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PECOS RIVER COMPACT

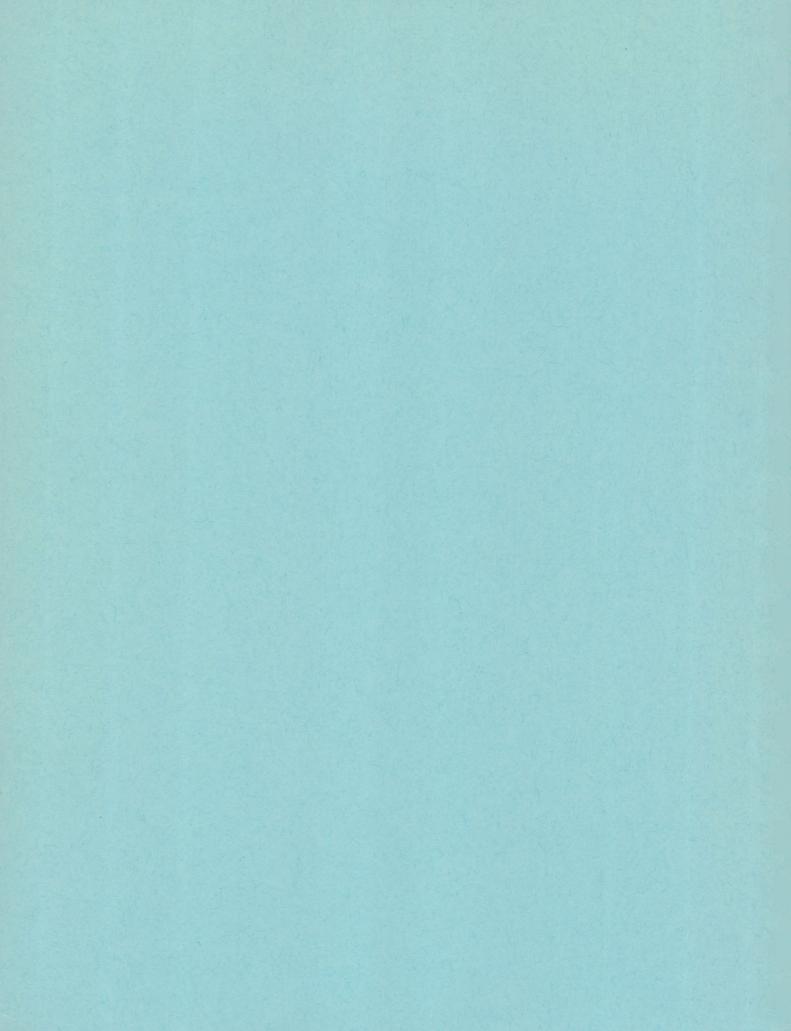
Report of the River Master

Water Year 2016

Accounting Year 2017

Final Report

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



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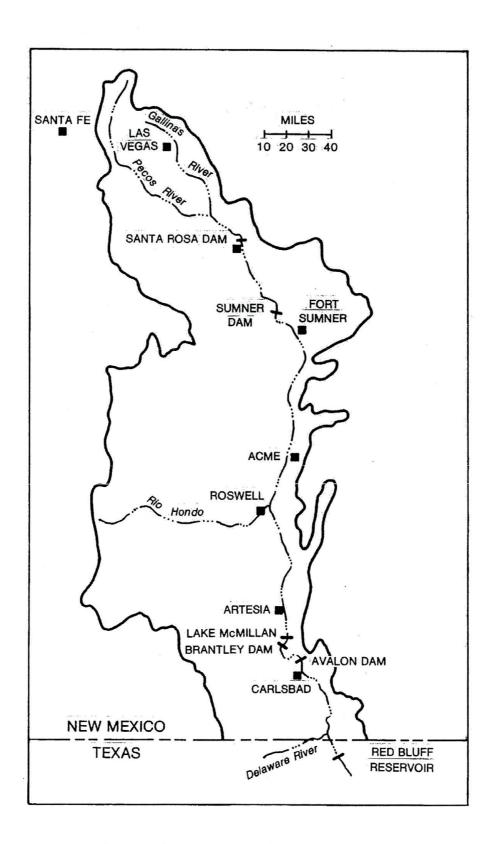
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Map of Pecos River Basin Showing Accounting Reaches

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

Final Report of the River Master Water Year 2015 - Accounting Year 2016 June 28, 2017

<u>Purpose of the Report</u>. 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 2016 was an overage of 28,400 acre-feet. The accumulated overage since the beginning of Water Year 1987 is 137,900 acre-feet.

Neil S. Grigg

River Master of the Pecos River

	Pecos River Compact	
A	mulated Chartfall or Ou	
Accui	mulated Shortfall or Over June 28, 2017	erage
	June 20, 2017	
	Annual Overege or	Accumulated Overego or
\\\\-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Annual Overage or Shortfall, AF	Accumulated Overage or Shortfall, AF
Water Year	Shortiali, Ar	Shortan, 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
2010	-500	99,600
2011	500	100,100
2012	1,900	102,000
2013	-6,300	95,700
2014	1,900	97,600
2015	11,900	109,500
2015	28,400	137,900

Table 1. General Calculation of Annual Departures in TA			
Water Year	2016		
6/28/2017	1404 0044	1407 004E	1404 0040
B.1.a. Index Inflows	WY 2014	WY 2015	WY 2016
(1) Annual flood inflow			,
(a) Gaged flow Pecos R bel Alamogordo Dam	120.6	100.7	128.
(b) Flood Inflow Alamogordo - Artesia (Table 2)	57.3		
(c) Flood Inflow Artesia - Carlsbad (Table 3)	42.5		
(d) Flood Inflow Artesia - Carisbad (Table 3) (d) Flood Inflow Carlsbad - State Line (Table 4)	122.8		
Total (annual flood inflow)	343.2		
(2) Index Inflow (3-year avg)	343.2	130.0	210
(2) index fillow (3-year avg)	-		210
B.1.b. 1947 Condition Delivery Obligation			99
(Index Outflow)	-		33
(maex Outhow)	<u> </u>		
B.1.c. Average Historical (Gaged) Outflow			
(1) Annual historical outflow			ļ
(a) Gaged Flow Pecos River at Red Bluff NM	146.6	101.1	75
(b) Gaged Flow Delaware River nr Red Bluff NM	48.3		
(c) Metered diversions Permit 3254 into C-2713	0.2		
Total Annual Historical Outflow	195.1		
(2) Average Historical Outflow (3-yr average)	193.1	100.7	127
(2) Average Historical Outriow (5-yr average)		· · · · · · · · · · · · · · · · · · ·	121
B.1.d. Annual Departure			28
b. I.d. Almai Departure			20
C. Adjustments to Computed Departure			,
Adjustments for Depletions above Alam Dam			
a. Depletions Due to Irrigation (Table 5)	-0.2	-3.2	1
b. Depl fr Operation of Santa Rosa Reservoir (Table 6)	-1.7		
c. Transfer of Water Use to Upstream of AD	0	 	
o. Transfer of Water Ode to Operical of The	 		
Recomputed Index Inflows			
(1) Annual flood inflow			
(a) Gaged flow Pecos R bel Alamogordo Dam	118.7	114.2	123
(b) Flood Inflow Alamogordo - Artesia	57.3		
(c) Flood Inflow Artesia - Carlsbad	42.5		
(d) Flood Inflow Carlsbad - State Line	122.8		
Total (annual flood inflow)	341.3		
Recomputed Index Inflow (3-year avg)			213
, , , , , , , , , , , , , , , , , , , ,			
Recomputed 1947 Condition Del Outflow			100
(Index Outflow)			
Recomputed Annual Departures			26
Credits to New Mexico			
C.2 Depletions Due to McMillan Dike			1
C.3 Salvage Water Analysis			
C.4 Unappropriated Flood Waters			
C.5 Texas Water Stored in NM Reservoirs			
C.6 Beneficial C.U. Delaware River Water			-
	 	 	
Final Calculated Departure, TAF		 	28

Table 2. Determination		of Flood Inflows, Alamogordo Dam to Artesia (B.3)	/s, Alar	nogord	Dam (to Artes	ia (B.3						
Water Year	2016												
4/29/2017													
	JAN	FEB	MAR	APR	MAY	NOC	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
Flow bel Sumner Dam	1.9	4.1	7.2	10.3	20.5	17.2	20.4	34.6	4.7	6.0	0.5	1.2	128.6
FtSumner Irrig Div	0.0	0.0	5.8	5.0	4.3	5.5	5.4	4.2	4.2	5.4	0.0	0.0	39.7
Ft Sumner ID Return	0.8	9.0	1.5	1.7	2.5	2.5	2.5	2.5	2.3	2.1	1.1	0.8	21.1
Flow past FS IDist	2.8	4.7	2.9	7.0	18.8	14.2	17.6	33.0	2.8	2.7	1.5	2.1	109.9
Channel loss	0.3	0.4	0.7	1.9	3.3	3.1	3.0	4.3	6.0	0.8	9.0	0.2	19.5
Residual Flow	2.5	4.3	2.1	5.1	15.4	11.1	14.5	28.7	2.0	1.8	6.0	1.8	90.4
Base Inflow	2.9	3.0	2.6	2.0	1.7	1.1	9.0	0.2	6.0	1.3	1.1	1.0	18.3
River Pump Divers	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.5
Residual, Artesia	5.4	7.3	4.6	7.1	17.0	12.1	15.0	28.8	2.8	3.1	1.9	2.9	108.1
Pecos Flow Artesia	7.1	6.9	5.2	4.3	17.4	2.4	18.2	18.6	12.5	3.8	5.7	3.5	105.5
Flood Inflow, AD-Art	1.7	-0.4	0.5	-2.8	0.3	-9.7	3.2	-10.3	9.7	0.7	3.8	9.0	-2.6
		1	i					-					
Note: Whenever the computed flow past the District is less than the return flow set the flow past the District equal to the	the computed flow past the District is less	v past the	District	s less									
return flow (Manual, B.3.d).													
					7							`	

Table 3. Determination of Flood Inflows, Artesia t	esia to Carlsbad (B.4)	(B.4)											
Water Year	2016												
4/29/2017													
	JAN	FEB	MAR	APR	MAY	N	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
	C	C	c	0	0	c	c	C	C	c	C	c	c
Klo Penasco at Dayton	0.0	0 0	2 0	0 0	0 0	2 0	2 0	0 0	2 0	0 0	2 0	0 0	
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	2 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	2.0	0.0	0.0	0.0	2.0
Flood Inflow, Art-DS3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Pecos R at Dam Site 3	18.3	5.7	5.8	12.8	9.8	10.7	12.6	8.0	3.8	9.7	1.2	1.4	99.8
CB Sprgs New Water (from Table 7)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	4.0
Total Inflow, DS3 - CB	18.6	6.1	6.1	13.2	10.1	11.0	12.9	8.3	4.1	10.1	1.5	1.7	103.7
Evap Loss, Lake Avalon (from Table 10)	0.2	0.3	0.5	0.5	0.5	9.0	0.8	0.2	0.0	0.3	0.1	0.1	4.2
Storage Chg, Lake Avalon (from Table 11)	2.1	-0.6	-2.7	0.8	0.0	-0.3	-0.3	1.2	-1.6	-0.5	0.7	0.7	-0.4
Carls ID diversions	0.0	0.0	6.9	10.6	10.7	10.6	12.6	7.2	3.6	9.3	0.0	0.0	71.4
93% CID diver	0.0	0.0	6.4	6.6	10.0	9.8	11.7	9.9	3.3	8.6	0.0	0.0	66.4
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	4.1
Dark Canyon at Csbad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.1	0.0	0.0	0.0	4.1
Pecos b Dark Canyon	15.2	6.3	2.3	2.4	2.3	2.0	2.0	4.6	2.6	2.5	2.5	2.3	46.7
Pecos R at Carlsbad	15.2	6.3	2.3	2.4	2.3	2.0	2.0	3.2	2.6	2.5	2.5	2.3	45.4
Total Outflow	17.6	6.1	9.9	13.6	12.9	12.2	14.3	11.5	4.4	11.0	3.4	3.2	117.0
Flood Inflow, DS3-CB	-1.0	0.1	0.5	0.5	2.8	1.2	1.5	3.1	0.3	0.9	1.9	1.5	13.3
Flood Inflow, Art-CB	-1.0	0.1	0.5	0.5	2.8	1.2	1.5	3.1	2.3	0.9	1.9	1.5	15.3

Water Year	2016	tations, Carlsbad to Sta	ite Line (D.5)	
6/26/2017	2010			
0/20/2017				
	BCB - RB	Del R	DC	
	RM			
Jan	0.0	0.0	0.0	0-0-0-00-0-0
Feb	0.0	0.0	0.0	
Mar	0.0	0.0	0.0	
Apr	0.1	0.0	0.0	
May	0.2	0.0	0.0	
Jun	0.5	0.0	0.0	
Jul	0.3	0.0	0.0	
Aug	1.1	3.3	1.3	
Sep	1.7	0.3	0.1	
Oct	0.2	0.0	0.0	
Nov	0.2	0.1	0.0	
Dec	0.1	0.0	0.0	
Total	4.4	3.7	1.4	
Summary of flood	I inflows, Carlsbad	to State Line, TAF		
Red Bluff - Carls	sbad + Dark C RM	calcs)		5.8
Delaware River	Dark O KWI	outoo)		3.7
	ow, Carlsbad to S	State Line		9.5

Table 5. Depletions Due to Irrigation Above Sumner Dam (C.1.a)	nner Dan	n (C.1.8	3)					
Water Year	2016							
4/29/2017								
	APR	MAY	NOS	1 1	JUL AUG SEPT		OCT	OCT TOTAL
Precip Las Vegas FAA AP	1.38	1.69	0.61	0.87	1	4.86 1.35 0.10	0.10	10.86
Eff prec Las Veg FAA AP	1.30	1.57	0.60	0.84		3.73 1.28	0.10	9.42
Precip Pecos Natl Monument*	1.31	1.07	0.92	1.82		4.28 1.49	90.0	10.95
Eff Precip Pecos RS	1.24	1.03	0.89	1.68	3.47	1.40	90.0	9.77
Precip Santa Rosa	0.19	0.84	2.19	1.05	1.63	1.06	0.30	7.26
Eff Precip Santa Ro	0.19	0.82	1.98	1.02	1.52	1.02	0.29	6.84
Average eff precip, ft	0.08	0.10	0.10	0.10	0.24	0.10	0.01	0.72
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	0.11	0.27	0.26	0.20	0.03	0.08	0.10	1.05
Acres (most recent inventory)	11529							
Streamflow depletion (actual use), AF	12070							
1947 depletion, AF	10804					٠		
Difference (actual use - 1947 depletion), TAF	1.3							
Adjustment to Gaged Flow, Pecos River below Sumner Dam, TAF	Sumner [Dam, T	AF =			1.3		
* See note on Table 12							-	

Storage a	Table 6. Depletions Due to S	Due to	Santa Ro	sa Rese	irvoir Op	anta Rosa Reservoir Operations (C.1.b)	(C.1.b)							
August FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC TO Add AL20 / Belt brains shown; LSR 1997 bables, used (TOG); Add AL20 / Belt Brain Sept Sep	Water Year	2016												
August A	6/28/2017													
Accessive to content of the conten		JAN	FEB	MAR	APR	MAY	JUN	JUL 144 4 700 1	AUG	SEPT	0CT	NON	DEC	TOTAL
45810 46110 36110 41116 30465 31377 2442 21977 23881 20294 22240 22294 22291 22891 2327 4717 1879 1822 1694 22294 22294 22294 22294 22294 2229 1697 2289 2329 167 2289 2289 1687 1689 1689 1689 1689 1678 1774	. —	64.4	64.7	61.0	62.9	58.5	58.9	55.7	54.1	54.9	52.5	53.1	55.9	
189 2922 2457 2706 2160 2204 1455 1774 1791 1792 1641 1874 1874 1875 259 229 229 229 273	nitent AF avo	45319	46191	36113	41116	30455	31327	24842	21977	23383	19324	20294	25216	
2.90 6.73 10.17 10.60 12.84 14.19 16.29 11.17 8.09 15.29 14.17 8.09 15.29 15.29 17.01 0.03 0.69 0.68 1.34 1.17 8.09 9.79 4.44 0.35 0.24 0.00 0.00 0.69 0.68 1.34 1.17 8.00 0.04 4.04 0.35 0.24 0.00 0.04 4.00 0.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 4.00 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04	sa. acres, avq	2891	2922	2457	2706	2160	2204	1857	1724	1791	1592	1641	1874	
2.30 4.41 7.86 8.16 9.89 10.33 11.77 8.60 7.26 7.29 2.37 2.19 0.46 0.41 7.80 8.16 9.89 10.34 1.11 1.86 7.26 7.59 4.07 2.18 1.86 4.31 7.81 1.68 1.68 1.58 1.72 1.69 0.14 4.44 4.47 0.06 0.39 1.06 7.35 5.66 7.56 0.37 2.19 6.45 4.69 1.68 1.68 1.69 1.62 7.35 5.66 7.36 0.37 2.18 3.72 3.66 3.76 3.69 1.06 4.12 1.06 0.34 1.07 1.06 0.32 3.18 <td>ap, inches</td> <td>2.99</td> <td>5.73</td> <td>10.17</td> <td>10.60</td> <td>12.84</td> <td>14.19</td> <td>15.29</td> <td>11.17</td> <td>9.43</td> <td>10.38</td> <td>5.29</td> <td>3.29</td> <td>111.37</td>	ap, inches	2.99	5.73	10.17	10.60	12.84	14.19	15.29	11.17	9.43	10.38	5.29	3.29	111.37
Colored Color Co	Evap	2.30	4.41	7.83	8.16	9.89	10.93	11.77	8.60	7.26	7.99	4.07	2.54	85.76
186 431 783 747 9.04 9.39 10.62 7.35 5.66 7.85 -0.37 2.19 449 446 456 461 459 461 462 7.35 5.66 7.85 -0.37 2.19 449 449 445 461 10.156 10.0405 10.4020 8.326 30.75 56397 56397 56397 3646 3646 3709 3772 3772 3842 3326 30.75 2522 2512 2512 372 3646 3709 3772 3772 3842 3842 3364 3773 3772 3772 3842 3842 3775 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3772 3844 3772 3774 3772	ecip, inches	0.45	0.10	0.00	0.69	0.85	1.54	1.15	1.25	1.60	0.14	4.44	0.35	12.56
A A A A A A A A A A	S Evap, inches	1.85	4.31	7.83	7.47	9.04	9.39	10.62	7.35	5.66	7.85	-0.37	2.19	73.20
96706 96706 96914 101156 100405 104202 83826 73569 56837 56367 5	Evaploss, TAF	0.45	1.05	1.60	1.68	1.63	1.72	1.64	1.06	0.84	40. L	-0.05	40.0	13.01
99706 99706 99706 99706 99706 99706 99706 99707 99706 99707	2,10	0 //	0 77	45.5	46.1	45.9	46.9	41.2	38.0	32.0	31.8	31.8	31.8	
3646 3768 3772 3752 3842 3326 3075 2512	Osa ga III, avg	96706	96706	98914	101158	10	104202	83826	73569	56872	56367	56367	56357	
3.72 5.16 8.31 8.06 10.60 12.08 14.76 8.11 8.72 4.94 3.76 2.86 3.97 6.40 6.21 8.16 9.30 11.37 7.01 6.24 6.71 3.80 2.90 2.86 0.57 0.02 0.84 2.29 2.28 1.38 1.93 2.89 2.90 2.81 3.40 6.38 6.02 7.32 7.11 10.32 5.38 5.18 6.41 1.21 2.17 2.81 3.40 6.38 6.02 7.32 7.11 10.32 5.38 5.18 6.41 1.21 2.17 2.073 1.03 1.97 1.39 2.29 2.28 2.86 1.38 1.93 2.39 0.20 0.79 1.18 2.08 3.57 3.58 3.91 4.00 4.50 2.43 1.93 2.38 0.20 0.79 1.19 2.08 3.57 3.58 3.46 3.60 4.50 4.50 3.46 3.85 3.25 3.46 3.85 3.25 3.25 3.25 3.26 3.25 3.25 3.25 3.26 3.25 3.25 3.25 3.25 3.20 0.20 0.71 1.65 3.00 2.86 3.46 3.60 3.46 3.46 0.18 0.41 0.33 0.30 0.20 0.72 0.73 0.57 0.71 0.74 0.34 0.18 0.41 0.33 0.30 0.20 0.74 0.43 0.57 0.71 0.74 0.34 0.18 0.41 0.33 0.30 0.20 0.75 0.77 0.77 0.77 0.77 0.77 0.77 0.74 XCESSIVE STORAGE IN SANTA ROSA RESERVOR Storage Sto	JUNE ACTES AVO	3646	3646	3709	3772		3842	3326	3075	2522	2512	2512	2512	
2.86 3.97 6.40 6.21 8.16 9.30 11.37 7.01 6.24 6.71 3.80 2.90 0.45 0.57 0.02 0.19 0.84 2.19 1.05 1.05 0.30 2.59 0.73 0.73 1.03 1.97 1.89 2.29 2.28 2.86 1.38 1.06 0.30 2.90 0.79 0.73 1.03 1.97 1.89 2.29 2.28 2.86 1.38 1.09 1.34 0.25 0.45 1.18 2.08 3.57 3.58 3.91 4.00 4.50 2.43 1.93 2.38 0.20 0.79 1.19 2.08 3.57 3.58 3.91 4.00 4.50 2.43 1.93 2.38 0.20 0.79 1.10 2.08 3.57 3.58 3.91 4.00 4.50 2.43 1.93 2.38 0.20 0.79 1.10 2.08 3.50 2.86 3.46 3.50 3.56 2.25 7.5691 76661 81573 1.10 0.71 1.65 3.00 2.86 3.46 3.50 3.56 2.25 7.5691 76661 81573 1.10 0.47 0.43 0.57 0.71 0.45 0.40 4001 4001 3679 0.34 0.30 0.20 0.20 0.71 1.65 3.00 2.86 3.46 3.50 3.56 2.25 7.5691 0.50 0.20 0.20 0.71 1.65 3.00 2.86 3.46 3.50 3.56 2.25 7.5691 0.33 0.30 0.20 0.20 0.72 1.72 1.72 1.72 1.72 1.72 1.72 1.72 1	avan inches	3.72	5.16	8.31	8.06		12.08	14.76	9.10	8.11	8.72	4.94	3.76	97.32
Courter Name of the color of	SR Evap	2.86	3.97	6.40	6.21	8.16	9.30	11.37	7.01	6.24	6.71	3.80	2.90	74.93
1.24	recip, inches	0.45	0.57	0.02	0.19		2.19	1.05	1.63	1.06	0.30	2.59	0.73	11.62
1.03 1.03 1.97 1.89 2.29 2.28 1.38 1.09 1.34 0.25 0.45 1.18 2.08 3.57 3.58 3.91 4.00 4.50 2.43 1.93 2.38 0.20 0.79 1.18 2.08 3.57 3.58 3.91 4.00 4.50 2.43 1.93 2.38 0.20 0.79 1.42025 1.42897 1.35027 1.42274 1.30860 1.35529 1.08668 95546 80255 75691 76661 81573 4600 4600 4600 4600 4600 4600 4001 3679 3.337 3.146 3.162 3.277 4600 4600 2.86 3.46 3.60 4.00 4.021 3679 3.237 3.146 3.162 3.277 0.47 0.43 0.57 0.71 0.45 0.94 0.94 0.94 0.33 0.30 0.20 0.47 0.48 0.57 0.71 0.45 0.20 2.016 0.20 Annual adjustment for excess evaporation =	SR Evap, inches	2.41	3.40	6.38	6.02		7.11	10.32	5.38	5.18	6.41	1.21	2.17	63.31
1.16 2.08 3.57 3.58 3.91 4.00 4.50 2.43 1.93 2.38 0.20 0.79 142025	vaploss, TAF	0.73	1.03	1.97	1.89		2.28	2.86	1.38	1.09	1.34	0.25	0.45	17.57
142025 142897 135027 142274 130860 135529 108668 95546 80255 75691 76661 81573 4600	evapioss, TAF	1.18	2.08	3.57	3.58		4.00	4.50	2.43	1.93	2.38	0.20	0.79	30.58
142025			100	10000	1.50011	00000	-	- 1	OFFAR	80255	75691		81573	
A600	contents, AF	142025	142897	135027	1422/4	1		ì	95540	20200	3178	`	3277	
Storage adjustment Storage adjustment Storage adjustment Storage adjustment Storage adjustment Storage	area, acres	4600	4600	4600	4600			4021	20/9	1 53	2 06		0.50	25.19
Annual adjustment for excess evaporation = Annual adjustment f	evaploss, IAF	0.77	0.00	0.00	0.71			0.94	0.18	0.41	0.33		0.20	5.39
STORAGE IN SANTA ROSA RESERVOIR 2015 2016 2	II-1947evapiuss	1.0	3	5	5	ŀ		instment fc	r excess e	vaporation				5.4
STORAGE IN SAN IA RUSA RESERVOIR 2016	3,				000	0								
Storage Storage Gage Storage Gage Storage Gage Storage Gage Storage Gage Storage A745.00 97072 4731.80 56367 140959 83508 -11.7 5.4 5.4 Storage adjustment Storage A1.1 Storage A1.2 Storage A1.3 A1.4 Storage A1.3 A1.4 Storage A1.4 St	STMENT FOR E.	XCESSIVE		E IN CAN	A KONA	RESERVO								
Storage adjustment Storage Sto				2015	č	-	į							
4703.30 43067 4230.30 27171				Cage	ō	_	ดี							
Storage adjustment Storage	ear Sumner Sto			4205.90			1							
Storage adjustment Both equal or less than 129.3 TAF, subtract previous greater than 129.3 TAF, brevious greater than 129.3 TAF, subtract previous greater than 129.3 TAF, subtract 129.3	ear S K Sto			4/40.00			2000 83508							
Storage adjustment Both equal or less than 129.3 TAF, adjustment is zero Both greater than 129.3 TAF, subtract previous from current year Current year less than 129.3 TAF, previous greater than 1293 TAF, subtract previous year from current year less than 129.3 TAF, subtract 129.3 TAF, previous year from the greater than 129.3 TAF, subtract 129.3 TAF, previous year from the greater than 129.3 TAF, subtract 129.3 TAF, previous year less than 129.3 TAF, subtract 129.3 TAF.	L V F				1000		-117							
Storage adjustment Both equal or less than 129.3 TAF, adjustment is zero Both greater than 129.3 TAF, subtract previous from current year Current year less than 129.3 TAF, previous greater than 1293 TAF, subtract 129.3 TAF Current year less than 129.3 TAF, previous year from the current year greater than 129.3 TAF, subtract 129.3 TAF, previous year from the current year greater than 129.3 TAF, subtract	gjustment, IAF						5.4							
Storage adjustment Both equal or less than 129.3 TAF, adjustment is zero Both greater than 129.3 TAF, subtract previous from current year Current year less than 129.3 TAF, previous greater than 129.3 TAF, subtract 129.3 TAF Current year greater than 129.3 TAF, previous year less than 129.3 TAF, subtract 129.3 TAF	Adiustment TAF						-6.3							
Storage adjustment Both equal or less than 129.3 TAF, adjustment is zero Both greater than 129.3 TAF, subtract previous from current year Current year less than 129.3 TAF, previous greater than 129.3 TAF, subtract previous year from current year Current year less than 129.3 TAF, previous year less than 129.3 TAF, subtract 129.3 TAF from current year	n chinamanin													
Both equal or less than 129.3 TAF, adjustment is zero Both greater than 129.3 TAF, subtract previous from current year Current year less than 129.3 TAF, previous greater than 129.3 TAF, subtract 129.3 TAF from current year Current year greater than 129.3 TAF, previous year less than 129.3 TAF from current year		Storage	adjustmen	ايب										
Current year less than 129.3 TAF, previous year less than 129.3 TAF, subtract previous year from 129.3 TAF from current year Current year greater than 129.3 TAF, previous year less than 129.3 TAF, subtract 129.3 TAF from current year		Both equ	ial or less	than 129.3	TAF, adju	Istment is 2	ero	100						
Current year greater than 129.3 TAF, previous year less than 129.3 TAF, subtract 129.3 TAF from current year		Current	ater tnan vear less tl	29.3 1AF, han 129.3	subriger p TAF, previ	ous greate	r than 129	3 TAF, su	stract previ	ous year f	om 129.3	TAF		
		Current	year greate	er than 129	.3 TAF, pi	evious yea	r less than	129.3 TA	F, subtract	129.3 TAF	from curr	ent year	_	

Table 7. Carlsbad Springs New Water [B.4	.c.(2)]				
Water Year	2016				
4/29/2017					
		TAF	AF/day	cfs	Totals
Pecos R bel DC		46.7	127.6	64.3	64.3
Dark Canyon		1.4	3.8	1.9	1.9
Pecos R bel Lake Avalon		17.3	47.3	23.8	23.8
Depletion, cfs					2.0
CID lag seep, cfs (from Table 8)					6.7
Return flow, cfs					1.0
Lake Av lagged seep, cfs (from Table 9)					24.4
PR seepage, cfs					3.0
Carls new water, cfs					5.5
Carls new wat, TAF					4.0
Carls new wat monthly, TAF					0.3

Table 8. Carlsbad Main	bad Main	Canal S	Canal Seepage Lagged [B.4.c.(2)(e)]	Lagged	[B.4.c.(2	2)(e)]							
Water Year	2016												
4/29/2017													
	JAN	FEB	MAR	APR	MAY	NOS	JUL	AUG	SEPT	OCT	NOV	DEC	DEC TOTAL
W/V 2016													
CID, TAF	0.0	0.0	6.9	10.6	10.7	10.6	12.6	7.2	3.6	9.3	0.0	0.0	71.4
days/mo	31	29	31	30	31	30	31			31	30	31	366
cfs	0	0.0	111.7	178.5	174.7	178.0	205.2	116.3	59.7	150.6	0.0	0.0	97.9
cfs, qtr avg			38.1			177.0			127.8			50.7	
				•									
WY 2015		ā	2Q	30	40								
FLOWS, cfs				138.6	25.6								
SEVEN %				9.7	1.8								
		-											
WY 2016 lagged	eq	ā	50 20	g	40								
FLOWS, cfs		38.1	177.0	127.8	50.7								
SEVEN %		2.7	12.4	8.9	3.6								
LAG		3.5	7.4	9.0	6.8	6.8 Avg =	6.7	cfs					
		T-1		-					4				

Table 9. Lake Avalon	Avalon	Leakage Lagged [B.4.c.(2)(g)]	Lagged	[B.4.c.(2	(a)]								
Water Year	2016												
4/29/2017													
WY 2016	JAN	FEB	MAR	APR	MAY	NOS	JUL	AUG	SEPT	OCT	NOV	DEC	TOT
Elev NM rept	77.21	77.54	75.58	74.38	74.30	74.17	73.98	74.33	75.67	73.31	73.20	74.28	
ga ht, avg*	20.21	20.54	18.58	17.38	17.30	17.17	16.98	17.33	18.67	16.31	16.20	17.28	
cfs	34.62	36.19	26.82	21.09	20.71	20.06	19.17	20.85	27.26	15.96	15.44	20.62	
days	31	29	31	30	31	30	31	31	30	31	30	31	366
cfs avg	32.8			20.6			22.4			17.4			23.3
WY 2015		ā	20	gg	40					,			,
cfs				33.7	22.8								
WY 2016 lagged	eq	á	2Q	ğ	4 Q								
cfs		32.8	20.6	22.4	17.4								
lag cfs		29.6	25.1	23.5	19.6	19.6 Avg =	24.4 cfs	cfs					
* Computed as WS elev by NM Report minus Gage datum at 3157.0 (USBR datum)	s WS ele	ev by NM	Report r	minus Ga	age datu	m at 315	7.0 (USI	3R datur	(L				
		,											



Table 10. Evaporation Loss at Lake Aval	oss at L	ake Ava	lon [B.4.d.(1)]	d.(1)]										
Water Year	2016												_	
4/29/2017														
	JAN	FEB	MAR	APR	MAY JUN		JUL	AUG	SEP	SEP OCT	NOV	DEC	TOT	
Av WS NM Rept	77.21	77.54		74.38	74.30	74.17	73.98	74.33	75.67	73.31	75.58 74.38 74.30 74.17 73.98 74.33 75.67 73.31 73.20	74.28		
Avalon ga ht, avg, ft*	20.21	20.54	18.58	17.38	17.30	17.17	17.30 17.17 16.98 17.33 18.67	17.33	18.67	16.31	16.20	17.28		
Avg area Avalon, ac**	895.00	895.00 921.00		00'269	691.00	683.00	671.00	693.00	784.00	631.00	776.00 697.00 691.00 683.00 671.00 693.00 784.00 631.00 624.00 690.00	690.00	•	
Panevap Brantley, in.	4.44	5.60		11.04	13.39	14.16	9.66 11.04 13.39 14.16 17.74	10.32	6.64	7.51	4.18		3.59 108.27	
Lakeevap Brantley, in.	3.42	4.31	7.44	8.50	10.31	10.90	13.66	7.95	5.11	5.78	3.22	2.76	83.37	
Precip Brantley, in.	0.21	0.20	00.00	0.31	1.08	0.33	90.0	4.22	4.82	0.15	0.62	0.75	12.75	
Netevap, inches	3.21	4.11	7.44	8.19	9.23	10.57	13.60	3.73	0.29	5.63	2.60	2.01	70.62	
Evaploss Av, TAF	0.24	0.32	0.48	0.48	0.53	0.60	0.76	0.22	0.02	0.30	0.14	0.12	4.19	
* Computed as WS elev by NM Report n	v by NM	Report r	minus Ga	age datur	m at 315	7.0 (USE	ninus Gage datum at 3157.0 (USBR datum	(υ						
** Based on USBR Area and Capacity Table in effect January 1, 1997	a and Ca	apacity T	able in e	ffect Jar	uary 1, '	1997								

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Table 11. Change in Storage, Lake	n Storage	ः, Lake A	Avalon [B.4.d.(2)]	[4.d.(2)]										
(Gage heights are end of month)	nd of mo	nth)												
Water Year	2016													
4/29/2017														
	DEC JAN		FEB	MAR APR	}	MAY	NOS	JUL	AUG	SEPT OCT	ОСТ	NOV DEC		TOT
	2015.0 2016.0	2016.0												
WS NM Rept	75.3			73.7	74.9	74.9	77.2 73.7 74.9 74.9 74.5	74.0	75.6	73.4	72.6	73.8	74.8	
Gage EOM, ft*	18.3	20.8	1	16.7	17.9	17.9	17.9 17.5	17.0	18.6	16.4	15.6	16.8	17.8	
Storage, AF**	2718.0	4836.0	1	1590.0	2420.0	2420.0	2133.0	1789.0	2948.0	1397.0		907.0 1656.0 2347.0	2347.0	
Change sto, TAF		2.1	-0.6	-2.7	0.8	0.0	-0.6 -2.7 0.8 0.0 -0.3	-0.3	1.2	-1.6	-0.5	0.7		0.7 -0.4
* Computed as WS elev by NM Report minus Gage datum at 3157.0 (USBR datum)	elev by N	M Repo	rt minus	Gage da	itum at 3	157.0 (U	SBR dat	nm)						
** Based on USBR Area and Capacity Table in effect January 1, 1997	Area and	Capacity	/ Table ir	n effect	annany,	1, 1997								

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Water Year 2016 6/28/2017	IANI	EED	BAAD	ADD	BAAN	II IN I	(1.11	ALIC	CEDT	007	NOV	DEC	TOT * :
6/28/2017	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
STREAMFLOW GAGING RECO	DRDS, T	AF											-
<u> </u>													
Pecos R b Sumner Dam	1.9	4.1	7.2	10.3	20.5	17.2	20.4	34.6	4.7	6.0	0.5	1.2	128.6
Fort Sumner Main C	0.0	1	5.8	5.0	4.3	5.5	5.4	4.2	4.2	5.4	0.0	0.0	39.7
Pecos R nr Artesia	7.1	6.9	5.2	4.3	17.4		18.2	18.6	12.5	3.8	5.7	3.5	105.5
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
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	2.0	0.0	0.0	0.0	2.0
Pecos R at Dam Site 3	18.3	5.7	5.8	12.8	9.8	10.7	12.6	8.0	3.8	9.7	1.2	1.4	99.8
Pecos bel Avalon Dam	13.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.3
Carlsbad Main Canal	0.0	0.0	6.9	10.6	10.7	10.6	12.6	7.2	3.6	9.3	0.0	0.0	71.4
Dark Canyon at Carlsbad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.1	0.0	0.0	0.0	1.4
Pecos below Dark Canyon	15.2	6.3	2.3	2.4	2.3	2.0	2.0	4.6	2.6	2.5	2.5	2.3	46.7
Pecos R at Red Bluff	15.7	9.8	4.6	4.4	3.9	3.8	3.7	7.9	6.3	5.0	5.3	5.2	75.4
Delaware R nr Red Bluff	0.4	0.3	0.3	0.2	0.2	0.1	0.0	3.5	0.7	0.2	0.3	0.2	6.2
										-			
GAGE HEIGHTS											,		
Avalon gage ht, end mo	77.8	77.2	73.7	74.9	74.9	74.5	74.0	75.6	73.4	72.6	73.8	74.8	
Avalon gage ht, avg	77.2	77.5	75.6	74.4	74.3	74.2	74.0	74.3	75.7	73.3	73.2	74.3	
Sumner Lake ga ht, end mo	64.8	64.8	63.5	61.7	58.1	57.6	55.0	54.5	54.6	51.4	54.2	56.9	
Sumner Lake gage ht, avg*	64.4	64.7	61.0	62.9	58.5	58.9	55.7	54.1	54.9	52.5	53.1	55.9	
Lake S Rosa ga ht, end mo	44.9	45.1	45.7	46.9	47.1	44.9	40.9	31.5	32.0	31.7	31.8	31.8	
Lake S Rosa ga ht, avg	44.9	44.9	45.5	46.1	45.9	46.9	41.2	38.0	32.0	31.8	31.8	31.8	
PRECIPITATION, INCHES													
Brantley Lake	0.21	0.20	0.00	0.31	1.08	0.33	0.06	4.22	4.82	0.15	0.62	0.75	12.75
Las Vegas FAA AP	0.21	0.29	0.19	1.38	1.69	0.61	0.87	4.86	1.35	0.10	1.35	0.46	13.36
Pecos National Monument**	0.68	0.33	0.00	1.31	1.07	0.92	1.82	4.28	1.49	0.06	1.79	0.24	13.99
Santa Rosa	0.45	0.57	0.02	0.19	0.84	2.19	1.05	1.63	1.06	0.30	2.59	0.73	11.62
Lake Santa Rosa	0.45	0.57	0.02	0.19	0.84		1.05	1.63	1.06	0.30	2.59	0.73	11.62
Sumner Lake	0.45	0.10	0.00	0.69	0.85	1.54	1.15	1.25	1.60	0.14	4.44	0.35	12.56
PAN EVAPORATION, INCHES													
Lake Santa Rosa	3.72	5.16	8.31	8.06	10.60					8.72	4.94	3.76	
Lake Sumner	2.99		10.17	10.60						10.38	5.29	3.29	
Brantley Lake	4.44	5.60	9.66	11.04	13.39	14.16	17.74	10.32	6.64	7.51	4.18	3.59	108.3
OTHER REPORTS		-									·		
OTHER REPORTS													
B. A. M.					2 ==								
Base Acme-Art, TAF (USGS)	2.9		2.6	2.0	1.7	1.1	0.6			1.3	1.1	1.0	-
Pump depl Ac-Artesia, TAF	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	
Pumping, C-2713, Malaga B													0.2
NM irrig inv, acres (3/9/2000)	ļ	ļ				<u> </u>							11529
NM Transfer water use, TAF	<u> </u>	<u> </u>											
NM salvaged water, TAF			L										0.00
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	0.0
Texas, use Del water, TAF	<u> </u>	<u> </u>	<u> </u>		L	<u> </u>							
* Apparent error corrected for La	ke Sum	ner aver	age gag	e height	in Marc	:h							

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APPENDIX

RESPONSE TO STATES' OBJECTIONS

RESPONSE TO STATES' OBJECTIONS

Final Report, Accounting Year 2017

NEW MEXICO OBJECTIONS

1. Table 4. Determination of Flood Inflows, Artesia to Carlsbad.

New Mexico discovered an error in Table 4 where total Delaware River flow was recorded rather than the required scalped flow. The objection is accepted and the Delaware River scalped flow is set at 3.7 TAF to replace the value of 6.2 TAF that was in the Preliminary Report. See also the first part of the response to Texas objection 2.

2. Table 6. Evaporation loss at Lake Avalon.

New Mexico noted that the surface area of Avalon Reservoir was calculated using the USBR Table from 1997 instead of the updated 2006 area and capacity tables. The River Master searched his files and found no record of having received the updated reservoir tables. A separate request is being sent to New Mexico to provide the tables.

3. Table RM 12. End of month and average elevations for WY 2016

New Mexico reported that data furnished by the NMISC for Sumner Reservoir average elevation, March 2016, was incorrect. The correct value is 4,260.96 feet. Tables 1, 6 and 12 were modified accordingly.

TEXAS OBJECTIONS

1. Table 4. Summary Table for Computations, Carlsbad to State Line [B.5], WY 2016;

Scalped Delaware River Flood Inflows.

Texas noted an incorrect value for Delaware River scalped flows. This is accepted, see NM Objection 1. Texas made an independent analysis of the flows and determined that rainfall in November would increase the flow to 3.8 TAF from 3.7 TAF. Although this is an insignificant increase, as noted by Texas, the River Master notes Texas' position that future rainfalls could add significant amounts to Delaware river flood inflows.

Scalped Flood Flows for Carlsbad to Red Bluff.

Texas made an independent analysis of several periods where additional rain, beyond that measured by the three gages reported by NM, might have been in the area. The following replies are by the bullet points in Texas' compilation.

Texas noted how the computations are to be rounded to the nearest 1 acre-foot. This was done and the 0.035 TAF noted was included in the River Master's total report, although the rounded value does indicate zero. When the change from handling computations was made by joint motion in 2002 to shift from rounding to 100 acre-feet to 1 acre-foot, the intent was to use more computer-aided precision in the computations but not to add more decimal points to the reporting and summaries.

Texas reported computation of an additional 0.278 TAF by examining a wet period from February 22-27 (see Texas Exhibits D and E). However, there is an apparent error in this report as Texas Exhibit D shows a computation of 0.028 TAF instead of 0.278 TAF. The River Master examined this period again and did not compute any additional significant flood runoff. This objection is rejected.

Texas described periods when radar images indicate rain that is not evident on the three gages reported by NM and performed an independent scalping of the hydrographs for those periods. However, as shown by Table 1, the River Master could not verify rain in most of these periods from the radar. Texas also presented an Exhibit C, which includes three gages not actually in the tributary sub-basin but close (Hope, Elk, and WIIP). However, these gages indicated only a very few periods of rain that were not detected by the three gages reported by NM, and in those periods no significant flood runoff was occurring in the tributaries.

Table 1 illustrates the periods when Texas accounted for scalped runoff at time that the River Master did not. Otherwise, Texas' computations are for the same periods as the River Master. As indicated in Table 1, There is little if any indication of rain during the periods indicated, so the main difference in Texas' computation and that of the River Master is in the common time periods of analysis, and the computations are not significantly different in those periods.

Table 1. Texas' scalping periods where River Master did not include flood runoff

Texas scalping	Radar?	Show	Rain	Dark	Delaware	Black
dates		rain?	Gages	Canyon?	River?	River?
(1)	(2)	(3)	(4)	(5)	(5)	(5)
1-1 to 1-4	no		no rain	no	No	no
2-22 to 2-27	no		no rain	no	No	no
3-19 to 3.27	no		no rain	no	No	no
4-16 to 4-20	yes	Only 4- 17	no rain	no	No	no
4-30 to 5-9	no		no rain	no	No	no
5-12 to 5-16	no		no rain	no	No	no
6-5 to 6-8	yes	Only 6-6	no rain	no	No	no
7-17 to 7-29	yes	Only 7-18	no rain	no	No	no
10-16 to 10-20	yes		no rain	no	No -	no
10-23 to 10-27	yes		no rain	no	No	no
10-29 to 11-4	no		no to 11-2	no	No	no

Explanation of columns: (1) Dates where Texas scalped runoff but the River Master did not; (2) Radar provided by Texas; (3) Radar shows storms; (4) Indication by three rain gages reported by NM of any rain over 0.05-inches; (5) Indication of flood rises on tributaries.

Table 2 compares the computations of Texas and the River Master (same data as Texas Exhibit D). Texas' presentation of decimal places is retained for clarity. With its assumptions, Texas computed 8.95 TAF for flood inflow, Carlsbad to Red Bluff, compared to the River Master's computation of 4.4 TAF. The main difference is in August, where Texas indicates 4.12 TAF versus the River Master's 1.1 TAF. There is an apparent error in Texas' entry on Exhibit D (page 9 of 13), which indicates 1.545 TAF instead of 4.12 TAF. The River Master was unable to check the cause of that error. Even if the large negative value shown for August 31 is deleted, the total is still not 4.12 TAF.

Table 2. River Master and Texas flood inflow computations, Carlsbad to Red Bluff.

	River Master	Texas
Jan	0.0	.047
Feb	0.0	.03
Mar	0.0	.10
Apr	0.1	.14
May	0.2	42
Jun	0.5	.67
Jul	0.3	.53
Aug	1.1	4.12
Sep	1.7	1.97
Oct	0.2	.46
Nov	0.2	.35
Dec	0.1	.12
Total (TAF)	4.4	8.95

As is apparent from the two tables, most of the difference in the flood inflow estimates is in August, with only small differences in the other months which mainly result from slight differences in scalping the hydrographs. Data from radar or other gages did not make a material difference in the estimates. The one event that has significant rainfall and has been reevaluated is during the late-August rains, which coincided with large flows at the Carlsbad Below Dark Canyon gage.

The River Master reexamined the scalping for the period August 20 – September 13 where there was a significant difference in his estimate and that of Texas. The difference is in the base flow for the Red Bluff gage, as indicated on Figure 1 below. The question to be decided is whether the low point of Red Bluff flow on August 28 is controlled by operational rise or runoff. That is, whether the Red Bluff flow on August 28 has returned to base flow or is still experiencing flood runoff. The tributaries (Black River, Dark Canyon, Delaware) show no rise. There is rain in the area at Hope, but outside the subbasin. The River Master's conclusion is that, in the absence of any rain or tributary rises, the Red Bluff flow on August 28 is controlled by an operational rise, which is about the same magnitude as other operational rises, about 20 – 30 cfs.

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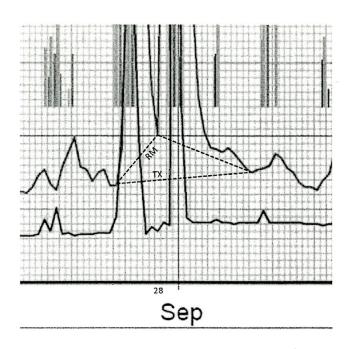


Figure 1. Screen capture of event (note difference in base flow lines)

Per this reanalysis, it is apparent that the differences between the River Master estimates in the Preliminary Report and those of Texas are mostly due to small differences in scalping assumptions and there is no basis to increase the 4.4 TAF for runoff in the reach.

Texas noted that during periods of Dark Canyon Draw flows some negative flood inflows were created, thus triggering RMM Section B.5.a.(3) that requires a separate analysis by deducting DCD flows from the Below Dark Canyon gaged flows and reevaluating the scalped hydrograph for that period. Texas is correct in asking for this reevaluation and presented Exhibit G with its calculation. This calculation shows 3.7 TAF in August and 1.7 TAF in September. There is an error at August 24, which transposes 238cfs to 283 cfs. The River Master recomputed the scalped hydrographs for the event period (assumed to be from August 20-September 13) and found no difference in the outcomes, so no change in the original scalping results was made. The calculations are shown in the spreadsheet just following this page.

The reason for selecting the August 20-September 13 period for analysis is based on the reason for considering negative scalped flows when DCD is flowing. It stems from the relocation of the gage from above DCD (where it was when the 1947 condition was set) to below DCD, where it is presently located. The need to reevaluate these cases is based on the possibility that a hydrograph could become altered during an event and distort the results. For discussion, this change in the RMM was made as a result of NM's Sixth Motion to Modify the Manual, decided on November 4, 1991.

FINAL CALCULATED DEPARTURE

The Preliminary Report's Final Calculated Departure was an overage of 27.9 TAF. After considering the states' objections, the Final Determination is an overage of 28.4 TAF.

Comparison of scalping with and without deducting DCD flows

			PR AT F	RED BLU	FF		PR BELC	OW DC	AT CBD	.		1	
	Day	Yr Day	Q	Base	Diff		Q I	Base	Diff				
UG							Startistical Control						
****	. 20	233	66	66	0		34	34	0				
	21	234	66	70	-4		45	34	11				
	22	235	92	75	17		111	34	77				
	23	236	263	79	184		225	34	192				
	24	237	483	84	400		194	33	161				
	25	238	314	88	226		85	33	52				
	26	239	208	92	116		33	33	0				
	. 27	240	131	97	34		38						
***	28	241	101	101	0		35						
	29	242	350	99	251		41						
	30	243	342	98	244		39	39	0				
	31	244	226	96	130		773	40	734				
EP	1	245	347	95	253		123	40	83				
	2	246	436	93	343		44	41	4				_
	3	247	188	91	97		41	41	· 0				
	4	248	125	90	35		41	2850 T/B					-
	5	249	102	88	14		41						
-	6	250	92	86	6		41						-
	7	250	91	85	6		43						-
			SO SOCIETY SECURES										
	8	252	89	83	6		41						-
	9	253	92	82	11		41						
	10	254	88	80	8		40						
	11	255	83	78	5		41				3		
***	12	256	78	77	1		41					1	
***	13	257	75	75	0		41						
					2382				1313		20.0		
	1									- Fortho A	10 111	an 12 n	
			Event di	fference					1069	For the Au	_	7.5	
				fference						For the Au	_	7.5	
	DCD flows	deducted		fference		DCD	Q* (less [DCD)			_	7.5	
UG	DCD flows			fference		DCD	Q* (less [DCD)		the event	total is	1,069 c	fs-day
	20	deducted		fference 66	0	DCD	Q* (less [DCD) 34		the event In the bot	total is tom cor	1,069 c	fs-day
						DCD 54			1069	In the bot DCD draw	total is tom cor flows a	1,069 on mputation de	fs-day ion, th ucted.
UG	20	233	66	66	0		34	34	1069	In the bot DCD draw The event	total is tom cor flows a total is	nputatire dedu 1,768 d	fs-day ion, th ucted. cfs-
	20 21	233 234	66 66	66 70	0 -4	54	34 -9	34 34	1069 0 -43	In the bot DCD draw	total is tom cor flows a total is	nputatire dedu 1,768 d	fs-day ion, th ucted. cfs-
	20 21 22	233 234 235	66 66 92	66 70 75	0 -4 17	54	34 -9 83	34 34 34	0 -43 49	In the bot DCD draw The event days. The	total is tom cor flows a total is differen	1,069 computation de	fs-day ion, th ucted. cfs- ween
	20 21 22 23	233 234 235 236	66 66 92 263	66 70 75 79	0 -4 17 184	54 28	34 -9 83 225	34 34 34 34	0 -43 49 192	In the bot DCD draw The event days. The	total is tom cor flows a total is differen	nputatire dedi 1,768 (nce bet r comp	ifs-day ion, th ucted. cfs- ween utatio
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