PECOS RIVER COMPACT

Report of the River Master

Water Year 2000

Accounting Year 2001

Final Report

June 25, 2001 /c

Neil S. Grigg
River Master of the Pecos River
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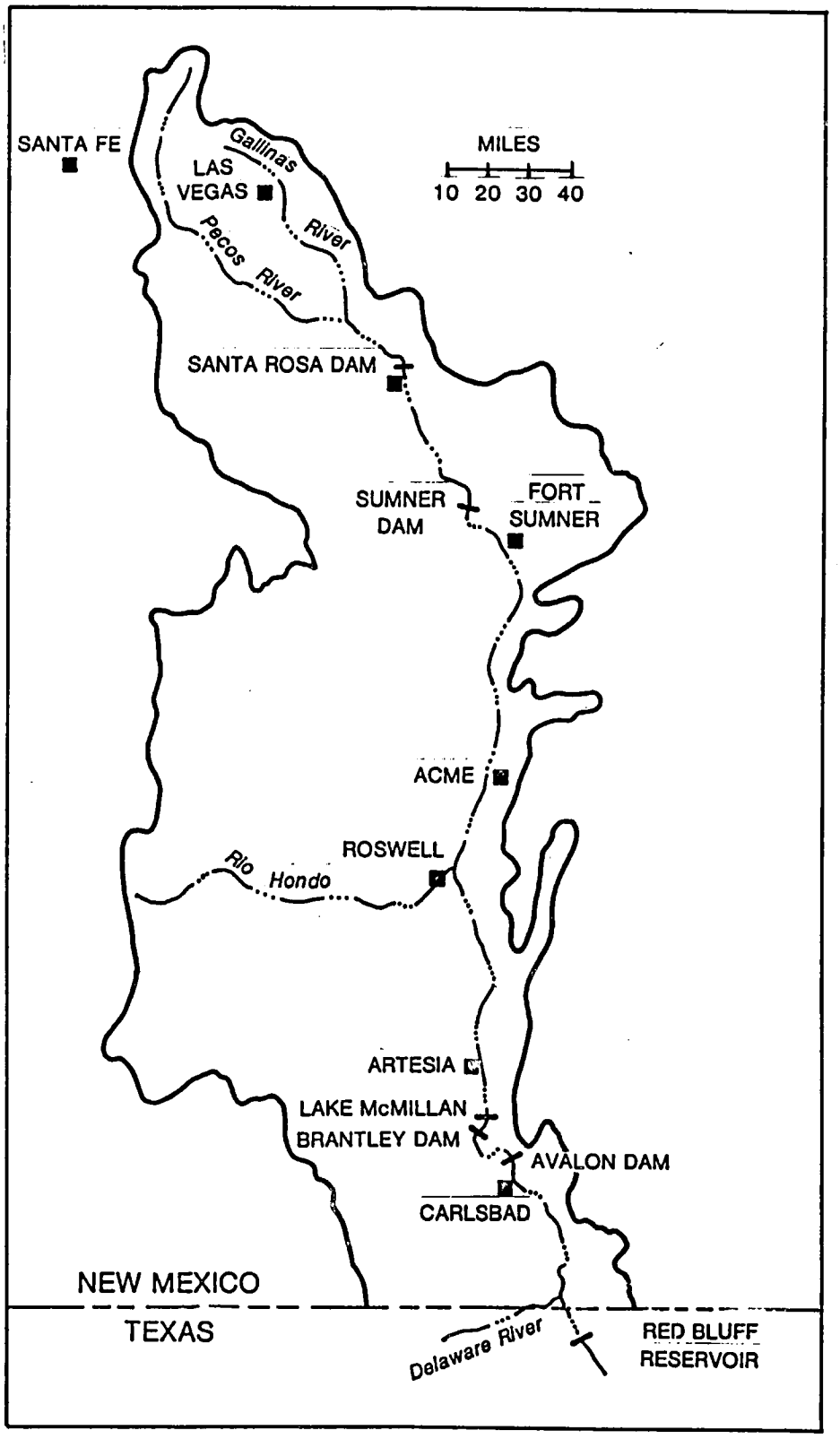

Map of Pecos River Basin Showing Accounting Reaches

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

Final Report of the River Master
Water Year 2000 - Accounting Year 2001
June 25, 2001

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 2000 was a shortfall of 12,300 acre-feet. The accumulated overage since the beginning of Water Year 1987 is 10,600 acre-feet.

Neil S. Grigg
River Master of the Pecos River

Pecos River Compact		
Accumulated Shortfall or Overage		
	June 25, 2001	
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

Table 1. General Calculation of Annual Departures, TAF, WY 2000			
6/23/01			
	1998	1999	2000
B.1.a. Index Inflows			
(1) Annual flood inflow			
(a) Gaged flow Pecos R bel Alamogordo Dam	191.1	96.8	166.1
(b) Flood Inflow Alamogordo - Artesia (Table 2)	6.2	37.4	-4.9
(c) Flood Inflow Artesia - Carlsbad (Table 3)	4.7	16.1	8.3
(d) Flood Inflow Carlsbad - State Line (Table 4)	1.4	21.9	4.4
Total (annual flood inflow)	203.4	172.2	173.9
(2) Index Inflow (3-year avg)			183.2
B.1.b. 1947 Condition Delivery Obligation			81.4
(Index Outflow)			
B.1.c. Average Historical (Gaged) Outflow			
Gaged Flow Pecos River at Red Bluff NM	66.7	75.2	58.2
Gaged Flow Delaware River nr Red Bluff NM	0.9	6.6	1.0
(1) Total Annual Historical Outflow	67.6	81.8	59.2
(2) Average Historical Outflow (3-yr average)			69.5
B.1.d. Annual Departure			-11.9
C. Adjustments to Computed Departure			
1. Adjustments for Depletions above Alam Dam			
a. Depletions Due to Irrigation (Table 5)	0.7	-3.4	0.9
b. Depl fr Operation of Santa Rosa Reservoir (Table 6)	3.9	3.6	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	195.7	97.0	169.4
(b) Flood Inflow Alamogordo - Artesia	6.2	37.4	-4.9
(c) Flood Inflow Artesia - Carlsbad	4.7	16.1	8.3
(d) Flood Inflow Carlsbad - State Line	1.4	21.9	4.4
Total (annual flood inflow)	208.0	172.4	177.2
Recomputed Index Inflow (3-year avg)			185.9
Recomputed 1947 Condition Del Outflow			83.1
(Index Outflow)			
Recomputed Annual Departures			-13.6
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			-12.3

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

Water Year 2000

4/23/01

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
Flow bel Alamog Dam	1.7	22.9	5.7	6.4	39.5	5.7	38.2	36.2	5.2	3.7	0.5	0.4	166.1
FtSumner Irrig Div	0.0	3.3	5.0	5.6	5.9	5.1	5.1	5.5	5.0	3.8	0.0	0.0	44.2
Ft Sumner ID Return	0.9	0.7	1.6	1.9	2.8	2.8	2.8	2.8	2.6	2.3	1.2	0.9	23.4
Flow past FS IDist	2.6	20.3	2.3	2.6	36.5	3.4	36.0	33.5	2.8	2.3	1.7	1.4	145.4
Channel loss	0.2	1.3	0.6	1.4	5.4	1.3	5.6	4.3	0.9	0.8	0.7	0.2	22.6
Residual Flow	2.4	19.1	1.7	1.2	31.1	2.0	30.4	29.2	2.0	1.5	1.0	1.2	122.7
Base Inflow	3.6	3.5	3.4	2.5	1.7	2.0	2.0	2.5	2.1	1.8	3.4	3.4	32.0
River Pump Divers	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.4	0.1	0.0	0.0	0.0	1.5
Residual, Artesia	6.0	22.6	5.0	3.5	32.6	3.8	32.1	31.4	4.0	3.3	4.4	4.6	153.2
Pecos Flow Artesia	5.7	23.3	7.2	4.5	28.2	4.5	20.7	29.2	4.2	8.3	7.7	5.0	148.3
Flood Inflow, AD-Art	-0.3	0.7	2.2	1.0	-4.4	0.7	-11.4	-2.1	0.3	4.9	3.3	0.3	-4.9

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 2000 (B.4)

6/23/01

	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	0.0
Fourmile Draw nr Lakew*						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	0.1
Rocky Arroyo at Hwy Br	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.0	1.4
Flood Inflow, Art-DS3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.8	0.6	0.0	1.5
Pecos R at Dam Site 3	0.6	3.2	8.6	14.3	17.3	10.5	24.1	13.3	10.9	12.4	5.1	1.6	122.0
CB Sprgs New Water, T7	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-10.5
Total Inflow, DS3 - CB	-0.2	2.4	7.7	13.5	16.4	9.6	23.2	12.5	10.0	11.6	4.3	0.7	111.5
Evap Loss, Lake Avalon, T10	0.0	0.2	0.4	0.5	0.7	0.5	0.6	0.6	0.5	0.2	0.2	0.2	4.7
Storage Chg, Lake Aval, T11	0.2	0.9	-0.1	0.2	-0.2	0.1	0.1	0.1	-0.2	0.1	0.7	0.4	2.5
Carls ID diversions	0.0	1.7	4.9	14.1	16.9	9.3	14.3	12.1	9.8	6.1	0.0	0.0	89.2
93% CID diver	0.0	1.6	4.5	13.1	15.7	8.6	13.3	11.3	9.1	5.7	0.0	0.0	82.9
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	0.0	0.0	0.0	0.0	0.0
Pecos b Dark Canyon	0.8	0.7	0.7	0.7	0.5	0.9	7.7	0.7	0.6	7.2	5.2	1.2	26.9
Pecos R at Carlsbad	0.8	0.7	0.7	0.7	0.5	0.9	7.7	0.7	0.6	7.2	5.2	1.2	26.9
Total Outflow	1.1	3.6	5.6	14.6	16.8	10.2	21.8	12.8	10.2	13.4	6.2	1.9	118.3
Flood Inflow, DS3-CB	1.3	1.2	-2.1	1.2	0.4	0.7	-1.4	0.4	0.2	1.8	1.9	1.2	6.8
Flood Inflow, Art-CB	1.3	1.2	-2.1	1.2	0.4	0.7	-1.4	0.4	0.2	2.6	2.6	1.2	8.3

*Missing values are assumed to be zero.

Table 4. Summary Table for Computations, Carlsbad to State Line - WY 2000

6/23/01

	BCB - RB RM	BCB - RB USGS	Del R USGS	DC
Jan	20	2	0	0
Feb	24	20	0	0
Mar	0	0	0	0
Apr	0	0	0	0
May	0	0	0	0
Jun	877	684	12	0
Jul	1035	1020	18	0
Aug	246	224	298	0
Sep	4	0	130	0
Oct	1048	968	94	0
Nov	611	0	12	0
Dec	0	14	0	0
Total	3865	2932	564	0

Summary of flood inflows, Carlsbad to State Line, TAF

Carlsbad - Red Bluff + Dark C	3.9
Delaware River (USGS Computation	0.6
Total Flood Inflow, Carlsbad to State Line	4.4

Table 5. Depletions Due to Irrigation Above Alamogordo Dam - WY 2000 (C.1.a)								
4/22/01								
	APR	MAY	JUN	JUL	AUG	SEPT	OCT	TOTAL
Precip Las Vegas FAA AP	1.20	0.20	2.40	2.20	1.80	0.37	4.70	12.87
Eff prec Las Veg FAA AP	1.15	0.20	2.14	1.99	1.66	0.36	3.69	11.19
Precip Pecos Natl Monument	0.72	0.16	2.04	4.12	1.84	0.00	3.89	12.77
Eff Precip Pecos RS	0.70	0.16	1.86	3.38	1.70	0.00	3.23	11.03
Precip Santa Rosa	0.38	0.53	5.35	1.63	1.47	0.12	4.14	13.62
Eff Precip Santa Ro	0.37	0.52	3.93	1.52	1.38	0.12	3.40	11.24
Average eff precip, ft	0.06	0.02	0.22	0.19	0.13	0.01	0.29	0.93
Consumptive use, ft	0.19	0.36	0.36	0.30	0.27	0.18	0.11	1.77
CU less eff precip, ft	0.13	0.34	0.14	0.11	0.14	0.17	0.00	1.02
Acres (most recent inventory)	11529							
Streamflow depletion, AF	11728							
1947 depletion, AF	10804							
Difference, TAF	-0.9							
Adjustment to Gaged Flow - Pecos River below Alamogordo Dam =						0.9		

Table 6. Depletions Due to Santa Rosa Reservoir Operations - WY 2000 - (C.1.b)

6/23/01

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
Lk Sumner ga ht, avg	57.05	54.94	47.63	51.08	50.72	53.69	51.47	46.10	40.10	41.12	51.18	53.72	49.90
LS content, AF, avg	33491	28677	15809	21260	20645	26070	21937	13727	7654	8442	21432	26130	
LS area, acres, avg	2392	2170	1447	1722	1694	2029	1751	1293	724	822	1729	2006	
LS evap, inches	4.75	6.47	8.46	12.48	16.52	14.11	14.49	14.09	11.44	9.78	3.00	2.48	118.07
.77 LS Evap	3.66	4.98	6.51	9.61	12.72	10.86	11.16	10.85	8.81	7.53	2.31	1.91	90.91
LS Precip, inches	0.00	0.00	1.37	0.68	0.10	3.07	1.42	0.21	0.03	5.32	0.24	0.67	13.11
Net LS Evap, inches	3.66	4.98	5.14	8.93	12.62	7.79	9.74	10.64	8.78	2.21	2.07	1.24	77.80
LSum Evaploss, TAF	0.73	0.90	0.62	1.28	1.78	1.32	1.42	1.15	0.53	0.15	0.30	0.21	10.38
L S Rosa ga ht, avg	45.02	45.31	45.32	43.13	35.54	29.02	24.16	5.99	85.68	88.53	1.87	3.57	37.76
LSR content, AF, avg	97145	98211	98247	90396	66301	49608	39245	14143	3373	4162	10847	12147	
LSR area, acres, avg	3658	3688	3689	3481	2825	2314	1975	853	259	298	734	796	.
LSR evap, inches	3.72	5.16	8.58	9.61	13.42	11.14	10.49	9.95	10.05	5.22	4.33	3.76	95.43
.77 LSR Evap	2.86	3.97	6.61	7.40	10.33	8.58	8.08	7.66	7.74	4.02	3.33	2.90	73.48
LSR precip, inches	0.00	0.00	1.89	0.35	0.17	4.71	2.35	1.80	0.18	4.04	0.92	0.89	17.30
Net LSR Evap, inches	2.86	3.97	4.72	7.05	10.16	3.87	5.73	5.86	7.56	-0.02	2.41	2.01	56.18
LSR Evaploss, TAF	0.87	1.22	1.45	2.05	2.39	0.75	0.94	0.42	0.16	0.00	0.15	0.13	10.53
Total evaploss, TAF	1.60	2.12	2.07	3.33	4.17	2.06	2.36	1.56	0.69	0.15	0.45	0.34	20.92
Sum contents, AF	130636	126888	114056	111656	86946	75678	61182	27870	11027	12604	32279	38277	
1947 area, acres	4600	4514	4153	4094	3436	3160	2796	1474	800	800	1618	1877	
1947 evaploss, TAF	1.40	1.87	1.78	3.05	3.61	2.05	2.27	1.31	0.59	0.15	0.28	0.19	18.55
current-1947evaploss	0.20	0.25	0.29	0.28	0.56	0.01	0.09	0.26	0.11	0.00	0.17	0.15	2.36
						Annual adjustment for excess evaporation =							2.4

ADJUSTMENT FOR EXCESSIVE STORAGE IN SANTA ROSA RESERVOIR

			1999 Gage	1999 Storage	2000 Gage	2000 Storage
EndYear Sumner Sto			4256.53	32262	4254.91	28612
EndYear S R Sto			4744.95	96890	4704.22	12670
Sum				129152		41282
Sto Adjustment, AF						0
Adjustm Ex Evap, TAF						2.4
Total Adjustment,TAF						2.4

Table 7. Carlsbad Springs New Water WY 2000 - (B.4.c)					
6/23/01					
		TAF	cfs	Totals	
Pecos R bel DC, cfs		26.9	37.2	37.2	
Dark Canyon, cfs		0	0.0	0.0	
Pecos R bel Lake Av,		20.0	27.6	27.6	
Depletion, cfs				2.0	
CID lag seep, cfs (Table 8)				9.1	
Return flow, cfs				1.0	
Lake Av lagged seep, cfs (Table 9)				12.9	
PR seepage, cfs				3.0	
Carls new water, cfs				-14.5	
Carls new wat, TAF				-10.5	
Carls new wat monthly, TAF				-0.9	

Table 8. Carlsbad Main Canal Seepage Lagged - WY 2000 - [B.4.c.(1)(e)]													
4/22/01													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
WY 2000													
CID, TAF	0.0	1.7	4.9	14.1	16.9	9.3	14.3	12.1	9.8	6.1	0.0	0.0	89.2
days/mo	31	29	31	30	31	30	31	31	30	31	30	31	366
cfs	0.0	30.1	79.5	236.6	274.0	155.6	232.7	197.3	164.9	99.7	0.0	0.0	122.5
cfs, qtr avg			36.7			222.7			198.6			33.6	
1999		1Q	2Q	3Q	4Q								
FLOWS, cfs				236.3	73.3								
SEVEN %				16.5	5.1								
2000		1Q	2Q	3Q	4Q								
FLOWS, cfs		36.7	222.7	198.6	33.6								
SEVEN %		2.6	15.6	13.9	2.4								
LAG		5.8	9.5	12.6	8.4	Avg =	9.1	cfs					

Table 9. Lake Avalon Leakage Lagged - WY 2000 - B.4.c.(1)(g)													
6/23/01													
WY 2000	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
ga ht, avg	13.36	15.41	16.26	15.79	15.87	16.10	16.18	16.15	16.10	16.22	16.80	17.63	
cfs	1.9	11.7	15.7	13.5	13.9	15.0	15.3	15.2	15.0	15.5	18.3	22.3	
days	31	29	31	30	31	30	31	31	30	31	30	31	365
cfs avg	9.8			14.1			15.2			18.7			14.4
1999		1Q	2Q	3Q	4Q								
cfs				14.5	6.0								
2000		1Q	2Q	3Q	4Q								
cfs		9.8	14.1	15.2	18.7								
lag cfs		9.3	11.3	13.9	16.8	Avg =	12.9	cfs					

Table 10. Evaporation Loss at Lake Avalon - WY 2000													
4/22/01													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
Avalon ga ht, avg, ft	13.36	15.41	16.26	15.79	15.87	16.10	16.18	16.15	16.10	16.22	16.80	17.63	
Avg area Avalon, ac.	111	579	628	600	605	618	623	621	618	625	660	713	
Panevap Brantley, in.	4.93	5.80	10.30	13.22	18.09	17.20	15.56	15.60	13.56	8.71	7.96	4.49	135.42
Lakeevap Brantley, in.	3.80	4.47	7.93	10.18	13.93	13.24	11.98	12.01	10.44	6.71	6.13	3.46	104.27
Precip Brantley, in.	0.28	0.00	0.15	0.11	0.00	3.43	0.33	0.65	0.21	2.51	3.16	0.15	10.98
Netevap, inches	3.52	4.47	7.78	10.07	13.93	9.81	11.65	11.36	10.23	4.20	2.97	3.31	93.29
Evaploss Av, TAF	0.0	0.2	0.4	0.5	0.7	0.5	0.6	0.6	0.5	0.2	0.2	0.2	4.7

Table 11. Change in Storage, Lake Avalon - 2000														
(Gage heights are end of month)														
4/22/01														
	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
	1999	2000												
Gage EOM, ft	12.9	14.20	16.00	15.80	16.20	15.90	16.10	16.20	16.40	16.10	16.30	17.40	18.00	
Storage, AF	21	219	1147	1026	1271	1086	1209	1271	1397	1209	1333	2063	2494	
Change sto, TAF		0.2	0.9	-0.1	0.2	-0.2	0.1	0.1	0.1	-0.2	0.1	0.7	0.4	2.5

Table 12. Data Required for River Master Manual Calculations, Water Year 2000													
6/23/01													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
STREAMFLOW GAGING RECORDS, TAF													
Pecos R b Sumner Dam	1.7	22.9	5.7	6.4	39.5	5.7	38.2	36.2	5.2	3.7	0.5	0.4	166.1
Fort Sumner Main C	0.0	3.3	5.0	5.6	5.9	5.1	5.1	5.5	5.0	3.8	0.0	0.0	44.2
Pecos R nr Artesia	5.7	23.3	7.2	4.5	28.2	4.5	20.7	29.2	4.2	8.3	7.7	5.0	148.3
Rio Penasco at Dayton*						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fourmile Draw nr Lakewood						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	0.1
Rocky Arroyo at Hwy Br nr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.0	1.4
Pecos R at Dam Site 3	0.6	3.2	8.6	14.3	17.3	10.5	24.1	13.3	10.9	12.4	5.1	1.6	122.0
Pecos bel Avalon Dam	0.2	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	7.2	4.8	0.4	20.0
Carlsbad Main Canal	0.0	1.7	4.9	14.1	16.9	9.3	14.3	12.1	9.8	6.1	0.0	0.0	89.2
Dark Canyon at Carlsbad	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
Pecos below Dark Canyon	0.8	0.7	0.7	0.7	0.5	0.9	7.7	0.7	0.6	7.2	5.2	1.2	26.9
Pecos R at Red Bluff	3.5	3.3	3.4	2.5	2.4	3.7	9.9	2.9	2.5	10.2	9.3	4.7	58.2
Delaware R nr Red Bluff	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.0	0.1	1.0
*out of service for part of year - assumed zero where no data is shown													
GAGE HEIGHTS													
Avalon gage ht, end mo	14.20	16.00	15.80	16.20	15.90	16.10	16.20	16.40	16.10	16.30	17.40	18.00	
Avalon gage ht, avg	13.36	15.41	16.26	15.79	15.87	16.10	16.18	16.15	16.10	16.22	16.80	17.63	
Alamogordo ga ht, end mo	57.71	48.05	47.67	54.59	53.12	53.83	48.33	41.48	38.78	49.62	52.49	54.91	
Alamogordo gage ht, avg	57.05	54.94	47.63	51.08	50.72	53.69	51.47	46.10	40.10	41.12	51.18	53.72	
Lake S Rosa ga ht, end mo	45.14	45.24	45.48	41.05	28.55	29.57	20.16	84.94	87.05	98.95	2.91	4.22	
Lake S Rosa ga ht, avg	45.02	45.31	45.32	43.13	35.54	29.02	24.16	5.99	85.68	88.53	1.87	3.57	
PRECIPITATION, INCHES													
Brantley Lake	0.28	0.00	0.15	0.11	0.00	3.43	0.33	0.65	0.21	2.51	3.16	0.15	10.98
Las Vegas FAA AP	0.11	0.00	1.18	1.20	0.20	2.40	2.20	1.80	0.37	4.70	0.63	0.22	15.01
Pecos National Monument	0.00	0.33	0.29	0.72	0.16	2.04	4.12	1.84	0.00	3.89	1.59	1.18	16.16
Santa Rosa	0.00	0.00	2.19	0.38	0.53	5.35	1.63	1.47	0.12	4.14	0.99	0.77	17.57
Lake Santa Rosa	0.00	0.00	1.89	0.35	0.17	4.71	2.35	1.80	0.18	4.04	0.92	0.89	17.30
Sumner Lake	0.00	0.00	1.37	0.68	0.10	3.07	1.42	0.21	0.03	5.32	0.24	0.67	13.11
PAN EVAPORATION, INCHES													
Lake Santa Rosa	3.72	5.16	8.58	9.61	13.42	11.14	10.49	9.95	10.05	5.22	4.33	3.76	95.43
Lake Sumner	4.75	6.47	8.46	12.48	16.52	14.11	14.49	14.09	11.44	9.78	3.00	2.48	118.07
Brantley Lake	4.93	5.80	10.30	13.22	18.09	17.20	15.56	15.60	13.56	8.71	7.96	4.49	135.42
OTHER REPORTS													
Base Acme-Art, TAF (USGS)	3.6	3.5	3.4	2.5	1.7	2.0	2.0	2.5	2.1	1.8	3.4	3.4	32.0
Pump depl Ac-Artesia, TAF	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.4	0.1	0.0	0.0	0.0	1.5
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 2001

NEW MEXICO'S OBJECTIONS

1. Flood Inflow, Carlsbad to Stateline. New Mexico objected to several aspects of the flood flow scalping methods and results contained in the Preliminary Report. New Mexico's final result was a flood inflow of 3,958 acre–foot, compared to the Preliminary Report's 3,671 acre–feet.

For the period March 20 to April 8, NM's objection is about judgment in determining hydrograph recession curves and in counting negative flood inflows. The quantities for this period are very small, and judgment in setting base flow levels is the main issue. The seemingly–negative flood inflow for April probably also results from lack of sufficient accuracy in data to determine base flows. NM's objection for this period is rejected because the flood inflows are not significant and lack of more accurate data prevents establishment of more precise base flows. The River Master noted NM's comment about October, but NM's results are about the same as the RM's, so no change is made. The River Master accepts NM's objection for August and has corrected Table 4 to reflect a flood inflow of 3.9 TAF.

2. The River Master accepts New Mexico's objection about errors in Table 6, Depletion Due to Santa Rosa Reservoir Operations. Corrections have been made. The RM could not check NM's value for December, and used the value shown in the revised Table 6.

3. The River Master accepts New Mexico's objection on Table 9, Lake Avalon Leakage Lagged, and has corrected the value.

4. The River master accepts New Mexico's objection on Table 12, and has corrected the data entries.

TEXAS'S OBJECTIONS

Texas objected to the USGS estimate of Base Inflow, Acme to Artesia, which was used by the River Master in the Preliminary Report. Texas reported that they had done a spreadsheet analysis, based on linear interpolation, and furnished two data tables and graphs. However, the RM could not follow all of Texas's computations. Texas did not provide a detailed summary of the base flow results or a revision of Table 2, so that its computations could be checked fully against USGS's computations. In any event, Texas's results only differed by 0.1 TAF from USGS's. Based on lack of enough detail to fully evaluate Texas's method and the insignificant difference in the results, the River Master rejects Texas's objection.

FINAL CALCULATED DEPARTURE.

The Preliminary Report's Final Calculated Departure was –12.9 TAF. New Mexico arrived at –12.3 TAF and Texas at –13.0 TAF. After considering the states' objections, the Final Determination is –12.3 TAF.