

**Republican River
Basin Compliance Plan**

Draft Agenda

March 29, 2004

10 am – 4 pm

- Agenda and meeting purpose review
- Discussion of issues and concerns
- Discussion of key topics and methods to address issues
- Discussion of next steps and procedural issues
- Wrap-up

This file is a summary of model runs for a drought scenario based on files "Modeled Reduction for 1981-2010. T
These model runs assume that the drought conditions of 2003 will continue until 2010
The first scenario modeled is with no decrease in volume of water pumped. The second, third, and fourth
are for a 10% reduction of all ground water pumping,
and then 10% plus a 25% reduction in Quick Response Wells (those within one mile grids in the model) and
the fourth is a 10% reduction plus a 50% reduction in QRW.

Summary Allocations, Consumptive Use and Compact Compliance

Year	No Reduction in Pumping						Above Guide Rock Three-Year Running Average
	Nebraska Allocation including Credit	Nebraska CU	Annual Allocation - CU	Nebraska Five-Year Running Average	Above Guide Rock Annual	Above Guide Rock Two-Year Running Average	
1981	248,323	223,880	24,442		10,365	0	
1982	334,026	242,411	91,615		54,249	32,307	
1983	411,874	252,831	159,043		123,295	88,772	62,636
1984	386,215	267,409	118,806		68,748	96,022	82,097
1985	315,990	260,270	55,720	89,925	31,986	50,367	74,676
1986	300,962	269,868	31,094	91,255	(3,972)	14,007	32,254
1987	338,396	262,506	75,890	88,111	25,598	10,813	17,871
1988	285,910	268,816	17,093	59,721	2,921	14,259	8,182
1989	262,093	265,948	(3,855)	35,188	(9,671)	(3,375)	6,283
1990	274,135	273,289	845	24,213	(5,537)	(7,604)	(4,096)
1991	243,310	275,914	(32,604)	11,474	(31,939)	(18,738)	(15,716)
1992	246,440	254,474	(8,035)	(5,311)	(23,588)	(27,764)	(20,355)
1993	360,930	225,497	135,433	18,357	43,001	9,707	(4,175)
1994	346,627	291,954	54,673	30,063	35,188	39,095	18,201
1995	350,373	305,448	44,925	38,879	22,608	28,898	33,599
1996	414,849	280,510	134,339	72,267	111,313	66,961	56,370
1997	346,338	324,976	21,362	78,146	7,190	59,251	47,037
1998	321,968	296,371	25,597	56,179	6,821	7,005	41,775
1999	310,624	304,500	6,124	46,469	(12,298)	(2,739)	571
2000	275,659	305,709	(30,050)	31,474	(36,432)	(24,365)	(13,970)
2001	310,971	288,790	22,181	9,043	612	(17,910)	(16,039)
2002	226,086	261,809	(35,723)	(2,374)	(41,177)	(20,282)	(25,666)
2003	223,865	249,145	(25,280)	(12,550)	(32,965)	(37,071)	(24,510)
2004	225,630	249,597	(23,967)	(18,568)	(27,751)	(30,358)	(33,964)
2005	222,328	248,320	(25,992)	(17,756)	(29,639)	(28,695)	(30,119)
2006	219,790	248,168	(28,378)	(27,868)	(31,936)	(30,788)	(29,775)
2007	217,850	248,339	(30,489)	(26,821)	(33,970)	(32,953)	(31,848)
2008	216,798	249,167	(32,369)	(28,239)	(35,807)	(34,888)	(33,904)
2009	214,642	249,026	(34,384)	(30,322)	(37,762)	(36,784)	(35,846)
2010	213,090	249,497	(36,407)	(32,405)	(39,743)	(38,753)	(37,771)
Average 2002-2010	220,009	250,341	(30,332)	(21,878)	(34,528)	(32,286)	(31,489)
Max	226,086	261,809	(23,967)	(2,374)	(27,751)	(20,282)	(24,510)
Min	213,090	248,168	(36,407)	(32,405)	(41,177)	(38,753)	(37,771)
Median	4,749	4,332	4,680	9,863	4,511	5,647	4,444

10% Reduction in Pumping						
Nebraska Allocation	Nebraska CU	Annual Allocation - CU	Nebraska Five-Year Running Average	Above Guide Rock Annual	Above Guide Rock Two-Year Running Average	Above Guide Rock Three-Year Running Average
248,323	223,880	24,442		10,365		
334,026	242,411	91,615		54,249	32,307	
411,874	252,831	159,043		123,295	88,772	62,636
386,215	267,409	118,806		68,748	96,022	82,097
315,990	260,270	55,720	89,925	31,986	50,367	74,676
300,962	269,868	31,094	91,255	(3,972)	14,007	32,254
338,396	262,506	75,890	88,111	25,598	10,813	17,871
285,910	268,816	17,093	59,721	2,921	14,259	8,182
262,093	265,948	(3,855)	35,188	(9,671)	(3,375)	6,283
274,135	273,289	845	24,213	(5,537)	(7,604)	(4,096)
243,310	275,914	(32,604)	11,474	(31,939)	(18,738)	(15,716)
246,440	254,474	(8,035)	(5,311)	(23,588)	(27,764)	(20,355)
360,930	225,497	135,433	18,357	43,001	9,707	(4,175)
346,627	291,954	54,673	30,063	35,188	39,095	18,201
350,373	305,448	44,925	38,879	22,608	28,898	33,599
414,849	280,510	134,339	72,267	111,313	66,961	56,370
346,338	324,976	21,362	78,146	7,190	59,251	47,037
321,968	296,371	25,597	56,179	6,821	7,005	41,775
310,624	304,500	6,124	46,469	(12,298)	(2,739)	571
275,659	305,709	(30,050)	31,474	(36,432)	(24,365)	(13,970)
310,971	288,790	22,181	9,043	612	(17,910)	(16,039)
226,086	261,809	(35,723)	(2,374)	(41,177)	(20,282)	(25,666)
223,865	249,145	(25,280)	(12,550)	(32,965)	(37,071)	(24,510)
225,737	248,439	(22,702)	(18,315)	(26,493)	(29,729)	(33,545)
222,215	245,533	(23,318)	(16,968)	(27,004)	(26,748)	(28,821)
219,655	244,715	(25,060)	(26,417)	(28,649)	(27,826)	(27,382)
217,698	244,629	(26,931)	(24,658)	(30,457)	(29,553)	(28,703)
216,616	245,236	(28,620)	(25,326)	(32,085)	(31,271)	(30,397)
214,383	244,711	(30,328)	(26,851)	(33,720)	(32,903)	(32,087)
212,878	244,858	(31,980)	(28,584)	(35,332)	(34,526)	(33,712)
219,904	247,675	(27,771)	(20,227)	(31,987)	(29,990)	(29,425)
226,086	261,809	(22,702)	(2,374)	(26,493)	(20,282)	(24,510)
212,878	244,629	(35,723)	(28,584)	(41,177)	(37,071)	(33,712)
4,859	5,566	4,301	8,585	4,584	4,880	3,293

10% + 25% QRW						
Nebraska Allocation	Nebraska CU	Annual Allocation - CU	Nebraska Five-Year Running Average	Above Guide Rock Annual	Above Guide Rock Two-Year Running Average	Above Guide Rock Three-Year Running Average
248,323	223,880	24442.47		10,365		
334,026	242,411	91615.12		54,249	32,307	
411,874	252,831	159043.1		123,295	88,772	62,636
386,215	267,409	118805.9		68,748	96,022	82,097
315,990	260,270	55,720	89,925	31,986	50,367	74,676
300,962	269,868	31,094	91,255	(3,972)	14,007	32,254
338,396	262,506	75,890	88,111	25,598	10,813	17,871
285,910	268,816	17,093	59,721	2,921	14,259	8,182
262,093	265,948	(3,855)	35,188	(9,671)	(3,375)	6,283
274,135	273,289	845	24,213	(5,537)	(7,604)	(4,096)
243,310	275,914	(32,604)	11,474	(31,939)	(18,738)	(15,716)
246,440	254,474	(8,035)	(5,311)	(23,588)	(27,764)	(20,355)
360,930	225,497	135,433	18,357	43,001	9,707	(4,175)
346,627	291,954	54,673	30,063	35,188	39,095	18,201
350,373	305,448	44,925	38,879	22,608	28,898	33,599
414,849	280,510	134,339	72,267	111,313	66,961	56,370
346,338	324,976	21,362	78,146	7,190	59,251	47,037
321,968	296,371	25,597	56,179	6,821	7,005	41,775
310,624	304,500	6,124	46,469	(12,298)	(2,739)	571
275,659	305,709	(30,050)	31,474	(36,432)	(24,365)	(13,970)
310,971	288,790	22,181	9,043	612	(17,910)	(16,039)
226,086	261,809	(35,723)	(2,374)	(41,177)	(20,282)	(25,666)
223,865	249,145	(25,280)	(12,550)	(32,965)	(37,071)	(24,510)
226,028	245,689	(19,661)	(17,707)	4,978	(13,993)	(23,055)
222,300	238,907	(16,607)	(15,018)	9,503	7,240	(6,161)
219,572	236,971	(17,399)	(22,934)	8,392	8,947	7,624
217,444	236,173	(18,729)	(19,535)	6,540	7,466	8,145
216,214	236,347	(20,133)	(18,506)	4,660	5,600	6,531
213,911	235,744	(21,833)	(18,940)	2,250	3,455	4,484
212,362	235,692	(23,330)	(20,285)	142	1,196	2,351
219,753	241,831	(22,077)	(16,428)	(4,186)	(4,160)	(5,584)
226,086	261,809	(16,607)	(2,374)	9,503	8,947	8,145
212,362	235,692	(35,723)	(22,934)	(41,177)	(37,071)	(25,666)
5,118	8,920	5,817	6,059	18,972	16,042	14,752

10% + 50% QEW						
Nebraska Allocation	Nebraska CU	Annual Allocation - CU	Nebraska Five-Year Running Average	Above Guide Rock Annual	Above Guide Rock Two-Year Running Average	Above Guide Rock Three-Year Running Average
248,323	223,880	24,442		10,365		
334,026	242,411	91,615		54,249	32,307	
411,874	252,831	159,043		123,295	88,772	62,636
386,215	267,409	118,806		68,748	96,022	82,097
315,990	260,270	55,720	89,925	31,986	50,367	74,676
300,962	269,868	31,094	91,255	(3,972)	14,007	32,254
338,396	262,506	75,890	88,111	25,598	10,813	17,871
285,910	268,816	17,093	59,721	2,921	14,259	8,182
262,093	265,948	(3,855)	35,188	(9,671)	(3,375)	6,283
274,135	273,289	845	24,213	(5,537)	(7,604)	(4,096)
243,310	275,914	(32,604)	11,474	(31,939)	(18,738)	(15,716)
246,440	254,474	(8,035)	(5,311)	(23,588)	(27,764)	(20,355)
360,930	225,497	135,433	18,357	43,001	9,707	(4,175)
346,627	291,954	54,673	30,063	35,188	39,095	18,201
350,373	305,448	44,925	38,879	22,608	28,898	33,599
414,849	280,510	134,339	72,267	111,313	66,961	56,370
346,338	324,976	21,362	78,146	7,190	59,251	47,037
321,968	296,371	25,597	56,179	6,821	7,005	41,775
310,624	304,500	6,124	46,469	(12,298)	(2,739)	571
275,659	305,709	(30,050)	31,474	(36,432)	(24,365)	(13,970)
310,971	288,790	22,181	9,043	612	(17,910)	(16,039)
226,086	261,809	(35,723)	(2,374)	(41,177)	(20,282)	(25,666)
223,865	249,145	(25,280)	(12,550)	(32,965)	(37,071)	(24,510)
255,686	242,652	13,034	(11,168)	9,212	(11,877)	(21,643)
254,182	232,129	22,053	(747)	18,215	13,713	(1,846)
251,505	228,783	22,722	(639)	18,928	18,572	15,452
249,085	226,861	22,224	10,951	18,472	18,700	18,538
247,523	226,236	21,287	20,264	17,565	18,018	18,322
244,506	224,974	19,532	21,564	15,855	16,710	17,297
242,252	224,578	17,674	20,688	14,028	14,942	15,816
243,854	235,241	8,614	5,110	4,237	3,492	1,307
255,686	261,809	22,722	21,564	18,928	18,700	18,538
223,865	224,578	(35,723)	(12,550)	(41,177)	(37,071)	(25,666)
11,534	13,114	22,530	13,589	23,700	20,996	19,948

Year	N.F. and Main Stem Republican (NE) Above Guide Rock for Water Short Years										Historical 1 Compliance Three-Year Average
	Total WVs CY	Gain Guide Rock to Hardy*	Consumptive Use Guide Rock to Hardy	Virgin Water Supply Below Guide Rock Gain + CU	Nebraska Allocation Below	Nebraska Allocation Above Guide Rock Total - Allocation below	Nebraska Allocation Above Guide Rock plus Mound Credit	Consumptive Use Above Guide Rock Total CU	Allocation minus Consumptive Use	Compliance Two-Year Average	
1981	468,518	30,670	1800	32,470	15,878	233,101	217,223	232,445	10,365	32,307	62,636
1982	622,790	78,295	1800	80,095	39,166	320,272	281,108	234,466	54,249	88,772	62,636
1983	778,463	74,985	1800	76,785	37,548	398,785	361,218	251,031	123,285	88,772	62,636
1984	729,609	104,248	1800	106,048	51,658	372,498	324,367	265,609	68,748	95,022	62,636
1985	581,408	50,416	1800	52,216	25,534	299,234	273,700	247,456	31,886	50,367	74,676
1986	552,685	73,589	1800	75,389	36,885	287,840	250,974	268,088	(3,972)	14,007	32,254
1987	622,592	104,728	1800	106,528	52,092	321,690	289,568	265,304	25,598	10,813	17,871
1988	513,582	30,864	1800	32,664	15,973	272,127	236,181	267,016	2,921	14,259	8,182
1989	465,515	15,774	1800	15,774	7,615	246,277	241,166	264,148	(9,671)	(3,375)	6,283
1990	494,735	14,932	1800	16,732	8,182	259,348	250,152	274,114	(31,939)	(18,738)	(4,096)
1991	441,165	521	1800	2,321	1,135	230,647	214,435	271,489	(27,764)	(15,716)	(20,355)
1992	450,278	33,688	1800	35,488	17,354	231,789	212,091	223,674	43,001	9,707	(4,175)
1993	653,091	190,903	1800	192,703	94,232	336,322	268,838	252,674	22,664	39,095	18,201
1994	635,118	41,726	1800	43,526	21,284	330,707	309,473	290,154	22,608	28,899	33,599
1995	650,670	47,519	1800	49,319	24,117	332,483	326,256	303,648	22,608	66,961	56,370
1996	773,694	46,968	1800	50,789	24,025	350,468	335,642	330,023	27,670	111,313	66,961
1997	633,962	30,864	1800	32,664	15,973	272,127	233,960	323,176	7,190	59,251	47,037
1998	585,622	40,278	1800	42,078	20,576	304,353	283,744	301,392	6,821	7,095	41,775
1999	561,922	39,554	1800	41,354	20,722	297,162	271,955	302,700	(12,289)	(2,739)	571
2000	481,978	14,932	1800	16,732	8,182	246,162	246,853	267,477	303,909	(36,432)	(13,970)
2001	553,021	45,990	1800	47,780	23,369	274,975	269,206	287,602	612	(17,910)	(16,039)
2002	390,633	13,033	1800	14,833	7,433	214,168	214,832	240,009	(41,177)	(20,882)	(25,666)
2003	394,691	17,597	1800	19,397	9,463	211,063	204,588	217,345	(32,965)	(37,071)	(24,510)
2004	460,901	9,668	1800	11,498	6,022	245,328	233,706	240,852	9,212	(11,877)	(21,843)
2005	459,883	6,729	1800	11,528	5,638	244,114	233,476	245,544	18,215	(13,713)	(1,846)
2006	456,090	9,639	1800	11,239	5,994	241,803	238,209	228,923	18,928	18,572	15,452
2007	452,320	9,554	1800	11,054	5,522	238,583	234,031	224,081	18,472	18,700	18,938
2008	448,775	9,492	1800	11,092	5,522	238,019	234,497	224,436	17,565	18,018	18,938
2009	444,503	9,402	1800	11,202	5,478	235,118	228,639	229,029	15,855	16,710	17,297
2010	440,705	9,336	1800	11,156	5,446	232,959	223,774	223,778	14,028	14,942	15,816
Average	539,956	40,297	1,800	42,097	20,596	281,458	260,873	260,151	15,268	15,393	14,953
Max	778,463	190,903	1,800	192,703	94,232	399,785	365,642	390,063	323,176	123,285	62,636
Min	390,633	521	1,800	2,321	1,135	211,186	203,952	222,080	(11,177)	(37,071)	(25,666)
Median	504,148	30,864	1,800	32,664	15,973	265,737	249,914	260,328	12,197	14,007	15,634

Year	N.F. and Main Stem Republican (NB) Above Guide Rock for Water Short Years										Historical 1 Compliance Three-Year Average
	Total VV's CY	Total Gain	Consumptive Use	Guide Rock to Hardy	Supply Below Guide Rock + CU	Nebraska Allocation Below	Nebraska Allocation Above Guide Rock	Nebraska Allocation Above Guide Rock plus Mount Credit	Consumptive Use Above Guide Rock Total CU	Allocation minus Consumptive Use	
1981	468,518	30,670	1800	32,470	15,878	233,101	217,223	232,445	222,036	10,385	32,307
1982	622,760	78,295	1800	60,095	39,166	320,272	281,106	294,859	246,611	54,248	88,772
1983	776,463	74,985	1800	76,765	37,548	398,765	361,218	374,357	251,031	123,295	82,097
1984	729,009	104,249	1800	106,049	51,858	372,496	350,638	354,257	265,608	68,748	50,222
1985	581,408	50,416	1800	52,216	25,534	299,234	273,700	264,356	258,470	31,996	14,007
1986	552,885	73,589	1800	75,389	36,685	297,840	250,974	264,058	268,068	(3,972)	10,813
1987	622,954	104,728	1800	106,528	52,092	321,660	289,568	268,304	260,706	26,598	14,259
1988	513,962	30,684	1800	32,664	15,973	272,157	236,154	269,937	267,016	2,921	13,375
1989	485,515	13,774	1800	15,574	7,615	248,277	240,081	254,477	264,148	(6,671)	6,283
1990	494,735	14,932	1800	16,732	8,182	259,348	231,116	242,175	274,114	(31,939)	(18,738)
1991	441,165	521	1800	2,321	1,135	230,647	229,312	242,175	252,674	(23,588)	(27,684)
1992	450,278	33,688	1800	35,488	17,954	231,789	212,403	245,699	252,674	(7,001)	9,707
1993	653,081	190,903	1800	192,703	33,322	326,322	325,343	326,648	300,154	35,188	39,095
1994	635,118	41,726	1800	43,526	21,284	330,707	309,473	328,266	303,648	22,608	28,898
1995	650,570	47,519	1800	49,319	24,117	332,483	305,843	330,023	278,710	111,313	66,961
1996	773,884	49,988	1800	50,788	24,925	380,468	313,959	330,386	323,176	7,190	59,251
1997	633,862	30,864	1800	32,664	15,973	323,532	282,744	301,332	294,571	6,821	7,005
1998	585,822	40,278	1800	42,078	20,576	304,350	271,945	290,402	302,700	(12,298)	(2,739)
1999	561,922	39,554	1800	41,354	20,222	292,187	268,853	267,477	309,909	(36,432)	(24,365)
2000	481,979	14,932	1800	16,732	8,182	257,059	248,653	267,602	266,950	612	(17,910)
2001	553,021	45,990	1800	47,790	23,969	292,578	269,206	287,602	280,009	(41,177)	(20,282)
2002	390,833	13,033	1800	14,833	7,283	211,068	203,932	218,832	214,360	24,735	(32,965)
2003	384,891	17,597	1800	19,397	9,465	214,063	204,588	248,887	243,889	4,978	(13,993)
2004	456,836	9,657	1800	11,374	5,602	244,112	236,542	248,810	237,107	9,503	7,240
2005	455,766	9,574	1800	11,374	5,562	242,103	233,961	243,583	235,171	8,392	8,947
2006	451,114	8,434	1800	11,234	5,494	239,385	231,411	240,913	234,379	6,540	7,466
2007	446,755	9,321	1800	11,121	5,438	236,849	228,703	238,207	234,547	4,660	5,600
2008	443,802	9,234	1800	11,034	5,396	235,059	226,804	235,134	233,944	2,260	3,455
2009	438,364	9,032	1800	10,892	5,326	232,131	224,792	234,004	233,544	2,260	3,455
2010	434,057	9,010	1800	10,810	5,286	230,018	224,792	234,004	233,892	142	1,166

4/26/2004

AG 10

Modeled 1981-2010 summary.xls

Total 0

Year	Kamisk				Nezaries				Gowabaka				Mandated				Revised allocations				Stonewide				Ministry			
	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU	SW	CU
1991	26,680	21,256	61,238	86,539	137,347	223,800	15,400	18,884	34,624	18,922	4,688,518	53,291	183,128	233,101	468,518	248,323	18,197	121,890	29,442	118,993	121,890	29,442	118,993	121,890	29,442	118,993	121,890	29,442
1992	29,340	19,642	48,982	105,577	138,834	242,411	18,720	17,195	31,036	13,709	718,483	42,434	337,202	359,785	718,483	411,874	11,458	292,987	150,043	237,893	11,458	292,987	150,043	237,893	11,458	292,987	150,043	
1993	34,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
1994	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
1995	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
1996	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
1997	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
1998	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
1999	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2000	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2001	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2002	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2003	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2004	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2005	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2006	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2007	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2008	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2009	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
2010	35,540	17,356	62,218	129,372	142,268	267,405	11,400	17,191	28,551	13,719	729,659	42,332	313,792	372,496	729,659	411,874	14,741	237,893	118,993	237,893	14,741	237,893	118,993	237,893	14,741	237,893	118,993	
Max	66,690	34,028	84,216	137,246	219,319	374,284	11,400	23,698	41,554	14,688	778,463	52,291	341,780	399,765	778,463	411,874	18,197	260,901	159,043	237,893	18,197	260,901	159,043	237,893	18,197	260,901	159,043	
Min	9,130	8,445	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	9,130	
Mean	35,683	15,643	35,342	59,856	152,351	262,157	10,668	23,665	34,417	14,224	594,148	32,727	205,660	265,737	594,148	280,784	172	149,638	11,693	237,893	172	149,638	11,693	237,893	172	149,638	11,693	

Year	N.F. and Main Stem Republican (NB) Above Guide Rock for Water Short Years										Historical 1 Compliance Three-Year Average
	Historical VW's CY	Gain Rock to Hardy*	Consumptive Use Guide Rock to Hardy	Virgin Water Supply Below Guide Rock Gain + CU	Nebraska Allocation Below Guide Rock	Nebraska Allocation Total - Allocation Below	Nebraska Allocation Above Guide Rock plus Mound Credit	Consumptive Use Above Guide Rock Total CU - CU below	Allocation minus Consumptive Use	Compliance Two-Year Average	
1981	468,518	30,670	18,000	32,470	15,878	233,101	217,223	232,425	222,080	10,365	32,307
1982	622,740	78,235	18,000	60,085	39,166	320,272	281,106	294,860	240,611	54,255	86,772
1983	778,463	141,985	18,000	76,785	37,548	389,765	361,218	374,327	251,031	123,296	82,087
1984	728,608	104,249	18,000	106,049	51,858	372,496	320,638	334,357	255,909	81,448	50,022
1985	581,408	50,416	18,000	52,216	25,534	299,234	273,700	290,458	238,426	51,996	74,878
1986	552,665	73,589	18,000	75,389	36,865	287,840	250,974	264,086	236,078	31,920	14,007
1987	622,594	104,728	18,000	106,528	52,092	321,660	269,568	286,304	230,708	55,596	10,813
1988	513,562	30,864	18,000	32,664	15,873	272,127	240,661	259,937	217,078	42,821	14,269
1989	465,515	13,774	18,000	15,574	7,615	248,277	256,154	269,977	217,418	52,521	13,375
1990	484,735	14,932	18,000	16,732	8,182	259,348	251,166	265,953	254,477	11,476	17,604
1991	441,165	5,211	18,000	2,321	1,136	230,647	229,512	242,175	211,174	31,001	18,748
1992	450,278	33,688	18,000	35,488	17,354	231,789	214,435	230,086	222,697	7,389	12,784
1993	653,061	190,903	18,000	192,703	94,232	336,322	242,091	266,039	230,697	35,342	9,707
1994	635,116	41,726	18,000	43,526	21,294	330,707	309,423	325,343	290,154	35,189	39,095
1995	650,670	47,519	18,000	49,319	24,117	332,493	306,376	334,256	300,648	33,608	28,688
1996	773,684	48,968	18,000	50,768	24,625	390,468	365,842	390,023	273,710	111,313	66,961
1997	633,862	30,864	18,000	32,664	15,873	329,932	313,950	330,366	323,178	7,180	59,251
1998	585,822	40,278	18,000	42,078	20,576	304,320	293,744	301,352	294,571	6,821	7,005
1999	561,922	39,554	18,000	41,354	20,222	292,187	271,965	287,432	262,700	24,732	12,288
2000	481,979	14,932	18,000	16,732	8,182	257,035	248,853	266,802	243,908	22,894	24,365
2001	553,021	45,930	18,000	47,930	23,369	292,575	269,206	297,602	266,980	30,622	17,910
2002	390,639	13,033	18,000	14,833	7,253	211,186	203,952	210,008	260,008	41,171	20,282
2003	394,691	17,597	18,000	19,397	9,485	214,063	204,568	210,932	247,345	32,965	37,071
2004	400,191	9,834	18,000	11,434	5,691	215,378	209,788	220,146	246,638	46,493	29,729
2005	394,664	8,419	18,000	11,218	5,485	212,147	208,661	216,729	242,915	34,144	26,748
2006	390,994	9,221	18,000	11,021	5,389	209,953	204,564	210,729	240,849	34,849	27,821
2007	368,112	9,092	18,000	10,892	5,326	208,196	202,870	212,372	242,826	39,457	29,553
2008	365,465	8,987	18,000	10,677	5,265	207,112	201,847	211,361	242,535	30,685	31,271
2009	382,776	8,816	18,000	10,618	5,192	204,993	199,601	208,191	242,911	33,720	32,087
2010	380,461	8,736	18,000	10,536	5,152	203,576	198,424	207,726	243,088	34,321	33,712

4/26/2004

AG 10%

Modeled 1981-2010 summary.xls

Year	M.F. and Main Stem Republican (NE) Above Guide Rock for Water Short Years										Historical 1	
	Total WVE CV	Total Gain Rock to Hardy	Comsumptive Use Guide Rock to Hardy	Virgin Water Supply Below Guide Rock Gain + CU	Nebraska Allocation Below Guide Rock	Nebraska Allocation Above Guide Rock	Total Nebraska Allocation	Nebraska Allocation Above Guide Rock Total - Allocation below	Nebraska Allocation Above Guide Rock plus Mound Credit	Consumptive Use Above Guide Rock - CU below	Allocation minus Consumptive Use	Compliance Two-Year Average
1981	468,518	30,670	1800	32,470	15,278	233,101	217,223	232,445	222,080	10,365		
1982	622,750	78,295	1800	60,095	39,166	320,272	281,106	294,660	240,611	54,249	32,307	62,636
1983	778,463	74,985	1800	75,785	37,548	395,763	361,218	374,327	251,031	123,295	88,772	82,097
1984	729,609	104,269	1800	105,049	51,853	372,439	320,638	334,357	265,609	66,748	98,022	74,676
1985	581,408	50,416	1800	52,216	25,534	293,434	273,700	280,456	268,470	31,986	50,387	32,254
1986	552,685	73,589	1800	75,389	36,895	281,690	260,974	264,096	268,068	(3,972)	14,007	17,871
1987	622,594	104,728	1800	105,528	32,052	371,690	269,588	266,304	260,705	25,598	10,813	6,182
1988	513,562	30,854	1800	32,654	15,873	246,177	240,861	269,937	267,016	2,921	(3,255)	6,293
1989	465,515	13,774	1800	15,974	7,415	246,177	240,861	264,477	264,148	(9,671)	(3,255)	(4,096)
1990	484,735	14,952	1800	16,732	8,152	230,649	229,512	242,175	274,114	(31,939)	(18,238)	(20,355)
1991	441,165	521	1800	5,321	1,752	231,759	242,091	266,659	223,697	43,001	9,707	(4,175)
1992	450,278	33,688	1800	35,488	17,324	336,329	309,423	325,343	290,154	35,188	39,085	18,201
1993	653,081	190,903	1800	192,703	84,262	330,707	308,423	326,256	303,648	22,608	28,898	33,599
1994	635,116	41,776	1800	43,576	24,117	332,483	305,676	365,842	278,710	111,313	66,961	56,370
1995	650,670	47,519	1800	50,769	24,235	390,468	383,642	390,023	323,176	7,190	59,251	47,037
1996	773,684	48,988	1800	52,684	15,973	329,932	313,960	330,366	301,392	28,974	7,005	41,775
1997	633,962	30,864	1800	32,664	14,974	304,330	283,744	301,392	290,402	30,990	(2,739)	571
1998	585,622	40,278	1800	42,978	20,222	292,187	283,744	290,402	294,571	(12,248)	(2,739)	571
1999	561,922	39,554	1800	41,754	8,182	257,035	248,853	267,477	303,700	(36,452)	(24,305)	(13,970)
2000	481,275	14,932	1800	16,732	23,365	282,575	269,206	287,477	266,950	612	(17,910)	(16,039)
2001	553,921	45,950	1800	48,800	7,253	211,186	203,932	218,832	260,009	(41,177)	(20,282)	(25,668)
2002	380,633	13,033	1800	14,833	9,485	214,053	204,568	214,380	247,345	(32,965)	(37,071)	(24,510)
2003	384,691	17,297	1800	19,397	5,684	215,272	209,688	220,046	247,797	(27,751)	(30,398)	(33,964)
2004	389,993	9,620	1800	11,420	5,448	212,250	208,813	216,891	246,520	(29,629)	(20,695)	(30,119)
2005	384,837	9,340	1800	11,140	5,458	210,688	204,730	214,432	246,368	(31,936)	(30,780)	(29,775)
2006	391,300	9,157	1800	10,957	5,958	210,688	203,067	212,569	246,539	(33,970)	(32,953)	(31,848)
2007	388,438	9,000	1800	10,800	5,238	208,348	202,056	212,569	247,367	(35,807)	(34,888)	(33,304)
2008	386,819	8,911	1800	10,711	5,238	207,284	202,056	212,569	247,226	(37,762)	(36,784)	(35,846)
2009	383,208	6,789	1800	10,589	5,178	205,252	200,074	209,464	247,226	(37,762)	(36,784)	(35,846)
2010	380,783	8,705	1800	10,505	5,137	203,788	198,652	207,934	247,697	(39,743)	(38,753)	(37,771)

4/28/2004

AG Base

Modeled 1981-2010 summary.xls

Year	10% Reduction	10% +		Reductio	
		25% QRW	50% QRW	n due to 25% QRW	n due to 50% QRW
2004	1196	3923	6928	2727	5732
2005	2745	9240	15874	6495	13129
2006	3408	10986	19020	7578	15612
2007	3652	11937	21074	8285	17422
2008	3887	12579	22500	8692	18613
2009	4258	13018	23576	8760	19318
2010	4551	13485	24381	8934	19830

