inflow from Courtland	Release To Canal	Delivered To Farms
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	Creek (AF)	34.8 (AF)	(AF)	(AF)
Jan.	3,049	12	150	0.94	2,887	364	2,685	0	0
Feb.	2,310	12	190	0.76	4,995	912	1,398	0	0
Mar.	3,032	12	378	3.79	7,637	1,904	1,128	0	0
Apr.	5,057	18	974	1.47	11,702	1,281	3,776	0	0
May	3,105	1,014	1,285	4.58	12,508	955	2,150	982	0
June	987	1,349	1,366	5.00	10,780	883	104	1,417	0
July	7,078	13,730	1,351	7.44	2,777	6,848	230	9,713	4,043
Aug.	2,320	19,042	884	2.09	-14,829	2,320	0	18,022	11,413
Sep.	251	18	747	2.62	-15,343	251	0	0	0
Oct.	39	12	343	1.20	-15,659	39	0	0	0
Nov.	1,019	12	242	0.80	-14,894	188	831	0	0
Dec.	2,574	12	122	0.04	-12,454	746	1,828	0	0
TOTAL	30,821	35,243	8,032	30.73	--	16,691	14,130	30,134	15,456

NOTE: Acres irrigated 2004: Courtland Canal below Lovewell - 23,034 acres.

Republican River Compact Administration

Compact Accounting for 2005 with non-federal reservoir evaporation below Harlan County

Spreadsheet name: RRCA Accounting for 2005 w NFR evap entire basin.xls

Last update: 9-Aug-06

Starting workbook name: RRCA Accounting for 2004_Sept06_2005.xls By NDNR

	Attachment 6	Column L formula corrected to avoid double-counting for BCU below Guide Rock Column headings for Columns N. O. and P are corrected Operating sign in Column N was corrected to be a minus. Column cell reference in Column O corrected.
	Table 5C	Links to T1, Attachment 6, and GM_output sheets are provided.

5/1/2006 2006 Updates

Spreadsheet name:	RRCA AccountingFor2005.xls
Attachment 7	updated
CoutlandAvLove	updated
Reservoir Data	updated
Stream Gage Data	updated
NE Non-Fedearl reservoir Evap	updated
NE Canal Diversion	updated

6/14/2006

Spreadsheet name:	RRCA AccountingFor2005(June14, 2006).xls
Impact 2005	Updated

Formating according to the KS RRCA Accounting for 2005 first guess.xls
KS Surface Water Pumping data Updated

6/19/2006
Stream Flow Data — Refined with USGS Data Provided by Soenksen

6/22/2006 RRCA AccountingFor2005(June22, 2006NE).xls
Reservoir Data linked to the Fed_Reservoir sheet
Lovewell Reservoir Evap charged to the Republican River updated.

6/27/2006 Megan added CO data

7/31/2006 D. Barfield added Willem's 7/31 model results
Table 1. Added to the Table 1 page results for 2003 and 2004 and provided a place for the 2005-2007 Table 1 data.
This data is used in subsequent multi-year Tables in the spreadsheet.
Table 4A, 4B page - Added detail below the existing tables to allow computation of the multi-year average based on this data.
These detail tables pull data from the Table 1 data added as referenced in the note above.

8/1/2006 NE non-federal Reservoir net evaporation data updated, the NFR above Guide Rock moved from North Fork to Mainstem subbasin Impact 2005 updated,

8/2/2006 White Rock Creek related rows in INPUT and MAINSTEM sheets are deleted
BureauT2 sheet was also deleted, since Net Evaporation of Lovewell Lake Charged to Republican River is computed outside now.

T3 linked to T1
Courtland Canal Deliveries to Lovewell Reservoir correctly linked to CoutlandAvLove sheet, even though it is no longer used.
T5A, T5B,E updated (NOT sure if they are done corrrectly???)

GW Imapcts 2003 and 2004 are added into the GM_Output sheet and linked to the related table.

8/6/2006 Clean up of temporary work
Table 5A - added formulas pointing to Table 1 page
Tables 5B & 5E - deleted 3 years of data so they represent 2 year averages

8/8/2006 Amended Attachment 6 for Below Guide Rock Non-Federal Reservoir Evaporation
This is being done by agreement for Commission Meeting on 8-9-06
The need for below Harlan Non-Federal Res. Evap. Is still under discussion
As such, the Non-Federal Res. Evap. Input Sheet values reflect whole basin in Nebr.
Changed cells are in red font for easy identification
Compare to RRCA AccountingFor2005 (August 6 2006 KS).xls as the base for this Spreadsheet

	A	B	C
1	**Calendar Year**		2005
2			
3	**Groundwater Data**		
4	North Fork Subbasin	GW CBCU Colorado	14,359
5		GW CBCU Kansas	17
6		GW CBCU Nebraska	1,443
7	Arikaree Subbasin	GW CBCU Colorado	811
8		GW CBCU Kansas	122
9		GW CBCU Nebraska	250
10	Buffalo Subbasin	GW CBCU Colorado	306
11		GW CBCU Kansas	0
12		GW CBCU Nebraska	3,357
13	Rock Subbasin	GW CBCU Colorado	61
14		GW CBCU Kansas	0
15		GW CBCU Nebraska	3,744
16	South Fork Subbasin	GW CBCU Colorado	14,952
17		GW CBCU Kansas	7,227
18		GW CBCU Nebraska	1,372
19	Frenchman Subbasin	GW CBCU Colorado	42
20		GW CBCU Kansas	0
21		GW CBCU Nebraska	82,719
22	Driftwood Subbasin	GW CBCU Colorado	0
23		GW CBCU Kansas	0
24		GW CBCU Nebraska	1,481
25	Red Willow Subbasin	GW CBCU Colorado	0
26		GW CBCU Kansas	0
27		GW CBCU Nebraska	8,305
28	Medicine Creek Subbasin	GW CBCU Colorado	0
29		GW CBCU Kansas	0
30		GW CBCU Nebraska	20,766
31	Beaver Subbasin	GW CBCU Colorado	0
32		GW CBCU Kansas	1,519
33		GW CBCU Nebraska	2,684
34	Sappa Subbasin	GW CBCU Colorado	0
35		GW CBCU Kansas	-1,462
36		GW CBCU Nebraska	702
37	Prairie Dog Subbasin	GW CBCU Colorado	0
38		GW CBCU Kansas	5,775
39		GW CBCU Nebraska	0
40	Mainstem Subbasin	GW CBCU Colorado	-1,954
41		GW CBCU Kansas	271
42		GW CBCU Nebraska Above Guide Rock	81,100
43		GW CBCU Nebraska Below Guide Rock	2,956
44			
45	**Import Water Data**		
46	North Fork Subbasin	Imported Water Nebraska	0
47	Arikaree Subbasin	Imported Water Nebraska	0
48	Buffalo Subbasin	Imported Water Nebraska	0
49	Rock Subbasin	Imported Water Nebraska	0
50	South Fork Subbasin	Imported Water Nebraska	0
51	Frenchman Subbasin	Imported Water Nebraska	0
52	Driftwood Subbasin	Imported Water Nebraska	0
53	Red Willow Subbasin	Imported Water Nebraska	35
54	Medicine Creek Subbasin	Imported Water Nebraska	8,633
55	Beaver Subbasin	Imported Water Nebraska	0
56	Sappa Subbasin	Imported Water Nebraska	0
57	Prairie Dog Subbasin	Imported Water Nebraska	0
58	Mainstem Subbasin	Imported Water Nebraska Above Guide Rock	2,297
59		Imported Water Nebraska Below Guide Rock	0
60		Total	11,965
61	**SW Pumping Data**		
62	North Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	2,790
63		SW Diversions - Irrigation - Small Pumps - Colorado	0
64		SW Diversions - M&I - Colorado	0
65	Arikaree Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
66		SW Diversions - Irrigation - Small Pumps - Colorado	0
67		SW Diversions - M&I - Colorado	0
68		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
69		SW Diversions - Irrigation - Small Pumps - Kansas	0
70		SW Diversions - M&I - Kansas	0
71		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
72		SW Diversions - Irrigation - Small Pumps - Nebraska	0
73		SW Diversions - M&I - Nebraska	0
74	Buffalo Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
75		SW Diversions - Irrigation - Small Pumps - Colorado	0
76		SW Diversions - M&I - Colorado	0
77		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	171
78		SW Diversions - Irrigation - Small Pumps - Nebraska	34
79		SW Diversions - M&I - Nebraska	0
80	Rock Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
81		SW Diversions - Irrigation - Small Pumps - Nebraska	0
82		SW Diversions - M&I - Nebraska	0
83	South Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	458
84		SW Diversions - Irrigation - Small Pumps - Colorado	0
85		SW Diversions - M&I - Colorado	0
86		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
87		SW Diversions - Irrigation - Small Pumps - Kansas	13
88		SW Diversions - M&I - Kansas	0
89		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0

	A	B	C
1	**Calendar Year**		**2005**
2			
90		SW Diversions - Irrigation - Small Pumps - Nebraska	0
91		SW Diversions - M&I - Nebraska	0
92	Frenchman Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
93		SW Diversions - Irrigation - Small Pumps - Nebraska	1
94		SW Diversions - M&I - Nebraska	0
95	Driftwood Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
96		SW Diversions - Irrigation - Small Pumps - Kansas	0
97		SW Diversions - M&I - Kansas	0
98		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
99		SW Diversions - Irrigation - Small Pumps - Nebraska	0
100		SW Diversions - M&I - Nebraska	0
101	Red Willow Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
102		SW Diversions - Irrigation - Small Pumps - Nebraska	123
103		SW Diversions - M&I - Nebraska	0
104	Medicine Creek Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
105		SW Diversions - Irrigation - Small Pumps - Nebraska	259
106		SW Diversions - M&I - Nebraska	0
107		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
108		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	78
109		SW Diversions - M&I - Nebraska - Below Gage	0
110	Beaver Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
111		SW Diversions - Irrigation - Small Pumps - Colorado	0
112		SW Diversions - M&I - Colorado	0
113		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
114		SW Diversions - Irrigation - Small Pumps - Kansas	12
115		SW Diversions - M&I - Kansas	0
116		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
117		SW Diversions - Irrigation - Small Pumps - Nebraska	0
118		SW Diversions - M&I - Nebraska	0
119		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
120		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
121		SW Diversions - M&I - Nebraska - Below Gage	0
122	Sappa Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
123		SW Diversions - Irrigation - Small Pumps - Kansas	3
124		SW Diversions - M&I - Kansas	0
125		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
126		SW Diversions - Irrigation - Small Pumps - Nebraska	54
127		SW Diversions - M&I - Nebraska	0
128		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
129		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
130		SW Diversions - M&I - Nebraska - Below Gage	0
131	Prairie Dog Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
132		SW Diversions - Irrigation - Small Pumps - Kansas	159
133		SW Diversions - M&I - Kansas	382
134		SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
135		SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	21
136		SW Diversions - M&I - Nebraska - Below Gage	0
137	Mainstem Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
138		SW Diversions - Irrigation - Small Pumps - Kansas	767
139		SW Diversions - M&I - Kansas	0
140		SW Diversions - Irrigation - Non-Federal Canals - Nebraska	1,661
141		SW Diversions - Irrigation - Small Pumps - Nebraska	1,918
142		SW Diversions - M&I - Nebraska	0
143		SW Diversions - Irrigation - Non-Federal Canals - Nebraska Below Guide Rock	0
144		SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	1,276
145		SW Diversions - M&I - Nebraska - Below Guide Rock	0
146			
147	**Non-Federal SW Consumptive Use**		
148		% Non-Federal Canal Diversion Consumed	60%
149		% Small Surface Water Pumps Consumed	75%
150		% Municipal And Industrial SW Consumed	50%
151			
152	**Non-Federal Reservoir Evaporation Data**		
153	North Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	43
154	Arikaree Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
155		Non-Federal Reservoir Evaporation - Kansas	40.5
156		Non-Federal Reservoir Evaporation - Nebraska	0
157	Buffalo Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
158		Non-Federal Reservoir Evaporation - Nebraska	21
159	Rock Subbasin	Non-Federal Reservoir Evaporation - Nebraska	82
160	South Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
161		Non-Federal Reservoir Evaporation - Kansas	284.5
162		Non-Federal Reservoir Evaporation - Nebraska	0
163	Frenchman Subbasin	Non-Federal Reservoir Evaporation - Nebraska	134.8
164	Driftwood Subbasin	Non-Federal Reservoir Evaporation - Kansas	6.6
165		Non-Federal Reservoir Evaporation - Nebraska	1.8
166	Red Willow Subbasin	Non-Federal Reservoir Evaporation - Nebraska	181.9
167	Medicine Creek Subbasin	Non-Federal Reservoir Evaporation - Nebraska	292.3
168		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	7.2
169	Beaver Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
170		Non-Federal Reservoir Evaporation - Kansas	134.7
171		Non-Federal Reservoir Evaporation - Nebraska	50.7
172		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
173	Sappa Subbasin	Non-Federal Reservoir Evaporation - Kansas	278.3
174		Non-Federal Reservoir Evaporation - Nebraska	42.8
175		Non-Federal Reservoir Evaporation - Nebraska - Below Gage	5.2
176	Prairie Dog Subbasin	Non-Federal Reservoir Evaporation - Kansas	371.1

	A	B	C
1	**Calendar Year**		**2005**
2			
177		Non-Federal Reservoir Evaporation - Nebraska	21.2
178	Mainstem Subbasin	Non-Federal Reservoir Evaporation - Kansas	147.9
179		Non-Federal Reservoir Evaporation - Nebraska - Above Guide Rock Gage - Whole Basin Value:	1891
180		Non-Federal Reservoir Evaporation - Nebraska - Below Guide Rock Gage - Whole Basin Value:	137
181			
182	**Stream Gage Data**		
183	North Fork Subbasin	North Fork Republican River At Colorado-Nebraska State Line	21,060
184	Arikaree Subbasin	Arikaree River At Haigler	1,151
185	Buffalo Subbasin	Buffalo Creek Near Haigler	2,227
186	Rock Subbasin	Rock Creek At Parks	5,466
187	South Fork Subbasin	South Fork Republican River Near Benkelman	0
188	Frenchman Subbasin	Frenchman Creek At Culbertson	23,235
189	Driftwood Subbasin	Driftwood Creek Near McCook	1,911
190	Red Willow Subbasin	Red Willow Creek Near Red Willow	3,791
191	Medicine Creek Subbasin	Medicine Creek Below Harry Strunk	19,992
192	Beaver Subbasin	Beaver Creek Near Beaver City	173
193	Sappa Subbasin	Sappa Creek Near Stamford	262
194	Prairie Dog Subbasin	Prairie Dog Creek Near Woodruff	3,436
195	Mainstem Subbasin	Republican River At Guide Rock	1,779
196		Republican River Near Hardy	16,980
197			
198	**Flood Flow Data**		
199	North Fork Subbasin	North Fork Flood Flow	0
200	Arikaree Subbasin	Arikaree Flood Flow	0
201	Buffalo Subbasin	Buffalo Flood Flow	0
202	Rock Subbasin	Rock Flood Flow	0
203	South Fork Subbasin	Southfork Flood Flow	0
204	Frenchman Subbasin	Frenchman Flood Flow	0
205	Driftwood Subbasin	Driftwood Flood Flow	0
206	Red Willow Subbasin	Red Willow Flood Flow	0
207	Medicine Creek Subbasin	Medicine Creek Flood Flow	0
208	Beaver Subbasin	Beaver Flood Flow	0
209	Sappa Subbasin	Sappa Flood Flow	0
210	Prairie Dog Subbasin	Prairie Dog Flood Flow	0
211	Mainstem Subbasin	Mainstem Flood Flow	0
212			
213	**Reservoir Data**		
214	South Fork Subbasin	Bonny Reservoir Evaporation	3,430
215		Bonny Reservoir Change In Storage	-1,500
216	Frenchman Subbasin	Enders Reservoir Evaporation	1,248
217		Enders Reservoir Change In Storage	0
218	Red Willow Subbasin	Hugh Butler Lake Evaporation	2,230
219		Hugh Butler Lake Change In Storage	1,800
220	Medicine Creek Subbasin	Harry Strunk Lake Evaporation	2,772
221		Harry Strunk Lake Change In Storage	5,600
222	Prairie Dog Subbasin	Keith Sebelius Lake Evaporation	1,727
223		Keith Sebelius Lake Change In Storage	100
224	Mainstem Subbasin	Swanson Lake Evaporation	5,638
225		Swanson Lake Change In Storage	4,600
226		Harlan County Evaporation	17,706
227		Harlan County Change In Storage	21,000
228		Lovewell Reservoir Ev charged to the Republican River	2,020
229			
230	**Canal Data**		
231	North Fork Subbasin	Haigler Canal Diversions - Colorado	2,423
232		Haigler Canal Diversions - Nebraska	4,745
233		Haigler Canal Diversions	*7,168*
234	South Fork Subbasin	Hale Ditch Diversions	0
235	Frenchman Subbasin	Champion Canal Diversions	0
236		Riverside Canal Diversions	2,096
237		Culbertson Canal Diversions	6,562
238		Culbertson Canal Extension Diversions	0
239		Culbertson Canal % Return Flow	78%
240		Culbertson Canal Extension % Return Flow	100%
241	Driftwood Subbasin	Meeker-Driftwood Canal Diversions	0
242		Meeker-Driftwood Canal % Return Flow	100%
243	Red Willow Subbasin	Red Willow Canal Diversions	0
244		Red Willow Canal % Return Flow	100%
245	Prairie Dog Subbasin	Almena Canal Diversions	0
246		Almena Canal % Return Flow	100%
247	Mainstem Subbasin	Bartley Canal Diversion	0
248		Bartley Canal % Return Flow	100%
249		Cambridge Canal Diversion	19,732
250		Cambridge Canal % Return Flow	54%
251		Naponee Canal Diversion	0
252		Naponee Canal % Return Flow	100%
253		Franklin Canal Diversion	0
254		Franklin Canal % Return Flow	100%
255		Franklin Pump Canal Diversions	0
256		Franklin Pump Canal % Return Flow	100%
257		Superior Canal Diversions	4,712
258		Superior Canal % Return Flow	64%
259			
260		Courtland Canal Diversions At Headgate	*48,737*
261		Diversions to Nebraska Courtland	0
262		Nebraska Courtland % Return Flow	100%
263		Courtland Canal, Loss in NE assigned to upper Courtland KS	415

	A	B	C
1	**Calendar Year**		**2005**
2			
264		Courtland Canal, Loss in NE assigned to delivery to Lovewell	8,236
265		Courtland Canal At Kansas-Nebraska State Line	***40,086***
266		Courtland Canal Diversions to the Upper Courtland District	1,864
267		Courtland Canal Above Lovewell % Return Flow	***63%***
268		Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to Lovewell	***9,372***
269		Courtland Canal Deliveries To Lovewell Reservoir	***29,265***
270		Diversions of Republican River water from Lovewell Reservoir to the Courtland Canal below Lovewell	25,590
271		Courtland Canal Below Lovewell % Return Flow	***0.53***
272			
273		**To allocate Harlan County evaporation:**	
274		Kansas Bostwick Diversions During Irrigation Season (2001-2003 average, no diversion in 2005)	41,081
275		Nebraska Bostwick Diversions During Irrigation Season (2001-2003 average, no diversion in 2005)	40,187

	A	B
1	**North Fork Republican River Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	14359
7	GW CBCU Kansas	17
8	GW CBCU Nebraska	1443
9		
10	**Surface Water Data**	
11	North Fork Republican River At Colorado-Nebraska State Line	21060
12	Haigler Canal Diversions - Colorado	2423
13	SW Diversions - Irrigation -Non-Federal Canals- Colorado	2790
14	SW Diversions - Irrigation - Small Pumps - Colorado	0
15	SW Diversions - M&I - Colorado	0
16	Haigler Canal Diversions - Nebraska	4745
17	Non-Federal Reservoir Evaporation - Colorado	43
18	North Fork Flood Flow	0
19		
20	**Consumptive Use Calculations**	
21	**Colorado**	
22	Haigler Canal CBCU	1453.8
23	SW CBCU - Irrigation - Non Federal Canals	1674
24	SW CBCU - Irrigation - Small Pumps	0
25	SW CBCU - M&I	0
26	Non-Federal Reservoir Evaporation	43
27	SW CBCU	3171
28	GW CBCU	14359
29	Total CBCU	17530
30		
31	**Kansas**	
32	GW CBCU	17
33	Total CBCU	20
34		
35	**Nebraska**	
36	Haigler Canal CBCU	2847
37	SW CBCU	2847
38	GW CBCU	1443
39	Total CBCU	4290
40		
41	**Totals**	
42	Total SW CBCU	6018
43	Total GW CBCU	15819
44	Total Basin CBCU	21837
45		
46	**Virgin Water Supply**	
47	North Fork Republican River At Colorado-Nebraska State Line	21060
48	Nebraska Haigler Canal Return Flow To Main Stem	1898
49	Colorado CBCU	17530
50	Kansas CBCU	20
51	Nebraska CBCU	4290
52	Imported Water	0
53	Virgin Water Supply	44800
54	Adjustment For Flood Flows	0
55	Computed Water Supply	44800
56		
57	**Allocations**	
58	Colorado Percent Of Allocation	22.4%
59	Colorado Allocation	10040
60	Kansas Percent Of Allocation	0.0%
61	Kansas Allocation	0
62	Nebraska Percent Of Allocation	24.6%
63	Nebraska Allocation	11020
64	Total Basin Allocation	21060
65	Percent Of Supply Not Allocated	53.0%
66	Quantity Of Unallocated Supply	23740

	A	B
1	**Arikaree River Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	811
7	GW CBCU Kansas	122
8	GW CBCU Nebraska	250
9		
10	**Surface Water Data**	
11	Arikaree River At Haigler	1151
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Colorado	0
22	Non-Federal Reservoir Evaporation - Kansas	40.5
23	Non-Federal Reservoir Evaporation - Nebraska	0
24	Arikaree Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	SW CBCU - Irrigation - Non Federal Canals	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	0
32	SW CBCU	0
33	GW CBCU	811
34	Total CBCU	810
35		
36	**Kansas**	
37	SW CBCU - Irrigation - Non Federal Canals	0
38	SW CBCU - Irrigation - Small Pumps	0
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	40.5
41	SW CBCU	41
42	GW CBCU	122
43	Total CBCU	160
44		
45	**Nebraska**	
46	SW CBCU - Irrigation - Non Federal Canals	0
47	SW CBCU - Irrigation - Small Pumps	0
48	SW CBCU - M&I	0
49	Non-Federal Reservoir Evaporation	0
50	SW CBCU	0
51	GW CBCU	250
52	Total CBCU	250
53		
54	**Totals**	
55	Total SW CBCU	41
56	Total GW CBCU	1183
57	Total Basin CBCU	1220
58		
59	**Virgin Water Supply**	
60	Arikaree River At Haigler	1151
61	Colorado CBCU	810
62	Kansas CBCU	160
63	Nebraska CBCU	250
64	Imported Water	0
65	Virgin Water Supply	2370
66	Adjustment For Flood Flows	0
67	Computed Water Supply	2370
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	78.5%
71	Colorado Allocation	1860
72	Kansas Percent Of Allocation	5.1%
73	Kansas Allocation	120
74	Nebraska Percent Of Allocation	16.8%
75	Nebraska Allocation	400
76	Total Basin Allocation	2380
77	Percent Of Supply Not Allocated	-0.4%
78	Quantity Of Unallocated Supply	-10

	A	B
1	**Buffalo Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	306
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3357
9		
10	**Surface Water Data**	
11	Buffalo Creek Near Haigler	2227
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	171.45
16	SW Diversions - Irrigation - Small Pumps - Nebraska	33.67
17	SW Diversions - M&I - Nebraska	0
18	Non-Federal Reservoir Evaporation - Colorado	0
19	Non-Federal Reservoir Evaporation - Nebraska	21
20	Buffalo Flood Flow	0
21		
22	**Consumptive Use Calculations**	
23	**Colorado**	
24	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
25	SW Diversions - Irrigation - Small Pumps - Colorado	0
26	SW Diversions - M&I - Colorado	0
27	Non-Federal Reservoir Evaporation - Colorado	0
28	SW CBCU	0
29	GW CBCU	306
30	Total CBCU	310
31		
32	**Kansas**	
33	GW CBCU	0
34	Total CBCU	0
35		
36	**Nebraska**	
37	SW CBCU - Irrigation - Non Federal Canals	102.87
38	SW CBCU - Irrigation - Small Pumps	25
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	21
41	SW CBCU	149
42	GW CBCU	3357
43	Total CBCU	3510
44		
45	**Totals**	
46	Total SW CBCU	149
47	Total GW CBCU	3663
48	Total Basin CBCU	3810
49		
50	**Virgin Water Supply**	
51	Buffalo Creek Near Haigler	2227
52	Colorado CBCU	310
53	Kansas CBCU	0
54	Nebraska CBCU	3510
55	Imported Water	0
56	Virgin Water Supply	6050
57	Adjustment For Flood Flows	0
58	Computed Water Supply	6050
59		
60	**Allocations**	
61	Colorado Percent Of Allocation	0.0%
62	Colorado Allocation	0
63	Kansas Percent Of Allocation	0.0%
64	Kansas Allocation	0
65	Nebraska Percent Of Allocation	33.0%
66	Nebraska Allocation	2000
67	Total Basin Allocation	2000
68	Percent Of Supply Not Allocated	67.0%
69	Quantity Of Unallocated Supply	4050

	A	B
1	**Rock Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	61
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3744
9		
10	**Surface Water Data**	
11	Rock Creek At Parks	5466
12	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
13	SW Diversions - Irrigation - Small Pumps - Nebraska	0
14	SW Diversions - M&I - Nebraska	0
15	Non-Federal Reservoir Evaporation - Nebraska	82
16	Rock Flood Flow	0
17		
18	**Consumptive Use Calculations**	
19	**Colorado**	
20	GW CBCU	61
21	Total CBCU	60
22		
23	**Kansas**	
24	GW CBCU	0
25	Total CBCU	0
26		
27	**Nebraska**	
28	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	82
32	SW CBCU	82
33	GW CBCU	3744
34	Total CBCU	3830
35		
36	**Totals**	
37	Total SW CBCU	82
38	Total GW CBCU	3805
39	Total Basin CBCU	3890
40		
41	**Virgin Water Supply**	
42	Rock Creek At Parks	5466
43	Colorado CBCU	60
44	Kansas CBCU	0
45	Nebraska CBCU	3830
46	Imported Water	0
47	Virgin Water Supply	9360
48	Adjustment For Flood Flows	0
49	Computed Water Supply	9360
50		
51	**Allocations**	
52	Colorado Percent Of Allocation	0.0%
53	Colorado Allocation	0
54	Kansas Percent Of Allocation	0.0%
55	Kansas Allocation	0
56	Nebraska Percent Of Allocation	40.0%
57	Nebraska Allocation	3740
58	Total Basin Allocation	3740
59	Percent Of Supply Not Allocated	60.0%
60	Quantity Of Unallocated Supply	5620

	A	B
1	**South Fork Republican River Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	14952
7	GW CBCU Kansas	7227
8	GW CBCU Nebraska	1372
9		
10	**Surface Water Data**	
11	South Fork Republican River Near Benkelman	0
12	Bonny Reservoir Evaporation	3429.508
13	Bonny Reservoir Change In Storage	-1500
14	Hale Ditch Diversions	0
15	SW Diversions - Irrigation -Non-Federal Canals- Colorado	458
16	SW Diversions - Irrigation - Small Pumps - Colorado	0
17	SW Diversions - M&I - Colorado	0
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	13
20	SW Diversions - M&I - Kansas	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
22	SW Diversions - Irrigation - Small Pumps - Nebraska	0
23	SW Diversions - M&I - Nebraska	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	284.5
26	Non-Federal Reservoir Evaporation - Nebraska	0
27	Southfork Flood Flow	0
28		
29	**Consumptive Use Calculations**	
30	**Colorado**	
31	Hale Ditch CBCU	0
32	SW CBCU - Irrigation - Non Federal Canals	274.8
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	Bonny Reservoir Evaporation	3429.508
37	SW CBCU	3704
38	GW CBCU	14952
39	Total CBCU	18660
40		
41	**Kansas**	
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	9.75
44	SW CBCU - M&I	0
45	Non-Federal Reservoir Evaporation	284.5
46	SW CBCU	294
47	GW CBCU	7227
48	Total CBCU	7520
49		
50	**Nebraska**	
51	SW CBCU - Irrigation - Non Federal Canals	0
52	SW CBCU - Irrigation - Small Pumps	0
53	SW CBCU - M&I	0
54	Non-Federal Reservoir Evaporation	0
55	SW CBCU	0
56	GW CBCU	1372
57	Total CBCU	1370
58		
59	**Totals**	
60	Total SW CBCU	3999
61	Total GW CBCU	23551
62	Total Basin CBCU	27550
63		
64	**Virgin Water Supply**	
65	South Fork Republican River Near Benkelman	0
66	Colorado CBCU	18660
67	Kansas CBCU	7520
68	Nebraska CBCU	1370
69	Bonny Reservoir Change In Storage	-1500
70	Imported Water	0
71	Virgin Water Supply	26050
72	Adjustment For Flood Flows	0
73	Computed Water Supply	27550
74		
75	**Allocations**	
76	Colorado Percent Of Allocation	44.4%
77	Colorado Allocation	12230
78	Kansas Percent Of Allocation	40.2%
79	Kansas Allocation	11080
80	Nebraska Percent Of Allocation	1.4%
81	Nebraska Allocation	390
82	Total Basin Allocation	23700
83	Percent Of Supply Not Allocated	14.0%
84	Quantity Of Unallocated Supply	3850

	A	B
1	**Frenchman Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	42
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	82719
9		
10	**Surface Water Constants**	
11	Culbertson Canal % Return Flow	78%
12	Culbertson Canal Extension % Return Flow	100%
13		
14	**Surface Water Data**	
15	Frenchman Creek At Culbertson	23235
16	Enders Reservoir Evaporation	1247.6
17	Enders Reservoir Change In Storage	0
18	Champion Canal Diversions	0
19	Riverside Canal Diversions	2096
20	Culbertson Canal Diversions	6562
21	Culbertson Canal Extension Diversions	0
22	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
23	SW Diversions - Irrigation - Small Pumps - Nebraska	1.479
24	SW Diversions - M&I - Nebraska	0
25	Non-Federal Reservoir Evaporation - Nebraska	134.8
26	Frenchman Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	42
31	Total CBCU	40
32		
33	**Kansas**	
34	GW CBCU	0
35	Total CBCU	0
36		
37	**Nebraska**	
38	Champion Canal CBCU	0
39	Riverside Canal CBCU	1257.6
40	Culbertson Canal CBCU	1437.7
41	Culbertson Canal Extension CBCU	0
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	1
44	SW CBCU - M&I	0
45	Enders Reservoir Evaporation	1248
46	Non-Federal Reservoir Evaporation	134.8
47	SW CBCU	4079
48	GW CBCU	82719
49	Total CBCU	86800
50		
51	**Totals**	
52	Total SW CBCU	4079
53	Total GW CBCU	82761
54	Total Basin CBCU	86840
55		
56	**Virgin Water Supply**	
57	Frenchman Creek At Culbertson	23235
58	17% Culbertson Canal Return Flow to Main Stem	871
59	100% Culbertson Canal Extension Return Flow to Main Stem	0
60	Colorado CBCU	40
61	Kansas CBCU	0
62	Nebraska CBCU	86800
63	Enders Reservoir Change In Storage	0
64	Imported Water	0
65	Virgin Water Supply	110950
66	Adjustment For Flood Flows	0
67	Computed Water Supply	110950
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	0.0%
71	Colorado Allocation	0
72	Kansas Percent Of Allocation	0.0%
73	Kansas Allocation	0
74	Nebraska Percent Of Allocation	53.6%
75	Nebraska Allocation	59470
76	Total Basin Allocation	59470
77	Percent Of Supply Not Allocated	46.4%
78	Quantity Of Unallocated Supply	51480

	A	B
1	**Driftwood Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	1481
9		
10	**Surface Water Constants**	
11	Meeker-Driftwood Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Driftwood Creek Near McCook	1911
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	Meeker-Driftwood Canal Diversions	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
20	SW Diversions - Irrigation - Small Pumps - Nebraska	0
21	SW Diversions - M&I - Nebraska	0
22	Non-Federal Reservoir Evaporation - Kansas	6.6
23	Non-Federal Reservoir Evaporation - Nebraska	1.8
24	Driftwood Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	GW CBCU	0
29	Total CBCU	0
30		
31	**Kansas**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	6.6
36	SW CBCU	7
37	GW CBCU	0
38	Total CBCU	10
39		
40	**Nebraska**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	0
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	1.8
45	SW CBCU	2
46	GW CBCU	1481
47	Total CBCU	1480
48		
49	**Totals**	
50	Total SW CBCU	8
51	Total GW CBCU	1481
52	Total Basin CBCU	1490
53		
54	**Virgin Water Supply**	
55	Driftwood Creek Near McCook	1911
56	24% Meeker Driftwood Canal Return	0
57	Colorado CBCU	0
58	Kansas CBCU	10
59	Nebraska CBCU	1480
60	Imported Water	0
61	Virgin Water Supply	3400
62	Adjustment For Flood Flows	0
63	Computed Water Supply	3400
64		
65	**Allocations**	
66	Colorado Percent Of Allocation	0.0%
67	Colorado Allocation	0
68	Kansas Percent Of Allocation	6.9%
69	Kansas Allocation	230
70	Nebraska Percent Of Allocation	16.4%
71	Nebraska Allocation	560
72	Total Basin Allocation	790
73	Percent Of Supply Not Allocated	76.7%
74	Quantity Of Unallocated Supply	2610

	A	B
1	**Red Willow Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	35
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	8305
9		
10	**Surface Water Constants**	
11	Red Willow Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Red Willow Creek Near Red Willow	3791
15	Hugh Butler Lake Evaporation	2230.2614
16	Hugh Butler Lake Change In Storage	1800
17	Red Willow Canal Diversions	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	123.25
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Nebraska	181.9
22	Red Willow Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	Red Willow Canal CBCU (10%)	0
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	92
37	SW CBCU - M&I	0
38	Hugh Butler Lake Evaporation (10%)	223
39	Non-Federal Reservoir Evaporation	181.9
40	SW CBCU	497
41	GW CBCU	8305
42	Total CBCU	8800
43		
44	**Totals**	
45	Total SW CBCU	497
46	Total GW CBCU	8305
47	Total Basin CBCU	8800
48		
49	**Virgin Water Supply**	
50	Red Willow Creek Near Red Willow	3791
51	Red Willow Canal CBCU (90%)	0
52	Colorado CBCU	0
53	Kansas CBCU	0
54	Nebraska CBCU	8800
55	Hugh Butler Lake Change In Storage	1800
56	Hugh Butler Lake Evaporation (90%)	2007.2353
57	90% Red Willow Canal Return Flow To Main Stem	0
58	Imported Water	35
59	Virgin Water Supply	16360
60	Adjustment For Flood Flows	0
61	Computed Water Supply	14560
62		
63	**Allocations**	
64	Colorado Percent Of Allocation	0.0%
65	Colorado Allocation	0
66	Kansas Percent Of Allocation	0.0%
67	Kansas Allocation	0
68	Nebraska Percent Of Allocation	19.2%
69	Nebraska Allocation	2800
70	Total Basin Allocation	2800
71	Percent Of Supply Not Allocated	80.8%
72	Quantity Of Unallocated Supply	11760

	A	B
1	**Medicine Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	9633
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	20766
9		
10	**Surface Water Data**	
11	Medicine Creek Below Harry Strunk	19992
12	Harry Strunk Lake Evaporation	2771.71
13	Harry Strunk Lake Change In Storage	5600
14	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
15	SW Diversions - Irrigation - Small Pumps - Nebraska	258.8
16	SW Diversions - M&I - Nebraska	0
17	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
18	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	77.6
19	SW Diversions - M&I - Nebraska - Below Gage	0
20	Non-Federal Reservoir Evaporation - Nebraska	292.3
21	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	7.2
22	Medicine Creek Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	SW CBCU - Irrigation - Non Federal Canals	0
35	SW CBCU - Irrigation - Small Pumps	194
36	SW CBCU - M&I	0
37	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
38	SW CBCU - Irrigation - Small Pumps - Below Gage	58
39	SW CBCU - M&I - Below Gage	0
40	Non-Federal Reservoir Evaporation	292.3
41	Non-Federal Reservoir Evaporation - Below gage	7.2
42	SW CBCU	552
43	GW CBCU	20766
44	Total CBCU	21320
45		
46	**Totals**	
47	Total SW CBCU	552
48	Total GW CBCU	20766
49	Total Basin CBCU	21320
50		
51	**CBCU Below Gage**	
52	SW CBCU Below The Gage	65
53	Total	65
54		
55	**Virgin Water Supply**	
56	Medicine Creek Below Harry Strunk	19992
57	Colorado CBCU	0
58	Kansas CBCU	0
59	Nebraska CBCU	21320
60	SW CBCU Below The Gage	65
61	Harry Strunk Lake Change In Storage	5600
62	Harry Strunk Lake Evaporation	2771.71
63	Imported Water	9633
64	Virgin Water Supply	39990
65	Adjustment For Flood Flows	0
66	Computed Water Supply	34390
67		
68	**Allocations**	
69	Colorado Percent Of Allocation	0.0%
70	Colorado Allocation	0
71	Kansas Percent Of Allocation	0.0%
72	Kansas Allocation	0
73	Nebraska Percent Of Allocation	9.1%
74	Nebraska Allocation	3130
75	Total Basin Allocation	3130
76	Percent Of Supply Not Allocated	90.9%
77	Quantity Of Unallocated Supply	31260

	A	B
1	**Beaver Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	1519
8	GW CBCU Nebraska	2684
9		
10	**Surface Water Data**	
11	Beaver Creek Near Beaver City	173
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	12
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	134.7
26	Non-Federal Reservoir Evaporation - Nebraska	50.7
27	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
28	Beaver Flood Flow	0
29		
30	**Consumptive Use Calculations**	
31	**Colorado**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	SW CBCU	0
37	GW CBCU	0
38	Total CBCU	0
39		
40	**Kansas**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	9
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	134.7
45	SW CBCU	144
46	GW CBCU	1519
47	Total CBCU	1660
48		
49	**Nebraska**	
50	SW CBCU - Irrigation - Non Federal Canals	0
51	SW CBCU - Irrigation - Small Pumps	0
52	SW CBCU - M&I	0
53	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
54	SW CBCU - Irrigation - Small Pumps - Below Gage	0
55	SW CBCU - M&I - Below Gage	0
56	Non-Federal Reservoir Evaporation	50.7
57	Non-Federal Reservoir Evaporation - Below gage	0
58	SW CBCU	51
59	GW CBCU	2684
60	Total CBCU	2730
61		
62	**CBCU Below Gage**	
63	SW CBCU Below The Gage	0
64	Total	0
65		
66	**Totals**	
67	Total SW CBCU	194
68	Total GW CBCU	4203
69	Total Basin CBCU	4400
70		
71	**Virgin Water Supply**	
72	Beaver Creek Near Beaver City	173
73	Colorado CBCU	0
74	Kansas CBCU	1660
75	Nebraska CBCU	2730
76	SW CBCU Below The Gage	0
77	Imported Water	0
78	Virgin Water Supply	4560
79	Adjustment For Flood Flows	0
80	Computed Water Supply	4560
81		
82	**Allocations**	
83	Colorado Percent Of Allocation	20.0%
84	Colorado Allocation	910
85	Kansas Percent Of Allocation	38.8%
86	Kansas Allocation	1770
87	Nebraska Percent Of Allocation	40.6%
88	Nebraska Allocation	1850
89	Total Basin Allocation	4530

	A	B
1	**Beaver Creek Sub-Basin**	2005
2		
90	Percent Of Supply Not Allocated	0.6%
91	Quantity Of Unallocated Supply	30

	A	B
1	**Sappa Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	-1462
8	GW CBCU Nebraska	702
9		
10	**Surface Water Data**	
11	Sappa Creek Near Stamford	262
12	Beaver Creek Near Beaver City	173
13	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
14	SW Diversions - Irrigation - Small Pumps - Kansas	3
15	SW Diversions - M&I - Kansas	0
16	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
17	SW Diversions - Irrigation - Small Pumps - Nebraska	53.6
18	SW Diversions - M&I - Nebraska	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
20	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
21	SW Diversions - M&I - Nebraska - Below Gage	0
22	Non-Federal Reservoir Evaporation - Kansas	278.3
23	Non-Federal Reservoir Evaporation - Nebraska	42.8
24	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	5.2
25	Sappa Flood Flow	0
26		
27	**Consumptive Use Calculations**	
28	**Colorado**	
29	GW CBCU	0
30	Total CBCU	0
31		
32	**Kansas**	
33	SW CBCU - Irrigation - Non Federal Canals	0
34	SW CBCU - Irrigation - Small Pumps	2.25
35	SW CBCU - M&I	0
36	Non-Federal Reservoir Evaporation	278.3
37	SW CBCU	281
38	GW CBCU	-1462
39	Total CBCU	-1180
40		
41	**Nebraska**	
42		
43	SW CBCU - Irrigation - Non Federal Canals	0
44	SW CBCU - Irrigation - Small Pumps	40
45	SW CBCU - M&I	0
46	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
47	SW CBCU - Irrigation - Small Pumps - Below Gage	0
48	SW CBCU - M&I - Below Gage	0
49	Non-Federal Reservoir Evaporation	42.8
50	Non-Federal Reservoir Evaporation - Below gage	5.2
51	SW CBCU	83
52	GW CBCU	702
53	Total CBCU	790
54		
55	**CBCU Below Gage**	
56	SW CBCU Below The Gage	5

	A	B
1	**Sappa Creek Sub-Basin**	2005
2		
57	Total	5
58		
59	**Totals**	
60	Total SW CBCU	364
61	Total GW CBCU	-760
62	Total Basin CBCU	-396
63		
64	**Virgin Water Supply**	
65	Sappa Creek Near Stamford	262
66	Beaver Creek Near Beaver City	173
67	Colorado CBCU	0
68	Kansas CBCU	-1180
69	Nebraska CBCU	790
70	SW CBCU Below The Gage	5
71	Imported Water	0
72	Virgin Water Supply	-310
73	Adjustment For Flood Flows	0
74	Computed Water Supply	-310
75		
76	**Allocations**	
77	Colorado Percent Of Allocation	0.0%
78	Colorado Allocation	0
79	Kansas Percent Of Allocation	41.1%
80	Kansas Allocation	-130
81	Nebraska Percent Of Allocation	41.1%
82	Nebraska Allocation	-130
83	Total Basin Allocation	-260
84	Percent Of Supply Not Allocated	17.8%
85	Quantity Of Unallocated Supply	-50

	A	B
1	**Prairie Dog Creek Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	5775
8	GW CBCU Nebraska	0
9		
10	**Surface Water Constants**	
11	Almena Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Prairie Dog Creek Near Woodruff	3436
15	Keith Sebelius Lake Evaporation	1727.007
16	Keith Sebelius Lake Change In Storage	100
17	Almena Canal Diversions	0
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	159
20	SW Diversions - M&I - Kansas	382
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	21
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Kansas	371.1
25	Non-Federal Reservoir Evaporation - Nebraska	21.2
26	Prairie Dog Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Kansas**	
34	Almena Canal CBCU	0
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	119.25
37	SW CBCU - M&I	191
38	Keith Sebelius Lake Evaporation	1727
39	Non-Federal Reservoir Evaporation	371.1
40	SW CBCU	2408
41	GW CBCU	5775
42	Total CBCU	8180
43		
44	**Nebraska**	
45	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
46	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	15.75
47	SW Diversions - M&I - Nebraska - Below Gage	0
48	Non-Federal Reservoir Evaporation	21.2
49	SW CBCU	37
50	GW CBCU	0
51	Total CBCU	40

	A	B
1	**Prairie Dog Creek Sub-Basin**	2005
2		
52		
53	**CBCU Below Gage**	
54	SW CBCU Below The Gage	37
55	Total	37
56		
57	**Totals**	
58	Total SW CBCU	2445
59	Total GW CBCU	5775
60	Total Basin CBCU	8220
61		
62	**Virgin Water Supply**	
63	Prairie Dog Creek Near Woodruff	3436
64	Colorado CBCU	0
65	Kansas CBCU	8180
66	Nebraska CBCU	40
67	SW CBCU Below The Gage	37
68	Keith Sebelius Lake Change In Storage	100
69	Imported Water	0
70	Virgin Water Supply	11720
71	Adjustment For Flood Flows	0
72	Computed Water Supply	11620
73		
74	**Allocations**	
75	Colorado Percent Of Allocation	0.0%
76	Colorado Allocation	0
77	Kansas Percent Of Allocation	45.7%
78	Kansas Allocation	5310
79	Nebraska Percent Of Allocation	7.6%
80	Nebraska Allocation	880
81	Total Basin Allocation	6190
82	Percent Of Supply Not Allocated	46.7%
83	Quantity Of Unallocated Supply	5430

	A	B
1	**Mainstem Sub-Basin**	2005
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska Above Guide Rock	2297
6	GW CBCU Colorado	-1954
7	GW CBCU Kansas	271
8	GW CBCU Nebraska Above Guide Rock	81100
9	GW CBCU Nebraska Below Guide Rock	2956
10	GW CBCU Nebraska	84056
11		
12	**Surface Water Constants**	
13	Meeker-Driftwood Canal % Return Flow	100%
14	Culbertson Canal % Return Flow	78%
15	Culbertson Canal Extension % Return Flow	100%
16	Red Willow Canal % Return Flow	100%
17	Bartley Canal % Return Flow	100%
18	Cambridge Canal % Return Flow	54%
19	Naponee Canal % Return Flow	100%
20	Franklin Canal % Return Flow	100%
21	Franklin Pump Canal % Return Flow	100%
22	Superior Canal % Return Flow	64%
23	Nebraska Courtland % Return Flow	100%
24	Courtland Canal Above Lovewell % Return Flow	63%
25	Courtland Canal Below Lovewell % Return Flow	53%
26		
27	**Surface Water Data**	
28	Surface Water Gages	
29	Republican River Near Hardy	16980
30	North Fork Republican River At Colorado-Nebraska State Line	21060
31	Arikaree River At Haigler	1151
32	Buffalo Creek Near Haigler	2227
33	Rock Creek At Parks	5466
34	South Fork Republican River Near Benkelman	0
35	Frenchman Creek At Culbertson	23235
36	Driftwood Creek Near McCook	1911
37	Red Willow Creek Near Red Willow	3791
38	Medicine Creek Below Harry Strunk	19992
39	Sappa Creek Near Stamford	262
40	Prairie Dog Creek Near Woodruff	3436
41	Reservoir Data	
42	Swanson Lake Evaporation	5638
43	Swanson Lake Change In Storage	4600
44	Hugh Butler Lake Evaporation	2230
45	Harry Strunk Lake Evaporation	2772
46	Harlan County Evaporation	17706
47	Harlan County Change In Storage	21000
48	Lovewell Reservoir Ev charged to the Republican River	2020
49	Canal Diversion Data	
50	Bartley Canal Diversion	0
51	Cambridge Canal Diversion	19732
52	Naponee Canal Diversion	0
53	Franklin Canal Diversion	0
54	Franklin Pump Canal Diversions	0
55	Superior Canal Diversions	4712
56		
57	Courtland Canal Diversions At Headgate	48737
58	Diversions to Nebraska Courtland	0
59	Courtland Canal, Loss in NE assigned to upper Courtland KS	415
60	Courtland Canal, Loss in NE assigned to delivery to Lovewell	8236
61	Courtland Canal At Kansas-Nebraska State Line	40086
62	Courtland Canal Diversions to the Upper Courtland District	1864
63	Courtland Canal, Loss assigned to deliveries of water to Lovewell, Stateline to Lovewell	9372

	A	B
1	**Mainstem Sub-Basin**	2005
2		
64	Courtland Canal Deliveries To Lovewell Reservoir	29265
65	Diversions of Republican River water from Lovewell Reservoir to the Courtland Canal below Lovewell	25590
66		
67	Kansas Bostwick Diversions During Irrigation Season (2001-2003 average, no diversion in 2005)	41081
68	Nebraska Bostwick Diversions During Irrigation Season (2001-2003 average, no diverison in 2004)	40187
69		
70	Meeker-Driftwood Canal Diversions	0
71	Red Willow Canal Diversions	0
72	Culbertson Canal Diversions	6562
73	Culbertson Canal Extension Diversions	0
74	Haigler Canal Diversions - Nebraska	4745
75	Kansas Surface Water Data	
76	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
77	SW Diversions - Irrigation - Small Pumps - Kansas	767
78	SW Diversions - M&I - Kansas	0
79	Non-Federal Reservoir Evaporation - Kansas	148
80	Nebraska Surface Water Data	
81	SW Diversions - Irrigation - Non-Federal Canals - Nebraska - Mainstem	1661
82	SW Diversions - Irrigation - Small Pumps - Nebraska - Mainstem	1918
83	SW Diversions - M&I - Nebraska - Mainstem	0
84	Non-Federal Reservoir Evaporation - Nebraska - Above Guide Rock Gage - Whole Basin Value:	1891
85	Non-Federal Reservoir Evaporation - Nebraska - Below Guide Rock Gage - Whole Basin Value:	137
86	Mainstem Flood Flow	0
87		
88	**Calculations**	
89	Return Flow From Courtland Canal To Republican River Above Hardy From Kansas	601
90	Courtland Canal Transportation Loss in NE assigned to the Upper Courtland KS that does not recharge	75
91	Courtland Canal Transportation Loss in NE assigned to deliveries to Lovewell that does not recharge	1482
92	Courtland Canal Transportation Loss from the Stateline to Lovewell that does not return	1687
93	Percent Kansas Bostwick Diversions During Irrigation Season	50.55%
94	Percent Nebraska Diversions During Irrigation Season	49.45%
95	Net Evaporation From Harlan County Reservoir Charged To Kansas	8951
96	Net Evaporation From Harlan County Reservoir Charged To Nebraska	8756
97		
98	**Consumptive Use Calculations**	
99	**Colorado**	
100	GW Depletion	-1954
101	Total CU	-1950
102		
103	**Kansas**	
104	Net Evaporation From Harlan County Reservoir Charged To Kansas	8951
105	Courtland Canal Transportation Loss in NE assigned to deliveries to Lovewell that does not recharge	1482
106	Courtland Canal Above Lovewell CBCU	690
107	Courtland Canal Transportation Loss from the Stateline to Lovewell that does not return	1687
108	Net Evaporation From Lovewell Charged To Kansas	2020
109	Courtland Canal Below Lovewell CBCU	12113
110	SW CBCU - Irrigation - Non Federal Canals	0
111	SW CBCU - Irrigation - Small Pumps	575
112	SW CBCU - M&I	0
113	Non-Federal Reservoir Evaporation - Kansas	148
114	SW CBCU	27665
115	GW CBCU	271
116	Total CBCU	27940
117		
118	**Nebraska**	
119	NE Courtland Canal CBCU (includes transportation loss)	0
120	Superior Canal CBCU	1687
121	Franklin Pump Canal CBCU	0
122	Franklin Canal CBCU	0

	A	B
1	**Mainstem Sub-Basin**	2005
2		
123	Naponee Canal CBCU	0
124	Cambridge Canal Diversion	9153
125	Bartley Canal Diversion	0
126	Meeker-Driftwood Canal CBCU	0
127	Red Willow Canal Diversions (90%)	0
128	SW CBCU - Irrigation - Non Federal Canals	996
129	SW CBCU - Irrigation - Small Pumps	1439
130	SW CBCU - M&I	0
131	Harry Strunk Lake Evaporation	2772
132	Swanson Lake Evaporation	5638
133	Hugh Butler Lake Evaporation (90%)	2007
134	Harlan County Evaporation Charged To Nebraska (2001-2003 average, no diversion in **2005**)	8756
135	Non-Federal Reservoir Evaporation - Nebraska	2028
136	SW CBCU	34476
137	GW CBCU	84056
138	Total CBCU	118530
139		
140	**Totals**	
141	Total SW CBCU	62141
142	Total GW CBCU	82373
143	Total Basin CBCU	144510
144		
145	**Virgin Water Supply**	
146	Republican River Near Hardy	16980
147	North Fork Republican River At Colorado-Nebraska State Line	21060
148	Arikaree River At Haigler	1151
149	Buffalo Creek Near Haigler	2227
150	Rock Creek At Parks	5466
151	South Fork Republican River Near Benkelman	0
152	Frenchman Creek At Culbertson	23235
153	Driftwood Creek Near McCook	1911
154	Red Willow Creek Near Red Willow	3791
155	Medicine Creek Below Harry Strunk	19992
156	Sappa Creek Near Stamford	262
157	Prairie Dog Creek Near Woodruff	3436
158		
159	Colorado CBCU	-1950
160	Kansas CBCU Above Stateline	11231
161	Nebraska CBCU	118530
162		
163	90% Red Willow Canal CBCU - Nebraska	0
164	90% Hugh Butler Lake Evap	2007
165	Harry Strunk Lake Evaporation	2772
166		
167	CBCU Below Medicine Creek Gage	65
168	CBCU Below Beaver Creek Gage	0
169	CBCU Below Sappa Creek Gage	5
170	CBCU Below Prairie Dog Gage	37
171		
172	Harlan County Change In Storage	21000
173	Swanson Lake Change In Storage	4600
174		
175	Haigler Canal Return Flow To Mainstem	1898
176	Culbertson Canal Return Flow To Mainstem	871
177	Culbertson Canal Extension Return Flow To Mainstem	0
178	Meeker - Driftwood Canal Return Flow To Driftwood Creek	0
179	Red Willow Canal Return Flow To Mainstem	0
180		
181	Courtland Canal At Kansas-Nebraska State Line	40086
182	Return Flow To Republican River Above Hardy From Kansas	601.29

	A	B
1	**Mainstem Sub-Basin**	2005
2		
183		
184	Imported Water	2297
185	Virgin Water Supply	117607
186	Adjustment For Flood Flows	0
187	Computed Water Supply	92010
188		
189	**Allocations**	
190	Colorado Percent Of Allocation	0
191	Colorado Allocation	0
192	Kansas Percent Of Allocation	51.1%
193	Kansas Allocation	47020
194	Nebraska Percent Of Allocation	48.9%
195	Nebraska Allocation	44990
196	Total Basin Allocation	92010
197	Percent Of Supply Not Allocated	0.0%
198	Quantity Of Unallocated Supply	0

RRCA
Compact Accounting with non-federal reservoir evaporation below Harlan County

Table 1: Annual Virgin and Computed Water Supply, Allocations, and Computed Beneficial Consumptive Uses by State, Main Stem, and Sub-Basin

2005	Virgin Water	Computed	Allocations				Computed Beneficial Consumptive Use		
Basin	Supply	Water Supply	Colorado	Kansas	Nebraska	Unallocated	Colorado	Kansas	Nebraska
North Fork	44,800	44,800	10,040	0	11,020	23,740	17,530	20	4,290
Arikaree	2,370	2,370	1,860	120	400	-10	810	160	250
Buffalo	6,050	6,050	0	0	2,000	4,050	310	0	3,510
Rock	9,360	9,360	0	0	3,740	5,620	60	0	3,830
South Fork	26,050	27,550	12,230	11,080	390	3,850	18,660	7,520	1,370
Frenchman	110,950	110,950	0	0	59,470	51,480	40	0	86,800
Driftwood	3,400	3,400	0	230	560	2,610	0	10	1,480
Red Willow	16,360	14,560	0	0	2,800	11,760	0	0	8,800
Medicine	39,990	34,390	0	0	3,130	31,260	0	0	21,320
Beaver	4,560	4,560	910	1,770	1,850	30	0	1,660	2,730
Sappa	-310	-310	0	-130	-130	-50	0	-1,180	790
Prairie Dog	11,720	11,620	0	5,310	880	5,430	0	8,180	40
Main Stem	117,610	92,010	0	47,020	44,990	0	-1,950	27,940	118,530
Total All Basins	392,910	361,310	25,040	65,400	131,100	139,770	35,460	44,310	253,740
Main Stem Including Unallocated		231,780	0	118,440	113,340				
Total	392,910	361,310	25,040	136,820	199,450	0	35,460	44,310	253,740

Negative numbers represent the residual accounting impacts from groundwater well pumping. Reference RRCA accounting user's manual for comprehensive explanation.

Table 2: Original Compact Virgin Water Supply and Allocations

Basin	Virgin Water Supply	Colorado Allocation	% of Basin Supply	Kansas Allocation	% of Basin Supply	Nebraska Allocation	% of Basin Supply	Unallocated	% of Basin Supply
North Fork	44,700	10,000	22.4%			11,000	24.6%	23,700	53.0%
Arikaree	19,610	15,400	78.5%	1,000	5.1%	3,300	16.8%	-90	-0.4%
Buffalo	7,890					2,600	33.0%	5,290	67.0%
Rock	11,000					4,400	40.0%	6,600	60.0%
South Fork	57,200	25,400	44.4%	23,000	40.2%	800	1.4%	8,000	14.0%
Frenchman	98,500					52,800	53.6%	45,700	46.4%
Driftwood	7,300			500	6.9%	1,200	16.4%	5,600	76.7%
Red Willow	21,900					4,200	19.2%	17,700	80.8%
Medicine	50,800					4,600	9.1%	46,200	90.9%
Beaver	16,500	3,300	20.0%	6,400	38.8%	6,700	40.6%	100	0.6%
Sappa	21,400			8,800	41.1%	8,800	41.1%	3,800	17.8%
Prairie Dog	27,600			12,600	45.7%	2,100	7.6%	12,900	46.7%
Tributaries Sub-Total	384,000							175,500	
Main Stem	94,500								
Main Stem + Unallocated	270,000			138,000	51.1%	132,000	48.9%		
Total	478,900	54,100		190,300		234,500			

RRCA
Compact Accounting with non-federal reservoir evaporation below Harlan County

Table 3A: Colorado's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	21,420	33,470	NA	(12,050)
2004	21,540	33,670	NA	(12,130)
2005	25,040	35,460	NA	(10,420)
2006			NA	
2007			NA	
Average	22,670	34,200		(11,530)

Sum (34,600)

Table 3B: Kansas's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	167,780	48,910	NA	118,870
2004	137,450	38,120	NA	99,330
2005	136,820	44,310	NA	92,510
2006			NA	
2007			NA	
Average	147,350	43,780		103,570

Sum 310,710

Table 3C: Nebraska's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	227,580	262,780	9,780	(25,420)
2004	205,630	252,650	10,380	(36,640)
2005	199,450	253,740	11,965	(42,325)
2006				
2007				
Average	210,890	256,390	10,710	(34,800)

Sum (104,385)

Table 4A: Colorado's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
North Fork	9,550	22,593	NA	32,143	17,190	14,953
Arikaree	1,453	-10	NA	1,443	467	977
South Fork	11,153	3,513	NA	14,667	17,183	(2,517)
Beaver	510	17	NA	527	0	527

Table 4B: Kansas's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Unused Allocation from Colorado (5-year running average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply (5-year running average)	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
Arikaree	97	-10	987	NA	1,073	140	933
South Fork	10,100	3,513	0	NA	13,613	6,327	7,287
Driftwood	197	2,200	0	NA	2,397	7	2,390
Beaver	993	17	510	NA	1,520	770	750
Sappa	63	30	0	NA	93	-450	543
Prairie Dog	3,663	3,750	0	NA	7,413	6,460	953

Table 5A: Colorado's Compliance During Water-Short Year Administration

Year	Allocation - Allocation Beaver	Computed Beneficial Consumptive Use - CBCU Beaver	Imported Water Supply Credit - IWS Beaver	Allocation - (CBCU - IWS Credit)
2003	21,160	33,470	NA	(12,310)
2004	21,180	33,670	NA	(12,490)
2005	24,130	35,460	NA	(11,330)
2006			NA	
2007			NA	
Average	22,160	34,200	NA	(12,040)

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Table 5B: Kansas's Compliance During Water-Short Year Administration

Year	Allocation			Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS)
	Sub-Basin Total	Kansas's Share of Unallocated Supply	Total			
2004	13,060	3,976	17,036	11,320	NA	5,716
2005	18,380	6,060	24,440	16,370	NA	8,070
Average	15,720	5,020	20,740	13,850	NA	6,890

Table 5E: Nebraska's Tributary Compliance During Water-Short Year Administration

Year	Allocation			Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS)
	Sub-Basin Total	Nebraska's Share of Unallocated Supply	Total			
2004	86,600	67,981	154,581	141,260	9,571	22,892
2005	86,110	68,348	154,458	135,210	9,692	28,940
Average	86,360	68,160	154,520	138,240	9,630	25,920

Table 5C: Nebraska's Compliance During Water-Short Year Administration

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
2004	205,630	10,494	195,136	252,650	2,899	249,751	10,381	(44,234)
2005	199,450	4,586	194,864	253,740	4,052	249,689	11,965	(42,860)
Average	202,540	7,540	195,000	253,200	3,480	249,720	11,170	(43,550)

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

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
2003								
2004								
2005								
Average								

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Attachment 6: Computing Water Supplies and Consumptive Use Above Guide Rock

Total Mainstem CWS	Hardy Gage	Superior Courtland Diversion Dam	Courtland Canal Diversions	Superior Canal Diversion	Courtland Canal Returns	Superior Canal Returns	Total Bostwick Returns Below Guide Rock	NE CBCU Below Guide Rock	KS CBCU Below Ruide Rock	Total CBCU Below Guide Rock	Gain Guide Rock to Hardy	VWS Guide Rock to Hardy	Mainstem VWS Above Guide Rock	NE MS Allocation Above Guide Rock	KS MS Allocation Above Guide Rock	Nebraska Guide Rock to Hardy Allocation	Kansas Guide Rock to Hardy Allocation
92,010	16,980	1,779	48,737	4,712	7,695	3,025	10,720	4,052	846	4,898	4,481	9,379	82,631	40,407	42,225	4,586	4,793

COURTLAND CANAL	
Return Flow From Courtland Canal To Republican River Above Hardy From Kansas	601
Return Flow From Courtland Canal To Republican River Above Hardy From Nebraska	7,094
Courtland Canal Diversions At Headgate	48737
Courtland Canal At Kansas-Nebraska State Line	40086
NE Courtland Canal CBCU (includes transportation loss)	0
Superior Canal CBCU	1,687

NEBRASKA	
SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	1,278
SW Diversions - M&I - Nebraska - Below Guide Rock	0
SW Non-Federal Reservoir Evaporation - Below Guide Rock	137
SW Return - Irrigation	319.5
SW Return - M&I	0
GW CBCU Nebraska Below Guide Rock	2956

KANSAS	
SW CBCU - Irrigation - Small Pumps	575
SW CBCU - M&I	0
GW CBCU Kansas	271

2005
Attachment 7: Calculations of Return Flows from Bureau of Reclamation Canals

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11
Canal	Canal Diversion	Spill to Waste-Way	Field Deliveries	Canal Loss	Average Field Loss Factor	Field Loss	Total Loss from District	Percent Field and Canal Loss That Returns to the Stream	Total return to Stream from Canal and Field Loss	Return as Percent of Canal Diversion
Name Canal	Headgate Diversion	Sum of measured spills to river	Sum of Deliveries to the field	Col 2 - Col 4	1 -Weighted Average Efficiency of Application System for the District*	Col 4 x Col 6	Col 5 + Col 7	Estimated Percent Loss*	Col 8 x Col 9	Col 10/Col 2
Example	100	5	60	40	30%	18	58	82%	48	48%
Culbertson	6562		447	6115	30%	134	6249	82%	5124	78%
Culbertson Extension	0		0	0	30%	0	0	82%	0	100%
Meeker - Driftwood	0		0	0	30%	0	0	82%	0	100%
Red Willow	0		0	0	30%	0	0	82%	0	100%
Bartley	0		0	0	30%	0	0	82%	0	100%
Cambridge	19732		9758	9974	30%	2927	12901	82%	10579	54%
Naponee	0		0	0	35%	0	0	82%	0	100%
Franklin	0		0	0	35%	0	0	82%	0	100%
Franklin Pump	0		0	0	35%	0	0	82%	0	100%
Almena	0		0	0	30%	0	0	82%	0	100%
Superior	4712		1483	3229	31%	460	3689	82%	3025	64%
Nebraska Courtland	0		0	0	23%	0	0	82%	0	100%
Courtland Canal Above Lovewell (KS)	1864		561	1303	23%	129	1432	82%	1174	63%
Courtland Canal Below Lovewell	25916		12040	13876	23%	2769	16645	82%	13649	53%

* The average field efficiencies for each district and percent loss that returns to the stream may be reviewed and, if necessary, changed by the RRCA to improve the accuracy of the estimates.

Impacts 2005 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	811	122	250	0
Beaver	0	1519	2684	0
Buffalo	306	0	3357	0
Driftwood	0	0	1481	0
Frenchman	42	0	78069	0
North Fork	14359	17	1443	0
Above Swanson	-1967	103	10992	0
Swanson - Harlan	0	70	39772	2061
Harlan - Guide Rock	0	0	29058	219
Guide Rock - Hardy	0	64	2956	0
Medicine	0	0	20414	9633
Prairie Dog	0	5265	0	0
Red Willow	0	0	6596	35
Rock	61	0	3744	0
Sappa	0	-1462	702	0
South Fork	13679	7227	1372	0
Hugh Butler	0	0	1709	0
Bonny	1273	0	0	0
Keith Sebelius	0	510	0	0
Enders	0	0	4650	0
Harlan	0	34	857	17
Harry Strunk	0	0	352	0
Swanson	13	0	421	0
Mainstem	**-1975**	**242**	**82778**	**2274**
Total	**28571**	**13483**	**210881**	**11966**
MS's 4 reaches + 2 reservoirs	-1954	271	84056	2297
NE above Guide Rock			81100	2297
Total of individual sub-basins	28577	13469	210879	11965

Impacts 2003 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	242	100	507	0
Beaver	0	274	777	0
Buffalo	265	0	3338	0
Driftwood	0	0	1391	0

Frenchman	37	0	81210	0
North Fork	14023	17	1402	0
Above Swanson	112	-40	17979	0
Swanson - Harlan	0	53	27271	144
Harlan - Guide Rock	0	0	27709	181
Guide Rock - Hardy	0	59	2559	0
Medicine	0	0	20684	9423
Prairie Dog	0	1137	0	0
Red Willow	0	0	6056	20
Rock	59	0	3419	0
Sappa	0	-274	500	0
South Fork	10790	5351	1347	0
Hugh Butler	0	0	1759	0
Bonny	1325	0	0	0
Keith Sebelius	0	542	0	0
Enders	0	0	4437	0
Harlan	0	38	881	12
Harry Strunk	0	0	455	0
Swanson	20	0	483	0
Mainstem	**108**	**77**	**75517**	**320**
Total	**26872**	**7274**	**204164**	**9782**

Impacts 2004 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	353	116	431	0
Beaver	0	205	1278	0
Buffalo	290	0	3333	0
Driftwood	0	0	1479	0

Impac

Location
Arikaree
Beaver
Buffalo
Driftwood

Frenchman	39	0	85199	0	Frenchman
North Fork	14373	16	1446	0	North Fork
Above Swanson	-1287	201	13809	0	Above Swanson
Swanson - Harlan	0	91	33956	622	Swanson - Harlan
Harlan - Guide Rock	0	0	29155	198	Harlan - Guide Rock
Guide Rock - Hardy	0	71	2382	0	Guide Rock - Hardy
Medicine	0	0	20898	9522	Medicine
Prairie Dog	0	1328	0	0	Prairie Dog
Red Willow	0	0	6448	25	Red Willow
Rock	58	0	3581	0	Rock
Sappa	0	-205	556	0	Sappa
South Fork	11532	5781	1202	0	South Fork
Hugh Butler	0	0	1773	0	Hugh Butler
Bonny	1342	0	0	0	Bonny
Keith Sebelius	0	496	0	0	Keith Sebelius
Enders	0	0	4528	0	Enders
Harlan	0	36	776	14	Harlan
Harry Strunk	0	0	398	0	Harry Strunk
Swanson	18	0	487	0	Swanson
Mainstem	**-1294**	**368**	**79303**	**815**	**Mainstem**
Total	**26715**	**8150**	**213115**	**10386**	**Total**

cts 2005 (acre-feet)

Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
811	122	250	0
0	1519	2684	0
306	0	3357	0
0	0	1481	0

42	0	78069	0
14359	17	1443	0
-1967	103	10992	0
0	70	39772	2061
0	0	29058	219
0	64	2956	0
0	0	20414	9633
0	5265	0	0
0	0	6596	35
61	0	3744	0
0	-1462	702	0
13679	7227	1372	0
0	0	1709	0
1273	0	0	0
0	510	0	0
0	0	4650	0
0	34	857	17
0	0	352	0
13	0	421	0
-1975	**242**	**82778**	**2274**
28571	**13483**	**210881**	**11966**

COURTLAND CANAL ABOVE LOVEWELL

2005

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Records	Records	District	(3 + 4)	(2 - 5)	District	Records	(7 + 8)	(3 - 9)	6-(6x(3/5))	(6-11)x(7/9)	(6-11-12)	(10 x 7/9)	(10 - 14)	(4 + 11)	(7 + 12 + 14)	(8 + 13 + 15)	(16+17+18)
										ALLOCATION OF LOSSES					TOTAL ALLOCATION ABOVE LOVEWELL			(= 2)
										LOSS IN NEBRASKA			LOSS IN KANSAS					C
			NEB			KAN	DEL			Courtland Canal 0.7 to 15.1			Courtland Canal 15.1 to 34.8			Courtland Canal 0.7 to 34.8		H
Month	Court Canal 0.7	Court Canal 15.1	Bost Use Main Canal 0.7 to 15.1	Total out flow in NEB	Total Loss in NEB 0.7 to 15.1	Bost Use Main Canal 15.1 to 34.8	to Lovewell Court Canal 34.8	Total out flow in KAN	Total Loss in KAN 15.1 to 34.8	NEB Bost	KAN Bost	USBR	KAN Bost	USBR	NEB Bost	KAN Bost	USBR	E C K
January	3685	2747	0	2747	938	0	1804	1804	943	0	0	938	0	943	0	0	3685	3685
February	5087	4265	0	4265	822	0	3430	3430	835	0	0	822	0	835	0	0	5087	5087
March	5911	4926	0	4926	985	0	3950	3950	976	0	0	985	0	976	0	0	5911	5911
April	7430	6557	0	6557	873	0	5677	5677	880	0	0	873	0	880	0	0	7430	7430
May	5479	4608	0	4608	871	0	3749	3749	859	0	0	871	0	859	0	0	5479	5479
June	6559	5764	0	5764	795	374	4164	4538	1226	0	66	729	101	1125	0	541	6018	6559
July	1221	893	0	893	328	125	0	125	768	0	328	0	768	0	0	1221	0	1221
August	2663	2118	0	2118	545	62	1562	1624	494	0	21	524	19	475	0	102	2561	2663
September	1941	1375	0	1375	566	0	913	913	462	0	0	566	0	462	0	0	1941	1941
October	2488	1843	0	1843	645	0	884	884	959	0	0	645	0	959	0	0	2488	2488
November	3017	2416	0	2416	601	0	1512	1512	904	0	0	601	0	904	0	0	3017	3017
December	3256	2574	0	2574	682	0	1620	1620	954	0	0	682	0	954	0	0	3256	3256
Total	48737	40086	0	40086	8651	561	29265	29826	10260	0	415	8236	888	9372	0	1864	46873	48737

Data Source: cout wrk sht 05.XLS from the BOR

Federal Reservoir Net Evaporation
2005

Reservoir Name	Gross Evaporation [Acre-feet]	Net Evaporation	Net / Gross [%]
Enders Reservoir	2,573	**1247.6**	48.49%
Harlan County Lake	32,621	**17706.3**	54.28%
Harry Strunk Lake	5,472	**2771.7**	50.65%
Hugh Butler Lake	4,339	**2230.3**	51.40%
Swanson Lake	10,240	**5638.0**	55.06%
Bonny Reservoir	5,133	**3429.5**	66.81%
Keith Sebelius Lake	3,706	**1727.0**	46.60%
Lovewell Reservoir	8,886	**3063.5**	34.48%

Source of Data: This table is copied from the NetEvap sheet of ReservoirNetEvap05. which is prepared by the State of Nebraska.

Federal Reservoir Storage Change
2005

Reservoir Name	Storage Change [Acre-feet]
Enders Reservoir	0
Harlan County Lake	21000
Harry Strunk Lake	5600
Hugh Butler Lake	1800
Swanson Lake	4600
Bonny Reservoir	-1500
Keith Sebelius Lake	100

Source of Data: This table is copied from the Summary sheet of ResStorChange05.x which is prepared by the State of Nebraska.

Harlan County Lake Net Evaporation Split

Year	Diversions during Release Season			
	Kansas AF	Nebraska AF	Kansas %	
2005	41081	40187	50.55%	

Source of Data: This table is copied from the Summary sheet of HClake_Split_2005C
which is prepared by the State of Nebraska.
For 2005, the KS and NE diversion values are average of 2001, 200
since no diversion in 2005.

.xls,

:ls,

Nebraska
% 49.45%

)5.xls,

2, and 2003 values,

Republican River Compact Administration

Compact Accounting for 2006 with non-federal reservoir evaporation below Harlan County and KS proposal of HCL split

Workbook name: Corrected RRCA Accounting For 2006 _KS_Version.xls

Last update: 5/30/08 mb

Starting workbook name: RRCA AccountingFor2005 w NFR evap entire basin.xls

Added columns for 2006

error corrected for cell C224 in "INPUT" tab - corrected to reference Cell C9 in "Fed_Reservoir" tab
error corrected for cell C4 in "Attachment 6" tab to reference cell C195 in "INPUT" tab
errors corrected for totals in cells B28 through S28 in "CourtlandAvLove" Tab
errors in table 5B & 5E corrected

Assumptions:
KS proposed version of HC Split used (KS & NE share evap)
NFR below HC included

	A	B	C
1	Calendar Year		2006
2			
3	**Groundwater Data**		
4	North Fork Subbasin	GW CBCU Colorado	14,301
5		GW CBCU Kansas	12
6		GW CBCU Nebraska	1,366
7	Arikaree Subbasin	GW CBCU Colorado	1,116
8		GW CBCU Kansas	84
9		GW CBCU Nebraska	125
10	Buffalo Subbasin	GW CBCU Colorado	319
11		GW CBCU Kansas	0
12		GW CBCU Nebraska	3,335
13	Rock Subbasin	GW CBCU Colorado	64
14		GW CBCU Kansas	0
15		GW CBCU Nebraska	3,845
16	South Fork Subbasin	GW CBCU Colorado	11,756
17		GW CBCU Kansas	4,398
18		GW CBCU Nebraska	1,040
19	Frenchman Subbasin	GW CBCU Colorado	43
20		GW CBCU Kansas	0
21		GW CBCU Nebraska	78,324
22	Driftwood Subbasin	GW CBCU Colorado	0
23		GW CBCU Kansas	0
24		GW CBCU Nebraska	1,422
25	Red Willow Subbasin	GW CBCU Colorado	0
26		GW CBCU Kansas	0
27		GW CBCU Nebraska	7,746
28	Medicine Creek Subba	GW CBCU Colorado	0
29		GW CBCU Kansas	0
30		GW CBCU Nebraska	19,890
31	Beaver Subbasin	GW CBCU Colorado	0
32		GW CBCU Kansas	3,028
33		GW CBCU Nebraska	3,517
34	Sappa Subbasin	GW CBCU Colorado	0
35		GW CBCU Kansas	-1,910
36		GW CBCU Nebraska	1,028
37	Prairie Dog Subbasin	GW CBCU Colorado	0
38		GW CBCU Kansas	5,510
39		GW CBCU Nebraska	0
40	Mainstem Subbasin	GW CBCU Colorado	-3,009
41		GW CBCU Kansas	205
42		GW CBCU Nebraska Above Guide Rock	74,355
43		GW CBCU Nebraska Below Guide Rock	2,419
44			
45	**Import Water Data**		
46	North Fork Subbasin	Imported Water Nebraska	0
47	Arikaree Subbasin	Imported Water Nebraska	0
48	Buffalo Subbasin	Imported Water Nebraska	0
49	Rock Subbasin	Imported Water Nebraska	0
50	South Fork Subbasin	Imported Water Nebraska	0
51	Frenchman Subbasin	Imported Water Nebraska	0
52	Driftwood Subbasin	Imported Water Nebraska	0
53	Red Willow Subbasin	Imported Water Nebraska	25
54	Medicine Creek Subba	Imported Water Nebraska	9,398
55	Beaver Subbasin	Imported Water Nebraska	0
56	Sappa Subbasin	Imported Water Nebraska	0
57	Prairie Dog Subbasin	Imported Water Nebraska	0
58	Mainstem Subbasin	Imported Water Nebraska Above Guide Rock	2,791
59		Imported Water Nebraska Below Guide Rock	0
60		Total	12,214
61	**SW Pumping Data**		
62	North Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorac	2496
63		SW Diversions - Irrigation - Small Pumps - Colorado	0
64		SW Diversions - M&I - Colorado	0
65	Arikaree Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorac	0
66		SW Diversions - Irrigation - Small Pumps - Colorado	0
67		SW Diversions - M&I - Colorado	0
68		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
69		SW Diversions - Irrigation - Small Pumps - Kansas	0
70		SW Diversions - M&I - Kansas	0
71		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
72		SW Diversions - Irrigation - Small Pumps - Nebraska	0
73		SW Diversions - M&I - Nebraska	0
74	Buffalo Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorac	0
75		SW Diversions - Irrigation - Small Pumps - Colorado	0
76		SW Diversions - M&I - Colorado	0
77		SW Diversions - Irrigation - Non-Federal Canals - Nebra	170
78		SW Diversions - Irrigation - Small Pumps - Nebraska	0
79		SW Diversions - M&I - Nebraska	0
80	Rock Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
81		SW Diversions - Irrigation - Small Pumps - Nebraska	0
82		SW Diversions - M&I - Nebraska	0
83	South Fork Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorac	0
84		SW Diversions - Irrigation - Small Pumps - Colorado	0
85		SW Diversions - M&I - Colorado	0
86		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
87		SW Diversions - Irrigation - Small Pumps - Kansas	0
88		SW Diversions - M&I - Kansas	0
89		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0

	A	B	C
1	**Calendar Year**		**2006**
2			
90		SW Diversions - Irrigation - Small Pumps - Nebraska	0
91		SW Diversions - M&I - Nebraska	0
92	Frenchman Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
93		SW Diversions - Irrigation - Small Pumps - Nebraska	0
94		SW Diversions - M&I - Nebraska	0
95	Driftwood Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
96		SW Diversions - Irrigation - Small Pumps - Kansas	0
97		SW Diversions - M&I - Kansas	0
98		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
99		SW Diversions - Irrigation - Small Pumps - Nebraska	0
100		SW Diversions - M&I - Nebraska	0
101	Red Willow Subbasin	SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
102		SW Diversions - Irrigation - Small Pumps - Nebraska	121
103		SW Diversions - M&I - Nebraska	0
104	Medicine Creek Subba	SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
105		SW Diversions - Irrigation - Small Pumps - Nebraska	305
106		SW Diversions - M&I - Nebraska	0
107		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
108		SW Diversions - Irrigation - Small Pumps -Nebraska - Be	94
109		SW Diversions - M&I - Nebraska - Below Gage	0
110	Beaver Subbasin	SW Diversions - Irrigation -Non-Federal Canals- Colorad	0
111		SW Diversions - Irrigation - Small Pumps - Colorado	0
112		SW Diversions - M&I - Colorado	0
113		SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
114		SW Diversions - Irrigation - Small Pumps - Kansas	7.14
115		SW Diversions - M&I - Kansas	0
116		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
117		SW Diversions - Irrigation - Small Pumps - Nebraska	0
118		SW Diversions - M&I - Nebraska	0
119		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
120		SW Diversions - Irrigation - Small Pumps -Nebraska - Be	0
121		SW Diversions - M&I - Nebraska - Below Gage	0
122	Sappa Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
123		SW Diversions - Irrigation - Small Pumps - Kansas	3
124		SW Diversions - M&I - Kansas	0
125		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
126		SW Diversions - Irrigation - Small Pumps - Nebraska	22
127		SW Diversions - M&I - Nebraska	0
128		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
129		SW Diversions - Irrigation - Small Pumps -Nebraska - Be	0
130		SW Diversions - M&I - Nebraska - Below Gage	0
131	Prairie Dog Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
132		SW Diversions - Irrigation - Small Pumps - Kansas	94.05
133		SW Diversions - M&I - Kansas	419.8
134		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
135		SW Diversions - Irrigation - Small Pumps -Nebraska - Be	21
136		SW Diversions - M&I - Nebraska - Below Gage	0
137	Mainstem Subbasin	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
138		SW Diversions - Irrigation - Small Pumps - Kansas	775.95
139		SW Diversions - M&I - Kansas	0
140		SW Diversions - Irrigation - Non-Federal Canals - Nebra	2460
141		SW Diversions - Irrigation - Small Pumps - Nebraska	590
142		SW Diversions - M&I - Nebraska	0
143		SW Diversions - Irrigation - Non-Federal Canals - Nebra	0
144		SW Diversions - Irrigation - Small Pumps - Nebraska Be	697
145		SW Diversions - M&I - Nebraska - Below Guide Rock	0
146			
147	**Non-Federal SW Consumptive Use**		
148		% Non-Federal Canal Diversion Consumed	60%
149		% Small Surface Water Pumps Consumed	75%
150		% Municipal And Industrial SW Consumed	50%
151			
152	**Non-Federal Reservoir Evaporation Data**		
153	North Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	50
154	Arikaree Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
155		Non-Federal Reservoir Evaporation - Kansas	46.21
156		Non-Federal Reservoir Evaporation - Nebraska	0
157	Buffalo Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
158		Non-Federal Reservoir Evaporation - Nebraska	0
159	Rock Subbasin	Non-Federal Reservoir Evaporation - Nebraska	79.35
160	South Fork Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
161		Non-Federal Reservoir Evaporation - Kansas	324.86
162		Non-Federal Reservoir Evaporation - Nebraska	0
163	Frenchman Subbasin	Non-Federal Reservoir Evaporation - Nebraska	20.69
164	Driftwood Subbasin	Non-Federal Reservoir Evaporation - Kansas	11.47
165		Non-Federal Reservoir Evaporation - Nebraska	0
166	Red Willow Subbasin	Non-Federal Reservoir Evaporation - Nebraska	22.89
167	Medicine Creek Subba	Non-Federal Reservoir Evaporation - Nebraska	139.08
168		Non-Federal Reservoir Evaporation - Nebraska - Below	0
169	Beaver Subbasin	Non-Federal Reservoir Evaporation - Colorado	0
170		Non-Federal Reservoir Evaporation - Kansas	233.61
171		Non-Federal Reservoir Evaporation - Nebraska	22.51
172		Non-Federal Reservoir Evaporation - Nebraska - Below	0
173	Sappa Subbasin	Non-Federal Reservoir Evaporation - Kansas	482.68
174		Non-Federal Reservoir Evaporation - Nebraska	21.56
175		Non-Federal Reservoir Evaporation - Nebraska - Below	1.01
176	Prairie Dog Subbasin	Non-Federal Reservoir Evaporation - Kansas	333.4

	A	B	C
1	Calendar Year		2006
2			
177		Non-Federal Reservoir Evaporation - Nebraska	10.88
178	Mainstem Subbasin	Non-Federal Reservoir Evaporation - Kansas	122.42
179		Non-Federal Reservoir Evaporation - Nebraska - Above	830
180		Non-Federal Reservoir Evaporation - Nebraska - Below	115
181			
182	**Stream Gage Data**		
183	North Fork Subbasin	North Fork Republican River At Colorado-Nebraska Stat	17608
184	Arikaree Subbasin	Arikaree River At Haigler	404
185	Buffalo Subbasin	Buffalo Creek Near Haigler	1731
186	Rock Subbasin	Rock Creek At Parks	5355
187	South Fork Subbasin	South Fork Republican River Near Benkelman	0
188	Frenchman Subbasin	Frenchman Creek At Culbertson	22606
189	Driftwood Subbasin	Driftwood Creek Near McCook	1714
190	Red Willow Subbasin	Red Willow Creek Near Red Willow	10018
191	Medicine Creek Subba	Medicine Creek Below Harry Strunk	22648
192	Beaver Subbasin	Beaver Creek Near Beaver City	303
193	Sappa Subbasin	Sappa Creek Near Stamford	0
194	Prairie Dog Subbasin	Prairie Dog Creek Near Woodruff	153
195	Mainstem Subbasin	Republican River At Guide Rock	2711
196		Republican River Near Hardy	14089
197			
198	**Flood Flow Data**		
199	North Fork Subbasin	North Fork Flood Flow	0
200	Arikaree Subbasin	Arikaree Flood Flow	0
201	Buffalo Subbasin	Buffalo Flood Flow	0
202	Rock Subbasin	Rock Flood Flow	0
203	South Fork Subbasin	Southfork Flood Flow	0
204	Frenchman Subbasin	Frenchman Flood Flow	0
205	Driftwood Subbasin	Driftwood Flood Flow	0
206	Red Willow Subbasin	Red Willow Flood Flow	0
207	Medicine Creek Subba	Medicine Creek Flood Flow	0
208	Beaver Subbasin	Beaver Flood Flow	0
209	Sappa Subbasin	Sappa Flood Flow	0
210	Prairie Dog Subbasin	Prairie Dog Flood Flow	0
211	Mainstem Subbasin	Mainstem Flood Flow	0
212			
213	**Reservoir Data**		
214	South Fork Subbasin	Bonny Reservoir Evaporation	3,031
215		Bonny Reservoir Change In Storage	-2,400
216	Frenchman Subbasin	Enders Reservoir Evaporation	1,366
217		Enders Reservoir Change In Storage	-500
218	Red Willow Subbasin	Hugh Butler Lake Evaporation	2,494
219		Hugh Butler Lake Change In Storage	-7,100
220	Medicine Creek Subba	Harry Strunk Lake Evaporation	3,035
221		Harry Strunk Lake Change In Storage	-3,000
222	Prairie Dog Subbasin	Keith Sebelius Lake Evaporation	1,791
223		Keith Sebelius Lake Change In Storage	-200
224	Mainstem Subbasin	Swanson Lake Evaporation	5,381
225		Swanson Lake Change In Storage	1,200
226		Harlan County Evaporation	16,182
227		Harlan County Change In Storage	-11,800
228		Lovewell Reservoir Ev charged to the Republican River	1,770
229			
230	**Canal Data**		
231	North Fork Subbasin	Haigler Canal Diversions - Colorado	2,654
232		Haigler Canal Diversions - Nebraska	4,418
233		Haigler Canal Diversions	*7,072*
234	South Fork Subbasin	Hale Ditch Diversions	0
235	Frenchman Subbasin	Champion Canal Diversions	0
236		Riverside Canal Diversions	0
237		Culbertson Canal Diversions	0
238		Culbertson Canal Extension Diversions	0
239		Culbertson Canal % Return Flow	100.00%
240		Culbertson Canal Extension % Return Flow	100.00%
241	Driftwood Subbasin	Meeker-Driftwood Canal Diversions	0
242		Meeker-Driftwood Canal % Return Flow	100%
243	Red Willow Subbasin	Red Willow Canal Diversions	0
244		Red Willow Canal % Return Flow	100%
245	Prairie Dog Subbasin	Almena Canal Diversions	0
246		Almena Canal % Return Flow	100%
247	Mainstem Subbasin	Bartley Canal Diversion	5830
248		Bartley Canal % Return Flow	56%
249		Cambridge Canal Diversion	19692
250		Cambridge Canal % Return Flow	55%
251		Naponee Canal Diversion	0
252		Naponee Canal % Return Flow	100%
253		Franklin Canal Diversion	0
254		Franklin Canal % Return Flow	100%
255		Franklin Pump Canal Diversions	0
256		Franklin Pump Canal % Return Flow	100%
257		Superior Canal Diversions	0
258		Superior Canal % Return Flow	100%
259			
260		Courtland Canal Diversions At Headgate	*50,631*
261		Diversions to Nebraska Courtland	0
262		Nebraska Courtland % Return Flow	100%
263		Courtland Canal, Loss in NE assigned to upper Courtlan	2,242

	A	B	C
1	**Calendar Year**		2006
2			
264		Courtland Canal, Loss in NE assigned to delivery to Lov	9,916
265		Courtland Canal At Kansas-Nebraska State Line	***38,473***
266		Courtland Canal Diversions to the Upper Courtland Distr	10,595
267		Courtland Canal Above Lovewell % Return Flow	62.02%
268		Courtland Canal, Loss assigned to deliveries of water to	***11,026***
269		Courtland Canal Deliveries To Lovewell Reservoir	***19,094***
270		Diversions of Republican River water from Lovewell Res	28066
271		Courtland Canal Below Lovewell % Return Flow	48.88%
272			
273		**To allocate Harlan County evaporation:**	
274		Kansas Bostwick Diversions During Irrigation Season (2	19801
275		Nebraska Bostwick Diversions During Irrigation Season	0

	A	B
1	**North Fork Republican River Sub-Basin**	2006
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	14301
7	GW CBCU Kansas	12
8	GW CBCU Nebraska	1366
9		
10	**Surface Water Data**	
11	North Fork Republican River At Colorado-Nebraska State Line	17608
12	Haigler Canal Diversions - Colorado	2654
13	SW Diversions - Irrigation -Non-Federal Canals- Colorado	2496
14	SW Diversions - Irrigation - Small Pumps - Colorado	0
15	SW Diversions - M&I - Colorado	0
16	Haigler Canal Diversions - Nebraska	4418
17	Non-Federal Reservoir Evaporation - Colorado	50
18	North Fork Flood Flow	0
19		
20	**Consumptive Use Calculations**	
21	**Colorado**	
22	Haigler Canal CBCU	1592.4
23	SW CBCU - Irrigation - Non Federal Canals	1497.6
24	SW CBCU - Irrigation - Small Pumps	0
25	SW CBCU - M&I	0
26	Non-Federal Reservoir Evaporation	50
27	SW CBCU	3140
28	GW CBCU	14301
29	Total CBCU	17440
30		
31	**Kansas**	
32	GW CBCU	12
33	Total CBCU	10
34		
35	**Nebraska**	
36	Haigler Canal CBCU	2650.8
37	SW CBCU	2651
38	GW CBCU	1366
39	Total CBCU	4020
40		
41	**Totals**	
42	Total SW CBCU	5791
43	Total GW CBCU	15679
44	Total Basin CBCU	21470
45		
46	**Virgin Water Supply**	
47	North Fork Republican River At Colorado-Nebraska State Line	17608
48	Nebraska Haigler Canal Return Flow To Main Stem	1767
49	Colorado CBCU	17440
50	Kansas CBCU	10
51	Nebraska CBCU	4020
52	Imported Water	0
53	Virgin Water Supply	40850
54	Adjustment For Flood Flows	0
55	Computed Water Supply	40850
56		
57	**Allocations**	
58	Colorado Percent Of Allocation	22.4%
59	Colorado Allocation	9150
60	Kansas Percent Of Allocation	0.0%
61	Kansas Allocation	0
62	Nebraska Percent Of Allocation	24.6%
63	Nebraska Allocation	10050
64	Total Basin Allocation	19200
65	Percent Of Supply Not Allocated	53.0%
66	Quantity Of Unallocated Supply	21650

	A	B
1	**Arikaree River Sub-Basin**	2006
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	1116
7	GW CBCU Kansas	84
8	GW CBCU Nebraska	125
9		
10	**Surface Water Data**	
11	Arikaree River At Haigler	404
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Colorado	0
22	Non-Federal Reservoir Evaporation - Kansas	46.21
23	Non-Federal Reservoir Evaporation - Nebraska	0
24	Arikaree Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	SW CBCU - Irrigation - Non Federal Canals	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	0
32	SW CBCU	0
33	GW CBCU	1116
34	Total CBCU	1120
35		
36	**Kansas**	
37	SW CBCU - Irrigation - Non Federal Canals	0
38	SW CBCU - Irrigation - Small Pumps	0
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	46.21
41	SW CBCU	46
42	GW CBCU	84
43	Total CBCU	130
44		
45	**Nebraska**	
46	SW CBCU - Irrigation - Non Federal Canals	0
47	SW CBCU - Irrigation - Small Pumps	0
48	SW CBCU - M&I	0
49	Non-Federal Reservoir Evaporation	0
50	SW CBCU	0
51	GW CBCU	125
52	Total CBCU	130
53		
54	**Totals**	
55	Total SW CBCU	46
56	Total GW CBCU	1325
57	Total Basin CBCU	1370
58		
59	**Virgin Water Supply**	
60	Arikaree River At Haigler	404
61	Colorado CBCU	1120
62	Kansas CBCU	130
63	Nebraska CBCU	130
64	Imported Water	0
65	Virgin Water Supply	1780
66	Adjustment For Flood Flows	0
67	Computed Water Supply	1780
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	78.5%
71	Colorado Allocation	1400
72	Kansas Percent Of Allocation	5.1%
73	Kansas Allocation	90
74	Nebraska Percent Of Allocation	16.8%
75	Nebraska Allocation	300
76	Total Basin Allocation	1790
77	Percent Of Supply Not Allocated	-0.4%
78	Quantity Of Unallocated Supply	-10

	A	B
1	**Buffalo Creek Sub-Basin**	2006
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	319
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3335
9		
10	**Surface Water Data**	
11	Buffalo Creek Near Haigler	1731
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	170
16	SW Diversions - Irrigation - Small Pumps - Nebraska	0
17	SW Diversions - M&I - Nebraska	0
18	Non-Federal Reservoir Evaporation - Colorado	0
19	Non-Federal Reservoir Evaporation - Nebraska	0
20	Buffalo Flood Flow	0
21		
22	**Consumptive Use Calculations**	
23	**Colorado**	
24	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
25	SW Diversions - Irrigation - Small Pumps - Colorado	0
26	SW Diversions - M&I - Colorado	0
27	Non-Federal Reservoir Evaporation - Colorado	0
28	SW CBCU	0
29	GW CBCU	319
30	Total CBCU	320
31		
32	**Kansas**	
33	GW CBCU	0
34	Total CBCU	0
35		
36	**Nebraska**	
37	SW CBCU - Irrigation - Non Federal Canals	102
38	SW CBCU - Irrigation - Small Pumps	0
39	SW CBCU - M&I	0
40	Non-Federal Reservoir Evaporation	0
41	SW CBCU	102
42	GW CBCU	3335
43	Total CBCU	3440
44		
45	**Totals**	
46	Total SW CBCU	102
47	Total GW CBCU	3654
48	Total Basin CBCU	3760
49		
50	**Virgin Water Supply**	
51	Buffalo Creek Near Haigler	1731
52	Colorado CBCU	320
53	Kansas CBCU	0
54	Nebraska CBCU	3440
55	Imported Water	0
56	Virgin Water Supply	5490
57	Adjustment For Flood Flows	0
58	Computed Water Supply	5490
59		
60	**Allocations**	
61	Colorado Percent Of Allocation	0.0%
62	Colorado Allocation	0
63	Kansas Percent Of Allocation	0.0%
64	Kansas Allocation	0
65	Nebraska Percent Of Allocation	33.0%
66	Nebraska Allocation	1810
67	Total Basin Allocation	1810
68	Percent Of Supply Not Allocated	67.0%
69	Quantity Of Unallocated Supply	3680

	A	B
1	**Rock Creek Sub-Basin**	**2006**
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	64
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	3845
9		
10	**Surface Water Data**	
11	Rock Creek At Parks	5355
12	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
13	SW Diversions - Irrigation - Small Pumps - Nebraska	0
14	SW Diversions - M&I - Nebraska	0
15	Non-Federal Reservoir Evaporation - Nebraska	79.35
16	Rock Flood Flow	0
17		
18	**Consumptive Use Calculations**	
19	**Colorado**	
20	GW CBCU	64
21	Total CBCU	60
22		
23	**Kansas**	
24	GW CBCU	0
25	Total CBCU	0
26		
27	**Nebraska**	
28	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
29	SW CBCU - Irrigation - Small Pumps	0
30	SW CBCU - M&I	0
31	Non-Federal Reservoir Evaporation	79.35
32	SW CBCU	79
33	GW CBCU	3845
34	Total CBCU	3920
35		
36	**Totals**	
37	Total SW CBCU	79
38	Total GW CBCU	3909
39	Total Basin CBCU	3990
40		
41	**Virgin Water Supply**	
42	Rock Creek At Parks	5355
43	Colorado CBCU	60
44	Kansas CBCU	0
45	Nebraska CBCU	3920
46	Imported Water	0
47	Virgin Water Supply	9340
48	Adjustment For Flood Flows	0
49	Computed Water Supply	9340
50		
51	**Allocations**	
52	Colorado Percent Of Allocation	0.0%
53	Colorado Allocation	0
54	Kansas Percent Of Allocation	0.0%
55	Kansas Allocation	0
56	Nebraska Percent Of Allocation	40.0%
57	Nebraska Allocation	3740
58	Total Basin Allocation	3740
59	Percent Of Supply Not Allocated	60.0%
60	Quantity Of Unallocated Supply	5600
61		0
62		
63		0
64		
65		0.33
66		
67		
68		0.67

	A	B
1	**South Fork Republican River Sub-Basin**	**2006**
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	11756
7	GW CBCU Kansas	4398
8	GW CBCU Nebraska	1040
9		
10	**Surface Water Data**	
11	South Fork Republican River Near Benkelman	0
12	Bonny Reservoir Evaporation	3030.7951
13	Bonny Reservoir Change In Storage	-2400
14	Hale Ditch Diversions	0
15	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
16	SW Diversions - Irrigation - Small Pumps - Colorado	0
17	SW Diversions - M&I - Colorado	0
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	0
20	SW Diversions - M&I - Kansas	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
22	SW Diversions - Irrigation - Small Pumps - Nebraska	0
23	SW Diversions - M&I - Nebraska	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	324.86
26	Non-Federal Reservoir Evaporation - Nebraska	0
27	Southfork Flood Flow	0
28		
29	**Consumptive Use Calculations**	
30	**Colorado**	
31	Hale Ditch CBCU	0
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	Bonny Reservoir Evaporation	3030.7951
37	SW CBCU	3031
38	GW CBCU	11756
39	Total CBCU	14790
40		
41	**Kansas**	
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	0
44	SW CBCU - M&I	0
45	Non-Federal Reservoir Evaporation	324.86
46	SW CBCU	325
47	GW CBCU	4398
48	Total CBCU	4720
49		
50	**Nebraska**	
51	SW CBCU - Irrigation - Non Federal Canals	0
52	SW CBCU - Irrigation - Small Pumps	0
53	SW CBCU - M&I	0
54	Non-Federal Reservoir Evaporation	0
55	SW CBCU	0
56	GW CBCU	1040
57	Total CBCU	1040
58		
59	**Totals**	
60	Total SW CBCU	3356
61	Total GW CBCU	17194
62	Total Basin CBCU	20550
63		0
64	**Virgin Water Supply**	
65	South Fork Republican River Near Benkelman	0
66	Colorado CBCU	14790
67	Kansas CBCU	4720
68	Nebraska CBCU	1040
69	Bonny Reservoir Change In Storage	-2400
70	Imported Water	0
71	Virgin Water Supply	18150
72	Adjustment For Flood Flows	0
73	Computed Water Supply	20550
74		
75	**Allocations**	
76	Colorado Percent Of Allocation	44.4%
77	Colorado Allocation	9120
78	Kansas Percent Of Allocation	40.2%
79	Kansas Allocation	8260
80	Nebraska Percent Of Allocation	1.4%
81	Nebraska Allocation	290
82	Total Basin Allocation	17670
83	Percent Of Supply Not Allocated	14.0%
84	Quantity Of Unallocated Supply	2880

	A	B
1	**Frenchman Creek Sub-Basin**	2006
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	43
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	78324
9		
10	**Surface Water Constants**	
11	Culbertson Canal % Return Flow	100%
12	Culbertson Canal Extension % Return Flow	100%
13		
14	**Surface Water Data**	
15	Frenchman Creek At Culbertson	22606
16	Enders Reservoir Evaporation	1365.535125
17	Enders Reservoir Change In Storage	-500
18	Champion Canal Diversions	0
19	Riverside Canal Diversions	0
20	Culbertson Canal Diversions	0
21	Culbertson Canal Extension Diversions	0
22	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
23	SW Diversions - Irrigation - Small Pumps - Nebraska	0
24	SW Diversions - M&I - Nebraska	0
25	Non-Federal Reservoir Evaporation - Nebraska	20.69
26	Frenchman Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	43
31	Total CBCU	40
32		
33	**Kansas**	
34	GW CBCU	0
35	Total CBCU	0
36		
37	**Nebraska**	
38	Champion Canal CBCU	0
39	Riverside Canal CBCU	0
40	Culbertson Canal CBCU	0
41	Culbertson Canal Extension CBCU	0
42	SW CBCU - Irrigation - Non Federal Canals	0
43	SW CBCU - Irrigation - Small Pumps	0
44	SW CBCU - M&I	0
45	Enders Reservoir Evaporation	1366
46	Non-Federal Reservoir Evaporation	20.69
47	SW CBCU	1386
48	GW CBCU	78324
49	Total CBCU	79710
50		
51	**Totals**	
52	Total SW CBCU	1386
53	Total GW CBCU	78367
54	Total Basin CBCU	79750
55		
56	**Virgin Water Supply**	
57	Frenchman Creek At Culbertson	22606
58	17% Culbertson Canal Return Flow to Main Stem	0
59	100% Culbertson Canal Extension Return Flow to Main Stem	0
60	Colorado CBCU	40
61	Kansas CBCU	0
62	Nebraska CBCU	79710
63	Enders Reservoir Change In Storage	-500
64	Imported Water	0
65	Virgin Water Supply	101860
66	Adjustment For Flood Flows	0
67	Computed Water Supply	102360
68		
69	**Allocations**	
70	Colorado Percent Of Allocation	0.0%
71	Colorado Allocation	0
72	Kansas Percent Of Allocation	0.0%
73	Kansas Allocation	0
74	Nebraska Percent Of Allocation	53.6%
75	Nebraska Allocation	54860
76	Total Basin Allocation	54860
77	Percent Of Supply Not Allocated	46.4%
78	Quantity Of Unallocated Supply	47500

	A	B
1	**Driftwood Creek Sub-Basin**	**2006**
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	1422
9		
10	**Surface Water Constants**	
11	Meeker-Driftwood Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Driftwood Creek Near McCook	1714
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	0
17	SW Diversions - M&I - Kansas	0
18	Meeker-Driftwood Canal Diversions	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
20	SW Diversions - Irrigation - Small Pumps - Nebraska	0
21	SW Diversions - M&I - Nebraska	0
22	Non-Federal Reservoir Evaporation - Kansas	11.47
23	Non-Federal Reservoir Evaporation - Nebraska	0
24	Driftwood Flood Flow	0
25		
26	**Consumptive Use Calculations**	
27	**Colorado**	
28	GW CBCU	0
29	Total CBCU	0
30		
31	**Kansas**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	11.47
36	SW CBCU	11
37	GW CBCU	0
38	Total CBCU	10
39		
40	**Nebraska**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	0
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	0
45	SW CBCU	0
46	GW CBCU	1422
47	Total CBCU	1420
48		
49	**Totals**	
50	Total SW CBCU	11
51	Total GW CBCU	1422
52	Total Basin CBCU	1430
53		
54	**Virgin Water Supply**	
55	Driftwood Creek Near McCook	1714
56	24% Meeker Driftwood Canal Return	0
57	Colorado CBCU	0
58	Kansas CBCU	10
59	Nebraska CBCU	1420
60	Imported Water	0
61	Virgin Water Supply	3140
62	Adjustment For Flood Flows	0
63	Computed Water Supply	3140
64		
65	**Allocations**	
66	Colorado Percent Of Allocation	0.0%
67	Colorado Allocation	0
68	Kansas Percent Of Allocation	6.9%
69	Kansas Allocation	220
70	Nebraska Percent Of Allocation	16.4%
71	Nebraska Allocation	510
72	Total Basin Allocation	730
73	Percent Of Supply Not Allocated	76.7%
74	Quantity Of Unallocated Supply	2410

	A	B
1	**Red Willow Creek Sub-Basin**	**2006**
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	25
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	7746
9		
10	**Surface Water Constants**	
11	Red Willow Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Red Willow Creek Near Red Willow	10018
15	Hugh Butler Lake Evaporation	2493.6515
16	Hugh Butler Lake Change In Storage	-7100
17	Red Willow Canal Diversions	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	121
20	SW Diversions - M&I - Nebraska	0
21	Non-Federal Reservoir Evaporation - Nebraska	22.89
22	Red Willow Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	Red Willow Canal CBCU (10%)	0
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	91
37	SW CBCU - M&I	0
38	Hugh Butler Lake Evaporation (10%)	249
39	Non-Federal Reservoir Evaporation	22.89
40	SW CBCU	363
41	GW CBCU	7746
42	Total CBCU	8110
43		
44	**Totals**	
45	Total SW CBCU	363
46	Total GW CBCU	7746
47	Total Basin CBCU	8110
48		
49	**Virgin Water Supply**	
50	Red Willow Creek Near Red Willow	10018
51	Red Willow Canal CBCU (90%)	0
52	Colorado CBCU	0
53	Kansas CBCU	0
54	Nebraska CBCU	8110
55	Hugh Butler Lake Change In Storage	-7100
56	Hugh Butler Lake Evaporation (90%)	2244.2864
57	90% Red Willow Canal Return Flow To Main Stem	0
58	Imported Water	25
59	Virgin Water Supply	13250
60	Adjustment For Flood Flows	0
61	Computed Water Supply	20350
62		
63	**Allocations**	0
64	Colorado Percent Of Allocation	0.0%
65	Colorado Allocation	0
66	Kansas Percent Of Allocation	0.0%
67	Kansas Allocation	0
68	Nebraska Percent Of Allocation	19.2%
69	Nebraska Allocation	3910
70	Total Basin Allocation	3910
71	Percent Of Supply Not Allocated	80.8%
72	Quantity Of Unallocated Supply	16440

	A	B
1	**Medicine Creek Sub-Basin**	2006
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	9398
6	GW CBCU Colorado	0
7	GW CBCU Kansas	0
8	GW CBCU Nebraska	19890
9		
10	**Surface Water Data**	
11	Medicine Creek Below Harry Strunk	22648
12	Harry Strunk Lake Evaporation	3034.8781
13	Harry Strunk Lake Change In Storage	-3000
14	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
15	SW Diversions - Irrigation - Small Pumps - Nebraska	305
16	SW Diversions - M&I - Nebraska	0
17	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
18	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	94
19	SW Diversions - M&I - Nebraska - Below Gage	0
20	Non-Federal Reservoir Evaporation - Nebraska	139.08
21	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
22	Medicine Creek Flood Flow	0
23		
24	**Consumptive Use Calculations**	
25	**Colorado**	
26	GW CBCU	0
27	Total CBCU	0
28		
29	**Kansas**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Nebraska**	
34	SW CBCU - Irrigation - Non Federal Canals	0
35	SW CBCU - Irrigation - Small Pumps	229
36	SW CBCU - M&I	0
37	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
38	SW CBCU - Irrigation - Small Pumps - Below Gage	71
39	SW CBCU - M&I - Below Gage	0
40	Non-Federal Reservoir Evaporation	139.08
41	Non-Federal Reservoir Evaporation - Below gage	0
42	SW CBCU	438
43	GW CBCU	19890
44	Total CBCU	20330
45		
46	**Totals**	
47	Total SW CBCU	438
48	Total GW CBCU	19890
49	Total Basin CBCU	20330
50		
51	**CBCU Below Gage**	
52	SW CBCU Below The Gage	71
53	Total	71
54		
55	**Virgin Water Supply**	
56	Medicine Creek Below Harry Strunk	22648
57	Colorado CBCU	0
58	Kansas CBCU	0
59	Nebraska CBCU	20330
60	SW CBCU Below The Gage	71
61	Harry Strunk Lake Change In Storage	-3000
62	Harry Strunk Lake Evaporation	3034.8781
63	Imported Water	9398
64	Virgin Water Supply	33540
65	Adjustment For Flood Flows	0
66	Computed Water Supply	36540
67		
68	**Allocations**	
69	Colorado Percent Of Allocation	0.0%
70	Colorado Allocation	0
71	Kansas Percent Of Allocation	0.0%
72	Kansas Allocation	0
73	Nebraska Percent Of Allocation	9.1%
74	Nebraska Allocation	3330
75	Total Basin Allocation	3330
76	Percent Of Supply Not Allocated	90.9%
77	Quantity Of Unallocated Supply	33210

	A	B
1	**Beaver Creek Sub-Basin**	**2006**
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	3028
8	GW CBCU Nebraska	3517
9		
10	**Surface Water Data**	
11	Beaver Creek Near Beaver City	303
12	SW Diversions - Irrigation -Non-Federal Canals- Colorado	0
13	SW Diversions - Irrigation - Small Pumps - Colorado	0
14	SW Diversions - M&I - Colorado	0
15	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
16	SW Diversions - Irrigation - Small Pumps - Kansas	7.14
17	SW Diversions - M&I - Kansas	0
18	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
19	SW Diversions - Irrigation - Small Pumps - Nebraska	0
20	SW Diversions - M&I - Nebraska	0
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Colorado	0
25	Non-Federal Reservoir Evaporation - Kansas	233.61
26	Non-Federal Reservoir Evaporation - Nebraska	22.51
27	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	0
28	Beaver Flood Flow	0
29		
30	**Consumptive Use Calculations**	
31	**Colorado**	
32	SW CBCU - Irrigation - Non Federal Canals	0
33	SW CBCU - Irrigation - Small Pumps	0
34	SW CBCU - M&I	0
35	Non-Federal Reservoir Evaporation	0
36	SW CBCU	0
37	GW CBCU	0
38	Total CBCU	0
39		
40	**Kansas**	
41	SW CBCU - Irrigation - Non Federal Canals	0
42	SW CBCU - Irrigation - Small Pumps	5.355
43	SW CBCU - M&I	0
44	Non-Federal Reservoir Evaporation	233.61
45	SW CBCU	239
46	GW CBCU	3028
47	Total CBCU	3270
48		
49	**Nebraska**	
50	SW CBCU - Irrigation - Non Federal Canals	0
51	SW CBCU - Irrigation - Small Pumps	0
52	SW CBCU - M&I	0
53	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
54	SW CBCU - Irrigation - Small Pumps - Below Gage	0
55	SW CBCU - M&I - Below Gage	0
56	Non-Federal Reservoir Evaporation	22.51
57	Non-Federal Reservoir Evaporation - Below gage	0
58	SW CBCU	23
59	GW CBCU	3517
60	Total CBCU	3540
61		0
62	**CBCU Below Gage**	
63	SW CBCU Below The Gage	0
64	Total	0
65		0.33
66	**Totals**	
67	Total SW CBCU	261
68	Total GW CBCU	6545
69	Total Basin CBCU	6810
70		
71	**Virgin Water Supply**	
72	Beaver Creek Near Beaver City	303
73	Colorado CBCU	0
74	Kansas CBCU	3270
75	Nebraska CBCU	3540
76	SW CBCU Below The Gage	0
77	Imported Water	0
78	Virgin Water Supply	7110
79	Adjustment For Flood Flows	0
80	Computed Water Supply	7110
81		
82	**Allocations**	
83	Colorado Percent Of Allocation	20.0%
84	Colorado Allocation	1420
85	Kansas Percent Of Allocation	38.8%
86	Kansas Allocation	2760
87	Nebraska Percent Of Allocation	40.6%
88	Nebraska Allocation	2890
89	Total Basin Allocation	7070

	A	B
1	**Beaver Creek Sub-Basin**	**2006**
2		
90	Percent Of Supply Not Allocated	0.6%
91	Quantity Of Unallocated Supply	40

	A	B
1	**Sappa Creek Sub-Basin**	2006
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	-1910
8	GW CBCU Nebraska	1028
9		
10	**Surface Water Data**	
11	Sappa Creek Near Stamford	0
12	Beaver Creek Near Beaver City	303
13	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
14	SW Diversions - Irrigation - Small Pumps - Kansas	3
15	SW Diversions - M&I - Kansas	0
16	SW Diversions - Irrigation - Non-Federal Canals - Nebraska	0
17	SW Diversions - Irrigation - Small Pumps - Nebraska	22
18	SW Diversions - M&I - Nebraska	0
19	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
20	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	0
21	SW Diversions - M&I - Nebraska - Below Gage	0
22	Non-Federal Reservoir Evaporation - Kansas	482.68
23	Non-Federal Reservoir Evaporation - Nebraska	21.56
24	Non-Federal Reservoir Evaporation - Nebraska - Below Gage	1.01
25	Sappa Flood Flow	0
26		
27	**Consumptive Use Calculations**	
28	**Colorado**	
29	GW CBCU	0
30	Total CBCU	0
31		
32	**Kansas**	
33	SW CBCU - Irrigation - Non Federal Canals	0
34	SW CBCU - Irrigation - Small Pumps	2.25
35	SW CBCU - M&I	0
36	Non-Federal Reservoir Evaporation	482.68
37	SW CBCU	485
38	GW CBCU	-1910
39	Total CBCU	-1430
40		
41	**Nebraska**	
42		
43	SW CBCU - Irrigation - Non Federal Canals	0
44	SW CBCU - Irrigation - Small Pumps	17
45	SW CBCU - M&I	0
46	SW CBCU - Irrigation - Non Federal Canals - Below Gage	0
47	SW CBCU - Irrigation - Small Pumps - Below Gage	0
48	SW CBCU - M&I - Below Gage	0
49	Non-Federal Reservoir Evaporation	21.56
50	Non-Federal Reservoir Evaporation - Below gage	1.01
51	SW CBCU	38
52	GW CBCU	1028
53	Total CBCU	1070
54		
55	**CBCU Below Gage**	
56	SW CBCU Below The Gage	1

	A	B
1	**Sappa Creek Sub-Basin**	2006
2		
57	Total	1
58		
59	**Totals**	
60	Total SW CBCU	523
61	Total GW CBCU	0
62	Total Basin CBCU	523
63		0
64	**Virgin Water Supply**	
65	Sappa Creek Near Stamford	0
66	Beaver Creek Near Beaver City	303
67	Colorado CBCU	0
68	Kansas CBCU	-1430
69	Nebraska CBCU	1070
70	SW CBCU Below The Gage	1
71	Imported Water	0
72	Virgin Water Supply	-660
73	Adjustment For Flood Flows	0
74	Computed Water Supply	-660
75		
76	**Allocations**	
77	Colorado Percent Of Allocation	0.0%
78	Colorado Allocation	0
79	Kansas Percent Of Allocation	41.1%
80	Kansas Allocation	-270
81	Nebraska Percent Of Allocation	41.1%
82	Nebraska Allocation	-270
83	Total Basin Allocation	-540
84	Percent Of Supply Not Allocated	17.8%
85	Quantity Of Unallocated Supply	-120

	A	B
1	**Prairie Dog Creek Sub-Basin**	**2006**
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska	0
6	GW CBCU Colorado	0
7	GW CBCU Kansas	5510
8	GW CBCU Nebraska	0
9		
10	**Surface Water Constants**	
11	Almena Canal % Return Flow	100%
12		
13	**Surface Water Data**	
14	Prairie Dog Creek Near Woodruff	153
15	Keith Sebelius Lake Evaporation	1791.427
16	Keith Sebelius Lake Change In Storage	-200
17	Almena Canal Diversions	0
18	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
19	SW Diversions - Irrigation - Small Pumps - Kansas	94.05
20	SW Diversions - M&I - Kansas	419.8
21	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
22	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	21
23	SW Diversions - M&I - Nebraska - Below Gage	0
24	Non-Federal Reservoir Evaporation - Kansas	333.4
25	Non-Federal Reservoir Evaporation - Nebraska	10.88
26	Prairie Dog Flood Flow	0
27		
28	**Consumptive Use Calculations**	
29	**Colorado**	
30	GW CBCU	0
31	Total CBCU	0
32		
33	**Kansas**	
34	Almena Canal CBCU	0
35	SW CBCU - Irrigation - Non Federal Canals	0
36	SW CBCU - Irrigation - Small Pumps	70.5375
37	SW CBCU - M&I	209.9
38	Keith Sebelius Lake Evaporation	1791
39	Non-Federal Reservoir Evaporation	333.4
40	SW CBCU	2405
41	GW CBCU	5510
42	Total CBCU	7920
43		
44	**Nebraska**	
45	SW Diversions - Irrigation - Non-Federal Canals - Nebraska -Below Gage	0
46	SW Diversions - Irrigation - Small Pumps -Nebraska - Below Gage	15.75
47	SW Diversions - M&I - Nebraska - Below Gage	0
48	Non-Federal Reservoir Evaporation	10.88
49	SW CBCU	27
50	GW CBCU	0
51	Total CBCU	30

	A	B
1	**Prairie Dog Creek Sub-Basin**	**2006**
2		
52		
53	**CBCU Below Gage**	
54	SW CBCU Below The Gage	27
55	Total	27
56		
57	**Totals**	
58	Total SW CBCU	2432
59	Total GW CBCU	5510
60	Total Basin CBCU	7942
61		0
62	**Virgin Water Supply**	
63	Prairie Dog Creek Near Woodruff	153
64	Colorado CBCU	0
65	Kansas CBCU	7920
66	Nebraska CBCU	30
67	SW CBCU Below The Gage	27
68	Keith Sebelius Lake Change In Storage	-200
69	Imported Water	0
70	Virgin Water Supply	7880
71	Adjustment For Flood Flows	0
72	Computed Water Supply	8080
73		
74	**Allocations**	
75	Colorado Percent Of Allocation	0.0%
76	Colorado Allocation	0
77	Kansas Percent Of Allocation	45.7%
78	Kansas Allocation	3690
79	Nebraska Percent Of Allocation	7.6%
80	Nebraska Allocation	610
81	Total Basin Allocation	4300
82	Percent Of Supply Not Allocated	46.7%
83	Quantity Of Unallocated Supply	3780

	A	B
1	**Mainstem Sub-Basin**	**2006**
2		
3	**Input Data**	
4	**Groundwater / Model Data**	
5	Imported Water Nebraska Above Guide Rock	2791
6	GW CBCU Colorado	-3009
7	GW CBCU Kansas	205
8	GW CBCU Nebraska Above Guide Rock	74355
9	GW CBCU Nebraska Below Guide Rock	2419
10	GW CBCU Nebraska	76774
11		
12	**Surface Water Constants**	
13	Meeker-Driftwood Canal % Return Flow	100%
14	Culbertson Canal % Return Flow	100%
15	Culbertson Canal Extension % Return Flow	100%
16	Red Willow Canal % Return Flow	100%
17	Bartley Canal % Return Flow	56%
18	Cambridge Canal % Return Flow	55%
19	Naponee Canal % Return Flow	100%
20	Franklin Canal % Return Flow	100%
21	Franklin Pump Canal % Return Flow	100%
22	Superior Canal % Return Flow	100%
23	Nebraska Courtland % Return Flow	100%
24	Courtland Canal Above Lovewell % Return Flow	62%
25	Courtland Canal Below Lovewell % Return Flow	49%
26		
27	**Surface Water Data**	
28	Surface Water Gages	
29	Republican River Near Hardy	14089
30	North Fork Republican River At Colorado-Nebraska State L	17608
31	Arikaree River At Haigler	404
32	Buffalo Creek Near Haigler	1731
33	Rock Creek At Parks	5355
34	South Fork Republican River Near Benkelman	0
35	Frenchman Creek At Culbertson	22606
36	Driftwood Creek Near McCook	1714
37	Red Willow Creek Near Red Willow	10018
38	Medicine Creek Below Harry Strunk	22648
39	Sappa Creek Near Stamford	0
40	Prairie Dog Creek Near Woodruff	153
41	Reservoir Data	
42	Swanson Lake Evaporation	5381
43	Swanson Lake Change In Storage	1200
44	Hugh Butler Lake Evaporation	2494
45	Harry Strunk Lake Evaporation	3035
46	Harlan County Evaporation	16182
47	Harlan County Change In Storage	-11800
48	Lovewell Reservoir Ev charged to the Republican River	1770
49	Canal Diversion Data	
50	Bartley Canal Diversion	5830
51	Cambridge Canal Diversion	19692
52	Naponee Canal Diversion	0
53	Franklin Canal Diversion	0
54	Franklin Pump Canal Diversions	0
55	Superior Canal Diversions	0
56		

	A	B
1	**Mainstem Sub-Basin**	**2006**
2		
57	Courtland Canal Diversions At Headgate	50631
58	Diversions to Nebraska Courtland	0
59	Courtland Canal, Loss in NE assigned to upper Courtland I	2242
60	Courtland Canal, Loss in NE assigned to delivery to Lovew	9916
61	Courtland Canal At Kansas-Nebraska State Line	38473
62	Courtland Canal Diversions to the Upper Courtland District	10595
63	Courtland Canal, Loss assigned to deliveries of water to Lo	11026
64	Courtland Canal Deliveries To Lovewell Reservoir	19094
65	Diversions of Republican River water from Lovewell Reserv	28066
66		
67	Kansas Bostwick Diversions During Irrigation Season (200	19801
68	Nebraska Bostwick Diversions During Irrigation Season (20	0
69		
70	Meeker-Driftwood Canal Diversions	0
71	Red Willow Canal Diversions	0
72	Culbertson Canal Diversions	0
73	Culbertson Canal Extension Diversions	0
74	Haigler Canal Diversions - Nebraska	4418
75	Kansas Surface Water Data	
76	SW Diversions - Irrigation - Non-Federal Canals- Kansas	0
77	SW Diversions - Irrigation - Small Pumps - Kansas	776
78	SW Diversions - M&I - Kansas	0
79	Non-Federal Reservoir Evaporation - Kansas	122
80	Nebraska Surface Water Data	
81	SW Diversions - Irrigation - Non-Federal Canals - Nebrask	2460
82	SW Diversions - Irrigation - Small Pumps - Nebraska - Mai	590
83	SW Diversions - M&I - Nebraska - Mainstem	0
84	Non-Federal Reservoir Evaporation - Nebraska - Above Gu	830
85	Non-Federal Reservoir Evaporation - Nebraska - Below Gu	115
86	Mainstem Flood Flow	0
87		
88	**Calculations**	
89	Return Flow From Courtland Canal To Republican River Al	577
90	Courtland Canal Transportation Loss in NE assigned to the	404
91	Courtland Canal Transportation Loss in NE assigned to del	1785
92	Courtland Canal Transportation Loss from the Stateline to	1985
93	Percent Kansas Bostwick Diversions During Irrigation Seas	52.28%
94	Percent Nebraska Diversions During Irrigation Season	47.72%
95	Net Evaporation From Harlan County Reservoir Charged T	8460
96	Net Evaporation From Harlan County Reservoir Charged T	7722
97		
98	**Consumptive Use Calculations**	
99	**Colorado**	
100	GW Depletion	-3009
101	Total CU	-3010
102		
103	**Kansas**	
104	Net Evaporation From Harlan County Reservoir Charged T	8460
105	Courtland Canal Transportation Loss in NE assigned to del	1785
106	Courtland Canal Above Lovewell CBCU	4024
107	Courtland Canal Transportation Loss from the Stateline to	1985
108	Net Evaporation From Lovewell Charged To Kansas	1770

	A	B
1	**Mainstem Sub-Basin**	**2006**
2		
109	Courtland Canal Below Lovewell CBCU	14348
110	SW CBCU - Irrigation - Non Federal Canals	0
111	SW CBCU - Irrigation - Small Pumps	582
112	SW CBCU - M&I	0
113	Non-Federal Reservoir Evaporation - Kansas	122
114	SW CBCU	33076
115	GW CBCU	205
116	Total CBCU	33280
117		
118	**Nebraska**	
119	NE Courtland Canal CBCU (includes transportation loss)	0
120	Superior Canal CBCU	0
121	Franklin Pump Canal CBCU	0
122	Franklin Canal CBCU	0
123	Naponee Canal CBCU	0
124	Cambridge Canal Diversion	8813
125	Bartley Canal Diversion	2553
126	Meeker-Driftwood Canal CBCU	0
127	Red Willow Canal Diversions (90%)	0
128	SW CBCU - Irrigation - Non Federal Canals	1476
129	SW CBCU - Irrigation - Small Pumps	443
130	SW CBCU - M&I	0
131	Harry Strunk Lake Evaporation	3035
132	Swanson Lake Evaporation	5381
133	Hugh Butler Lake Evaporation (90%)	2244
134	Harlan County Evaporation Charged To Nebraska (2001-2(	7722
135	Non-Federal Reservoir Evaporation - Nebraska	945
136	SW CBCU	32612
137	GW CBCU	76774
138	Total CBCU	109390
139		
140	**Totals**	
141	Total SW CBCU	65688
142	Total GW CBCU	73970
143	Total Basin CBCU	139660
144		
145	**Virgin Water Supply**	
146	Republican River Near Hardy	14089
147	North Fork Republican River At Colorado-Nebraska State L	17608
148	Arikaree River At Haigler	404
149	Buffalo Creek Near Haigler	1731
150	Rock Creek At Parks	5355
151	South Fork Republican River Near Benkelman	0
152	Frenchman Creek At Culbertson	22606
153	Driftwood Creek Near McCook	1714
154	Red Willow Creek Near Red Willow	10018
155	Medicine Creek Below Harry Strunk	22648
156	Sappa Creek Near Stamford	0
157	Prairie Dog Creek Near Woodruff	153
158		
159	Colorado CBCU	-3010
160	Kansas CBCU Above Stateline	11353
161	Nebraska CBCU	109390

	A	B
1	**Mainstem Sub-Basin**	**2006**
2		
162		
163	90% Red Willow Canal CBCU - Nebraska	0
164	90% Hugh Butler Lake Evap	2244
165	Harry Strunk Lake Evaporation	3035
166		
167	CBCU Below Medicine Creek Gage	71
168	CBCU Below Beaver Creek Gage	0
169	CBCU Below Sappa Creek Gage	1
170	CBCU Below Prairie Dog Gage	27
171		
172	Harlan County Change In Storage	-11800
173	Swanson Lake Change In Storage	1200
174		
175	Haigler Canal Return Flow To Mainstem	1767
176	Culbertson Canal Return Flow To Mainstem	0
177	Culbertson Canal Extension Return Flow To Mainstem	0
178	Meeker - Driftwood Canal Return Flow To Driftwood Creek	0
179	Red Willow Canal Return Flow To Mainstem	0
180		
181	Courtland Canal At Kansas-Nebraska State Line	38473
182	Return Flow To Republican River Above Hardy From Kar	577.088805
183		
184	Imported Water	2791
185	Virgin Water Supply	67141
186	Adjustment For Flood Flows	0
187	Computed Water Supply	77740
188		
189	**Allocations**	
190	Colorado Percent Of Allocation	0
191	Colorado Allocation	0
192	Kansas Percent Of Allocation	51.1%
193	Kansas Allocation	39730
194	Nebraska Percent Of Allocation	48.9%
195	Nebraska Allocation	38010
196	Total Basin Allocation	77740
197	Percent Of Supply Not Allocated	0.0%
198	Quantity Of Unallocated Supply	0

RRCA
Compact Accounting with non-federal reservoir evaporation below Harlan County and the Kansas Proposal for the Harlan County Net Evaporation Split

Table 1: Annual Virgin and Computed Water Supply, Allocations, and Computed Beneficial Consumptive Uses by State, Main Stem, and Sub-Basin

2006	Virgin Water	Computed	Allocations				Computed Beneficial Consumptive Use		
Basin	Supply	Water Supply	Colorado	Kansas	Nebraska	Unallocated	Colorado	Kansas	Nebraska
North Fork	40,850	40,850	9,150	0	10,050	21,650	17,440	10	4,020
Arikaree	1,780	1,780	1,400	90	300	-10	1,120	130	130
Buffalo	5,490	5,490	0	0	1,810	3,680	320	0	3,440
Rock	9,340	9,340	0	0	3,740	5,600	60	0	3,920
South Fork	18,150	20,550	9,120	8,260	290	2,880	14,790	4,720	1,040
Frenchman	101,860	102,360	0	0	54,860	47,500	40	0	79,710
Driftwood	3,140	3,140	0	220	510	2,410	0	10	1,420
Red Willow	13,250	20,350	0	0	3,910	16,440	0	0	8,110
Medicine	33,540	36,540	0	0	3,330	33,210	0	0	20,330
Beaver	7,110	7,110	1,420	2,760	2,890	40	0	3,270	3,540
Sappa	-660	-660	0	-270	-270	-120	0	-1,430	1,070
Prairie Dog	7,880	8,080	0	3,690	610	3,780	0	7,920	30
Main Stem	67,140	77,740	0	39,730	38,010	0	-3,010	33,280	109,390
Total All Basins	308,870	332,670	21,090	54,480	120,040	137,060	30,760	47,910	236,150
Main Stem Including Unallocated		214,800	0	109,770	105,030				
Total	308,870	332,670	21,090	124,520	187,060	0	30,760	47,910	236,150

Table 2: Original Compact Virgin Water Supply and Allocations

Basin	Virgin Water Supply	Colorado Allocation	% of Basin Supply	Kansas Allocation	% of Basin Supply	Nebraska Allocation	% of Basin Supply	Unallocated	% of Basin Supply
North Fork	44,700	10,000	22.4%			11,000	24.6%	23,700	53.0%
Arikaree	19,610	15,400	78.5%	1,000	5.1%	3,300	16.8%	-90	-0.4%
Buffalo	7,890					2,600	33.0%	5,290	67.0%
Rock	11,000					4,400	40.0%	6,600	60.0%
South Fork	57,200	25,400	44.4%	23,000	40.2%	800	1.4%	8,000	14.0%
Frenchman	98,500					52,800	53.6%	45,700	46.4%
Driftwood	7,300			500	6.9%	1,200	16.4%	5,600	76.7%
Red Willow	21,900					4,200	19.2%	17,700	80.8%
Medicine	50,800					4,600	9.1%	46,200	90.9%
Beaver	16,500	3,300	20.0%	6,400	38.8%	6,700	40.6%	100	0.6%
Sappa	21,400			8,800	41.1%	8,800	41.1%	3,800	17.8%
Prairie Dog	27,600			12,600	45.7%	2,100	7.6%	12,900	46.7%
Tributaries Sub-Total	384,000							175,500	
Main Stem	94,500								
Main Stem + Unallocated	270,000			138,000	51.1%	132,000	48.9%		
Total	478,900	54,100		190,300		234,500			

RRCA
Compact Accounting with non-federal reservoir evaporation below Harlan County and the Kansas Proposal on the Harlan County Net Evaporation Split

Table 3A: Colorado's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	21,420	33,470	NA	(12,050)
2004	21,540	33,670	NA	(12,130)
2005	25,040	35,460	NA	(10,420)
2006	21,090	30,760	NA	(9,670)
2007			NA	
Average	22,270	33,340		(11,070)

Table 3B: Kansas's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	167,780	48,910	NA	118,870
2004	137,450	38,120	NA	99,330
2005	136,820	44,310	NA	92,510
2006	124,520	47,910	NA	76,610
2007			NA	
Average	141,640	44,810		96,830

Table 3C: Nebraska's Five-Year Average Allocation and CBCU

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	227,580	262,780	9,782	(25,418)
2004	205,630	252,650	10,386	(36,640)
2005	199,450	253,740	11,965	(42,325)
2006	187,060	236,150	12,214	(36,876)
2007				
Average	204,930	251,330	11,090	(35,310)

(141,259)

Table 4A: Colorado's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
North Fork	9,450	22,358	NA	31,808	17,253	14,555
Arikaree	1,440	-10	NA	1,430	630	800
South Fork	10,645	3,355	NA	14,000	16,585	(2,585)
Beaver	738	23	NA	760	0	760

Table 4B: Kansas's Sub-Basin Non-impairment Compliance

Basin	Allocation (Five-year Average)	Unallocated Supply (Five-year Average)	Unused Allocation from Colorado (5-year running average)	Imported Water Supply Credit (Five-year Average)	Total Available Supply (5-year running average)	Computed Beneficial Consumptive Use (Five-year Average)	Available Supply - CBCU
Arikaree	95	-10	810	NA	895	138	758
South Fork	9,640	3,355	0	NA	12,995	5,925	7,070
Driftwood	203	2,253	0	NA	2,455	8	2,448
Beaver	1,435	23	738	NA	2,195	1,395	800
Sappa	-20	-8	0	NA	-28	-695	668
Prairie Dog	3,670	3,758	0	NA	7,428	6,825	603

Table 5A: Colorado's Compliance During Water-Short Year Administration

Year	Allocation - Allocation Beaver	Computed Beneficial Consumptive Use - CBCU Beaver	Imported Water Supply Credit - IWS Beaver	Allocation - (CBCU - IWS Credit)
2003	21,160	33,470	NA	(12,310)
2004	21,180	33,670	NA	(12,490)
2005	24,130	35,460	NA	(11,330)
2006	19,670	30,760	NA	(11,090)
2007			NA	
Average	21,540	33,340	NA	(11,800)

Table 5B: Kansas's Compliance During Water-Short Year Administration

	Allocation					
Year	Sub-Basin Total	Kansas's Share of Unallocated Supply	Kansas' Share of Unused Colorado Allocation	Total	Computed Beneficial Consumptive Use	Imported Water Supply Credit
2005	18,380	6,060	1,002	25,442	16,370	NA
2006	14,750	4,589	869	20,207	14,630	NA
Average	16,570	5,320	940	22,820	15,500	NA

Table 5E: Nebraska's Tributary Compliance During Water-Short Year Administration

	Allocation					
Year	Sub-Basin Total	Nebraska's Share of Unallocated Supply	Total	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS)
2005	86,110	68,348	154,458	135,210	9,692	28,940
2006	82,030	67,022	149,052	126,760	9,450	31,742
Average	84,070	67,680	151,750	130,990	9,570	30,340

Table 5C: Nebraska's Compliance During Water-Short Year Administration

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
2005	199,450	4,586	194,864	253,740	4,052	249,689	11,965	(42,860)
2006	187,060	2,290	184,770	236,150	3,064	233,086	12,214	(36,101)
Average	193,260	3,440	189,820	244,950	3,560	241,390	12,090	(39,480)
								(78,961)

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

	Allocation			Computed Beneficial Consumptive Use				
Year	State-Wide Allocation	Allocation Below Guide Rock	Allocation Above Guide Rock	State-Wide CBCU	CBCU Below Guide Rock	CBCU Above Guide Rock	Imported Water Supply Credit above Guide Rock	Allocation - (CBCU - IWS above Guide Rock)
#REF!								
#REF!								
#REF!								
Average								

Attachment 6: Computing Water Supplies and Consumptive Use Above Guide Rock

Total Mainstem CWS	Hardy Gage	Superior Courtland Diversion Dam	Courtland Canal Diversions	Superior Canal Diversion	Courtland Canal Returns	Superior Canal Returns	Total Bostwick Returns Below Guide Rock	NE CBCU Below Guide Rock	KS CBCU Below Ruide Rock	Total CBCU Below Guide Rock	Gain Guide Rock to Hardy	VWS Guide Rock to Hardy	Mainstem VWS Above Guide Rock	NE MS Allocation Above Guide Rock	KS MS Allocation Above Guide Rock	Nebraska Guide Rock to Hardy Allocation	Kansas Guide Rock to Hardy Allocation
77,740	14,089	2,711	50,631	0	10,547	0	10,547	3,064	787	3,851	831	4,682	73,058	35,725	37,333	2,290	2,393

COURTLAND CANAL	
Return Flow From Courtland Canal To Republican River Above Hardy From Kansas	577
Return Flow From Courtland Canal To Republican River Above Hardy From Nebraska	9,970
Courtland Canal Diversions At Headgate	50631
Courtland Canal At Kansas-Nebraska State Line	38473
NE Courtland Canal CBCU (includes transportation loss)	0
Superior Canal CBCU	0

NEBRASKA	
SW Diversions - Irrigation - Small Pumps - Nebraska Below Guide Rock	697
SW Diversions - M&I - Nebraska - Below Guide Rock	0
SW Non-Federal Reservoir Evaporation - Below Guide Rock	122
SW Return - Irrigation	174.25
SW Return - M&I	0
GW CBCU Nebraska Below Guide Rock	2419

KANSAS	
SW CBCU - Irrigation - Small Pumps	582
SW CBCU - M&I	0
GW CBCU Kansas	205

2005
Attachment 7: Calculations of Return Flows from Bureau of Reclamation Canals

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11
Canal	Canal Diversion	Spill to Waste-Way	Field Deliveries	Canal Loss	Average Field Loss Factor	Field Loss	Total Loss from District	Percent Field and Canal Loss That Returns to the Stream	Total return to Stream from Canal and Field Loss	Return as Percent of Canal Diversion
Name Canal	Headgate Diversion	Sum of measured spills to river	Sum of Deliveries to the field	Col 2 - Col 4	1 -Weighted Average Efficiency of Application System for the District*	Col 4 x Col 6	Col 5 + Col 7	Estimated Percent Loss*	Col 8 x Col 9	Col 10/Col 2
Example	100	5	60	40	30%	18	58	82%	48	48%
Culbertson	0		0	0	30%	0	0	82%	0	100%
Culbertson Extension	0		0	0	30%	0	0	82%	0	100%
Meeker - Driftwood	0		0	0	30%	0	0	82%	0	100%
Red Willow	0		0	0	30%	0	0	82%	0	100%
Bartley	5830		2620	3210	30%	786	3996	82%	3277	56%
Cambridge	19692		9178	10514	30%	2753	13267	82%	10879	55%
Naponee	0		0	0	35%	0	0	82%	0	100%
Franklin	0		0	0	35%	0	0	82%	0	100%
Franklin Pump	0		0	0	35%	0	0	82%	0	100%
Almena	0		0	0	30%	0	0	82%	0	100%
Superior	0		0	0	31%	0	0	82%	0	100%
Nebraska Courtland	0		0	0	23%	0	0	82%	0	100%
Courtland Canal Above Lovewell (KS)	10595		3353	7242	23%	771	8013	82%	6571	62%
Courtland Canal Below Lovewell	27851		14610	13241	23%	3360	16601	82%	13613	49%

* The average field efficiencies for each district and percent loss that returns to the stream may be reviewed and, if necessary, changed by the RRCA to improve the accuracy of the estimates.

Impacts 2006 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	1116	84	125	0
Beaver	0	3028	3517	0
Buffalo	319	0	3335	0
Driftwood	0	0	1422	0
Frenchman	43	0	73700	0
North Fork	14301	12	1366	0
Above Swanson	-3023	214	8934	0
Swanson - Harlan	0	-96	37580	2536
Harlan - Guide Rock	0	0	26657	237
Guide Rock - Hardy	0	54	2419	0
Medicine	0	0	19564	9398
Prairie Dog	0	4979	0	0
Red Willow	0	0	6099	25
Rock	64	0	3845	0
Sappa	0	-1910	1028	0
South Fork	10494	4398	1040	0
Hugh Butler	0	0	1647	0
Bonny	1262	0	0	0
Keith Sebelius	0	531	0	0
Enders	0	0	4624	0
Harlan	0	33	810	18
Harry Strunk	0	0	326	0
Swanson	14	0	374	0
Mainstem	**-3030**	**178**	**75590**	**2768**
Total	**24586**	**11343**	**198411**	**12218**
MS's 4 reaches + 2 reservoirs	-3009	205	76774	2791
NE above Guide Rock			74355	2791
Total of individual sub-basins	24590	11327	198412	12214

Impacts 2003 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	242	100	507	0
Beaver	0	274	777	0
Buffalo	265	0	3338	0
Driftwood	0	0	1391	0

Frenchman	37	0	81210	0
North Fork	14023	17	1402	0
Above Swanson	112	-40	17979	0
Swanson - Harlan	0	53	27271	144
Harlan - Guide Rock	0	0	27709	181
Guide Rock - Hardy	0	59	2559	0
Medicine	0	0	20684	9423
Prairie Dog	0	1137	0	0
Red Willow	0	0	6056	20
Rock	59	0	3419	0
Sappa	0	-274	500	0
South Fork	10790	5351	1347	0
Hugh Butler	0	0	1759	0
Bonny	1325	0	0	0
Keith Sebelius	0	542	0	0
Enders	0	0	4437	0
Harlan	0	38	881	12
Harry Strunk	0	0	455	0
Swanson	20	0	483	0
Mainstem	**108**	**77**	**75517**	**320**
Total	**26872**	**7274**	**204164**	**9782**

Location
Arikaree
Beaver
Buffalo
Driftwood
Frenchman
North Fork
Above Swanson
Swanson - Harlan
Rock
Guide Rock - Hardy
Medicine
Prairie Dog
Red Willow
Rock
Sappa
South Fork
Hugh Butler
Bonny
Keith Sebelius
Enders
Harlan
Harry Strunk
Swanson
Mainstem
Total

Impacts 2004 (acre-feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
Arikaree	353	116	431	0
Beaver	0	205	1278	0
Buffalo	290	0	3333	0
Driftwood	0	0	1479	0

Impac

Location
Arikaree
Beaver
Buffalo
Driftwood

Frenchman	39	0	85199	0	Frenchman
North Fork	14373	16	1446	0	North Fork
Above Swanson	-1287	201	13809	0	Above Swanson
Swanson - Harlan	0	91	33956	622	Swanson - Harlan
Harlan - Guide Rock	0	0	29155	198	Harlan - Guide Rock
Guide Rock - Hardy	0	71	2382	0	Guide Rock - Hardy
Medicine	0	0	20898	9522	Medicine
Prairie Dog	0	1328	0	0	Prairie Dog
Red Willow	0	0	6448	25	Red Willow
Rock	58	0	3581	0	Rock
Sappa	0	-205	556	0	Sappa
South Fork	11532	5781	1202	0	South Fork
Hugh Butler	0	0	1773	0	Hugh Butler
Bonny	1342	0	0	0	Bonny
Keith Sebelius	0	496	0	0	Keith Sebelius
Enders	0	0	4528	0	Enders
Harlan	0	36	776	14	Harlan
Harry Strunk	0	0	398	0	Harry Strunk
Swanson	18	0	487	0	Swanson
Mainstem	**-1294**	**368**	**79303**	**815**	**Mainstem**
Total	**26715**	**8150**	**213115**	**10386**	**Total**

Impact 2002-20(

Colorado Pumping					Kansas Pumping			
2002	2003	2004	2005	2006	2002	2003	2004	2005
401	242	356	811	1116	114	100	116	122
0	0	0	0	0	1684	274	205	1519
					0	0	0	0
					0	0	0	0
619	37	39	42	43	0	0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	17	16	17
					381	-40	201	103
0	0	0	0	0	184	53	91	70
					0	0	0	0
					58	59	71	64
					0	0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2294	1137	1328	5265
0	0	0	0	0	0	0	0	0
54	59	58	61	64	0	0	0	0
					-441	-274	-205	-1462
					4892	5351	5781	7227
					0	0	0	0
					0	0	0	0
					512	542	496	510
					0	0	0	0
					42	38	36	34
					0	0	0	0
					0	0	0	0
					627	**77**	**368**	**242**
					9745	**7274**	**8150**	**13483**

cts 2005 (acre-feet)

Colorado Pumping	Kansas Pumping	Nebraska Pumping	Nebraska Mound
811	122	250	0
0	1519	2684	0
306	0	3357	0
0	0	1481	0

Impacts 2006 (ac feet)

Location	Colorado Pumping	Kansas Pumping	Nebraska Pumping
Arikaree	1116	84	125
Beaver	0	3028	3517
Buffalo	319	0	3335
Driftwood	0	0	1422

42	0	78069	0
14359	17	1443	0
-1967	103	10992	0
0	70	39772	2061
0	0	29058	219
0	64	2956	0
0	0	20414	9633
0	5265	0	0
0	0	6596	35
61	0	3744	0
0	-1462	702	0
13679	7227	1372	0
0	0	1709	0
1273	0	0	0
0	510	0	0
0	0	4650	0
0	34	857	17
0	0	352	0
13	0	421	0
-1975	**242**	**82778**	**2274**
28571	**13483**	**210881**	**11966**

Frenchman	43	0	73700
North Fork	14301	12	1366
Above Swanson	-3023	214	8934
Swanson - Harlan	0	-96	37580
Harlan - Guide Rock	0	0	26657
Guide Rock - Hardy	0	54	2419
Medicine	0	0	19564
Prairie Dog	0	4979	0
Red Willow	0	0	6099
Rock	64	0	3845
Sappa	0	-1910	1028
South Fork	10494	4398	1040
Hugh Butler	0	0	1647
Bonny	1262	0	0
Keith Sebelius	0	531	0
Enders	0	0	4624
Harlan	0	33	810
Harry Strunk	0	0	326
Swanson	14	0	374
Mainstem	**-3030**	**178**	**75590**
Total	**24586**	**11343**	**198411**
MS's 4 reaches + 2 reservoirs	-3009	205	76774
NE above Guide Rock			74355
Total of individual sub-basins	24590	11327	198412

)6 (acre-feet)

	Nebraska Pumping							
2006	2002	2003	2004	2005	2006	[illegible]	[illegible]	2004
84	351	507	431	250	125	[illegible]	0	0
3028	1842	777	1278	2684	3517	[illegible]	0	0
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	74134	81210	85199	78069	73700	0	0	0
12	[illegible]	[illegible]	[illegible]	1449	1366	[illegible]	[illegible]	[illegible]
214	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
-96	[illegible]	[illegible]	[illegible]	39772	37580	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4979	0	0	0	0	0	[illegible]	[illegible]	[illegible]
0	[illegible]	6066	6448	6596	6099	[illegible]	[illegible]	[illegible]
0	3296	3419	3581	3744	3845	[illegible]	0	0
-1910	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4398	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
531	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
178	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11343	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Nebraska Mound
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2768
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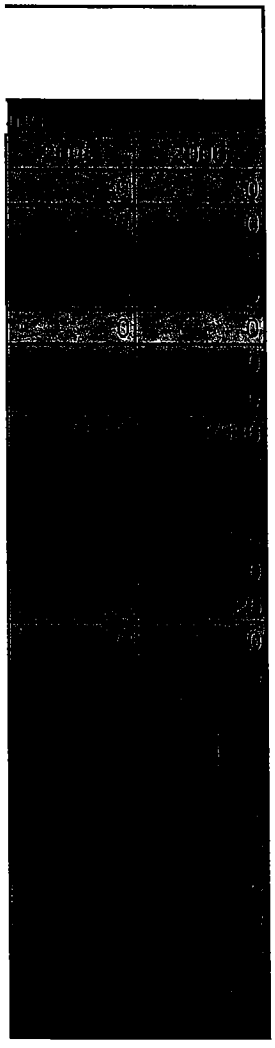

COURTLAND CANAL ABOVE LOVEWELL 2006

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Records	Records	District	(3 + 4)	(2 - 5)	District	Records	(7 + 8)	(3 - 9)	6-(6x(3/5))	(6-11)x(7/9)	(6-11-12)	(10 x 7/9)	(10 - 14)	(4 + 11)	(7 + 12 + 14)	(8 + 13 + 15)	(16+17+18)
										ALLOCATION OF LOSSES					TOTAL ALLOCATION ABOVE LOVEWELL			(= 2)
										LOSS IN NEBRASKA			LOSS IN KANSAS					C
			NEB			KAN	DEL											H
			Bost	Total	Total	Bost	to	Total	Total									E
			Use	out	Loss	Use	Lovewell	out	Loss	Courtland			Courtland					C
	Court	Court	Main	flow	in	Main	Court	flow	in	Canal			Canal			Canal		K
										0.7 to 15.1			15.1 to 34.8			0.7 to 34.8		
Month	Canal 0.7	Canal 15.1	Canal 0.7 to 15.1	in NEB	NEB 0.7 to 15.1	Canal 15.1 to 34.8	Canal 34.8	in KAN	KAN 15.1 to 34.8	NEB Bost	KAN Bost	USBR	KAN Bost	USBR	NEB Bost	KAN Bost	USBR	
January	4271	3380	0	3380	891	0	2473	2473	907	0	0	891	0	907	0	0	4271	4271
February	3664	2820	0	2820	844	0	1968	1968	852	0	0	844	0	852	0	0	3664	3664
March	4808	3840	0	3840	968	0	2862	2862	978	0	0	968	0	978	0	0	4808	4808
April	5232	4380	0	4380	852	0	3509	3509	871	0	0	852	0	871	0	0	5232	5232
May	5094	2750	0	2750	2344	15	1004	1019	1731	0	35	2309	25	1706	0	75	5019	5094
June	4809	3540	0	3540	1269	472	478	950	2590	0	630	639	1287	1303	0	2389	2420	4809
July	9293	7970	0	7970	1323	4368	1863	6231	1739	0	927	396	1219	520	0	6514	2779	9293
August	1925	1150	0	1150	775	258	91	349	801	0	573	202	592	209	0	1423	502	1925
September	2083	1260	0	1260	823	41	399	440	820	0	77	746	76	744	0	194	1889	2083
October	2585	1795	0	1795	789	0	873	873	922	0	0	789	0	922	0	0	2585	2585
November	3223	2634	0	2634	589	0	1611	1611	1023	0	0	589	0	1023	0	0	3223	3223
December	3644	2953	0	2953	691	0	1964	1964	990	0	0	691	0	990	0	0	3644	3644
Total	50631	38473	0	38473	12158	5154	19094	24248	14225	0	2242	9916	3199	11026	0	10595	40036	50631

Data Source: cout wrk sht 06.XLS from the BOR plus for October, November and December values received from BOR in C07-dly.xls, C151-dly.xls and C348-dly.xls.

Federal Reservoir Net Evaporation
2006

Reservoir Name	Gross Evaporation [Acre-feet]	Net Evaporation	Net / Gross [%]
Enders Reservoir	2605	1365.54	55.32%
Harlan County Lake	29609	16181.84	45.48%
Harry Strunk Lake	5734	3034.88	52.51%
Hugh Butler Lake	4113	2493.65	58.89%
Swanson Lake	10082	5381.40	61.05%
Bonny Reservoir	4398	3030.80	61.28%
Keith Sebelius Lake	3715	1791.43	47.37%
Lovewell Reservoir	8502	3657.03	50.11%

Source of Data: This table is copied from the NetEvap sheet of ReservoirNetEvap06. which is prepared by the State of Nebraska.

Federal Reservoir Storage Change
2006

Reservoir Name	Storage Change [Acre-feet]
Enders Reservoir	-500
Harlan County Lake	-11800
Harry Strunk Lake	-3000
Hugh Butler Lake	-7100
Swanson Lake	1200
Bonny Reservoir	-2400
Keith Sebelius Lake	-200

Source of Data: This table is copied from the Summary sheet of ResStorChange06.x which is prepared by the State of Nebraska.

Harlan County Lake Net Evaporation Split

	Diversions during Release Season		
Year	Kansas AF	Nebraska AF	Kansas %
2006	19801	0	100.00%

Source of Data: This data is from CourtlandAvLove worksheet in this workbook base

.xls,

:ls,

Nebraska %	0.00%

d on diversions during the irrigation season.