

PECOS RIVER COMPACT

Report of the River Master

Water Year 2009

Accounting Year 2010

Final Report

June 28, 2010

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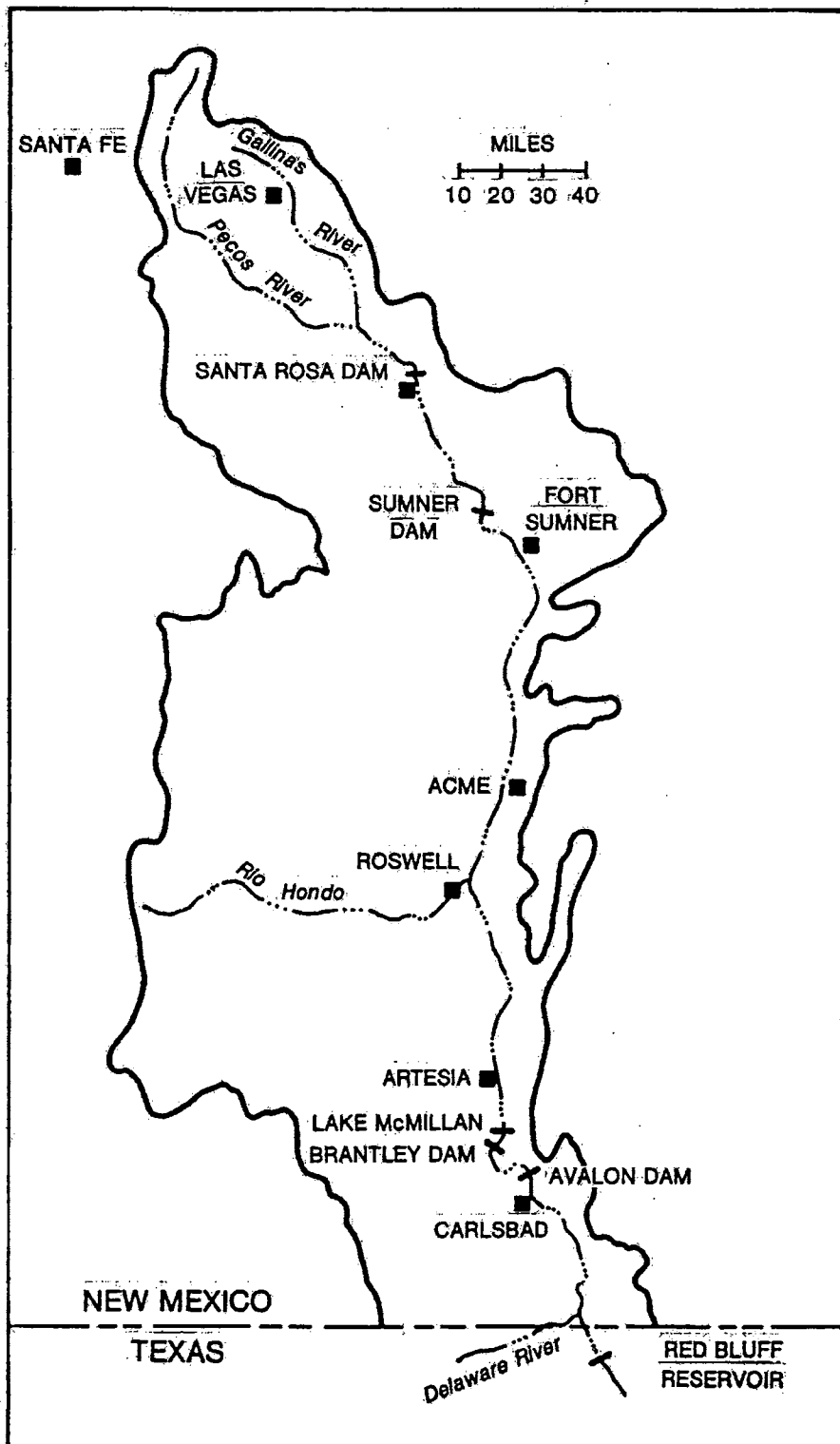
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Map of Pecos River Basin Showing Accounting Reaches

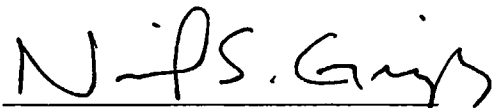
PECOS RIVER COMPACT
Supreme Court of the United States
No. 65, Original
Amended Decree

Final Report of the River Master
Water Year 2009 - Accounting Year 2010
June 28, 2010

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 2008 was an overage of 1,600 acre-feet. The accumulated overage since the beginning of Water Year 1987 is 101,100 acre-feet.



Neil S. Grigg
River Master of the Pecos River

Pecos River Compact		
Accumulated Shortfall or Overage		
	June 28, 2010	
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
2007	25,200	92,500
2008	6,000	98,500
2009	1,600	100,100

Table 1. General Calculation of Annual Departures, TAF, WY 2009			
6/28/2010			
	WY 2007	WY 2008	WY 2009
B.1.a. Index Inflows			
(1) Annual flood inflow			
(a) Gaged flow Pecos R bel Alamogordo Dam	115.7	128.4	97.0
(b) Flood Inflow Alamogordo - Artesia (Table 2)	6.7	16.0	7.4
(c) Flood Inflow Artesia - Carlsbad (Table 3)	11.6	11.7	7.8
(d) Flood Inflow Carlsbad - State Line (Table 4)	9.5	3.4	12.5
Total (annual flood inflow)	143.5	159.5	124.7
(2) Index Inflow (3-year avg)			142.6
B.1.b. 1947 Condition Delivery Obligation (Index Outflow)			57.0
B.1.c. Average Historical (Gaged) Outflow			
(1) Annual historical outflow			
(a) Gaged Flow Pecos River at Red Bluff NM	67.5	58.0	44.0
(b) Gaged Flow Delaware River nr Red Bluff NM	4.0	1.6	2.7
(c) Metered diversions Permit 3254 into C-2713	0.0	0.0	0.0
Total Annual Historical Outflow	71.5	59.6	46.7
(2) Average Historical Outflow (3-yr average)			59.3
B.1.d. Annual Departure			2.3
C. Adjustments to Computed Departure			
1. Adjustments for Depletions above Alam Dam			
a. Depletions Due to Irrigation (Table 5)	-0.5	-0.4	0.0
b. Depl fr Operation of Santa Rosa Reservoir (Table 6)	3.6	3.0	3.4
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	118.8	131.0	100.4
(b) Flood Inflow Alamogordo - Artesia	6.7	16.0	7.4
(c) Flood Inflow Artesia - Carlsbad	11.6	11.7	7.8
(d) Flood Inflow Carlsbad - State Line	9.5	3.4	12.5
Total (annual flood inflow)	146.6	162.1	128.1
Recomputed Index Inflow (3-year avg)			145.6
Recomputed 1947 Condition Del Outflow (Index Outflow)			58.7
Recomputed Annual Departures			0.6
Credits to New Mexico			
C.2 Depletions Due to McMillan Dike			1.0
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			1.6

Table 2. Determination of Flood Inflows, Alamogordo Dam to Artesia (B.3), WY 2000													
5/11/2010													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
Flow bel Summer Dam	1.1	1.5	22.9	5.5	6.7	24.2	4.8	7.1	17.6	3.9	0.3	1.4	97.0
FtSumner Irrig Div	0.0	0.3	5.8	4.6	5.6	5.8	3.7	5.5	3.6	3.7	0.0	0.0	38.6
Ft Sumner ID Return	0.8	0.6	1.4	1.6	2.5	2.5	2.5	2.5	2.3	2.0	1.0	0.8	20.5
Flow past FS IDist	1.9	1.8	18.5	2.5	3.5	20.9	3.5	4.1	16.2	2.2	1.4	2.2	78.8
Channel loss	0.2	0.2	3.5	1.4	1.5	4.2	1.1	1.7	2.6	0.8	0.6	0.2	18.0
Residual Flow	1.7	1.6	15.0	1.1	2.0	16.7	2.4	2.3	13.7	1.5	0.7	2.0	60.8
Base Inflow	2.8	2.2	1.7	1.4	1.5	0.4	1.2	1.5	1.4	1.4	1.8	2.6	19.8
River Pump Divers	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.5
Residual, Artesia	4.6	3.8	16.6	2.3	3.4	17.1	3.6	3.8	15.0	2.8	2.5	4.5	80.1
Pecos Flow Artesia	4.7	3.8	15.1	5.3	3.1	3.6	23.0	4.7	13.2	3.7	3.2	4.3	87.6
Flood Inflow, AD-Art	0.2	-0.1	-1.5	2.9	-0.4	-13.5	19.4	0.9	-1.8	0.9	0.7	-0.3	7.4
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 2009 (B.4)

Table 4. Summary Table for Computations, Carlsbad to State Line - WY 2009 (B.5)

5/11/2010							
	BCB - RB	BCB - RB*	Del R	DC			
	RM	USGS	USGS				
Jan	0.0	0.1	0.0	0.0			
Feb	0.0	0.1	0.0	0.0			
Mar	0.0	0.2	0.0	0.0			
Apr	0.0	0.3	0.0	0.0			
May	0.3	0.5	0.1	0.0			
Jun	3.5	3.7	0.4	0.9			
Jul	3.7	3.9	0.9	0.0			
Aug	1.7	2.1	0.2	0.0			
Sep	0.4	0.8	0.0	0.0			
Oct	0.1	0.4	0.0	0.0			
Nov	0.0	0.2	0.0	0.0			
Dec	0.1	0.2	0.0	0.0			
Total	9.9	12.6	1.6	0.9			
Summary of flood inflows, Carlsbad to State Line, TAF							
Red Bluff - Carlsbad + Dark C RM calcs)					10.8		
Delaware River (USGS Computation					1.6		
Total Flood Inflow, Carlsbad to State Line					12.5		
* USGS calculations BCB-RB for comparison only							

Table 5. Depletions Due to Irrigation Above Sumner Dam - WY 2009 (C.1.a)										
	5/11/2010	APR	MAY	JUN	JUL	AUG	SEPT	OCT	TOTAL	
Precip Las Vegas FAA AP		0.66	1.07	1.34	4.34	0.83	1.91	1.25	11.40	
Eff prec Las Veg FAA AP		0.64	1.03	1.27	3.50	0.81	1.76	1.19	10.20	
Precip Pecos Natl Monument		0.85	0.43	1.28	4.23	0.70	6.49	2.19	16.17	
Eff Precip Pecos RS		0.83	0.42	1.20	3.45	0.68	4.10	1.98	12.66	
Precip Santa Rosa		0.29	0.98	1.29	2.62	1.06	0.74	0.63	7.61	
Eff Precip Santa Ro		0.28	0.95	1.22	2.31	1.02	0.72	0.62	7.12	
Average eff precip, ft		0.05	0.07	0.10	0.26	0.07	0.18	0.11	0.83	
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		0.14	0.29	0.26	0.04	0.20	0.00	0.00	0.94	
Acres (most recent inventory)		11529								
Streamflow depletion (actual use), AF		10837								
1947 depletion, AF		10804								
Difference (actual use - 1947 depletion), TAF		0.0								
Adjustment to Gaged Flow, Pecos River below Sumner Dam, TAF =							0.0			

Table 7. Carlsbad Springs New Water WY 2009 - (B.4.c)					
6/28/2010					
		TAF	AF/day	cfs	Totals
Pecos R bel DC		12.4	33.9	17.1	17.1
Dark Canyon		0.9	2.5	1.2	1.2
Pecos R bel Lake Av, cfs		0.1	0.3	0.1	0.1
Depletion, cfs					2.0
CID lag seep, cfs (from Table 8)					6.0
Return flow, cfs					1.0
Lake Av lagged seep, cfs (from Table 9)					18.2
PR seepage, cfs					3.0
Carls new water, cfs					-10.5
Carls new wat, TAF					-7.6
Carls new wat monthly, TAF					-0.6

Table 8. Carlsbad Main Canal Seepage Lagged - WY 2009 - [B.4.c.(1)(e)]													
5/11/2010	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
WY 2009													
CID, TAF	0.0	0.0	3.6	8.7	7.2	7.7	7.3	9.0	9.6	8.7	0.0	0.0	61.7
days/mo	31	28	31	30	31	30	31	31	30	31	30	31	365
cfs	0	0.0	57.9	145.7	116.4	129.4	118.1	146.2	161.3	141.8	0.0	0.0	84.7
cfs, qtr avg			19.9			130.4			141.7			47.8	
WY 2008		1Q	2Q	3Q	4Q								
FLows, cfs				133.2	50.1								
SEVEN %				9.3	3.5								
WY 2009 lagged		1Q	2Q	3Q	4Q								
FLows, cfs		19.9	130.4	141.7	47.8								
SEVEN %		1.4	9.1	9.9	3.3								
LAG		3.4	5.6	8.2	6.5	Avg =	6.0	cfs					

Table 9. Lake Avalon Leakage Lagged - WY 2009 - B.4.c.(1)(g)

Table 10. Evaporation Loss at Lake Avalon - WY 2009 - (B.4.f)

Table 11. Change in Storage, Lake Avalon - WY 2009 - (B.4.g)

5/11/2010													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
STREAMFLOW GAGING RECORDS, TAF													
Pecos R b Sumner Dam	1.1	1.5	22.9	5.5	6.7	24.2	4.8	7.1	17.6	3.9	0.3	1.4	97.0
Fort Sumner Main C	0.0	0.3	5.8	4.6	5.6	5.8	3.7	5.5	3.6	3.7	0.0	0.0	38.6
Pecos R nr Artesia	4.7	3.8	15.1	5.3	3.1	3.6	23.0	4.7	13.2	3.7	3.2	4.3	87.6
Rio Penasco at Dayton	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
Fournmile Draw nr Lakewood	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
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	0.0	0.0	0.0	0.0	0.0
Pecos R at Dam Site 3	1.6	1.3	3.2	9.8	7.6	9.2	8.5	10.5	10.6	9.6	1.2	1.4	74.5
Pecos bel Avalon Dam	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Carlsbad Main Canal	0.0	0.0	3.6	8.7	7.2	7.7	7.3	9.0	9.6	8.7	0.0	0.0	61.7
Dark Canyon at Carlsbad	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Pecos below Dark Canyon	0.9	1.1	1.3	0.7	0.6	1.4	1.1	0.8	1.1	1.2	1.1	1.1	12.4
Pecos R at Red Bluff	3.3	2.9	2.9	2.2	2.1	5.8	6.6	4.5	3.3	3.4	3.4	3.6	44.0
Delaware R nr Red Bluff	0.1	0.1	0.1	0.1	0.2	0.4	1.0	0.3	0.1	0.1	0.1	0.2	2.7
GAGE HEIGHTS													
Avalon gage ht, end mo	75.20	75.60	73.50	73.10	73.00	73.70	73.70	73.80	73.10	72.40	73.70	74.70	
Avalon gage ht, avg	74.94	75.46	75.22	73.04	73.15	73.21	73.14	73.46	73.16	72.88	73.09	74.27	
Sumner Lake ga ht, end mo	53.79	55.04	49.85	49.32	46.92	45.75	48.46	46.17	50.46	50.38	52.72	54.61	
Sumner Lake gage ht, avg	52.89	54.54	53.37	49.42	48.28	45.09	47.47	47.57	48.18	49.91	51.62	53.76	
Lake S Rosa ga ht, end mo	19.89	20.04	14.45	16.96	27.12	18.20	20.86	21.44	14.04	14.30	14.88	15.20	
Lake S Rosa ga ht, avg	19.76	19.99	17.89	15.21	22.93	26.41	19.53	21.41	16.25	14.07	14.66	15.04	
PRECIPITATION, INCHES													
Brantley Lake	0.00	0.00	0.12	0.00	0.64	0.91	4.51	0.27	1.63	1.82	0.13	1.41	11.44
Las Vegas FAA AP	0.15	0.06	0.21	0.66	1.07	1.34	4.34	0.83	1.91	1.25	0.13	0.29	12.24
Pecos National Monument	0.23	0.14	0.56	0.85	0.43	1.28	4.23	0.70	6.49	2.19	0.52	1.01	18.63
Santa Rosa	0.00	0.00	0.45	0.29	0.98	1.29	2.62	1.06	0.74	0.63	0.17	0.83	9.06
Lake Santa Rosa	0.00	0.20	0.55	0.24	0.63	2.27	3.09	1.02	1.46	0.50	0.13	0.57	10.66
Sumner Lake	0.00	0.00	0.66	0.45	0.59	2.80	1.82	1.62	3.08	0.95	0.50	1.44	13.91
PAN EVAPORATION, INCHES													
Lake Santa Rosa	3.72	4.98	8.58	9.49	10.58	11.29	12.1	11.03	7.17	6.44	4.88	3.76	94.02
Lake Sumner	5.61	7.04	9.99	12.61	13.65	15.40	13.57	14.08	8.89	7.76	5.87	1.79	116.26
Brant													

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL	
ORDS, TAF													
1.1	1.5	22.9	5.5	6.7	24.2	4.8	7.1	17.6	3.9	0.3	1.4	97.0	
0.0	0.3	5.8	4.6	5.6	5.8	3.7	5.5	3.6	3.7	0.0	0.0	38.6	
4.7	3.8	15.1	5.3	3.1	3.6	23.0	4.7	13.2	3.7	3.2	4.3	87.6	
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	
0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	
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	
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	
1.6	1.3	3.2	9.8	7.6	9.2	8.5	10.5	10.6	9.6	1.2	1.4	74.5	
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
0.0	0.0	3.6	8.7	7.2	7.7	7.3	9.0	9.6	8.7	0.0	0.0	61.7	
0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	
0.9	1.1	1.3	0.7	0.6	1.4	1.1	0.8	1.1	1.2	1.1	1.1	12.4	
3.3	2.9	2.9	2.2	2.1	5.8	6.6	4.5	3.3	3.4	3.4	3.6	44.0	
0.1	0.1	0.1	0.1	0.2	0.4	1.0	0.3	0.1	0.1	0.1	0.2	2.7	
75.20	75.60	73.50	73.10	73.00	73.70	73.70	73.80	73.10	72.40	73.70	74.70		
74.94	75.46	75.22	73.04	73.15	73.21	73.14	73.46	73.16	72.88	73.09	74.27		
53.79	55.04	49.85	49.32	46.92	45.75	48.46	46.17	50.46	50.38	52.72	54.61		
52.89	54.54	53.37	49.42	48.28	45.09	47.47	47.57	48.18	49.91	51.62	53.76		
19.89	20.04	14.45	16.96	27.12	18.20	20.86	21.44	14.04	14.30	14.88	15.20		
19.76	19.99	17.89	15.21	22.93	26.41	19.53	21.41	16.25	14.07	14.66	15.04		
0.00	0.00	0.12	0.00	0.64	0.91	4.51	0.27	1.63	1.82	0.13	1.41	11.44	
0.15	0.06	0.21	0.66	1.07	1.34	4.34	0.83	1.91	1.25	0.13	0.29	12.24	
0.23	0.14	0.56	0.85	0.43	1.28	4.23	0.70	6.49	2.19	0.52	1.01	18.63	
0.00	0.00	0.45	0.29	0.98	1.29	2.62	1.06	0.74	0.63	0.17	0.83	9.06	
0.00	0.20	0.55	0.24	0.63	2.27	3.09	1.02	1.46	0.50	0.13	0.57	10.66	
0.00	0.00	0.66	0.45	0.59	2.80	1.82	1.62	3.08	0.95	0.50	1.44	13.91	
3.72	4.98	8.58	9.49	10.58	11.29	12.1	11.03	7.17	6.44	4.88	3.76	94.02	
5.61	7.04	9.99	12.61	13.65	15.40	13.57	14.08	8.89	7.76	5.87	1.79	116.26	
4.65	5.60	10.09	13.38	13.06	15.39	14.24	11.63	9.07	7				

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Lake Santa Rosa	3.72	4.98	8.58	9.49	10.58	11.29	12.1	11.03	7.17	6.44	4.88	3.76	94.02
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[illegible]

Base Acme-Art, TAF (USGS)	2.8	2.2	1.7	1.4	1.5	0.4	1.2	1.5	1.4	1.4	1.8	2.6	19.8
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[illegible]

APPENDIX

RIVER MASTER'S RESPONSE TO STATES' OBJECTIONS

RESPONSE TO STATES' OBJECTIONS

Final Report, Accounting Year 2010

NEW MEXICO'S OBJECTIONS

1. Table 2. Determination of Flood Inflows, Alamogordo Dam to Artesia WY 2009 [B.3.]:

New Mexico objected to the USGS calculation of base inflow, Acme-to Artesia plus pumping. The quantitative basis for New Mexico's objections can be seen on a comparative plot between her scalping estimates and those of USGS (attached). The plot is from a photocopy of New Mexico's graphical display with approximate values of USGS's estimates superimposed with dashed lines. The monthly differences between the USGS and New Mexico's estimates can be visualized from the comparative graph. In every month except September, New Mexico's estimates are greater than those of USGS. Each procedure (USGS and NM) follows the hydrologic assumptions made by the analyst and arguments can be made for the validity of each one separately. Differing approaches among analysts were evident in the resolution of New Mexico's Amended First Motion, which led to the current procedure for base inflow estimation.

To ascertain the main reasons for the differences between USGS and NM estimates, the River Master examined the period of the greatest differences (March–April), where there is a clear difference between USGS and New Mexico's base inflow estimates. To test whether the USGS procedure might under-estimate the base inflow, the River Master made an independent analysis of the March-April base flows (see dotted lines) and arrived at a value close to that of USGS, in spite of the different assumptions. The River Master concluded that New Mexico's higher values for that period are caused by drawing the base flow lines close to the streamflow lines (see Artesia plus pumping in late April), and this explains New Mexico's estimate of base inflow being 0.9 TAF higher than the USGS estimate for March through April. In several other cases, differences are caused by New Mexico's practice to scalp hydrographs at successive low points of the streamflow lines (see early May at the Artesia plus pumping record). The net effect tends to increase the total base inflow estimated by New Mexico, resulting in an annual difference of 2.4 TAF. On the basis of the differences noted, the River Master finds no reason to replace the USGS estimate and New Mexico's objection is rejected.

2. Table 9. Lake Avalon Leakage Lagged - WY 2009 – [B.4.c.(1)(g)]:

New Mexico found a computational error in the lagged flow for the first quarter due to the leap year value used. The River Master accepts New Mexico's objection and a revised table is included in the Final Report. When the Carlsbad Springs New Water value (Table 7) is copied into Table 3, it changes the flood inflow by 0.1 TAF as shown in the revised table.

TEXAS'S OBJECTIONS

1. Table 2. Determination of Flood Inflows, Alamogordo Dam to Artesia WY 2009 [B.3.]:

Texas objected about values in the table that differed due to rounding from its calculations. The River Master's spreadsheet uses standard rounding methods embedded in the software but the calculations carry the precision of more decimal points ahead and do not depend on the rounding. It is the River Master's judgment that any such differences will be de minimis and will average out fairly for either state. The objection is rejected.

2. Table 3. Determination of flood inflows, Artesia to Carlsbad. WY 2010 [B.4.]:

The objection is rejected for the same reason as above.

3. Table 4. Determination of flood Inflows, Carlsbad - State Line WY 2009 [B.5.]:

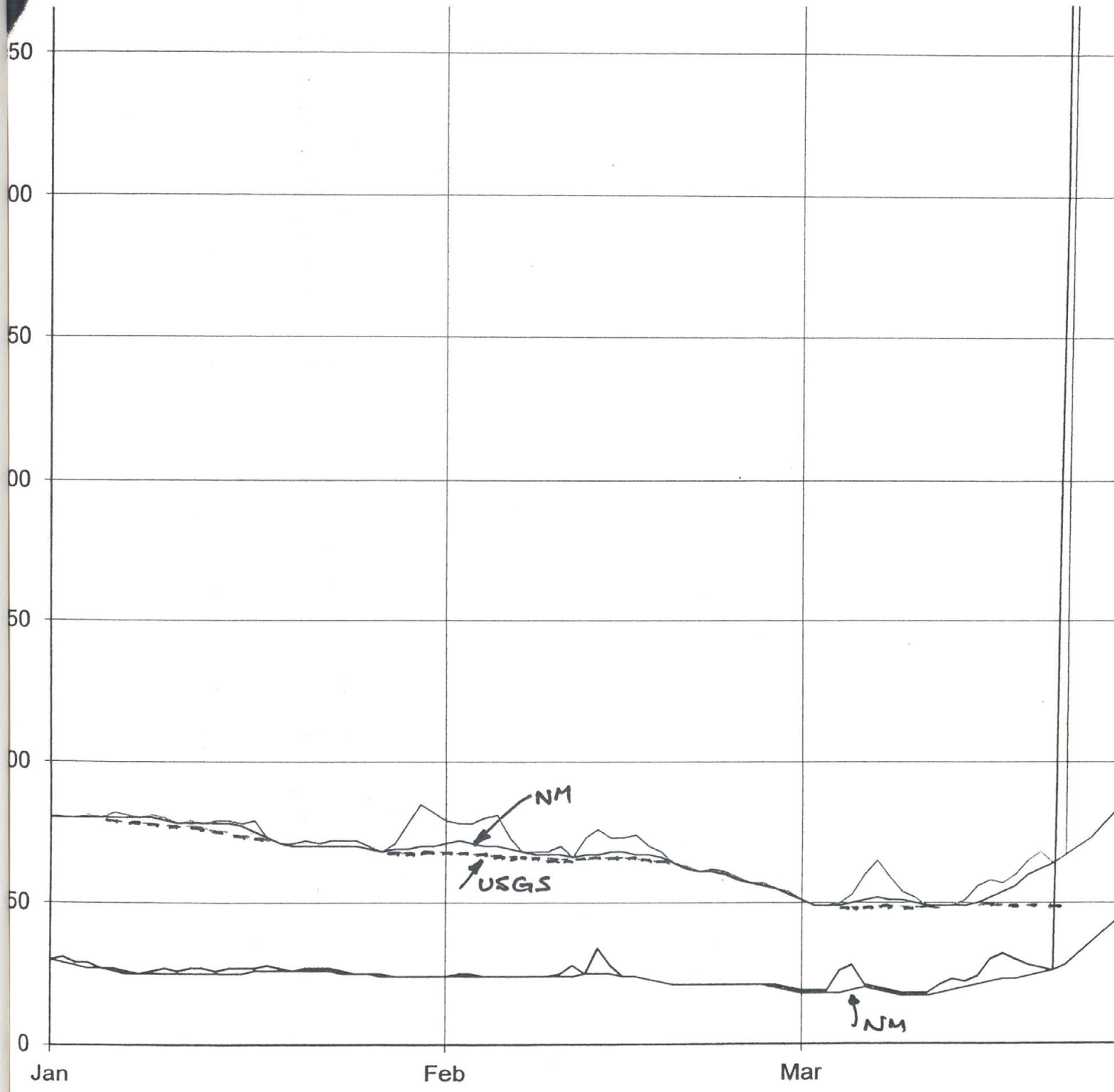
Texas recomputed the flood inflows for Carlsbad-State Line and agreed with the USGS estimates. The objection is rejected because the USGS estimate accounts for flood inflow at periods that are well past the rainfall events. For example, according to Texas' graphical display, USGS scalped flood inflow at Red Bluff for the period beginning January 1 and continuing through the subsequent periods of no rain. The River Master's Manual procedure is based on historical accounting methods which consider event-based runoff quantities. Groundwater is a factor, but the rises and recessions in this reach are of short duration and do not justify extending the periods of runoff for more than a few days for minor events.

4. Table 12. Data Required for River Master Manual Calculations, WY 2009:

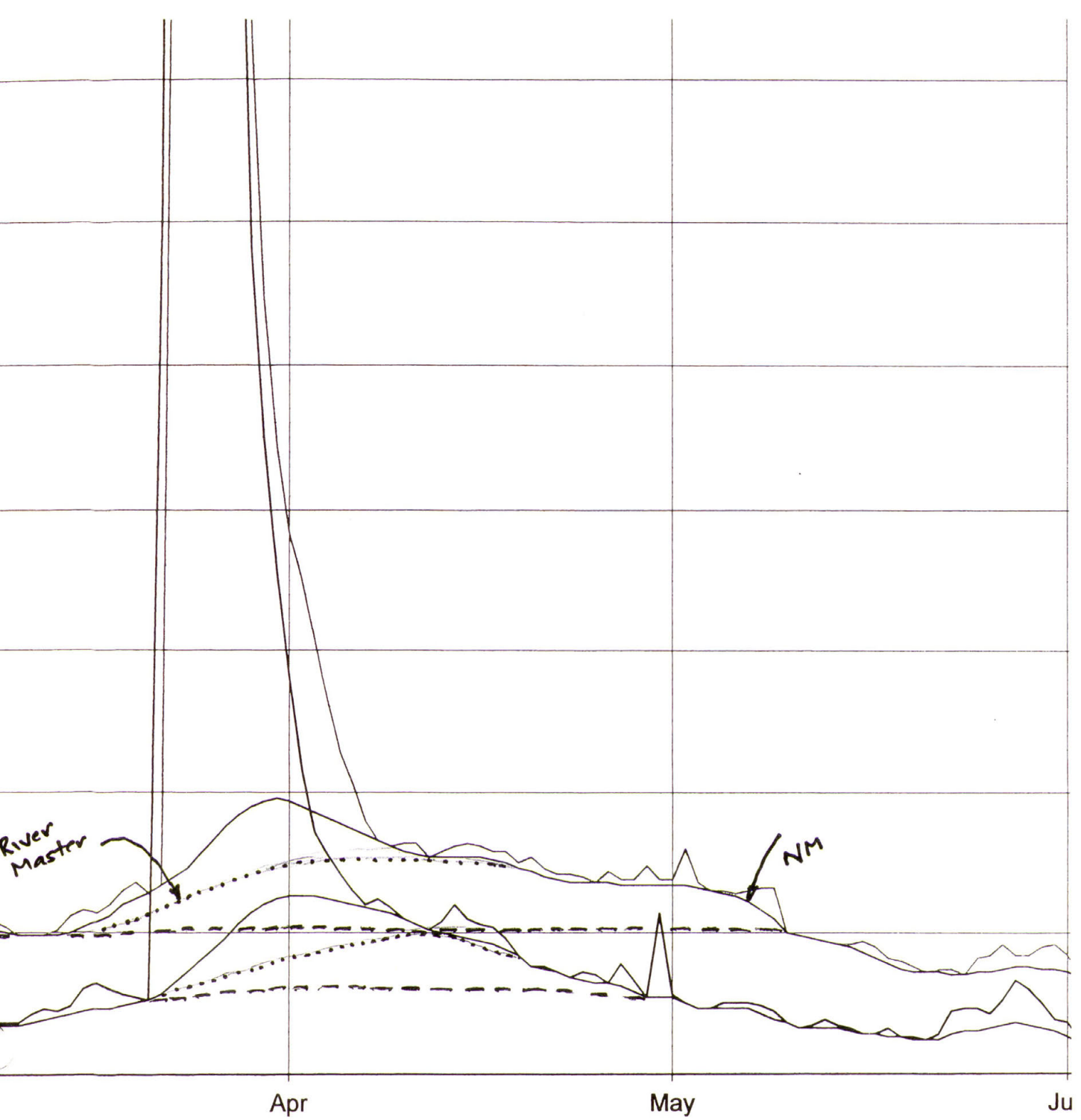
Texas objected to computations in Table 12 and presented changes. The River Master takes the data from USGS records, which are based on cfs-days and computed to acre-feet. In the case of the gage at Pecos River Near Artesia, USGS reported a total of 87,550 acre-feet, which rounds to 87.6 TAF as shown in the Preliminary Report. Texas apparently used rounded monthly values and computed 87.7 TAF, which differs slightly from the official USGS total. Texas apparently used the same approach on all of the values shown in bold in her objections. The objection is rejected.

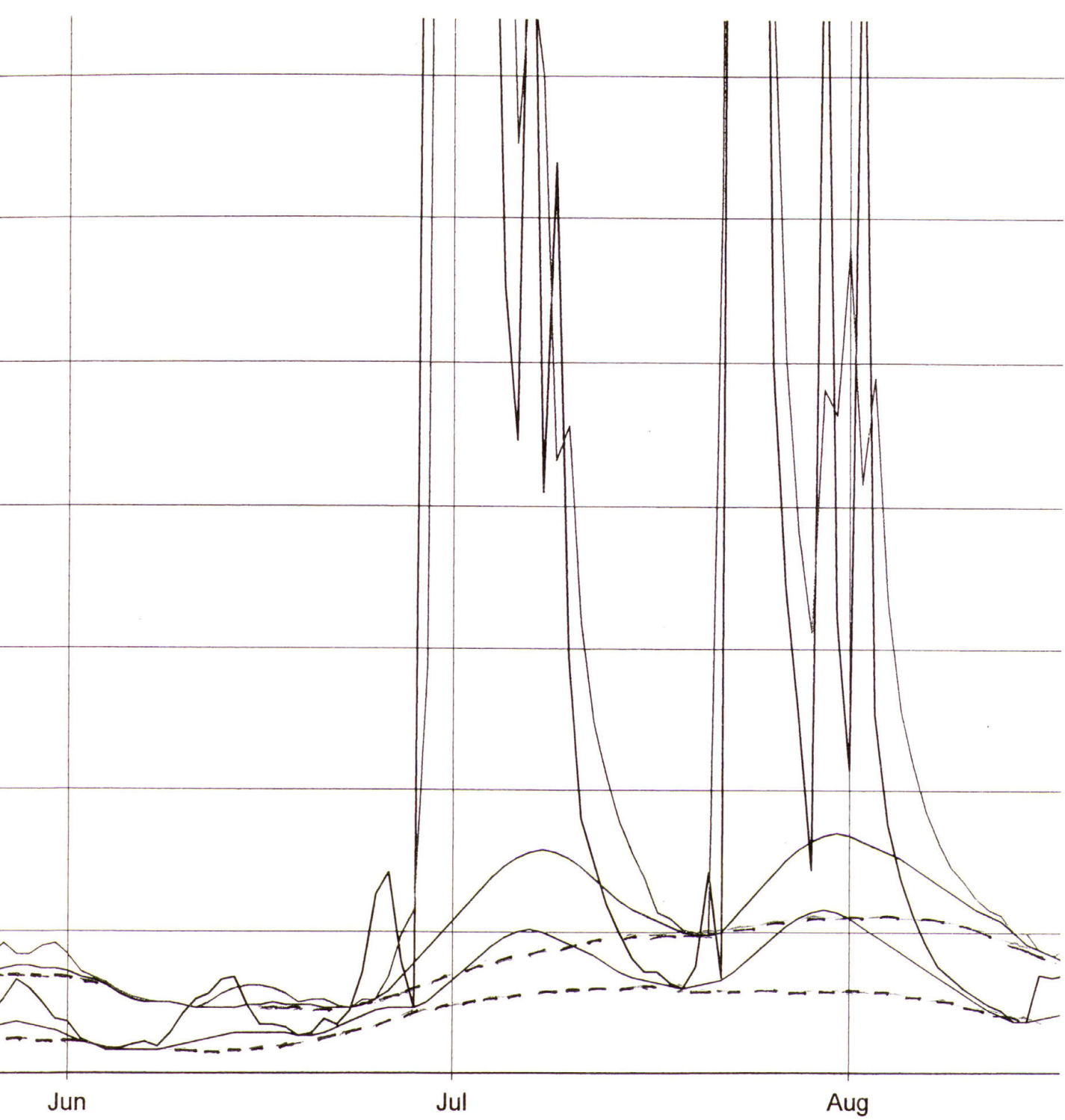
FINAL CALCULATED DEPARTURE

The Preliminary Report's Final Calculated Departure was an overage of 1.6 TAF. After considering the states' objections, the Final Determination is an overage of 1.6 TAF.



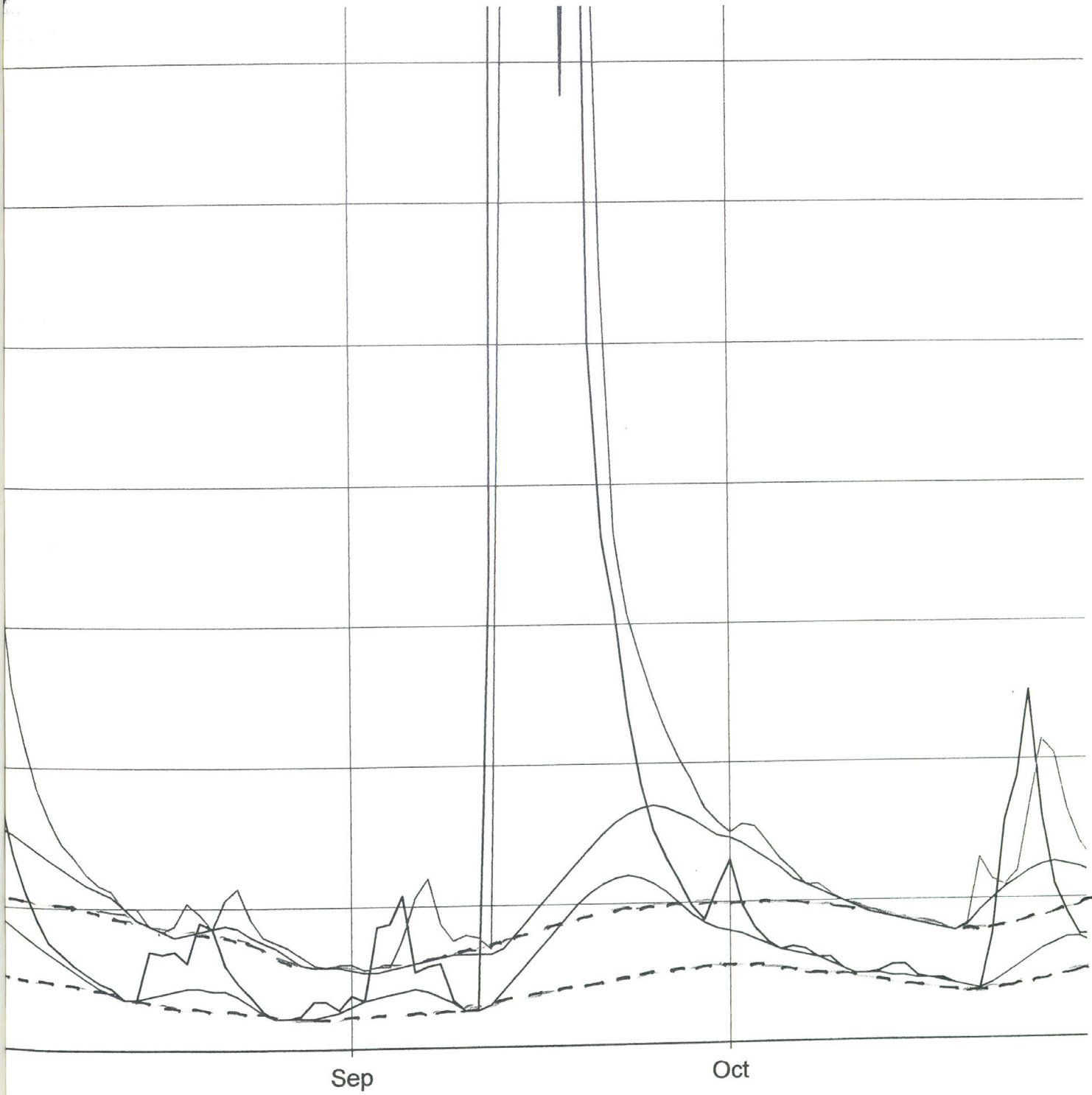
USGS ----
NM scalping as shown



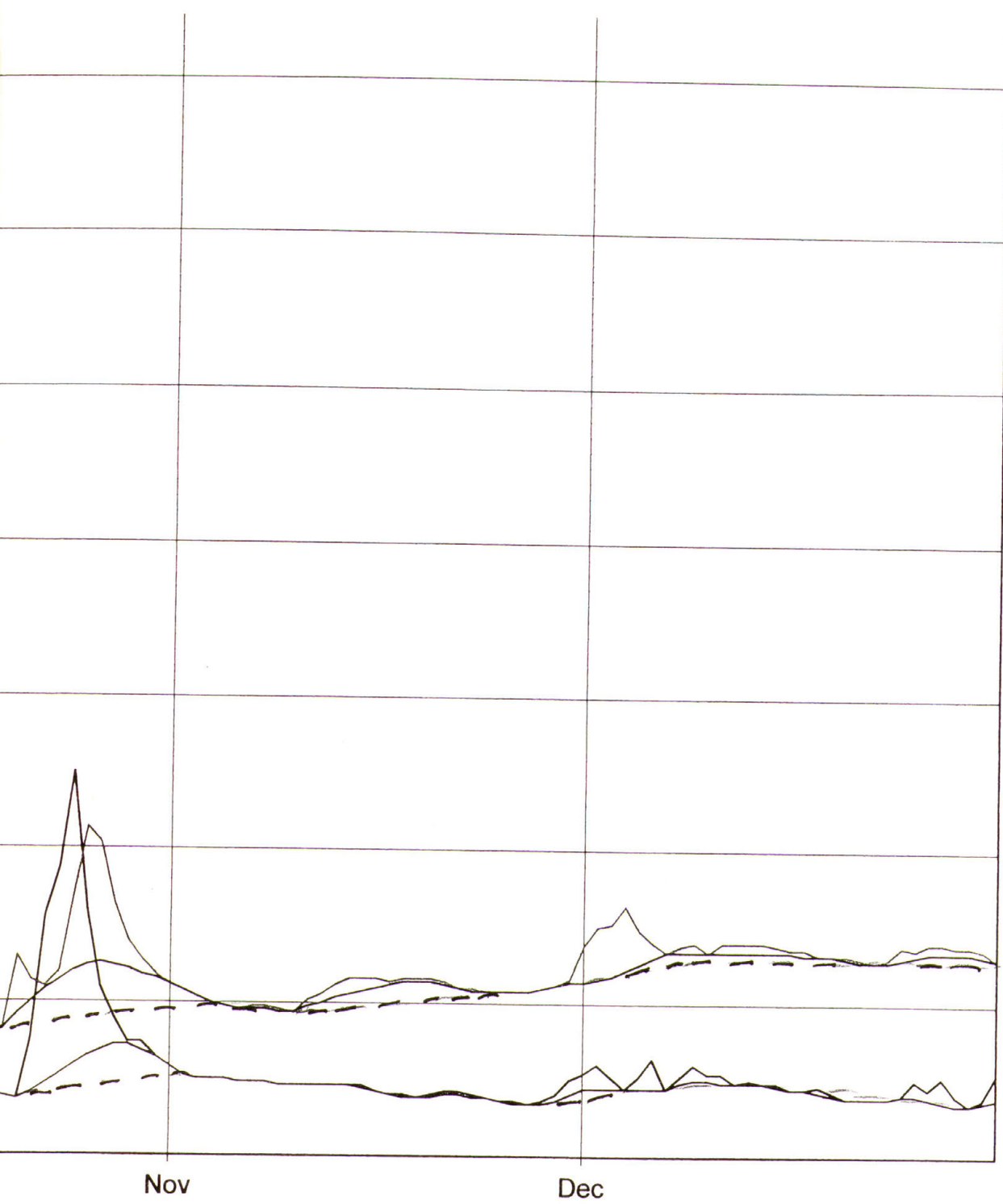


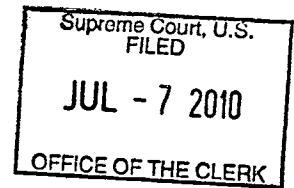
Month

he w/ one day forward lag (cfs) — Artesia plus Pumping (cfs) — Artesia Base Flow (cfs) — Acme Base Flow (cfs)



Flow (cfs)





PECOS RIVER COMPACT

Report of the River Master

Water Year 2009

Accounting Year 2010

Final Report

June 28, 2010

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