B. K. Rao

PECOS RIVER COMPACT

Report of the River Master

Water Year 2006

Accounting Year 2007

Final Report

June 28, 2007

Neil S. Grigg
River Master of the Pecos River
749 S. Lemay, Ste. A3, PMB 330
Fort Collins, Colorado 80524

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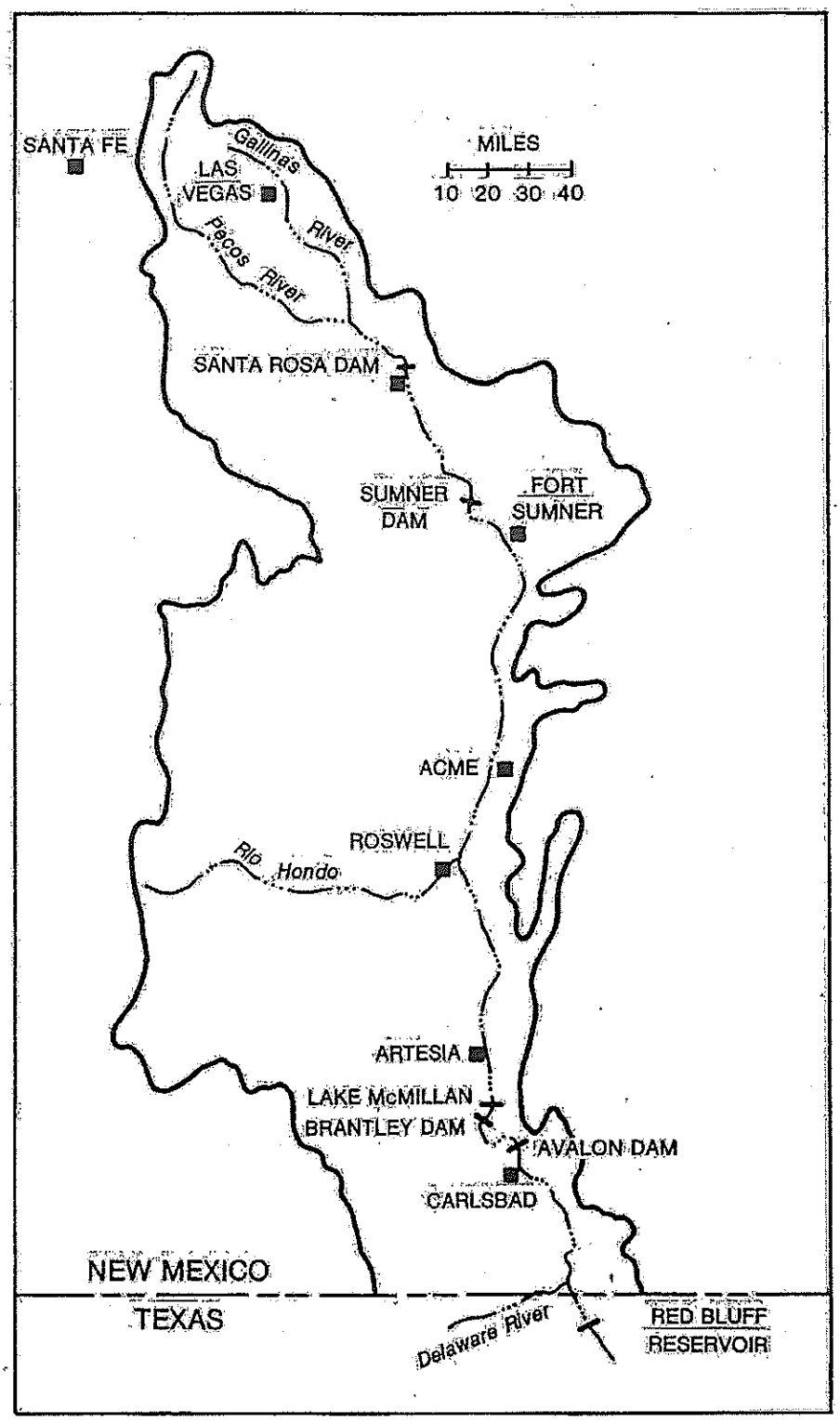

Map of Pecos River Basin Showing Accounting Reaches

PECOS RIVER COMPACT
Supreme Court of the United States
No. 65, Original
Amended Decree

Final Report of the River Master
Water Year 2004 - Accounting Year 2005
June 28, 2007

Purpose of the Report. In its Amended Decree issued March 28, 1988 the Supreme Court of the United States appointed a River Master of the Pecos River and directed him to "... Deliver to the parties a Preliminary Report setting forth the tentative results of the calculations required by Section III.B.1 of this Decree by May 15 of the accounting year..." and to consider "... any written objections to the Preliminary Report submitted by the parties prior to June 15 of the accounting year..." and to deliver "... to the parties a Final Report setting forth the final results of the calculations required by Section III.B.1 of this Decree by July 1 of the accounting year." This is the required Final Report with the determination of:

a. The Article III(a) obligation;

b. Any shortfall or overage, which calculation shall disregard deliveries of water pursuant to an Approved Plan;

c. The net shortfall, if any, after subtracting any overages accumulated in previous years, beginning with water year 1987.

Result of Calculations and Statement of Shortfall or Overage. The results of the calculations in this Final Report show that New Mexico's delivery in Water Year 2006 was an overage of 26,100 acre-feet. The accumulated overage since the beginning of Water Year 1987 is 67,300 acre-feet.

Neil S. Grigg
River Master of the Pecos River

Pecos River Compact		
Accumulated Shortfall or Overage		
	June 28, 2007	
Water Year	Annual Overage or Shortfall, AF	Accumulated Overage or Shortfall, AF
1987	15,400	15,400
1988	23,600	39,000
1989	2,700	41,700
1990	-14,100	27,600
1991	-16,500	11,100
1992	10,900	22,000
1993	6,600	28,600
1994	5,900	34,500
1995	-14,100	20,400
1996	-6,700	13,700
1997	6,100	19,800
1998	1,700	21,500
1999	1,400	22,900
2000	-12,300	10,600
2001	-700	9,900
2002	-3,000	6,900
2003	2,000	8,900
2004	8,300	17,200
2005	24,000	41,200
2006	26,100	67,300

Table 1. General Calculation of Annual Departures, TAF, WY 2006			
6/28/2007			
	WY 2004	WY 2005	WY 2006
B.1.a. Index Inflows			
(1) Annual flood inflow			
(a) Gaged flow Pecos R bel Alamogordo Dam	95.2	110.5	104.2
(b) Flood Inflow Alamogordo - Artesia (Table 2)	41.5	12.4	19.5
(c) Flood Inflow Artesia - Carlsbad (Table 3)	66.3	14.3	12.0
(d) Flood Inflow Carlsbad - State Line (Table 4)	62.6	5.6	6.0
Total (annual flood inflow)	265.6	142.8	141.7
(2) Index Inflow (3-year avg)			183.4
B.1.b. 1947 Condition Delivery Obligation			81.5
(Index Outflow)			
B.1.c. Average Historical (Gaged) Outflow			
(1) Annual historical outflow			
(a) Gaged Flow Pecos River at Red Bluff NM	125.2	106.5	66.9
(b) Gaged Flow Delaware River nr Red Bluff NM	19.5	2.8	2.1
(c) Metered diversions Permit 3254 into C-2713	0.6	0.2	0.0
Total Annual Historical Outflow	145.3	109.5	69.0
(2) Average Historical Outflow (3-yr average)			107.9
B.1.d. Annual Departure			26.4
C. Adjustments to Computed Departure			
1. Adjustments for Depletions above Alam Dam			
a. Depletions Due to Irrigation (Table 5)	-1.7	-0.2	-0.4
b. Depl fr Operation of Santa Rosa Reservoir (Table 6)	1.5	6.1	2.4
c. Transfer of Water Use to Upstream of AD	0	0	0
Recomputed Index Inflows			
(1) Annual flood inflow			
(a) Gaged flow Pecos R bel Alamogordo Dam	95.0	116.4	106.2
(b) Flood Inflow Alamogordo - Artesia	41.5	12.4	19.5
(c) Flood Inflow Artesia - Carlsbad	66.3	14.3	12.0
(d) Flood Inflow Carlsbad - State Line	62.6	5.6	6.0
Total (annual flood inflow)	265.4	148.7	143.7
Recomputed Index Inflow (3-year avg)			185.9
Recomputed 1947 Condition Del Outflow			83.1
(Index Outflow)			
Recomputed Annual Departures			24.8
Credits to New Mexico			
C.2 Depletions Due to McMillan Dike			1.3
C.3 Salvage Water Analysis			0
C.4 Unappropriated Flood Waters			0
C.5 Texas Water Stored in NM Reservoirs			0
C.6 Beneficial C.U. Delaware River Water			0
Final Calculated Departure, TAF			26.1

Table 2. Determination of Flood Inflows, Alamogordo Dam to Artesia (B.3), WY 2006

6/28/2007

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
Flow bel Sumner Dam	1.0	24.8	5.7	5.2	8.5	35.8	5.6	4.1	6.2	5.8	0.5	1.2	104.2
FtSumner Irrig Div	0.0	2.5	5.5	5.0	4.9	4.8	5.1	3.6	5.1	5.2	0.1	0.0	41.7
Ft Sumner ID Return	0.9	0.7	1.5	1.8	2.7	2.7	2.7	2.7	2.4	2.2	1.1	0.9	22.1
Flow past FS IDist	1.9	22.9	1.8	2.0	6.2	33.7	3.2	3.2	3.6	2.8	1.5	2.1	84.7
Channel loss	0.2	1.4	0.5	1.3	1.8	6.3	1.1	1.6	1.0	0.9	0.6	0.2	16.9
Residual Flow	1.7	21.5	1.2	0.7	4.3	27.4	2.1	1.5	2.6	1.9	0.9	1.9	67.7
Base Inflow	5.4	4.3	3.7	2.1	1.5	1.1	1.1	2.5	3.8	2.9	3.3	3.4	35.2
River Pump Divers	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.7
Residual, Artesia	7.1	25.7	4.8	2.7	5.7	28.4	3.1	4.0	6.4	4.8	4.2	5.3	102.2
Pecos Flow Artesia	7.5	16.6	16.6	4.1	2.7	27.3	3.7	13.1	12.7	6.5	5.5	5.5	121.7
Flood Inflow, AD-Art	0.4	-9.1	11.7	1.3	-3.1	-1.1	0.7	9.1	6.3	1.7	1.3	0.2	19.5

Note: Whenever the computed flow past the District is less than the return flow, set the flow past the District equal to the return flow (Manual, B.3.d).

Table 3. Determination of Flood Inflows, Artesia to Carsbad, WY 2006 (B.4)													
4/29/2007													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
Rio Penasco at Dayton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	0.0	0.0	0.0	2.5
Fourmile Draw nr Lakew	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Seven Rivers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rocky Arroyo at Hwy Br	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Flood Inflow, Art-DS3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.7	0.0	0.0	0.0	2.8
Pecos R at Dam Site 3	1.7	1.3	4.6	13.2	16.7	11.3	13.8	5.7	7.5	9.5	11.3	1.2	97.6
CB Sprgs New Water (from Table 7)	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-2.8
Total Inflow, DS3 - CB	1.4	1.1	4.4	12.9	16.5	11.0	13.5	5.5	7.3	9.3	11.1	1.0	94.9
Evap Loss, Lake Avalon (from Table 10)	0.2	0.3	0.4	0.5	0.6	0.5	0.4	0.2	0.1	0.2	0.2	0.2	3.9
Storage Chg, Lake Aval (from Table 11)	0.6	0.4	-1.4	0.1	0.0	-0.1	0.1	0.3	-0.5	0.0	-0.6	0.8	-0.3
Carls ID diversions	0.0	0.0	7.7	10.4	11.0	10.3	11.7	3.9	7.5	9.0	0.0	0.0	71.6
93% CID diver	0.0	0.0	7.1	9.7	10.2	9.6	10.9	3.7	7.0	8.3	0.0	0.0	66.6
Other depletions	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	1.4
Dark Canyon at Csbad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.7
Pecos b Dark Canyon	3.2	2.6	0.9	0.6	5.2	0.9	1.0	1.3	2.9	1.8	11.6	1.2	33.1
Pecos R at Carlsbad	3.2	2.6	0.9	0.6	5.2	0.9	1.0	1.3	2.2	1.8	11.6	1.2	32.4
Total Outflow	4.0	3.4	7.1	11.1	16.2	11.0	12.7	5.6	9.0	10.5	11.3	2.2	104.0
Flood Inflow, DS3-CB	2.6	2.3	2.8	-1.8	-0.3	0.0	-0.8	0.1	1.7	1.2	0.2	1.3	9.2
Flood Inflow, Art-CB	2.6	2.3	2.8	-1.8	-0.3	0.0	-0.8	2.1	2.4	1.2	0.2	1.3	12.0

Table 4. Summary Table for Computations, Carlsbad to State Line - WY 2005 (B.5)							
5/3/2007							
	BCB - RB	BCB - RB*	Del R	DC			
	RM	USGS	USGS				
Jan		0.0	0.0	0.0			
Feb		0.0	0.0	0.0			
Mar		0.2	0.1	0.0			
Apr		0.1	0.1	0.0			
May		0.1	0.0	0.0			
Jun	0.4	0.5	0.0	0.0			
Jul	0.2	0.3	0.1	0.0			
Aug	1.7	1.6	0.8	0.0			
Sep	1.3	2.2	0.1	0.7			
Oct	0.6	0.4	0.0	0.0			
Nov		0.1	0.0	0.0			
Dec		0.0	0.0	0.0			
Total	4.2	5.6	1.1	0.7			
* - Average of two USGS estimates is shown							
Summary of flood inflows, Carlsbad to State Line, TAF							
Red Bluff - Carlsbad + Dark C RM calcs)					4.9		
Delaware River (USGS Computation					1.1		
Total Flood Inflow, Carlsbad to State Line					6.0		

Table 5. Depletions Due to Irrigation Above Sumner Dam - WY 2006 (C.1.a)								
5/2/2007								
	APR	MAY	JUN	JUL	AUG	SEPT	OCT	TOTAL
Precip Las Vegas FAA AP	0.17	1.25	1.58	1.75	6.30	0.93	1.63	13.61
Eff prec Las Veg FAA AP	0.17	1.19	1.47	1.62	4.08	0.90	1.52	10.95
Precip Pecos Natl Monument	0.47	0.60	2.36	3.35	2.91	1.16	1.08	11.93
Eff Precip Pecos RS	0.46	0.59	2.11	2.85	2.53	1.11	1.04	10.69
Precip Santa Rosa	0.49	0.92	0.92	1.17	4.40	1.74	1.65	11.29
Eff Precip Santa Ro	0.48	0.89	0.89	1.12	3.54	1.61	1.54	10.07
Average eff precip, ft	0.03	0.07	0.12	0.16	0.28	0.10	0.11	0.88
Consumptive use, ft	0.19	0.36	0.36	0.30	0.27	0.18	0.11	1.77
Unit depletion rate (CU less eff precip), ft	0.16	0.29	0.24	0.14	0.00	0.08	0.00	0.91
Acres (most recent inventory)	11529							
Streamflow depletion (actual use), AF	10434							
1947 depletion, AF	10804							
Difference (actual use - 1947 depletion), TAF	-0.4							
Adjustment to Gaged Flow, Pecos River below Sumner Dam, TAF =						-0.4		

Table 6. Depletions Due to Santa Rosa Reservoir Operations - WY 2006 - (C.1.b)													
5/6/2007													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
LS 2001 table (USBR); SRL 1997 tables used (COE)													
Lk Sumner ga ht, avg	54.13	54.41	52.29	51.33	50.24	46.65	48.64	50.69	54.54	53.89	54.54	56.22	
LS content, AF, avg	22955	23468	19777	18251	16613	11947	14390	17277	23709	22521	23709	26976	
LS area, acres, avg	1819	1847	1635	1549	1457	1125	1322	1495	1860	1795	1860	2030	
LS evap, inches	6.46	6.00	8.43	13.24	13.45	17.06	12.49	8.12	7.87	7.15	5.71	3.17	109.15
.77 LS Evap	4.97	4.62	6.49	10.19	10.36	13.14	9.62	6.25	6.06	5.51	4.40	2.44	84.05
LS Precip, inches	0.00	0.00	0.07	0.37	0.33	0.46	1.29	2.87	4.37	1.52	1.49	0.00	12.77
Net LS Evap, inches	4.97	4.62	6.42	9.82	10.03	12.68	8.33	3.38	1.69	3.99	2.91	2.44	71.28
LSum Evaploss, TAF	0.75	0.71	0.87	1.27	1.22	1.19	0.92	0.42	0.26	0.60	0.45	0.41	9.07
L S Rosa ga ht, avg	41.10	40.41	35.44	35.22	34.92	22.10	17.96	25.85	38.68	40.00	39.86	39.73	
LSR content, AF, avg	83493	81220	66019	65403	64571	35340	28325	42660	75679	79886	79433	79014	
LSR area, acres, avg	3318	3268	2810	2779	2744	1821	1540	2079	3134	3240	3230	3219	
LSR evap, inches	3.72	5.04	8.58	11.03	11.98	13.09	12.04	7.75	7.21	5.91	4.4	3.76	94.51
.77 LSR Evap	2.86	3.88	6.61	8.49	9.22	10.08	9.27	5.97	5.55	4.55	3.39	2.90	72.77
LSR precip, inches	0.12	0.07	0.13	0.34	0.70	1.73	0.88	5.71	5.28	1.59	0.27	1.19	18.01
Net LSR Evap, inches	2.74	3.81	6.48	8.15	8.52	8.35	8.39	0.26	0.27	2.96	3.12	1.71	54.76
LSR Evaploss, TAF	0.76	1.04	1.52	1.89	1.95	1.27	1.08	0.04	0.07	0.80	0.84	0.46	11.71
Total evaploss, TAF	1.51	1.75	2.39	3.16	3.17	2.46	1.99	0.47	0.33	1.40	1.29	0.87	20.78
Sum contents, AF	106448	104688	85796	83654	81184	47287	42715	59937	99388	102407	103142	105990	
1947 area, acres	3965	3919	3403	3341	3270	2129	2000	2746	3778	3859	3878	3953	
1947 evaploss, TAF	1.64	1.51	1.82	2.74	2.73	2.25	1.39	0.77	0.53	1.28	0.94	0.80	18.41
current-1947evaploss	-0.13	0.24	0.57	0.42	0.43	0.21	0.61	-0.31	-0.20	0.11	0.35	0.07	2.37
						Annual adjustment for excess evaporation =							2.4
ADJUSTMENT FOR EXCESSIVE STORAGE IN SANTA ROSA RESERVOIR													
			2005	2005	2006	2006							
			Gage	Storage	Gage	Storage							
EndYear Sumner Sto			4253.07	21083	57.03	28654							
EndYear S R Sto			4741.13	83592	39.81	79272							
Sum				104675		107926							
Sto Adjustment, AF						0							
Adjustm Ex Evap, TAF						2.4							
Total Adjustment,TAF						2.4							

Table 7. Carlsbad Springs New Water WY 2006 - (B.4.c)					
4/29/2007					
		TAF	AF/day	cfs	Totals
Pecos R bel DC		33.1	90.7	45.7	45.7
Dark Canyon		0.7	1.8	0.9	0.9
Pecos R bel Lake Av, cfs		16.1	44.0	22.2	22.2
Depletion, cfs					2.0
CID lag seep, cfs (from Table 8)					6.9
Return flow, cfs					1.0
Lake Av lagged seep, cfs (from Table 9)					17.5
PR seepage, cfs					3.0
Carls new water, cfs					-3.8
Carls new wat, TAF					-2.8
Carls new wat monthly, TAF					-0.2

Table 8. Carlsbad Main Canal Seepage Lagged - WY 2006 - [B.4.c.(1)(e)]													
5/5/2007													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
WY 2006													
CID, TAF	0.0	0.0	7.7	10.4	11.0	10.3	11.7	3.9	7.5	9.0	0.0	0.0	71.6
days/mo	31	28	31	30	31	30	31	31	30	31	30	31	365
cfs	0.0	0.0	124.7	175.4	179.2	173.3	190.9	64.1	126.4	145.9	0.0	0.0	98.3
cfs, qtr avg			43.0			176.0			127.1			49.2	
WY 2005		1Q	2Q	3Q	4Q								
FLOWS, cfs				164.8	38.2								
SEVEN %				11.5	2.7								
WY 2006 lagged		1Q	2Q	3Q	4Q								
FLOWS, cfs		43.0	176.0	127.1	49.2								
SEVEN %		3.0	12.3	8.9	3.4								
LAG		4.3	7.6	9.1	6.7	Avg =	6.9	cfs					

Table 9. Lake Avalon Leakage Lagged - WY 2006 - B.4.c.(1)(g)													
6/28/2007													
WY 2006	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
WS NM rept	74.33	75.25	73.79	73.14	73.43	73.13	73.07	73.35	73.89	73.19	73.54	72.91	
ga ht, avg*	17.33	18.25	16.79	16.14	16.43	16.13	16.07	16.35	16.89	16.19	16.54	15.91	
cfs	20.8	25.2	18.3	15.1	16.5	15.1	14.8	16.2	18.7	15.4	17.1	14.0	
days	31	28	31	30	31	30	31	31	30	31	30	31	365
cfs avg	21.1			15.6			16.5			15.5			17.2
2005		1Q	2Q	3Q	4Q								
cfs				16.6	18.2								
2006 lagged		1Q	2Q	3Q	4Q								
cfs		21.1	15.6	16.5	15.5								
lag cfs		19.4	17.9	17.0	15.9	Avg =	17.5	cfs					
* Computed as WS elev by NM Report minus Gage datum at 3157.0 (USBR datum)													

Table 10. Evaporation Loss at Lake Avalon - WY 2006 - (B.4.f)													
6/28/2007													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
Av WS NM Rept	74.33	75.25	73.79	73.14	73.43	73.13	73.07	73.35	73.89	73.19	73.54	72.91	
Avalon ga ht, avg, ft*	17.33	18.25	16.79	16.14	16.43	16.13	16.07	16.35	16.89	16.19	16.54	15.91	
Avg area Avalon, ac**	693	755	659	620	638	620	616	633	665	623	644	607	
Panevap Brantley, in.	4.65	5.60	10.09	13.51	15.41	17.43	13.58	9.74	7.76	6.82	4.80	4.34	113.73
Lakeevap Brantley, in.	3.58	4.31	7.77	10.40	11.87	13.42	10.46	7.50	5.98	5.25	3.70	3.34	87.57
Precip Brantley, in.	0.00	0.20	0.20	0.07	0.26	3.30	2.41	4.23	3.57	0.78	0.03	0.18	15.23
Netevap, inches	3.58	4.11	7.57	10.33	11.61	10.12	8.05	3.27	2.41	4.47	3.67	3.16	72.34
Evaploss Av, TAF	0.2	0.3	0.4	0.5	0.6	0.5	0.4	0.2	0.1	0.2	0.2	0.2	3.9
* Computed as WS elev by NM Report minus Gage datum at 3157.0 (USBR datum)													
** Based on USBR Area and Capacity Table in effect January 1, 1997													

Table 11. Change in Storage, Lake Avalon - WY 2006 - (B.4.g)														
(Gage heights are end of month)														
6/28/2007														
	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
	2005	2006												
WS NM Rept	73.90	74.70	75.30	73.30	73.50	73.50	73.30	73.50	73.90	73.20	73.20	72.20	73.50	
Gage EOM, ft*	16.90	17.70	18.30	16.30	16.50	16.50	16.30	16.50	16.90	16.20	16.20	15.20	16.50	
Storage, AF**	1722	2275	2718	1333	1461	1461	1333	1461	1722	1271	1271	675	1461	
Change sto, TAF		0.6	0.4	-1.4	0.1	0.0	-0.1	0.1	0.3	-0.5	0.0	-0.6	0.8	-0.3
* Computed as WS elev by NM Report minus Gage datum at 3157.0 (USBR datum)														
** Based on USBR Area and Capacity Table in effect January 1, 1997														

Table 12. Data Required for River Master Manual Calculations, Water Year 2006													
6/28/2007													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
.													
STREAMFLOW GAGING RECORDS, TAF													
Pecos R b Sumner Dam	1.0	24.8	5.7	5.2	8.5	35.8	5.6	4.1	6.2	5.8	0.5	1.2	104.2
Fort Sumner Main C	0.0	2.5	5.5	5.0	4.9	4.8	5.1	3.6	5.1	5.2	0.1	0.0	41.7
Pecos R nr Artesia	7.5	16.6	16.6	4.1	2.7	27.3	3.7	13.1	12.7	6.5	5.5	5.5	121.7
Rio Penasco at Dayton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	0.0	0.0	0.0	2.5
Fourmile Draw nr Lakewood	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Seven Rivers nr Lkwd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rocky Arroyo at Hwy Br nr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Pecos R at Dam Site 3	1.7	1.3	4.6	13.2	16.7	11.3	13.8	5.7	7.5	9.5	11.3	1.2	97.6
Pecos bel Avalon Dam	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	11.1	0.0	16.1
Carlsbad Main Canal	0.0	0.0	7.7	10.4	11.0	10.3	11.7	3.9	7.5	9.0	0.0	0.0	71.6
Dark Canyon at Carlsbad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.7
Pecos below Dark Canyon	3.2	2.6	0.9	0.6	5.2	0.9	1.0	1.3	2.9	1.8	11.6	1.2	33.1
Pecos R at Red Bluff	6.1	4.8	3.7	2.7	6.8	3.4	2.8	5.2	6.8	5.1	15.1	4.4	66.9
Delaware R nr Red Bluff	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.9	0.2	0.1	0.1	0.1	2.1
GAGE HEIGHTS													
Avalon gage ht, end mo	74.70	75.30	73.30	73.50	73.50	73.30	73.50	73.90	73.20	73.20	72.20	73.50	
Avalon gage ht, avg*	74.33	75.25	73.79	73.14	73.43	73.13	73.07	73.35	73.89	73.19	73.54	72.91	
Sumner Lake ga ht, end mo	55.04	50.68	51.93	50.79	48.60	48.95	47.89	53.20	54.32	53.47	55.41	57.03	
Sumner Lake gage ht, avg**	54.13	54.41	52.29	51.33	50.24	46.65	48.64	50.69	54.54	53.89	54.54	56.22	
Lake S Rosa ga ht, end mo	41.09	36.17	35.36	35.06	34.70	17.59	18.53	34.82	39.91	39.94	39.76	39.81	
Lake S Rosa ga ht, avg	41.10	40.41	35.44	35.22	34.92	22.10	17.96	25.85	38.68	40.00	39.86	39.73	
* apparent error in NM report was corrected by using USGS contents to recompute average gage height in September.													
** apparent error in NM report was corrected by averaging EOM gage ht for Nov-Dec to obtain avg Dec value													
PRECIPITATION, INCHES													
Brantley Lake	0.00	0.20	0.20	0.07	0.26	3.30	2.41	4.23	3.57	0.78	0.03	0.18	15.23
Las Vegas FAA AP	0.03	0.00	0.09	0.17	1.25	1.58	1.75	6.30	0.93	1.63	0.07	0.81	14.61
Pecos National Monument	0.05	0.00	0.23	0.47	0.6	2.36	3.35	2.91	1.16	1.08	0.2	1.6	14.01
Santa Rosa	0.16	0.00	0.06	0.49	0.92	0.92	1.17	4.40	1.74	1.65	0.20	1.35	13.06
Lake Santa Rosa	0.12	0.07	0.13	0.34	0.70	1.73	0.88	5.71	5.28	1.59	0.27	1.19	18.01
Sumner Lake	0.00	0.00	0.07	0.37	0.33	0.46	1.29	2.87	4.37	1.52	1.49	0.00	12.77
PAN EVAPORATION, INCHES													
Lake Santa Rosa	3.72	5.04	8.58	11.03	11.98	13.09	12.04	7.75	7.21	5.91	4.4	3.76	94.51
Lake Sumner	6.46	6.00	8.43	13.24	13.45	17.06	12.49	8.12	7.87	7.15	5.71	3.17	109.15
Brantley Lake	4.65	5.60	10.09	13.51	15.41	17.43	13.58	9.74	7.76	6.82	4.80	4.34	113.73
OTHER REPORTS													
Base Acme-Art, TAF (USGS)	5.4	4.3	3.7	2.1	1.5	1.1	1.1	2.5	3.8	2.9	3.3	3.4	35.2
Pump depl Ac-Artesia, TAF	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.7
Pumping, C-2713, Brine Part.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NM irrig inv, acres (3/9/2000)													11529
NM Transfer water use, TAF													0
NM salvaged water, TAF													0
Texas, water stored NM, TAF	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Texas, use Del water, TAF													

APPENDIX

RIVER MASTER'S RESPONSE TO STATES' OBJECTIONS

RESPONSE TO STATES' OBJECTIONS

Final Report, Accounting Year 2007

NEW MEXICO'S OBJECTIONS

1. Table 2. Determination of Flood Inflows, Alamogordo Dam to Artesia – WY 2006 – [B.3]:

New Mexico (NM) objected to the base inflow calculation and presented appendices with proposed base inflow calculations. New Mexico's reasons are explained in her memorandum as to be based on consistency in scalping the hydrographs. This is most evident in March, where NM's difference with the USGS value is pronounced and results in a difference in base flow estimates of 1.1 TAF for that month. Otherwise, the differences between NM and USGS tend to zero out. NM computed 0.4 TAF less for January than the USGS value, but the difference is not explained. Given that the values during the year other than March tend to offset each other, the River Master's decision will be based on the March values. The scalping here involves judgment as to how far to skew the base flow curve toward the upwardly-fluctuating Artesia with pumping curve.[1] The River Master's examination of the scalping here indicated that USGS did not give credit for the upward surge in Artesia plus pumping that occurred toward the end of March, but NM's scalping line tends to give a bulge to the Artesia base flow line. In past years the River Master has rejected scalping decisions that result in mechanical plotting of the base flow lines to the bottom of each hydrograph low point. Therefore, on the basis of judgment, the River Master has selected a base flow line for Artesia plus pumping that is mid-point between NM and USGS and has adjusted the value for March to 3.7 TAF. This results in an annual base inflow estimate of 35.2 TAF. Table 2 and Table 12 have been revised.

2. Table 4. Summary Table for Computations, Flood Inflows, Carlsbad - State Line (B.5.c)

NM objected to the typing error for WY 2006 and the number has been corrected. On the other objection, NM pointed out that the numbers add to 1.2 TAF instead of 1.1 TAF. This resulted from using USGS' original data, and the rounding gives 1.1 rather than 1.2 TAF. Therefore, the value of 1.1 TAF is retained.

3. Tables 9, 10, 11.

New Mexico objected to typographical errors in Tables 9, 10, and 11. The value for the gage datum has been corrected to show 3157 feet based on the USBR datum.

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[1] Note: NM's graph states "Artesia w/pumping," but this is apparently only a typographical error for the Artesia plus pumping data.

4. Table 12. Data required for River Master Manual Calculations, WY 2006.

New Mexico objected to the value for pumping from Well C-2713 and the states sent a letter of agreement that the value should not be considered. Therefore, the joint objection of the states is accepted.

TEXAS'S OBJECTIONS

Texas objected to the 100 acre-foot credit for pumping, see NM objection #4 above.

FINAL CALCULATED DEPARTURE

The Preliminary Report's Final Calculated Departure was an overage of 26.0 TAF. After considering the states' objections, the Final Determination is an overage of 26.1 TAF.