

KERN RIVER 1993



1993
HYDROGRAPHIC ANNUAL REPORT

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**HISTORICAL RECAP
KERN RIVER AT FIRST POINT OF MEASUREMENT**

YEAR	QUANTITY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	MAX.	MIN.	MEAN
Measurements and Estimates were not made prior to September 29, 1893...																	
1893	acre-feet mean s.f.d.										32,864	30,827	31,757	—	—	—	—
1894	acre-feet mean s.f.d.	40,647	39,816	61,548	88,974	98,801	64,564	43,061	20,565	14,759	17,179	14,501	28,911	533,326	—	—	—
1895	acre-feet mean s.f.d.	49,769	68,521	84,456	162,071	268,635	172,890	91,133	38,672	20,452	20,091	20,604	24,758	1,023,052	2,208	172	737
1896	acre-feet mean s.f.d.	45,951	35,510	58,494	57,864	86,174	146,124	82,760	29,885	18,061	16,401	21,108	21,360	619,692	—	—	—
1897	acre-feet mean s.f.d.	22,949	44,941	56,756	173,393	281,639	137,393	61,837	28,842	17,728	20,888	21,146	25,922	893,434	3,611	223	854
1898	acre-feet mean s.f.d.	22,332	24,105	23,882	42,248	45,213	32,809	15,033	7,390	6,885	9,830	9,884	12,216	251,927	5,342	260	1,234
1899	acre-feet mean s.f.d.	16,185	16,754	36,279	53,133	51,353	79,178	30,046	9,600	6,248	9,852	13,180	17,064	338,872	1,342	80	348
1900	acre-feet mean s.f.d.	22,266	15,562	25,384	28,102	68,295	76,366	24,125	8,860	9,903	9,808	20,787	22,915	332,373	4,932	86	468
1901	acre-feet mean s.f.d.	30,337	47,760	78,109	83,190	186,446	197,792	114,613	59,536	20,535	19,468	22,429	19,874	880,089	—	—	—
1902	acre-feet mean s.f.d.	17,407	20,582	48,546	107,403	109,904	128,853	43,436	19,172	11,695	12,242	16,739	16,560	552,539	4,419	226	1,216
1903	acre-feet mean s.f.d.	283	371	790	1,805	1,787	2,165	706	312	197	199	281	269	—	3,758	160	763
1904	acre-feet mean s.f.d.	11,982	19,902	40,996	59,812	113,205	103,904	39,725	28,733	15,901	26,855	17,006	14,828	492,949	—	—	—
1905	acre-feet mean s.f.d.	17,258	22,001	50,598	62,047	117,748	132,766	53,835	20,134	12,563	12,744	14,041	16,074	531,809	3,374	150	755
1906	acre-feet mean s.f.d.	42,623	34,750	126,844	173,143	360,234	458,418	399,841	141,384	57,925	37,464	29,931	37,983	1,900,540	—	—	—
1907	acre-feet mean s.f.d.	41,697	56,834	83,272	197,720	199,950	183,995	97,083	41,940	24,623	22,428	19,747	21,811	990,900	9,684	222	2,625
1908	acre-feet mean s.f.d.	27,878	32,481	65,079	79,320	79,418	60,305	41,851	32,378	21,763	21,487	18,206	18,337	498,503	—	—	—
1909	acre-feet mean s.f.d.	118,441	125,050	128,649	247,402	382,617	394,086	194,870	66,224	43,448	31,214	34,350	72,292	1,838,643	—	—	—
1910	acre-feet mean s.f.d.	73,523	48,904	85,085	102,883	127,733	79,484	42,046	24,216	17,201	18,976	18,881	19,999	658,911	11,870	295	2,540
		1,196	881	1,384	1,728	2,077	1,335	684	394	289	309	317	325	—	4,847	222	910

**HISTORICAL RECAP
KERN RIVER AT FIRST POINT OF MEASUREMENT**

YEAR	QUANTITY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	MAX.	MIN.	MEAN
1911	acre-feet	38,241	53,944	80,166	138,113	184,481	222,076	156,498	45,880	25,222	25,422	21,691	21,650	1,013,384	—	—	—
	mean s.f.d.	622	971	1,304	2,321	3,000	3,732	2,545	746	424	413	365	352	—	5,383	273	1,400
1912	acre-feet	23,320	21,302	28,090	37,246	80,471	100,925	33,170	16,653	10,899	11,780	11,772	11,804	387,432	—	—	—
	mean s.f.d.	379	370	457	626	1,309	1,696	539	271	183	192	198	192	—	3,220	147	534
1913	acre-feet	13,019	15,731	25,191	42,494	73,561	60,738	34,929	31,454	25,357	13,402	15,368	16,596	367,840	—	—	—
	mean s.f.d.	212	283	410	714	1,196	1,021	568	512	426	218	258	270	—	1,978	126	508
1914	acre-feet	116,541	62,575	102,739	144,934	210,676	201,064	128,338	55,127	25,240	24,462	20,390	21,427	1,113,513	—	—	—
	mean s.f.d.	1,895	1,127	1,671	2,436	3,426	3,379	2,087	897	424	398	343	348	—	18,287	285	1,536
1915	acre-feet	22,500	30,254	48,536	80,916	124,506	172,324	77,496	24,668	16,457	14,452	14,858	19,320	646,287	—	—	—
	mean s.f.d.	366	545	789	1,360	2,025	2,896	1,260	401	277	235	250	314	—	4,249	203	891
1916	acre-feet	172,346	202,510	378,116	481,749	472,984	391,700	225,154	56,755	33,808	41,774	30,879	32,364	2,520,149	—	—	—
	mean s.f.d.	2,803	3,521	6,149	8,096	7,693	6,583	3,662	923	568	679	519	526	—	17,962	274	3,481
1917	acre-feet	40,128	44,894	65,242	126,329	165,062	187,638	81,275	36,980	19,696	17,970	18,488	19,370	823,082	—	—	—
	mean s.f.d.	653	808	1,061	2,123	2,684	3,153	1,322	602	331	292	311	315	—	4,331	267	1,137
1918	acre-feet	18,918	18,559	48,087	74,513	78,722	136,753	44,828	20,807	17,562	32,555	22,160	25,039	538,503	—	—	—
	mean s.f.d.	308	334	782	1,252	1,280	2,298	729	338	295	529	372	407	—	3,478	227	744
1919	acre-feet	21,098	23,002	37,973	86,574	140,215	81,844	34,364	16,288	11,722	13,835	13,884	18,325	499,124	—	—	—
	mean s.f.d.	343	414	618	1,455	2,280	1,375	559	265	197	225	233	298	—	4,269	156	689
1920	acre-feet	17,220	18,044	40,397	83,370	156,904	137,840	50,699	22,431	14,949	16,596	19,490	20,703	600,643	—	—	—
	mean s.f.d.	280	314	657	1,401	2,584	2,316	825	365	251	270	328	337	—	4,456	198	827
1921	acre-feet	23,520	30,791	55,402	51,723	100,096	120,387	49,119	18,073	12,595	13,180	12,960	21,673	509,519	—	—	—
	mean s.f.d.	363	554	901	869	1,628	2,023	799	294	212	214	218	352	—	3,548	110	704
1922	acre-feet	30,682	33,846	52,468	84,407	242,259	202,395	88,649	37,061	23,772	17,770	19,835	28,282	861,426	—	—	—
	mean s.f.d.	499	609	853	1,419	3,940	3,401	1,442	603	400	289	333	460	—	5,300	196	1,190
1923	acre-feet	26,863	25,720	31,372	73,355	120,849	82,528	55,800	22,322	18,054	15,495	14,348	13,809	500,515	—	—	—
	mean s.f.d.	437	463	510	1,233	1,965	1,387	908	363	303	252	241	225	—	3,275	179	691
1924	acre-feet	13,676	13,702	15,953	28,540	41,722	14,069	8,225	5,881	5,494	7,942	14,196	18,627	187,727	—	—	—
	mean s.f.d.	222	238	259	480	679	236	134	96	92	124	239	303	—	1,073	74	259
1925	acre-feet	17,962	26,333	31,299	58,408	102,016	96,252	58,437	25,938	11,405	12,906	12,305	14,622	465,913	—	—	—
	mean s.f.d.	293	474	509	948	1,659	1,618	950	422	192	210	207	238	—	2,819	148	635
1926	acre-feet	12,022	15,667	24,739	66,079	98,598	49,530	18,575	9,522	7,029	8,358	28,493	28,084	366,706	—	—	—
	mean s.f.d.	196	282	402	1,110	1,604	832	302	155	118	136	479	457	—	6,511	74	507
1927	acre-feet	20,485	75,279	73,083	100,362	184,721	161,153	75,481	26,817	14,842	14,037	27,180	18,140	792,580	—	—	—
	mean s.f.d.	333	1,355	1,189	1,687	3,004	2,708	1,228	436	249	228	457	311	—	6,571	188	1,095
1928	acre-feet	18,452	17,818	32,668	37,757	78,885	60,344	18,716	9,189	6,583	8,732	11,974	13,710	312,828	—	—	—
	mean s.f.d.	300	310	531	635	1,250	1,014	304	149	111	142	201	223	—	2,058	101	431
1929	acre-feet	13,864	14,654	25,176	39,064	85,995	63,487	30,988	12,797	9,146	8,793	9,035	9,961	322,958	—	—	—
	mean s.f.d.	225	264	409	656	1,369	1,067	504	208	154	143	152	162	—	2,003	119	446
1930	acre-feet	12,234	20,099	34,550	53,506	67,851	82,824	28,401	11,819	7,743	9,314	11,042	10,590	349,973	—	—	—
	mean s.f.d.	199	362	582	899	1,103	1,392	462	192	130	151	186	172	—	2,423	118	483

**HISTORICAL RECAP
KERN RIVER AT FIRST POINT OF MEASUREMENT**

YEAR	QUANTITY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	MAX.	MIN.	MEAN
1931	acre-foot	12,284	13,785	15,784	23,440	41,867	24,262	8,483	6,302	6,860	6,817	8,241	17,510	185,845	—	—	—
	mean s.f.d.	200	248	257	394	681	408	138	102	115	111	138	285	—	2,261	71	256
1932	acre-foot	22,235	30,566	66,047	111,273	154,742	166,404	94,013	28,243	13,593	13,942	12,077	12,962	737,727	—	—	—
	mean s.f.d.	362	688	1,116	1,870	2,517	2,797	1,528	459	228	227	203	211	—	3,720	180	1,016
1933	acre-foot	17,175	21,021	36,244	57,265	60,026	125,395	56,898	18,992	10,062	10,893	10,776	16,639	441,086	—	—	—
	mean s.f.d.	279	379	589	962	976	2,107	925	304	169	177	181	271	—	3,769	144	608
1934	acre-foot	20,033	16,842	27,429	39,919	43,065	21,820	11,341	6,948	7,043	8,196	11,272	13,757	227,965	—	—	—
	mean s.f.d.	326	303	446	671	700	367	184	113	118	133	189	224	—	914	82	314
1935	acre-foot	14,840	18,500	24,841	71,042	103,787	133,634	42,184	17,193	11,363	11,962	11,905	12,877	474,128	—	—	—
	mean s.f.d.	241	333	404	1,194	1,688	2,246	686	280	191	195	200	209	—	3,378	164	655
1936	acre-foot	14,737	46,808	57,374	157,290	219,404	137,028	67,902	32,987	14,372	15,423	15,828	17,294	798,447	—	—	—
	mean s.f.d.	240	814	933	2,643	3,568	2,303	1,104	536	242	251	266	281	—	4,173	194	1,097
1937	acre-foot	21,745	139,109	111,443	183,505	352,050	225,395	91,087	32,186	17,780	17,173	16,379	52,320	1,260,182	—	—	—
	mean s.f.d.	354	2,505	1,812	3,084	5,726	3,788	1,482	523	289	279	275	851	—	20,000	223	1,741
1938	acre-foot	31,265	42,456	162,121	223,928	315,044	291,880	130,917	54,155	28,663	27,475	24,748	26,003	1,358,685	—	—	—
	mean s.f.d.	508	764	2,637	3,763	5,124	4,905	2,129	881	482	447	416	423	—	14,582	356	1,877
1939	acre-foot	28,558	33,273	54,119	92,136	92,253	58,400	25,480	18,774	13,712	16,826	13,692	13,850	461,073	—	—	—
	mean s.f.d.	464	599	880	1,548	1,500	961	414	305	230	274	200	225	—	2,028	178	637
1940	acre-foot	45,082	65,032	77,810	118,175	196,465	145,503	50,471	18,926	13,234	14,670	16,007	27,723	789,068	—	—	—
	mean s.f.d.	733	1,131	1,265	1,966	3,195	2,445	821	308	222	239	269	451	—	5,454	167	1,087
1941	acre-foot	39,540	73,589	109,735	124,615	386,666	309,960	174,416	62,537	27,997	26,325	27,661	38,035	1,401,076	—	—	—
	mean s.f.d.	643	1,325	1,785	2,094	6,289	5,209	2,837	1,017	471	428	465	619	—	8,523	337	1,935
1942	acre-foot	49,438	40,834	58,487	112,586	150,036	178,754	81,529	30,284	16,500	14,648	16,130	22,740	771,966	—	—	—
	mean s.f.d.	804	735	951	1,892	2,440	3,004	1,326	493	277	238	271	370	—	4,060	141	1,066
1943	acre-foot	92,551	56,820	261,344	198,736	254,785	155,650	88,011	34,435	17,857	17,849	18,565	24,224	1,220,827	—	—	—
	mean s.f.d.	1,505	1,023	4,250	3,340	4,144	2,616	1,431	560	300	290	312	394	—	21,701	252	1,686
1944	acre-foot	27,473	32,781	69,836	80,223	150,109	115,862	59,197	20,305	12,843	12,952	21,521	22,435	625,537	—	—	—
	mean s.f.d.	447	570	1,136	1,348	2,441	1,947	963	330	216	211	362	365	—	3,071	191	862
1945	acre-foot	20,783	70,522	63,925	131,246	205,509	168,002	91,593	41,832	21,548	41,268	36,845	44,182	938,055	—	—	—
	mean s.f.d.	338	1,270	1,040	2,206	3,342	2,840	1,490	677	362	671	619	719	—	9,370	155	1,266
1946	acre-foot	45,481	34,854	60,956	109,656	155,476	85,880	39,733	20,091	13,261	16,141	31,365	37,785	650,663	—	—	—
	mean s.f.d.	740	628	991	1,843	2,529	1,443	646	327	223	263	527	615	—	3,814	192	899
1947	acre-foot	31,146	28,167	36,319	60,353	110,325	57,778	21,116	12,313	9,140	12,907	13,492	13,942	406,698	—	—	—
	mean s.f.d.	507	507	591	1,014	1,794	971	343	200	154	205	227	227	—	2,584	135	562
1948	acre-foot	13,486	13,267	16,233	43,976	86,108	78,565	31,331	9,927	6,899	8,908	9,588	11,220	329,506	—	—	—
	mean s.f.d.	219	231	264	739	1,400	1,320	510	161	116	145	161	182	—	2,208	97	454
1949	acre-foot	11,982	12,962	21,136	50,517	84,508	57,985	17,201	8,662	6,541	7,704	11,131	12,781	302,870	—	—	—
	mean s.f.d.	195	234	344	849	1,374	969	280	141	110	125	187	208	—	2,128	69	418
1950	acre-foot	17,119	39,761	37,087	76,155	98,483	60,367	34,901	12,179	10,393	9,955	96,968	77,962	601,360	—	—	—
	mean s.f.d.	278	716	603	1,290	1,602	1,519	568	198	175	162	1,630	1,268	—	37,000	128	831

**HISTORICAL RECAP
KERIN RIVER AT FIRST POINT OF MEASUREMENT**

YEAR	QUANTITY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	MAX.	MIN.	MEAN
1951	acre-foot	32,975	30,018	35,101	48,914	85,039	88,990	38,941	12,968	7,783	9,384	11,958	40,163	442,222	—	—	—
	mean s.f.d.	536	541	571	822	1,393	1,496	633	211	131	152	201	653	—	8,341	68	611
1952	acre-foot	60,367	53,673	84,726	222,633	434,769	302,557	159,856	68,200	30,670	23,417	24,871	35,260	1,500,969	—	—	—
	mean s.f.d.	982	833	1,378	3,741	7,071	5,085	2,600	1,109	515	381	418	573	—	8,530	254	2,073
1953	acre-foot	60,700	40,498	38,709	70,730	86,019	103,194	69,957	21,503	12,730	13,125	15,023	16,915	548,833	—	—	—
	mean s.f.d.	988	729	630	1,189	1,399	1,734	1,133	350	214	213	252	275	—	3,798	119	758
1954	acre-foot	22,019	30,361	44,575	101,203	139,719	73,553	39,642	19,188	12,571	12,351	15,328	17,837	528,357	—	—	—
	mean s.f.d.	358	547	725	1,701	2,272	1,236	645	312	211	201	258	290	—	2,948	150	729
1955	acre-foot	20,438	24,825	29,734	37,567	69,544	86,690	31,014	19,293	9,840	10,100	12,526	92,959	444,300	—	—	—
	mean s.f.d.	332	443	484	631	1,131	1,456	504	314	165	164	211	1,512	—	12,711	101	614
1956	acre-foot	82,943	49,983	62,767	97,553	159,683	169,876	99,529	41,141	21,370	23,397	17,042	16,598	840,862	—	—	—
	mean s.f.d.	1,349	869	1,021	1,639	2,597	2,838	1,619	669	359	381	286	269	—	5,167	207	1,158
1957	acre-foot	18,535	26,178	31,357	38,644	79,355	132,359	41,968	17,518	12,111	13,648	14,013	18,632	444,338	—	—	—
	mean s.f.d.	301	471	510	649	1,291	2,224	683	285	204	222	235	303	—	3,411	147	614
1958	acre-foot	22,088	39,453	68,140	198,105	316,974	230,866	115,724	59,190	27,515	20,815	19,835	19,025	1,104,730	—	—	—
	mean s.f.d.	359	710	1,108	2,925	5,155	3,880	1,882	914	462	339	333	309	—	6,592	236	1,526
1959	acre-foot	20,592	22,258	33,274	40,566	39,945	32,081	18,013	10,064	9,852	9,689	10,419	11,215	257,978	—	—	—
	mean s.f.d.	335	401	541	682	650	539	293	164	166	158	175	182	—	944	104	356
1960	acre-foot	13,363	30,682	31,908	46,272	56,336	47,181	16,683	9,638	8,678	10,187	14,183	12,926	300,037	—	—	—
	mean s.f.d.	217	533	519	778	949	793	271	157	146	166	238	210	—	1,690	99	413
1961	acre-foot	11,466	10,905	14,221	24,137	29,980	24,305	8,952	16,018	8,463	7,353	9,554	12,268	177,642	—	—	—
	mean s.f.d.	186	196	231	408	488	408	146	291	142	120	161	200	—	626	99	245
1962	acre-foot	13,507	53,411	37,660	147,463	135,884	157,253	74,874	25,416	13,849	14,051	12,407	11,929	697,704	—	—	—
	mean s.f.d.	220	982	612	2,478	2,210	2,643	1,218	413	233	229	209	194	—	3,604	144	964
1963	acre-foot	27,793	101,595	42,994	69,412	137,839	163,944	105,384	47,008	28,883	27,291	25,837	23,470	801,450	—	—	—
	mean s.f.d.	452	1,829	699	1,167	2,242	2,755	1,714	765	485	444	434	382	—	15,584	160	1,107
1964	acre-foot	19,843	17,119	25,146	42,946	61,521	54,658	23,803	14,097	9,025	9,150	14,939	46,919	339,266	—	—	—
	mean s.f.d.	324	298	409	722	1,001	919	387	229	152	149	251	763	—	4,683	120	487
1965	acre-foot	46,768	31,702	38,356	80,043	131,980	149,357	95,288	49,105	22,038	17,631	29,542	30,551	720,362	—	—	—
	mean s.f.d.	761	571	591	1,345	2,146	2,510	1,550	799	370	287	496	497	—	3,322	229	965
1966	acre-foot	29,272	22,439	39,108	68,779	82,336	45,431	23,347	18,141	9,608	10,922	15,501	313,811	678,595	—	—	—
	mean s.f.d.	476	404	636	1,156	1,339	763	380	295	161	176	261	5,104	—	80,029	112	937
1967	acre-foot	63,580	65,831	86,200	99,508	269,631	311,063	243,802	94,834	55,255	36,230	34,546	35,746	1,396,227	—	—	—
	mean s.f.d.	1,034	1,185	1,402	1,672	4,385	5,228	3,965	1,542	929	589	581	581	—	7,223	419	1,928
1968	acre-foot	34,052	40,354	48,803	65,584	87,991	64,054	30,690	20,600	11,469	13,599	16,982	19,585	453,760	—	—	—
	mean s.f.d.	554	702	794	1,102	1,431	1,076	499	335	193	221	285	319	—	1,923	155	625
1969	acre-foot	178,493	111,342	157,595	378,333	617,968	496,796	254,777	111,100	49,936	36,036	34,862	34,132	2,491,370	—	—	—
	mean s.f.d.	2,903	2,005	2,593	6,358	10,050	8,349	4,144	1,807	839	586	586	555	—	24,216	344	3,400
1970	acre-foot	66,480	41,419	59,917	63,513	110,057	95,700	50,138	24,224	14,392	13,301	21,519	28,814	599,474	—	—	—
	mean s.f.d.	1,081	748	974	1,097	1,790	1,608	815	394	242	216	362	489	—	6,298	171	814

**HISTORICAL RECAP
KERN RIVER AT FIRST POINT OF MEASUREMENT**

YEAR	QUANTITY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	MAX.	MIN.	MEAN
1971	acre-feet	34,143	30,960	41,913	52,661	66,635	82,707	42,472	19,841	11,371	11,540	14,102	19,109	427,454	—	—	—
	mean s.f.d.	555	557	682	885	1,084	1,390	691	323	191	188	237	311	—	1,895	125	590
1972	acre-feet	19,864	18,827	33,213	28,288	45,965	38,531	14,936	10,927	11,334	11,431	14,703	20,408	268,427	—	—	—
	mean s.f.d.	323	327	540	475	748	648	243	178	190	186	247	332	—	951	111	370
1973	acre-feet	33,628	36,395	52,778	110,892	288,652	230,390	83,834	41,028	23,030	18,995	22,342	27,788	979,652	—	—	—
	mean s.f.d.	547	655	858	1,964	4,694	3,872	1,526	667	387	307	375	452	—	5,888	220	1,353
1974	acre-feet	50,337	29,873	74,247	114,113	183,733	187,740	69,580	39,991	23,532	21,953	19,904	23,603	818,608	—	—	—
	mean s.f.d.	819	538	1,208	1,918	2,988	2,819	1,132	650	395	357	334	384	—	4,141	220	1,130
1975	acre-feet	21,521	26,725	42,815	46,602	147,001	140,660	51,917	22,825	17,133	16,209	15,049	16,310	564,567	—	—	—
	mean s.f.d.	350	481	696	783	2,391	2,364	844	368	288	264	253	265	—	3,783	164	780
1976	acre-feet	16,308	16,964	23,074	25,924	47,151	20,930	14,749	14,573	25,097	20,523	12,954	11,191	249,468	—	—	—
	mean s.f.d.	265	295	375	436	767	352	240	237	422	334	218	182	—	1,188	142	344
1977	acre-feet	13,456	13,704	14,765	23,381	25,630	35,655	10,973	10,979	7,815	8,146	8,456	24,028	196,988	—	—	—
	mean s.f.d.	219	247	240	383	417	599	178	179	131	132	142	381	—	2,049	57	272
1978	acre-feet	46,598	116,432	175,484	181,700	363,157	354,825	194,693	74,001	61,696	29,562	26,874	28,485	1,653,505	—	—	—
	mean s.f.d.	758	2,096	2,854	3,054	5,906	5,963	3,166	1,204	1,037	481	452	463	—	10,901	350	2,284
1979	acre-feet	34,062	41,825	72,299	102,079	164,935	106,112	46,733	27,243	19,583	19,781	18,779	19,230	672,661	—	—	—
	mean s.f.d.	554	753	1,176	1,715	2,682	1,783	760	443	329	322	316	313	—	3,540	229	929
1980	acre-feet	145,545	168,887	139,620	211,608	287,825	282,877	208,715	78,143	35,068	26,955	25,006	29,708	1,639,957	—	—	—
	mean s.f.d.	2,367	2,936	2,271	3,556	4,681	4,754	3,394	1,271	569	438	420	483	—	14,171	261	2,259
1981	acre-feet	28,709	34,762	45,608	69,320	91,914	65,817	25,630	17,389	13,222	14,781	18,922	23,189	449,263	—	—	—
	mean s.f.d.	467	626	742	1,165	1,495	1,106	417	283	222	240	318	377	—	2,211	157	621
1982	acre-feet	37,682	52,966	78,724	212,963	254,985	198,748	130,098	61,956	61,716	46,306	57,116	77,849	1,271,139	—	—	—
	mean s.f.d.	613	954	1,280	3,579	4,147	3,340	2,116	1,008	1,037	753	960	1,266	—	9,075	389	1,756
1983	acre-feet	87,905	138,514	265,543	206,473	478,625	571,846	288,866	154,935	68,503	53,300	71,599	103,019	2,489,128	—	—	—
	mean s.f.d.	1,430	2,494	4,319	3,470	7,784	9,610	4,698	2,520	1,151	867	1,203	1,675	—	14,038	602	3,438
1984	acre-feet	76,054	60,926	82,738	91,359	161,613	93,114	77,046	49,698	26,306	26,428	35,020	39,495	821,797	—	—	—
	mean s.f.d.	1,237	1,059	1,346	1,535	2,628	1,565	1,253	808	476	430	589	642	—	3,305	288	1,132
1985	acre-feet	40,423	40,610	53,371	136,241	146,799	99,858	41,395	23,956	17,024	16,495	22,314	33,945	672,431	—	—	—
	mean s.f.d.	657	731	868	2,290	2,387	1,678	673	390	286	288	375	552	—	3,353	208	929
1986	acre-feet	42,668	149,966	204,775	208,147	293,335	263,794	121,398	57,160	26,567	28,330	25,341	23,458	1,444,939	—	—	—
	mean s.f.d.	694	2,700	3,330	3,498	4,771	4,433	1,974	930	446	461	426	382	—	8,296	313	1,996
1987	acre-feet	25,595	29,504	41,566	55,236	75,108	56,146	24,918	14,735	10,663	11,484	14,745	16,215	375,935	—	—	—
	mean s.f.d.	416	531	676	928	1,222	944	405	240	180	187	248	264	—	1,817	145	519
1988	acre-feet	22,677	19,815	30,210	39,584	58,350	43,140	20,969	13,454	10,733	9,283	10,955	15,515	294,685	—	—	—
	mean s.f.d.	369	344	491	665	949	725	341	219	180	151	184	252	—	1,418	118	406
1989	acre-feet	15,947	23,528	67,430	91,380	71,849	49,823	21,378	13,010	10,213	10,824	10,707	10,949	397,038	—	—	—
	mean s.f.d.	259	424	1,097	1,536	1,169	837	348	212	172	176	180	178	—	2,068	123	548
1990	acre-feet	12,916	13,127	23,048	32,019	38,600	29,345	13,380	8,366	6,428	8,834	8,340	9,148	203,571	—	—	—
	mean s.f.d.	210	236	375	538	628	493	218	136	108	144	140	149	—	845	78	281

**HISTORICAL RECAP
KERN RIVER AT FIRST POINT OF MEASUREMENT**

YEAR	QUANTITY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	MAX.	MIN.	MEAN
1991	acre-feet	10,931	9,215	47,341	58,092	79,763	100,423	38,265	14,854	11,040	9,358	13,940	13,067	408,289	—	—	—
	mean s.f.d.	178	166	770	976	1,297	1,688	622	242	186	152	234	213	—	5,025	109	561
1992	acre-feet	14,069	22,314	26,410	55,448	74,394	32,987	16,324	11,942	7,896	9,414	11,054	14,577	296,829	—	—	—
	mean s.f.d.	229	388	430	932	1,210	554	265	194	133	153	186	237	—	1,584	104	409
1993	acre-feet	39,221	39,564	94,231	133,993	200,864	162,420	87,414	32,763	16,506	14,223	14,398	18,163	853,760	—	—	—
	mean s.f.d.	638	712	1,533	2,252	3,267	2,730	1,422	533	277	231	242	295	—	3,957	203	1,179

**KERN RIVER AT FIRST POINT OF MEASUREMENT
HISTORICAL MONTHLY NATURAL FLOWS**

YEAR: 1993

October 1893 to Date...

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Mean Monthly Flow (acre-feet)	35,885	42,637	64,312	99,459	155,622	138,999	71,434	30,993	18,289	17,489	19,738	27,657	722,514
Mean Monthly Flow (second foot days)	584	761	1,046	1,671	2,531	2,336	1,162	504	307	284	332	450	997
Maximum Monthly Flow (acre-feet)	178,493	202,510	378,116	481,749	617,968	571,846	399,841	154,935	68,503	53,300	96,968	313,811	
Minimum Monthly Flow (acre-feet)	10,931	9,215	14,221	23,391	25,630	14,069	8,225	5,881	5,494	6,817	8,241	9,148	
Number Months of Record	100	100	100	100	100	100	100	100	100	101	101	101	
Cumulative Monthly Flow (All Months - acre-feet)	3,588,541	4,263,717	6,431,168	9,945,916	15,562,207	13,899,940	7,143,399	3,099,290	1,828,852	1,766,393	1,993,518	2,793,382	
Median Monthly Flow (acre-feet)	23,012	30,508	46,463	75,356	119,060	112,494	48,879	21,848	13,950	14,473	15,909	19,396	541,348
Median Monthly Flow (second foot days)	374	544	756	1,266	1,936	1,891	795	355	234	235	267	315	747

MEAN APRIL - JULY RUNOFF TO DATE = 465,514 AcFt MEAN MARCH - OCTOBER RUNOFF TO DATE = 596,597 AcFt
 MEDIAN APRIL - JULY RUNOFF TO DATE = 355,789 AcFt MEDIAN MARCH - OCTOBER RUNOFF TO DATE = 452,523 AcFt

Kern River Mean Natural Flow at First Point of Measurement
(1893 to Date) Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	449	735	862	1,294	2,073	2,701	1,680	715	365	300	292	353
2	440	686	899	1,295	2,101	2,668	1,658	690	359	298	290	355
3	429	644	982	1,317	2,147	2,651	1,634	674	350	296	288	371
4	431	598	954	1,313	2,218	2,643	1,606	657	340	292	285	396
5	455	588	962	1,348	2,268	2,654	1,546	632	357	285	287	511
6	446	656	921	1,378	2,318	2,664	1,499	617	366	293	287	1,161
7	445	794	890	1,399	2,355	2,667	1,450	602	342	283	289	536
8	453	735	910	1,424	2,401	2,650	1,401	588	329	289	287	434
9	438	788	1,005	1,453	2,440	2,602	1,356	574	319	289	287	440
10	447	756	1,014	1,482	2,466	2,586	1,315	566	309	285	292	443
11	464	688	984	1,589	2,467	2,547	1,272	557	304	282	306	414
12	533	706	957	1,606	2,465	2,526	1,243	544	310	279	310	419
13	558	821	977	1,596	2,489	2,506	1,218	517	299	279	304	399
14	666	767	994	1,614	2,520	2,465	1,196	500	289	274	309	381
15	571	771	963	1,636	2,542	2,427	1,158	494	289	275	306	380
16	577	765	998	1,682	2,562	2,373	1,131	491	284	276	308	375
17	567	793	1,027	1,704	2,596	2,338	1,093	478	282	283	312	379
18	656	907	1,092	1,735	2,637	2,301	1,063	476	280	280	325	372
19	614	898	1,079	1,780	2,682	2,263	1,031	474	274	279	473	366
20	574	815	1,065	1,828	2,682	2,229	1,010	460	274	281	416	363
21	586	791	1,102	1,870	2,681	2,196	975	441	275	280	363	372
22	689	777	1,085	1,903	2,688	2,163	943	423	274	277	352	397
23	697	781	1,089	1,916	2,674	2,116	927	412	272	277	354	543
24	706	783	1,102	1,931	2,683	2,048	928	398	272	276	381	491
25	939	809	1,150	1,949	2,708	1,988	890	388	291	274	383	490
26	898	810	1,184	1,977	2,757	1,919	866	377	334	281	360	465
27	752	818	1,220	1,994	2,766	1,875	846	376	307	286	378	492
28	709	809	1,227	2,031	2,767	1,824	815	380	289	288	373	466
29	627	863	1,228	2,044	2,781	1,771	781	380	296	288	359	450
30	606	-	1,231	2,056	2,771	1,718	757	376	289	293	395	491
31	670	-	1,271	-	2,755	-	727	369	-	299	-	439
TOTAL	18,092	21,496	32,424	50,144	78,460	70,079	36,015	15,626	9,220	8,817	9,951	13,944
MAXIMUM DAY	939	907	1,271	2,056	2,781	2,701	1,680	715	366	300	473	1,161
MINIMUM DAY	429	588	862	1,294	2,073	1,718	727	369	272	274	285	353
MEAN	584	761	1,046	1,671	2,531	2,336	1,162	504	307	284	332	450
TOTAL AC.FT.	35,885	42,637	64,312	99,459	155,622	138,999	71,434	30,993	18,289	17,489	19,738	27,657
WHOLE YEAR:-	TOTAL,	364,268	MAX.,	2,781	MIN.,	272	MEAN,	997	TOTAL AC.FT.,	722,514		

Note:- February total reflects adjustment for Leap Year.

**Kern River Median Natural Flow at First Point of Measurement
(1893 to Date)**

Year : 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	346	442	610	1,017	1,588	2,163	1,290	492	262	229	245	284
2	345	428	629	997	1,644	2,210	1,183	466	255	229	257	276
3	344	448	607	975	1,622	2,214	1,168	468	257	227	252	301
4	345	457	622	997	1,674	2,192	1,151	467	261	236	250	313
5	350	457	692	1,049	1,690	2,129	1,077	432	256	226	257	314
6	363	475	645	1,103	1,695	2,141	1,042	426	258	222	255	318
7	362	490	626	1,203	1,691	2,407	978	422	257	228	260	305
8	368	522	612	1,194	1,692	2,276	949	419	248	230	255	302
9	370	533	627	1,209	1,786	2,222	929	390	248	228	258	307
10	363	551	631	1,226	1,864	2,214	877	382	246	230	262	304
11	363	543	640	1,186	1,831	2,284	840	368	241	224	262	309
12	369	555	646	1,163	1,877	2,297	828	372	242	225	266	309
13	371	570	622	1,201	1,994	2,235	833	366	234	229	268	315
14	388	551	658	1,226	1,927	2,198	824	350	227	229	271	318
15	367	534	686	1,176	1,922	2,090	783	342	233	229	269	319
16	373	560	682	1,210	1,887	1,964	735	352	239	236	268	325
17	361	594	696	1,260	2,031	1,848	728	336	230	235	269	322
18	360	606	719	1,268	2,095	1,806	720	325	228	242	270	311
19	378	593	782	1,299	2,133	1,701	697	319	219	247	281	317
20	385	587	804	1,325	2,071	1,611	701	310	219	246	277	318
21	382	572	875	1,385	2,009	1,602	687	306	225	243	267	308
22	377	572	810	1,415	2,021	1,617	637	296	223	236	275	308
23	370	573	874	1,434	2,026	1,570	610	307	215	236	282	334
24	386	576	860	1,475	2,086	1,492	600	307	210	239	280	327
25	383	596	911	1,471	2,099	1,453	601	298	211	237	289	331
26	390	598	971	1,536	2,070	1,435	576	283	222	245	280	316
27	390	617	999	1,495	2,133	1,360	554	298	218	250	271	324
28	398	631	989	1,499	2,177	1,334	529	278	214	247	270	335
29	400	620	944	1,460	2,202	1,348	514	279	214	249	279	325
30	420	-	967	1,538	2,247	1,303	520	278	221	242	276	338
31	435	-	989	-	2,242	-	482	281	-	246	-	346
TOTAL	11,602	15,381	23,425	37,992	60,026	56,716	24,643	11,015	7,033	7,297	8,021	9,779
MAXIMUM DAY	435	631	999	1,538	2,247	2,407	1,290	492	262	250	289	346
MINIMUM DAY	344	428	607	975	1,588	1,303	482	278	210	222	245	276
MEAN	374	544	756	1,266	1,936	1,891	795	355	234	235	267	315
TOTAL AC.FT.	23,012	30,508	46,463	75,356	119,060	112,494	48,879	21,848	13,950	14,473	15,909	19,396
WHOLE YEAR:-	TOTAL,	272,930	MAX.,	2,407	MIN.,	210	MEAN,	747	TOTAL AC.FT.,	541,348		

Note:- February total reflects adjustment for Leap Year.

KERN RIVER HISTORICAL REGULATED FLOWS AT FIRST POINT OF MEASUREMENT (1954 to Date)

QUANTITIES IN ACRE-FEET

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1954	22,019	30,361	44,575	79,089	60,539	81,189	61,059	39,830	22,114	14,450	17,500	17,595	510,320
1955	19,795	22,058	34,671	38,874	48,188	72,196	43,259	25,065	12,936	10,399	13,599	26,743	367,783
1956	41,377	40,326	62,779	49,291	94,887	115,428	124,007	99,489	52,098	42,284	16,990	16,534	755,500
1957	17,968	22,425	34,935	39,677	52,885	96,466	70,175	39,943	22,471	17,282	13,795	17,847	445,859
1958	19,137	26,175	42,125	78,472	131,421	181,305	187,890	143,722	61,519	49,825	25,095	18,825	967,511
1959	20,811	20,991	37,767	29,936	27,463	94,028	59,817	22,689	10,524	8,700	9,786	10,643	353,165
1960	12,516	17,405	24,044	16,318	47,986	81,481	38,991	26,386	13,154	10,483	13,803	12,798	324,088
1961	11,280	10,736	14,017	15,314	16,780	19,321	25,222	21,316	13,404	7,267	9,291	12,121	177,063
1962	13,121	27,435	44,838	95,445	87,187	112,437	113,318	40,778	26,164	22,823	12,448	12,054	607,848
1963	12,067	24,175	32,969	38,914	54,756	80,063	127,710	118,179	68,368	64,828	31,174	23,044	676,237
1964	20,356	21,152	28,532	27,485	28,451	76,268	71,078	31,323	10,969	8,852	14,259	22,879	361,624
1965	35,784	35,907	41,383	39,399	61,313	85,934	96,236	75,497	52,397	47,220	34,356	28,877	634,303
1966	29,978	22,752	50,933	44,634	37,289	67,486	68,368	51,110	19,535	14,739	15,265	82,447	504,506
1967	146,180	40,516	57,923	82,732	190,249	200,743	183,566	240,154	146,509	85,002	56,799	35,482	1,465,955
1968	33,088	36,284	44,904	45,035	52,156	88,046	82,937	56,584	13,656	13,886	16,365	14,085	497,026
1969	50,499	106,247	237,265	378,817	332,015	374,787	263,903	221,738	121,359	102,494	90,523	34,122	2,313,769
1970	42,299	32,206	52,489	60,101	53,698	86,904	94,112	88,421	35,667	21,285	18,228	15,844	601,254
1971	25,978	35,520	48,589	30,809	31,950	57,322	82,128	64,643	23,520	12,184	12,839	17,169	442,651
1972	19,527	22,094	32,130	29,760	32,410	44,965	47,996	31,579	11,560	10,286	12,460	16,524	311,291
1973	21,356	26,214	38,878	66,541	97,172	143,554	161,028	102,660	47,883	29,457	24,811	25,579	785,133
1974	35,447	45,969	49,248	47,151	57,477	96,807	120,476	109,093	69,648	54,365	37,085	23,137	745,903
1975	21,221	34,844	45,041	38,444	57,142	95,197	108,932	89,738	34,139	17,072	15,108	15,213	572,091
1976	14,690	19,008	31,789	23,609	28,901	52,300	54,190	30,742	21,828	19,440	12,946	11,341	320,784
1977	14,051	14,390	15,925	18,778	17,431	25,813	32,951	21,888	8,765	7,660	8,287	14,773	200,702
1978	26,132	50,285	49,222	149,450	266,073	236,549	198,587	146,660	73,234	93,098	70,927	30,458	1,390,675
1979	32,549	31,793	45,903	46,508	62,557	109,987	126,343	107,605	32,267	22,792	18,855	18,909	656,068
1980	55,976	81,590	157,503	185,089	167,415	194,134	238,716	200,338	106,516	82,883	61,644	28,838	1,560,652
1981	25,482	27,013	40,584	41,768	46,348	78,405	80,906	51,310	14,315	14,324	18,426	21,578	460,469
1982	30,363	43,374	49,110	57,060	86,469	155,508	166,492	156,341	88,411	104,122	101,403	82,435	1,121,088
1983	57,566	71,165	152,862	286,605	370,706	419,760	387,505	176,194	153,814	117,233	97,616	90,549	2,381,575
1984	84,280	96,998	68,614	49,793	67,327	89,409	110,785	96,734	43,180	41,726	37,420	47,770	834,036
1985	40,133	48,686	53,821	56,358	72,506	96,757	111,385	77,728	34,973	25,305	20,333	28,986	668,971
1986	31,277	39,039	95,946	172,221	205,204	233,197	193,767	141,114	67,569	82,792	45,227	24,208	1,331,561
1987	24,117	28,919	43,408	44,894	43,609	68,424	73,047	42,545	18,589	15,824	14,269	14,684	432,309
1988	20,793	26,906	35,036	33,769	31,815	50,995	60,458	38,346	13,529	9,025	10,318	14,483	335,473
1989	16,869	21,568	32,092	38,575	39,632	56,527	55,765	36,204	14,241	12,773	10,786	13,739	348,773
1990	12,826	16,124	25,071	24,422	25,454	30,030	31,129	21,519	6,865	8,979	8,037	8,925	219,501
1991	10,627	9,112	27,814	28,937	30,539	62,997	63,654	48,196	12,490	11,353	13,381	14,394	333,494
1992	13,593	20,711	25,451	25,777	33,548	38,600	40,967	31,928	10,195	7,789	10,383	13,880	272,822
1993	22,062	25,426	52,479	45,489	63,322	107,357	118,677	88,671	51,846	34,725	14,021	18,264	642,339
MAXIMUM	146,180	106,247	237,265	378,817	370,706	419,760	387,505	240,154	153,814	117,233	101,403	90,549	2,381,575
MINIMUM	10,627	9,112	14,017	16,318	16,780	19,321	25,222	21,316	6,865	7,267	8,037	8,925	177,063
ACFT TOTAL	1,205,260	1,375,869	2,102,665	2,711,067	3,332,270	4,460,676	4,377,502	3,244,010	1,682,861	1,376,846	1,086,850	997,756	27,932,072
ACFT AVE.	30,132	34,397	52,567	67,777	83,307	111,517	109,438	81,100	41,566	34,421	27,146	24,944	698,302
S.F.D. AVE.	490	614	855	1,139	1,355	1,874	1,780	1,319	698	560	456	406	964
% OF TOTAL	4.31%	4.93%	7.53%	9.71%	11.99%	15.97%	15.67%	11.61%	5.95%	4.93%	3.89%	3.57%	100.00%

**Kern River Mean Regulated Flow at First Point of Measurement
(1954 to Date)**

Year : 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	441	519	778	967	1,278	1,493	1,882	1,520	876	656	471	411
2	447	525	759	989	1,291	1,544	1,825	1,491	857	669	464	397
3	447	530	761	993	1,286	1,607	1,832	1,514	837	659	465	401
4	457	531	775	992	1,326	1,667	1,794	1,508	833	651	468	404
5	459	529	770	1,001	1,323	1,706	1,824	1,526	805	643	470	419
6	460	542	773	991	1,322	1,730	1,846	1,526	782	672	471	519
7	467	540	793	1,013	1,315	1,771	1,861	1,481	761	636	463	433
8	468	549	793	1,051	1,345	1,794	1,884	1,463	742	617	461	418
9	459	670	791	1,090	1,351	1,811	1,887	1,484	722	618	462	406
10	447	643	813	1,114	1,347	1,837	1,876	1,485	708	606	465	401
11	441	589	835	1,131	1,335	1,857	1,854	1,473	696	582	476	391
12	446	583	817	1,141	1,346	1,875	1,857	1,446	681	547	472	385
13	459	599	837	1,140	1,339	1,889	1,852	1,427	677	547	474	367
14	463	598	837	1,144	1,321	1,920	1,863	1,398	674	543	462	358
15	462	618	858	1,170	1,300	1,925	1,859	1,379	668	532	458	363
16	487	609	865	1,180	1,308	1,956	1,836	1,366	669	522	461	356
17	486	603	876	1,183	1,309	2,017	1,798	1,338	660	511	467	362
18	492	615	867	1,187	1,321	2,034	1,762	1,355	648	519	458	380
19	492	624	864	1,202	1,336	2,047	1,756	1,330	636	520	459	380
20	488	647	881	1,197	1,369	2,020	1,718	1,296	633	524	458	377
21	488	651	897	1,192	1,386	2,028	1,754	1,262	635	528	460	379
22	492	655	902	1,199	1,391	2,033	1,737	1,213	641	520	451	396
23	502	671	913	1,211	1,398	2,008	1,736	1,193	646	519	437	413
24	545	695	922	1,223	1,398	2,031	1,717	1,171	646	512	420	425
25	569	693	920	1,228	1,397	2,020	1,694	1,140	644	513	437	426
26	597	699	926	1,232	1,382	1,994	1,688	1,100	640	509	434	424
27	581	710	936	1,250	1,392	1,917	1,679	1,078	635	504	432	436
28	552	724	932	1,245	1,397	1,884	1,657	1,047	631	501	438	437
29	531	707	919	1,247	1,422	1,914	1,640	1,004	644	502	433	432
30	530	-	940	1,268	1,461	1,894	1,626	957	624	494	439	436
31	537	-	952	-	1,509	-	1,581	917	-	478	-	444
TOTAL	15,192	17,342	26,502	34,171	42,001	56,223	55,175	40,888	20,951	17,354	13,686	12,576
MAX INSTAN.	3,331	8,280	5,691	7,394	6,675	7,576	7,327	4,694	3,103	7,000	2,275	9,289
MIN INSTAN.	111	67	143	181	223	215	349	84	64	40	66	22
MEAN	490	614	855	1,139	1,355	1,874	1,780	1,319	698	560	456	406
TOTAL AC.FT.	30,132	34,397	52,567	67,777	83,307	111,517	109,438	81,100	41,556	34,421	27,146	24,944
WHOLE YEAR--	TOTAL,	352,061	MAX.,	9,289	MIN.,	22	MEAN,	964	TOTAL AC.FT.,	698,302		

Note:- February total reflects adjustment for Leap Year.

PRECIPITATION DATA -- ISABELLA DAM & RESERVOIR
OCTOBER 1949 TO DATE
(In Inches)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1949-50	0.05	0.65	1.32	1.37	2.60	1.02	0.44	0.00	0.00	0.23	0.11	0.21	8.00
1950-51	0.08	3.16	0.98	1.12	0.18	0.11	0.93	0.03	0.00	0.00	0.00	0.00	6.59
1951-52	0.35	0.47	4.77	5.52	0.37	3.26	0.12	0.00	0.00	0.00	0.00	0.11	14.97
1952-53	0.00	1.98	3.09	2.39	0.04	0.67	1.20	0.20	0.00	0.00	0.09	0.09	9.66
1953-54	0.13	0.90	0.78	1.88	2.26	2.13	0.06	0.07	0.00	0.00	0.00	0.02	8.23
1954-55	0.00	0.80	1.30	2.47	1.05	0.00	0.67	0.78	0.00	0.00	0.00	0.00	7.07
1955-56	0.00	1.34	4.01	4.25	0.26	0.43	1.51	0.43	0.00	0.00	0.00	0.00	12.03
1956-57	0.42	0.00	0.17	1.88	0.96	0.84	0.72	1.03	0.01	0.02	0.00	0.00	6.05
1957-58	0.19	0.33	1.63	3.09	4.45	3.63	2.77	0.24	0.00	0.00	0.05	0.20	16.58
1958-59	0.17	0.48	0.02	0.64	1.54	0.08	0.45	0.07	0.00	0.00	0.00	0.34	3.79
1959-60	0.00	0.00	0.97	1.77	6.48	0.43	1.28	0.34	0.00	0.00	0.00	0.07	11.34
1960-61	0.12	0.00	0.12	0.50	0.01	1.59	0.51	0.16	0.11	0.02	1.20	0.00	5.60
1961-62	0.00	2.15	0.79	2.55	5.35	1.26	0.00	0.08	0.00	0.00	0.00	0.00	12.18
1962-63	0.03	0.00	0.00	1.52	3.06	2.06	1.07	0.13	0.00	0.00	0.16	0.00	10.91
1963-64	2.02	1.20	0.46	0.97	0.27	1.93	0.84	0.07	0.03	0.00	0.01	0.00	7.63
1964-65	0.47	1.82	3.99	1.75	0.27	1.21	2.58	0.18	0.13	0.39	0.50	0.20	13.49
1965-66	0.00	2.76	2.37	0.66	0.75	0.22	0.00	0.00	0.00	0.00	0.80	0.00	7.56
1966-67	0.00	1.09	11.53	2.49	0.02	0.63	2.75	0.18	0.24	0.30	0.23	0.63	21.09
1967-68	0.00	1.41	1.85	0.82	0.85	1.55	0.01	0.01	0.00	0.01	0.11	0.00	7.38
1968-69	0.35	1.28	0.24	9.58	6.12	1.14	0.95	0.35	0.34	0.27	0.00	0.10	22.11
1969-70	0.04	0.56	2.20	3.91	0.54	1.89	0.43	0.00	0.00	0.02	0.00	0.00	7.67
1970-71	0.05	0.47	3.04	0.00	0.39	0.00	0.37	0.89	0.00	0.06	0.54	0.00	9.22
1971-72	0.05	0.00	0.47	0.00	2.57	2.65	0.25	0.05	0.00	0.00	0.34	0.03	5.54
1972-73	0.66	3.13	2.48	3.96	0.09	2.00	0.25	0.39	0.00	0.00	0.00	0.00	15.95
1973-74	0.11	1.26	2.41	0.65	1.82	2.00	1.95	0.04	0.00	0.00	0.00	0.00	10.58
1974-75	2.30	0.10	0.07	0.02	1.25	1.61	0.86	0.05	0.00	0.78	0.00	0.85	12.46
1975-76	0.41	0.22	0.07	0.02	1.04	0.75	0.00	0.91	0.39	0.00	0.87	0.00	10.10
1976-77	0.23	0.07	0.62	1.50	6.96	0.87	0.87	0.00	0.00	0.03	0.00	1.33	22.37
1977-78	0.02	0.17	5.02	4.51	3.22	3.46	0.00	0.19	0.00	0.03	0.14	0.00	11.44
1978-79	0.02	0.39	0.74	3.24	4.32	1.85	0.51	0.55	0.00	0.00	0.00	0.00	16.56
1979-80	0.95	0.33	0.34	7.71	4.32	3.05	0.23	0.34	0.00	0.00	0.00	0.00	8.53
1980-81	0.09	0.01	0.63	2.65	1.49	4.27	1.59	0.01	0.04	0.00	0.00	0.00	15.32
1981-82	1.05	1.17	1.16	4.04	1.15	5.96	0.58	0.09	0.00	0.00	1.14	0.20	24.34
1982-83	0.63	3.49	3.56	0.00	4.36	0.27	0.51	0.00	0.02	2.01	0.63	0.00	12.25
1983-84	0.62	1.93	1.93	0.68	1.16	1.71	0.03	0.00	0.00	0.15	0.00	0.00	9.18
1984-85	0.10	2.27	1.43	2.94	3.58	3.58	0.10	0.00	0.00	0.38	0.00	0.27	14.65
1985-86	0.24	0.54	0.27	1.80	2.03	1.88	0.10	0.42	0.48	0.00	0.00	0.04	8.65
1986-87	0.62	0.87	1.36	1.80	0.40	0.24	1.41	0.50	0.05	0.51	0.00	0.00	7.76
1987-88	0.00	1.75	3.15	0.29	2.24	2.28	0.09	0.04	0.00	0.00	0.00	0.62	10.46
1988-89	0.00	0.00	0.74	0.99	1.00	0.67	0.44	0.26	0.02	0.00	0.00	0.35	4.48
1989-90	0.01	0.61	0.00	1.17	1.17	4.24	0.03	0.09	0.00	0.00	0.01	0.19	8.08
1990-91	0.53	1.30	1.45	1.02	3.10	1.82	0.00	0.12	0.00	0.00	0.00	0.00	9.34
1991-92	0.34	0.00	2.80	4.09	4.15	0.79	0.00	0.00	0.64	0.00	0.00	0.00	13.41
1992-93	0.34	1.17	1.87	2.34	1.96	1.69	0.71	0.22	0.09	0.13	0.18	0.36	11.07
AVERAGE	2.30	3.49	11.53	9.56	6.96	5.96	2.77	1.03	0.80	2.01	1.20	5.20	24.34
MAXIMUM	0.96	2.85	5.20	2.15	3.40	1.72	1.45	0.75	0.50	0.88	1.01	3.09	3.09
DATE OF OCCURRENCE	10/17/63	11/20/50	12/05/66	01/25/69	02/01/60	03/04/91	04/02/74	05/19/57	06/08/72	07/16/84	08/08/63	09/30/76	

ISABELLA, CALIFORNIA
AVERAGE MONTHLY TEMPERATURES (°F)
1956 to Date

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1956	46.6	43.7	52.5	55.6	65.0	74.0	79.8	76.2	74.7	59.1	53.7	46.8	60.6
1957	40.6	52.5	52.0	58.1	62.8	77.3	81.9	78.4	73.5	59.3	49.8	46.9	61.1
1958	46.3	49.3	47.6	64.1	68.7	72.2	79.7	82.8	74.9	67.3	52.1	50.8	62.3
1959	47.6	46.1	56.5	64.1	62.8	77.2	86.4	79.9	70.7	65.4	55.6	47.3	63.3
1960	41.7	45.8	55.6	57.2	63.6	79.8	83.0	80.0	76.0	61.6	50.9	45.3	61.7
1961	48.0	50.0	50.7	59.5	62.0	79.4	84.5	81.3	71.2	62.3	49.6	44.7	61.9
1962	44.7	46.4	48.0	61.3	60.9	73.4	79.6	79.0	74.4	63.2	53.0	47.8	61.0
1963	44.0	52.7	48.6	50.2	63.5	68.2	76.7	76.1	74.3	62.7	51.0	46.1	59.5
1964	43.3	44.8	47.2	53.6	60.6	70.5	79.4	78.8	70.1	66.8	48.6	47.2	59.2
1965	46.1	47.9	49.6	54.1	60.7	67.1	77.3	76.8	66.5	64.4	51.8	43.6	58.8
1966	41.9	43.8	52.4	60.7	68.0	73.3	77.8	79.5	72.4	62.2	51.2	44.4	60.6
1967	44.4	47.9	50.9	45.4	62.6	69.2	80.9	82.1	72.3	63.9	56.4	39.7	59.6
1968	42.8	52.2	53.0	55.7	63.6	74.4	80.6	74.8	71.9	61.0	50.8	40.7	60.1
1969	44.0	42.4	48.1	54.3	65.9	69.6	78.9	79.4	73.1	57.6	53.3	45.0	59.3
1970	45.6	50.4	49.9	51.0	65.8	72.7	81.6	80.1	69.6	60.1	52.4	41.3	60.0
1971	43.4	44.8	50.6	52.5	58.3	70.7	79.7	79.7	68.2	56.4	48.6	38.8	57.9
1972	42.0	49.1	56.1	56.1	65.6	73.5	80.5	76.1	68.2	56.8	45.7	39.6	59.1
1973	40.3	45.7	42.8	53.0	64.9	73.1	76.9	74.8	68.5	59.1	46.9	44.9	57.6
1974	41.3	44.6	49.4	51.2	62.2	72.5	76.6	76.2	74.2	61.4	50.0	41.0	58.4
1975	43.1	43.6	45.7	45.7	60.7	71.2	75.9	73.6	72.4	57.6	48.7	45.1	56.9
1976	44.2	45.7	47.4	50.6	65.7	71.2	77.5	70.5	68.3	60.3	53.6	44.5	58.3
1977	42.8	48.4	43.8	57.5	65.4	74.0	77.6	77.2	70.0	62.3	51.1	47.3	59.0
1978	44.3	46.1	53.1	50.9	60.4	71.7	76.7	76.8	67.6	65.3	47.2	39.7	58.3
1979	40.7	41.7	48.5	60.6	63.2	71.4	75.9	72.6	74.0	61.8	50.0	48.4	59.1
1980	47.5	49.1	46.5	54.8	57.7	68.8	77.8	75.3	69.2	63.2	52.4	49.0	59.1
1981	48.3	49.5	47.7	57.0	63.6	76.0	79.1	79.7	73.2	56.9	52.9	47.1	60.9
1982	41.8	47.8	47.4	52.5	63.6	68.6	75.6	77.1	68.5	59.2	48.6	43.2	57.8
1983	45.2	47.2	48.5	49.9	61.4	69.2	73.0	75.7	74.0	61.3	50.2	46.1	58.5
1984	47.0	46.6	51.4	52.6	67.3	70.6	80.9	78.2	74.6	55.7	48.3	41.9	59.6
1985	43.2	45.7	46.5	59.3	62.9	75.1	79.9	75.3	65.1	59.0	47.0	44.5	58.6
1986	49.7	49.0	53.5	54.9	63.5	73.7	75.7	78.6	64.1	58.2	51.0	43.0	59.6
1987	38.9	45.9	47.5	59.0	63.2	73.8	72.6	76.5	69.6	64.4	48.6	38.8	58.2
1988	42.3	48.5	50.8	55.1	59.6	70.3	80.2	77.9	72.5	66.1	50.3	43.1	59.7
1989	41.8	43.4	52.7	61.7	63.0	72.1	78.4	74.3	68.4	58.6	51.8	44.2	59.2
1990	42.5	42.6	50.7	57.9	61.7	71.9	80.1	74.9	69.6	62.7	49.4	37.4	58.5
1991	42.7	50.8	43.6	51.2	56.7	71.0	82.1	77.8	77.2	67.6	53.4	45.2	59.9
1992	43.4	49.2	52.4	62.5	71.7	73.3	79.1	81.3	74.5	64.8	51.3	42.0	62.1
1993	42.5	45.5	54.9	56.8	65.3	70.5	76.7	77.0	72.5	62.7	50.9	43.2	59.9
Normal	43.9	47.0	49.8	55.3	63.0	72.4	78.9	77.4	71.4	61.5	50.7	44.1	59.6
Maximum	49.7	52.7	56.5	64.1	71.7	79.8	86.4	82.8	77.2	67.6	56.4	50.8	63.3
Minimum	38.9	41.7	42.8	45.4	55.4	66.8	72.6	70.5	64.1	55.7	45.7	37.4	56.9

ISABELLA RESERVOIR EVAPORATION

April 1954 to Date

Quantities in acre-feet

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1954				181	1,662	2,554	2,599	1,563	833	436	192	109	10,129
1955	72	117	236	141	526	1,547	1,705	1,375	847	542	258	190	7,556
1956	407	788	1,444	1,797	3,330	5,496	6,084	5,484	4,183	2,056	1,650	897	33,616
1957	628	724	1,258	1,823	2,210	4,588	5,173	4,512	3,068	1,588	1,107	700	27,379
1958	593	494	734	2,043	4,470	6,462	7,720	6,843	4,729	3,521	1,603	1,307	40,519
1959	1,021	811	2,148	2,890	3,711	4,983	4,439	3,503	2,263	1,728	1,087	684	29,258
1960	323	466	1,099	1,505	2,287	3,372	2,720	2,128	1,379	783	341	280	16,683
1961	315	319	419	780	1,158	2,178	2,204	1,200	930	647	329	168	10,647
1962	188	182	446	1,105	2,307	4,128	4,840	4,084	2,880	1,684	916	770	23,530
1963	694	930	1,523	1,577	3,503	5,534	8,202	6,696	4,136	2,289	1,172	962	37,218
1964	916	1,105	1,418	2,162	3,221	4,584	4,842	3,915	2,836	2,057	849	635	28,540
1965	595	857	1,053	1,368	3,251	4,757	5,986	5,397	4,169	3,098	1,103	656	32,290
1966	843	833	1,555	2,624	4,159	5,117	5,246	4,576	2,821	1,819	767	928	31,288
1967	970	1,071	1,874	1,700	3,931	5,960	8,805	8,051	4,574	3,578	1,597	744	42,855
1968	801	930	1,380	2,511	4,243	5,574	5,258	4,048	3,239	1,954	991	476	31,405
1969	494	668	1,511	1,886	4,334	6,486	8,916	9,046	5,911	3,560	1,968	980	45,760
1970	885	1,289	1,935	2,593	4,954	6,051	6,959	6,376	4,597	3,010	1,623	619	40,891
1971	700	990	1,836	2,277	3,181	5,337	6,227	5,233	3,678	2,370	1,304	545	33,678
1972	729	1,000	1,807	2,045	3,096	3,512	4,154	2,703	1,816	1,059	524	355	22,800
1973	434	496	760	1,738	4,009	7,698	9,126	7,109	5,530	3,564	1,981	966	43,411
1974	825	1,347	1,622	3,023	6,119	9,055	9,630	8,904	7,073	3,608	1,864	1,166	53,936
1975	1,174	1,002	1,476	2,162	4,911	8,206	8,936	7,498	4,887	2,957	1,845	1,125	46,169
1976	1,468	1,291	1,952	2,537	4,552	5,226	4,560	3,261	2,108	1,609	984	702	30,250
1977	466	700	968	1,761	1,765	3,286	3,757	2,495	1,795	1,216	726	428	19,363
1978	343	621	1,597	2,698	5,891	10,969	9,945	6,020	5,710	5,115	2,049	996	55,497
1979	1,069	954	1,896	3,701	6,337	9,080	9,535	7,242	5,710	3,306	1,866	1,246	51,942
1980	1,047	1,375	2,229	3,715	4,943	8,289	10,374	10,171	6,637	4,544	2,446	1,565	57,335
1981	1,154	1,317	1,619	3,386	5,371	8,644	8,660	6,966	5,028	2,582	1,747	1,067	47,541
1982	827	1,093	1,333	3,172	6,563	8,180	10,967	9,418	5,732	4,086	1,769	1,053	54,193
1983	1,097	1,057	2,182	3,235	5,905	9,255	10,645	7,630	7,337	3,814	1,656	1,188	55,001
1984	1,624	1,547	2,545	3,594	7,055	8,327	7,914	7,142	6,085	3,642	1,642	1,103	52,220
1985	1,139	1,287	1,749	3,894	6,375	8,622	9,025	7,650	4,441	3,287	1,577	985	49,931
1986	1,119	1,150	2,323	4,740	7,436	10,088	10,933	10,276	6,361	3,866	2,329	1,206	61,827
1987	916	1,428	1,833	3,537	4,596	6,682	7,115	6,454	4,469	2,906	1,361	732	42,029
1988	823	1,178	1,962	2,132	3,148	4,141	4,667	3,318	2,493	1,777	965	500	27,004
1989	502	540	1,339	2,828	4,292	5,572	6,458	4,653	3,027	2,029	1,380	877	33,497
1990	667	649	1,148	1,755	2,705	3,713	3,993	2,872	2,035	1,609	797	480	22,423
1991	409	547	635	1,587	2,674	4,568	5,171	4,026	2,951	2,315	1,789	1,434	28,106
1992	1,137	1,016	1,295	2,218	3,459	4,132	4,542	4,024	2,910	1,862	1,285	1,238	29,118
1993	970	1,081	1,365	2,888	5,185	7,057	9,080	8,063	5,808	3,652	2,291	1,139	48,579
Average	779	904	1,474	2,332	4,071	5,932	6,703	5,646	3,933	2,521	1,341	828	36,464



KERN RIVER IN REVIEW
1993

Introduction

Concern that water users might be faced with a seventh consecutive "dry" Kern River supply eased somewhat by early December of 1992 as a series of powerful Pacific storms began their assault on the southern Sierra Nevada Mountains. The wet weather patterns originating during December continued into 1993, with precipitation throughout the Kern River watershed approaching 200% of normal during the months of January and February. The Kern River basin snowpack water content reached its highest level since 1986, propelling the April-July snowmelt runoff above normal levels for only the second time in the last ten years.

Precipitation

Monthly precipitation amounts in inches as recorded at selected Kern County stations during the 1992-1993 Water Year were as follows:

	Bakersfield-DWR (Elev. 403 ft.)			Isabella Dam (Elev. 2660 ft.)			Glennville (Elev. 3140 ft.)		
	<u>92-93</u>	<u>Ave.</u>	<u>% of Ave.</u>	<u>92-93</u>	<u>Ave.</u>	<u>% of Ave.</u>	<u>92-93</u>	<u>Ave.</u>	<u>% of Ave.</u>
Oct	0.64	0.30	213%	0.94	0.34	277%	2.06	0.79	261%
Nov	0.00	0.65	0%	0.00	1.18	0%	.06	2.29	3%
Dec	1.62	0.65	249%	2.80	1.87	150%	4.78	2.70	177%
Jan	2.54	0.98	259%	4.09	2.34	175%	6.14	3.38	182%
Feb	1.55	1.07	192%	4.15	1.96	212%	5.80	2.87	202%
Mar	1.65	0.87	190%	0.79	1.69	47%	3.58	3.29	109%
Apr	0.00	0.70	0%	0.00	0.71	0%	0.15	1.87	8%
May	0.00	0.24	0%	0.00	0.22	0%	0.06	0.58	10%
Jun	0.59	0.07	843%	0.64	0.09	711%	2.16	0.16	1350%
Jul	0.00	0.01	0%	0.00	0.13	0%	0.00	0.03	0%
Aug	0.00	0.05	0%	0.00	0.18	0%	0.00	0.18	0%
Sep	0.00	0.13	0%	0.00	0.36	0%	0.00	0.59	0%
TOTAL	8.59	5.72	150%	13.41	11.07	121%	24.79	18.73	132%

Storm activity during the last ten days of October deposited the first precipitation of the 1992-1993 Water Year. After this positive beginning, the month of November produced minimal cloud activity and no precipitation in the Kern River watershed. December was a welcome relief from November's dryness with a series of cold storms occurring throughout the month increasing rainfall accumulation in the southern Sierra's from approximately 65% of normal to 110% of normal. The wet weather onslaught during January doubled the snowpack water content in the Kern basin with the onset of warm, moist storms from the subtropics merging with cold storm systems originating in the Gulf of Alaska. February weather patterns were similar to those experienced in December, continuing the above normal rainfall. March rain tapered off to slightly below normal. April through May had little to no precipitation. This was the fifth consecutive dry April-May interval, four of which totaled less than 15% of the normal precipitation amount. A rare June storm swept through the Kern watershed, depositing 0.64 inches of rain at Lake Isabella, the 3rd highest rainfall total for the month in 44 years of record.

Temperature

Isabella, California 1993, mean air temperatures (°F) with comparative averages were as follows:

	<u>1993</u> <u>Actual</u>	<u>Normal</u>	<u>Variance</u> <u>from</u> <u>Norm</u>		<u>1993</u> <u>Actual</u>	<u>Normal</u>	<u>Variance</u> <u>from</u> <u>Norm</u>
Jan	42.5	43.9	- 1.4	Jul	76.7	78.9	- 2.2
Feb	45.5	47.0	- 1.5	Aug	77.0	77.4	- 0.4
Mar	54.9	49.8	+5.1	Sep	72.5	71.4	+1.1
Apr	56.8	55.3	+1.5	Oct	62.7	61.5	+1.2
May	65.3	63.0	+2.3	Nov	50.9	50.7	+0.2
Jun	70.5	72.4	- 1.9	Dec	43.2	44.1	- 0.9

The mean annual temperature at Isabella, California for 1993, was 59.9° Fahrenheit. Temperature extremes were 106° on August 1, 1993, and 23° on December 20, 1993. Unseasonably warm temperatures in March contributed to low elevation snowmelt resulting in a sharp rise in Kern River natural flow. This broke a trend of below normal natural flow that had lasted 75 successive months dating back to December of 1986.

Snowpack

Listed below are approximate readings, in inches of water content, for the eight remote snow sensor sites located within the Kern River basin on April 1, 1993, with April 1st historical average water contents of same shown for comparison:

	<u>Upper</u> <u>Tyndall</u> <u>Creek</u>	<u>Crabtree</u> <u>Meadow</u>	<u>Chagoopa</u> <u>Plateau</u>	<u>Pascoe</u>	<u>Wet</u> <u>Meadow</u>	<u>Tunnel</u> <u>Guard</u>	<u>Casa</u> <u>Vieja</u> <u>Meadow</u>	<u>Beach</u> <u>Meadows</u>
April 1, 1993	34.0	22.7	32.7	40.0	37.3	21.6	28.1	12.6
April 1, Average	27.7	19.8	21.8	24.9	30.3	15.6	20.9	11.0

Snow sensor readings exceeded the winter norm as of December 29, 1992 and remained well above normal throughout the snowpack accumulation season.

Forecasts

The State of California, Department of Water Resources, issued the following forecasts of Kern River runoff into Isabella Reservoir for the 1993 April-July snowmelt period:

February 1, 1993:	102% of average (470,000 acre-feet)
March 1, 1993:	130% of average (600,000 acre-feet)
April 1, 1993:	128% of average (590,000 acre-feet)
May 1, 1993:	121% of average (560,000 acre-feet)

Runoff

Actual 1993 April-July Kern River inflow to Isabella Reservoir was 586,772 acre-feet (127% of average). Peak natural flow occurred on May 24, 1993 at 3,957 cubic feet per second. Calendar year runoff at First Point of Measurement totaled 853,760 acre-feet, 118% of the long-term average and 158% of the historical median (541,348 acre-feet).

Storage

On January 1, 1993, Isabella Reservoir contained 82,262 acre-feet of water. Peak storage volume for 1993 was reached on May 29th, with 416,982 acre-feet, 11th highest on record and the largest storage mark achieved since August 15, 1986. In December 1993, an agreement was reached between North Kern Water Storage District, Buena Vista Water Storage District, Tulare Lake Basin Water Storage District and the Army Corps of Engineers regarding a 1993-94 winter carryover program at Lake Isabella. The plan allowed for an additional 75,000 acre-feet of water to be stored in the reservoir. As of years end, 242,525 acre-feet remained in Isabella, constituting 43% of the lake capacity and 162% of the 40-year average December 31st carryover storage volume of 149,365 acre-feet.

Operations

Kern River regulated flow during the 1993 calendar year amounted to 642,339 acre-feet, 92% of the 1954-1993 average regulated flow at First Point of Measurement of 698,302 acre-feet. Peak regulated flow occurred on June 21st, 1993, with a mean daily discharge of 2,174 cubic feet per second.

The Kern River Watermaster, on behalf of Kern Delta Water District, North Kern Water Storage District and Buena Vista Water Storage District, consummated an agreement with Southern California Edison Company to allow for a portion of the water to which Southern California Edison Company is entitled to be withheld and stored in Isabella Reservoir. The "1993 Borel Power Flow Storage Program" was initiated on January 7, 1993 and terminated February 28, 1993 and resulted in the storage of 9,971 acre-feet in Lake Isabella, which absent the program, would not have been available during the summer months to help meet peak irrigation demands.

The total water yield of the Kern River basin and its surface storage reservoir in acre-feet during 1993 is summarized as follows:

Kern River Computed Natural Flow	853,760	+
Isabella Reservoir Storage Withdrawal	160,260	-
Isabella Reservoir Evaporation	48,579	-
Kern River Diversion Above First Point	2,582	-
Kern River Regulated Flow at First Point	642,339	=

The delivery of Kern River water to canal and conveyance facilities located below First Point of Measurement during 1993 was as follows:

<u>Delivery Point</u>	<u>Flow in Acre-Feet</u>
Beardsley Canal	233,461
Calloway Canal	63,099
Kern Island Canal	136,659
Eastside Canal	19,528
Stine Canal	30,684
Truxtun Lakes	8,881
Arvin-Edison Turnout	8,821
Buena Vista Canal	37,246
James Canal	1,886
Rosedale Channel	24,930
2800 Acre Recharge Facility	865
River Canal @ Alternate 2 nd Point	33,632
Seepage Loss (River & Carrier)	42,647

The Kern River channel was fully utilized during 1993 for the conveyance of Kern River water below Rocky Point Weir and recharge and transportation of waters diverted into the channel from the Cross Valley Canal and Friant-Kern Canal systems. A total of 135,982 acre-feet of Friant-Kern Canal water was diverted into the Kern River channel between February 23rd and August 3rd of 1993, with a maximum mean daily discharge of 1,402 cubic feet per second occurring on April 20th. Of this total, 25,432 acre-feet of "new" water was purchased by various local districts from the Bureau of Reclamation pursuant to Section 215 of the Reclamation Reform Act of 1982.

Total water recharged in the Kern River channel between Rocky Point Weir and Second Point of Measurement (Enos Lane), including the City of Bakersfield's 2800 Acre Recharge Facility, amounted to 227,618 acre-feet during 1993. This was accomplished through a variety of programs involving the City, Buena Vista Water Storage District, Improvement District No. 4 and the Kern County Water Agency on behalf of its member units.

Kern River water was conveyed to Second Point of Measurement through the Kern River Canal for delivery to Buena Vista Water Storage District, County of Kern, Henry Miller Water District and Kern Delta Water District between March and September of 1993, totalling 33,632 acre-feet. The maximum daily flow occurred on June 21st with a mean daily discharge of 311 cubic feet per second.

Year: 1993

Kern River at First Point of Measurement *Computed Natural*

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	290	425	739	1,772	3,369	2,847	2,180	850	352	243	213	305
2	314	420	761	1,826	3,425	2,690	2,171	819	352	232	215	261
3	307	418	792	1,908	3,565	2,545	2,133	805	344	235	218	255
4	271	401	857	2,020	3,511	2,549	2,076	786	346	248	226	261
5	275	417	894	2,087	3,370	2,941	2,077	775	338	256	224	256
6	310	446	968	2,094	3,090	2,518	2,090	766	328	255	222	267
7	1,472	562	1,045	2,013	2,965	2,423	2,120	743	317	243	218	263
8	2,278	705	1,117	1,987	2,913	2,324	2,053	711	296	252	222	274
9	1,028	808	1,144	2,056	2,938	2,314	1,987	637	296	243	228	274
10	619	789	1,178	2,125	3,001	2,425	1,894	600	286	249	230	278
11	573	705	1,197	2,188	3,119	2,584	1,820	572	282	249	237	435
12	549	615	1,233	2,121	3,149	2,756	1,690	557	266	253	239	463
13	617	573	1,239	2,056	3,075	2,842	1,508	534	262	244	240	327
14	687	540	1,323	1,986	2,958	3,128	1,329	494	253	241	370	287
15	702	525	1,411	2,032	2,923	3,329	1,242	465	242	237	248	392
16	671	530	1,519	2,092	3,013	3,174	1,182	433	239	236	238	328
17	647	564	1,761	2,166	3,166	3,094	1,112	448	239	225	214	273
18	925	629	1,915	2,233	3,391	3,013	1,018	446	242	220	223	264
19	654	766	2,004	2,288	3,554	3,009	962	430	249	231	225	265
20	642	821	1,914	2,354	3,758	3,147	933	422	250	228	240	281
21	626	846	1,891	2,400	3,664	2,717	901	416	254	237	236	277
22	669	1,019	1,940	2,441	3,642	2,656	885	428	254	219	228	277
23	641	1,220	1,978	2,428	3,891	2,604	906	427	252	218	261	272
24	606	1,303	2,079	2,395	3,957	2,674	974	420	255	203	231	293
25	545	1,146	2,298	2,450	3,723	2,771	1,021	407	258	211	228	282
26	514	997	2,420	2,580	3,495	2,848	1,026	383	261	216	234	282
27	491	972	2,368	2,692	3,161	2,784	994	358	254	207	241	277
28	488	785	2,099	2,795	2,906	2,587	971	346	253	218	256	295
29	470	-	1,888	2,843	2,813	2,402	961	340	254	203	261	303
30	456	-	1,789	3,127	2,826	2,192	948	359	248	209	393	303
31	437	-	1,747	-	2,938	-	907	341	-	210	-	287
TOTAL	19,774	19,947	47,508	67,555	101,269	81,887	44,071	16,518	8,322	7,171	7,259	9,157
MAXIMUM DAY	2,278	1,303	2,420	3,127	3,957	3,329	2,180	850	352	256	393	463
MINIMUM DAY	271	401	739	1,772	2,813	2,192	885	340	239	203	213	255
MEAN	638	712	1,533	2,252	3,267	2,730	1,422	533	277	231	242	295
TOTAL AC.FT.	39,221	39,564	94,231	133,993	200,864	162,420	87,414	32,763	16,506	14,223	14,398	18,163
WHOLE YEAR:-	TOTAL,	430,438	MAX.,	3,957	MIN.,	203	MEAN,	1,179	TOTAL AC.FT.,	853,760		

Kern River North Fork Flow at Kernville
(As reported by U.S. Army Corps of Engineers)

DISCHARGE IN CUBIC FEET PER SECOND

Year: 1993

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	222	312	474	1,275	2,663	2,811	2,119	675	281	173	190	247
2	274	310	514	1,300	2,874	2,458	2,166	658	274	168	189	225
3	217	312	586	1,393	2,978	2,311	2,109	658	266	164	185	225
4	200	307	598	1,517	3,002	2,340	1,960	669	258	158	180	218
5	212	323	625	1,567	2,581	2,607	1,930	643	257	160	195	217
6	245	340	696	1,377	2,484	2,450	2,010	639	257	165	188	211
7	1,356	348	757	1,324	2,333	2,119	1,989	603	252	171	185	208
8	1,826	542	805	1,361	2,281	2,117	1,961	571	248	174	185	206
9	706	693	822	1,454	2,336	2,047	1,798	521	239	173	182	206
10	495	561	804	1,511	2,612	2,211	1,729	510	234	171	180	204
11	410	481	842	1,540	2,835	2,553	1,642	472	229	175	201	212
12	324	441	857	1,482	2,881	2,702	1,577	451	230	199	217	231
13	437	411	884	1,405	2,640	2,901	1,450	426	235	186	211	212
14	628	398	965	1,375	2,478	3,184	1,289	405	235	179	219	229
15	529	381	1,089	1,421	2,486	3,398	1,179	391	234	172	220	229
16	488	365	1,073	1,466	2,570	3,404	1,083	387	234	175	204	212
17	482	355	1,228	1,515	2,907	3,151	973	375	236	181	211	212
18	626	381	1,636	1,528	3,104	2,993	894	357	235	183	210	210
19	510	494	1,426	1,484	3,414	3,093	857	342	232	183	210	222
20	449	603	1,336	1,555	3,629	3,240	861	334	226	181	208	213
21	451	513	1,394	1,680	3,587	2,848	838	327	222	175	206	199
22	483	488	1,442	1,753	3,491	2,556	823	317	219	174	212	210
23	482	710	1,485	1,734	3,646	2,539	790	305	197	172	234	207
24	421	746	1,519	1,648	3,873	2,575	820	299	183	168	222	209
25	394	616	1,608	1,655	3,633	2,815	880	298	179	168	228	213
26	379	617	2,024	1,889	3,312	2,976	893	299	177	181	204	216
27	369	571	1,569	1,998	2,999	2,917	866	292	170	187	204	225
28	361	516	1,391	2,026	2,678	2,625	814	288	168	185	210	221
29	351	-	1,228	2,178	2,535	2,346	796	302	167	185	208	217
30	344	-	1,187	2,408	2,693	2,131	748	295	161	185	269	217
31	327	-	1,189	-	2,943	-	722	281	-	185	-	216
TOTAL	14,998	13,135	34,053	47,819	90,478	80,418	40,566	13,390	6,735	5,456	6,167	6,699
MAXIMUM DAY	1,826	746	2,024	2,408	3,873	3,404	2,166	675	281	199	269	247
MINIMUM DAY	200	307	474	1,275	2,281	2,047	722	281	161	158	180	199
MEAN	484	469	1,098	1,594	2,919	2,681	1,309	432	225	176	206	216
TOTAL AC.FT.	29,748	26,053	67,543	94,848	179,460	159,507	80,461	26,559	13,359	10,822	12,232	13,287
WHOLE YEAR:-	TOTAL,	359,914	MAX.,	3,873	MIN.,	158	MEAN,	986	TOTAL AC.FT.,	713,879		

Year: 1993

Kern River at First Point of Measurement "Regulated"

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	267	343	598	693	823	1,479	2,087	1,728	1,161	986	312	326
2	337	345	533	687	826	1,581	2,058	1,864	1,104	944	279	314
3	296	342	611	679	890	1,645	1,964	1,920	1,062	949	236	362
4	247	343	649	673	868	1,686	1,953	1,901	978	946	242	348
5	267	339	654	671	874	1,543	2,019	1,831	922	905	221	335
6	322	344	673	664	865	1,390	1,982	1,755	914	843	213	331
7	430	351	792	620	936	1,324	1,972	1,606	921	830	229	329
8	479	384	846	652	896	1,335	1,979	1,575	944	779	202	342
9	413	446	913	657	801	1,368	1,865	1,595	930	751	191	344
10	384	458	1,047	649	793	1,381	1,773	1,570	846	724	193	330
11	359	457	1,079	651	797	1,459	1,757	1,589	728	707	217	283
12	344	440	946	647	912	1,484	1,786	1,526	703	643	223	304
13	384	439	967	682	954	1,560	1,839	1,444	796	578	203	278
14	381	439	891	789	993	1,758	1,911	1,280	829	394	207	286
15	370	442	900	891	945	1,947	1,980	1,233	855	351	203	290
16	364	437	896	934	911	2,082	1,994	1,312	881	294	219	280
17	374	444	969	893	968	2,120	1,945	1,336	817	303	208	263
18	407	455	988	964	1,040	2,138	1,917	1,287	762	361	197	259
19	386	473	977	1,140	1,096	2,087	1,977	1,318	716	393	205	279
20	378	505	967	907	1,119	2,123	1,994	1,308	722	400	220	275
21	368	517	958	863	1,152	2,174	1,973	1,235	731	397	246	268
22	367	507	972	832	1,084	2,147	1,996	1,211	760	380	242	266
23	366	746	996	817	1,086	2,023	1,961	1,244	820	352	246	272
24	360	669	1,044	770	1,190	1,958	1,876	1,330	813	370	241	286
25	358	562	1,059	718	1,226	1,996	1,840	1,383	789	404	229	284
26	347	531	897	712	1,294	2,007	1,957	1,346	779	420	253	278
27	352	522	788	729	1,341	2,039	1,969	1,232	919	442	284	281
28	355	539	734	739	1,324	2,091	1,975	1,115	928	445	283	281
29	354	-	702	788	1,284	2,103	1,966	1,137	1,006	434	297	281
30	354	-	708	823	1,289	2,098	1,848	1,274	1,003	423	328	276
31	353	-	704	-	1,348	-	1,720	1,220	-	359	-	277
TOTAL	11,123	12,819	26,458	22,934	31,925	54,126	59,833	44,705	26,139	17,507	7,069	9,208
MAXIMUM INSTAN.	588	964	1,213	1,328	1,460	2,208	2,155	1,936	1,235	1,012	356	417
MINIMUM INSTAN.	211	324	379	579	767	1,296	1,671	1,085	579	281	116	222
MEAN	359	458	853	764	1,030	1,804	1,930	1,442	871	565	236	297
TOTAL AC.FT.	22,062	25,426	52,479	45,489	63,322	107,357	118,677	88,671	51,846	34,725	14,021	18,264
WHOLE YEAR:-	TOTAL,	323,846	MAX.,	2,208	MIN.,	116	MEAN,	887	TOTAL AC.FT.,	642,339		

Year: 1993

Kern River Conduit at Alternate Second Point (Total Flow)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	35	43	54	235	81	62	0	0	0
2	0	0	11	41	42	68	236	72	52	0	0	0
3	0	0	0	40	43	159	211	109	47	0	0	0
4	0	0	0	29	45	208	208	122	21	0	0	0
5	0	0	0	26	44	145	217	120	0	0	0	0
6	0	0	0	47	45	127	195	109	0	0	0	0
7	0	0	16	35	45	89	141	118	0	0	0	0
8	0	0	31	84	45	108	137	104	0	0	0	0
9	0	0	30	91	56	124	112	90	0	0	0	0
10	0	0	30	101	78	124	126	75	0	0	0	0
11	0	0	30	98	76	151	131	97	0	0	0	0
12	0	0	30	76	84	159	121	106	0	0	0	0
13	0	0	30	28	88	173	122	78	0	0	0	0
14	0	0	30	30	89	222	151	99	0	0	0	0
15	0	0	32	40	61	260	142	98	0	0	0	0
16	0	0	39	27	38	272	147	79	0	0	0	0
17	0	0	46	26	40	268	140	76	0	0	0	0
18	0	0	32	60	40	253	122	81	0	0	0	0
19	0	0	22	118	41	252	126	94	0	0	0	0
20	0	0	28	112	37	304	165	118	0	0	0	0
21	0	0	28	111	44	311	176	154	0	0	0	0
22	0	0	38	110	60	230	181	137	0	0	0	0
23	0	0	34	120	44	116	162	102	0	0	0	0
24	0	0	35	135	47	80	166	102	0	0	0	0
25	0	0	35	116	40	125	154	103	0	0	0	0
26	0	0	35	44	43	177	173	56	0	0	0	0
27	0	0	38	41	43	230	180	60	0	0	0	0
28	0	0	49	43	45	256	166	111	0	0	0	0
29	0	-	132	44	43	293	142	73	0	0	0	0
30	0	-	122	51	40	267	96	90	0	0	0	0
31	0	-	75	-	40	-	84	65	-	0	-	0
TOTAL	0	0	1,058	1,959	1,569	5,605	4,865	2,979	182	0	0	0
MAXIMUM DAY	0	0	132	135	89	311	236	154	62	0	0	0
MINIMUM DAY	0	0	0	26	37	54	84	56	0	0	0	0
MEAN	0	0	34	65	51	187	157	96	6	0	0	0
TOTAL AC.-FT.	0	0	2,098	3,886	3,112	11,117	9,650	5,909	361	0	0	0
WHOLE YEAR:-	TOTAL,	18,217	MAX.,	311	MIN.,	0	MEAN,	50	TOTAL AC.-FT.,	36,133		

Year: 1993

2800 Acre Well Water Production Conveyed via Kern River Canal

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	-	0	0	0	0	0	0	0	0	0	0
30	0	-	0	0	0	0	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	0	0	0	0	0	0	0	0	0	0	0
					MIN.,		MEAN,			TOTAL AC.FT.,		
					0		0			0		0

Year: 1993

Friant-Kern Inflow to Kern River Channel (Total Flow)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	74	100	880	828	34	102	0	0	0	0
2	0	0	100	100	844	707	34	99	0	0	0	0
3	0	0	100	100	727	638	239	42	0	0	0	0
4	0	0	100	100	605	577	402	0	0	0	0	0
5	0	0	100	100	605	728	396	0	0	0	0	0
6	0	0	30	150	571	778	393	0	0	0	0	0
7	0	0	0	400	530	826	357	0	0	0	0	0
8	0	0	0	800	649	792	313	0	0	0	0	0
9	0	0	0	1,000	717	821	314	0	0	0	0	0
10	0	0	0	1,100	692	791	313	0	0	0	0	0
11	0	0	0	1,200	665	752	313	0	0	0	0	0
12	0	0	0	1,325	697	788	315	0	0	0	0	0
13	0	0	0	1,400	822	686	182	0	0	0	0	0
14	0	0	0	1,400	923	594	88	0	0	0	0	0
15	0	0	0	1,213	985	416	29	0	0	0	0	0
16	0	0	0	1,075	1,074	449	0	0	0	0	0	0
17	0	0	0	1,000	942	374	50	0	0	0	0	0
18	0	0	0	1,000	603	197	101	0	0	0	0	0
19	0	0	0	1,125	293	101	100	0	0	0	0	0
20	0	0	0	1,402	102	99	100	0	0	0	0	0
21	0	0	0	1,260	0	99	115	0	0	0	0	0
22	0	0	0	1,177	225	49	126	0	0	0	0	0
23	0	80	49	1,170	715	0	126	0	0	0	0	0
24	0	175	100	1,200	965	96	127	0	0	0	0	0
25	0	175	100	1,200	720	0	127	0	0	0	0	0
26	0	175	100	1,087	595	88	127	0	0	0	0	0
27	0	175	100	975	494	218	127	0	0	0	0	0
28	0	228	100	988	499	269	109	0	0	0	0	0
29	0	-	100	1,037	499	89	102	0	0	0	0	0
30	0	-	100	1,050	837	35	103	0	0	0	0	0
31	0	-	100	-	994	-	103	0	-	0	-	0
TOTAL	0	1,008	1,353	27,234	20,469	12,885	5,365	243	0	0	0	0
MAXIMUM DAY	0	228	100	1,402	1,074	828	402	102	0	0	0	0
MINIMUM DAY	0	0	0	100	0	0	0	0	0	0	0	0
MEAN	0	36	44	908	660	430	173	8	0	0	0	0
TOTAL AC.FT.	0	2,000	2,683	54,018	40,600	25,557	10,642	482	0	0	0	0
WHOLE YEAR:-	TOTAL,	68,557	MAX.,	1,402	MIN.,	0	MEAN,	188	TOTAL AC.FT.,	135,982		

DISCHARGE IN CUBIC FEET PER SECOND

Friant-Kern Inflow to Kern Island Canal via Arvin-Edison Siphon

Year: 1993

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	48	0	0	0	0	0	0	0
2	0	0	0	0	47	0	0	0	0	0	0	0
3	0	0	0	0	50	0	0	0	0	0	0	0
4	0	0	0	0	50	0	0	0	0	0	0	0
5	0	0	0	0	50	0	0	0	0	0	0	0
6	0	0	0	0	50	0	0	0	0	0	0	0
7	0	0	0	0	51	0	0	0	0	0	0	0
8	0	0	0	0	51	0	0	0	0	0	0	0
9	0	0	0	0	53	0	0	0	0	0	0	0
10	0	0	0	0	48	0	0	0	0	0	0	0
11	0	0	0	0	48	0	0	0	0	0	0	0
12	0	0	0	0	50	0	0	0	0	0	0	0
13	0	0	0	0	49	0	0	0	0	0	0	0
14	0	0	0	0	50	0	0	0	0	0	0	0
15	0	0	0	0	50	0	0	0	0	0	0	0
16	0	0	0	0	49	0	0	0	0	0	0	0
17	0	0	0	0	50	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	48	0	0	0	0	0	0	0
23	0	0	0	0	51	0	0	0	0	0	0	0
24	0	0	0	0	50	0	0	0	0	0	0	0
25	0	0	0	0	50	0	0	0	0	0	0	0
26	0	0	0	0	52	0	0	0	0	0	0	0
27	0	0	0	0	54	0	0	0	0	0	0	0
28	0	0	0	0	49	0	0	0	0	0	0	0
29	0	-	0	0	49	0	0	0	0	0	0	0
30	0	-	0	0	49	0	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	452	844	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	0	54	53	0	0	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	15	27	0	0	0	0	0	0	0
TOTAL AC.FT.	0	0	0	897	1,674	0	0	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	1,296	MAX.,	54	MIN.,	0	MEAN,	4	TOTAL AC.FT.,	2,571		

Year: 1993

Friant-Kern Inflow to Poso Creek Channel

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	77	128	130	0	0	100	0	0	0
2	0	0	0	77	127	95	0	0	101	0	0	0
3	0	0	0	77	129	29	0	69	98	0	0	0
4	0	0	0	75	128	0	0	30	98	0	0	0
5	0	0	0	75	126	0	0	0	98	0	0	0
6	0	0	0	73	130	0	0	71	66	0	0	0
7	0	0	0	81	128	0	0	106	20	0	0	0
8	0	0	0	78	129	0	0	106	0	0	0	0
9	0	0	0	86	128	0	0	104	0	0	0	0
10	0	0	0	84	126	0	0	98	0	0	0	0
11	0	0	32	87	123	0	0	96	0	0	0	0
12	0	0	71	104	122	0	0	98	0	0	0	0
13	0	0	83	123	119	0	0	96	0	0	0	0
14	0	0	83	123	119	0	0	98	0	0	0	0
15	0	0	81	123	123	0	0	98	0	0	0	0
16	0	0	81	123	129	0	0	98	0	0	0	0
17	0	0	81	120	113	0	0	98	0	0	0	0
18	0	0	81	86	125	0	0	98	0	0	0	0
19	0	0	81	122	127	0	0	96	0	0	0	0
20	0	0	81	118	159	0	0	104	0	0	0	0
21	0	0	81	191	126	0	0	107	0	0	0	0
22	0	0	96	212	129	0	0	106	0	0	0	0
23	0	0	101	168	124	0	0	101	0	0	0	0
24	0	0	101	168	135	0	0	101	0	0	0	0
25	0	0	103	171	132	0	0	101	0	0	0	0
26	0	0	99	148	125	0	0	101	0	0	0	0
27	0	0	98	131	129	0	0	101	0	0	0	0
28	0	0	96	120	133	0	0	101	0	0	0	0
29	0	-	100	119	123	0	0	98	0	0	0	0
30	0	-	82	121	122	0	0	98	0	0	0	0
31	0	-	77	-	125	-	0	98	-	0	-	0
TOTAL	0	0	1,789	3,461	3,941	254	0	2,677	581	0	0	0
MAXIMUM DAY	0	0	103	212	159	130	0	107	101	0	0	0
MINIMUM DAY	0	0	0	73	113	0	0	0	0	0	0	0
MEAN	0	0	58	115	127	8	0	86	19	0	0	0
TOTAL AC.FT.	0	0	3,548	6,864	7,817	504	0	5,309	1,152	0	0	0
WHOLE YEAR:-	TOTAL,	12,703	MAX.,	212	MIN.,	0	MEAN,	35	TOTAL AC.FT.,	25,194		

Year: 1993

**CITY OF BAKERSFIELD
SUMMARY OF KERN RIVER ENTITLEMENTS**

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Buena Vista W.S.D. Entitlement	470	0	24,270	38,049	64,621	49,166	22,052	4,552	0	0	0	0	203,180
Hacienda W.D. Entitlement	0	0	0	0	0	0	0	0	0	0	0	0	0
K.C.L. Entitlement @ 2nd Point	24	0	970	1,819	3,088	2,356	1,051	222	0	0	0	0	9,530
Kern Island (1-st)	18,244	16,661	18,228	17,851	18,446	17,851	18,446	18,446	15,455	13,547	13,464	16,713	203,352
Eastside													
Kern River Conduit			24,908	23,088	29,072	25,317	19,968	8,248					130,601
Castro	248	278	77	119	151	121	95	10	50	0	18	42	1,209
KCC & W Co.	700	789	242	413	450	417	296	16	136	0	51	115	3,625
South Fork	483	553	167	294	323	297	210	12	87		36	75	2,547
Buena Vista (1-st)	3,797	4,242	1,279	2,144	2,434	2,204	1,565	97	123		174	401	18,460
James	5,090	5,212	1,926	3,219	3,666	3,324	2,347	149	0		0	141	25,074
Anderson (1-st)	706	758	319	532	601	538	391	26				0	3,871
Stine	3,455	4,457	2,406	4,020	4,584	4,155	2,928	184					26,189
Meacham	232	722	482	803	918	835	579	34					4,605
Farmers	1,137	2,600	2,406	4,020	4,584	4,155	2,928	91					21,921
Plunket	303	468	647	1,075	1,234	1,121	758	0					5,606
Joyce	236	468	647	1,075	1,234	1,121	716						5,497
Johnson	226	403	647	1,075	1,234	1,121	637						5,343
Pioneer	530	799	2,084	3,485	3,985	3,596	1,803						16,282
Beardsley (1-st)	220	268	964	1,617	1,835	1,666	790						7,360
Lerdo (NKWSD)													
Anderson (2-nd)	38	40	159	268	315	297	119						1,236
James & Dixon	149	115	615	1,075	1,234	1,121	506						4,815
Wilson	22	12	75	149	192	179	60						689
KCC & W Co.	16	8	65	119	123	119	54						504
McCaffrey	95	52	381	704	791	716	316						3,055
McCord: Lerdo 30%	111	14	424	803	918	835	345						3,450
Beardsley 70%	256	34	992	1,872	2,152	1,934	813						8,053
Calloway: Central 20%	329	0	1,565	3,974	5,203	4,689	1,391						17,151
NKWSD 80%	1,315	0	6,254	15,932	20,769	18,767	5,574						66,631
Railroad: KCC & W Co. 20%	16		72	392	1,234	1,047	0						2,761
NKWSD 80%	67		284	1,567	4,903	4,102	0						10,923
Buena Vista (2-nd)	0		0	466	2,753	2,003							5,222
James (2-nd)				708	5,504	3,156							9,368
Pioneer (2-nd)				373	5,111	1,856							7,340
Beardsley (3-rd)				222	5,534	1,426							7,182
Kern Island (2-nd)				16	972	157							1,145
Computed Loss	676	611	676	655	676	655	676	676	655	676	655	676	7,963
Total 1st Point Group Entitlement	38,731	39,564	69,961	95,944	136,243	113,254	65,362	28,211	16,506	14,223	14,398	18,163	650,560

CITY OF BAKERSFIELD
 SUMMARY OF KERN RIVER FIRST POINT GROUP
 KERN RIVER DIVERSIONS

Year: 1993

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
FIRST POINT REGULATED FLOW	22,062	25,426	52,479	45,489	63,322	107,357	118,677	88,671	51,846	34,725	14,021	18,264	642,339
BEARDSLEY CANAL	2,828	5,446	12,286	18,496	32,303	34,767	36,506	32,565	22,405	16,953	9,596	9,310	233,461
CALLOWAY CANAL	149	1,384	2,174	2,507	3,778	16,566	20,352	7,355	4,834	3,703	216	81	63,099
KERN ISLAND CANAL	4,048	5,157	12,446	11,169	12,801	21,896	26,007	19,767	8,041	5,205	2,640	7,482	136,659
EASTSIDE CANAL	0	0	1,615	2,338	3,384	3,112	3,540	2,618	1,250	1,236	276	159	19,528
STINE CANAL	0	440	2,660	2,555	4,062	6,143	7,295	5,508	1,720	0	301	0	30,684
TRUXTUN LAKES	938	245	738	1,004	1,176	1,166	1,149	1,214	809	442	0	0	8,881
ARVIN-EDISON TURNOUT	0	0	0	0	0	0	0	752	4,681	3,388	0	0	8,821
BUENA VISTA CANAL	0	1,859	7,220	889	1,311	7,769	9,582	7,192	1,388	36	0	0	37,246
JAMES CANAL	0	0	0	0	0	573	0	1,006	307	0	0	0	1,886
ROSEDALE CHANNEL	10,951	7,734	4,649	1,596	0	0	0	0	0	0	0	0	24,930
PIONEER CANAL	0	0	0	0	0	0	0	0	0	0	0	0	0
2800 ACRE RECHARGE FACILITY	101	0	764	0	0	0	0	0	0	0	0	0	865
CARRIER CANAL LOSS	855	770	789	1,011	917	1,142	1,241	1,072	839	422	232	69	9,359
RIVER LOSS & SPREADING	2,192	2,391	3,320	2,803	1,934	3,106	3,355	3,713	5,211	3,340	760	1,163	33,288
FIRST POINT GROUP TOTAL FLOW	22,062	25,426	48,661	44,368	61,666	96,240	109,027	82,762	51,485	34,725	14,021	18,264	608,707
SECOND POINT TOTAL FLOW	0	0	3,818	1,121	1,656	11,117	9,650	5,909	361	0	0	0	33,632

1993 Summary of Kern River Water
Diversions by Entity

(Acre-Feet)

<u>Area of Use</u>	<u>Diverted</u>
 <u>Above First Point</u>	
Kern Valley Golf Course	166
La Hacienda, Inc.	93
Lake Ming	790
Olcese WD	1,533
 Sub-total	 2,582
 <u>Below First Point</u>	
Arvin-Edison WSD	8,821
Buena Vista WSD	26,524
Cawelo WD	73,033
City of Bakersfield, Irrigation and Spreading (1)	63,028
County of Kern (Buena Vista Aquatic Recreation Area)	4,125
Henry Miller WD	1,720
Improvement District No. 4	28,866
Kern County Water Agency (James Canal)	1,886
Kern Delta WD	225,284
North Kern WSD	160,572
Rosedale Ranch Improvement District	22,589
Rosedale Rio Bravo WSD	24,930
South Fork	961
 Sub-total	 642,339
 Grand Total	 644,921

(1) Includes Kern River Canal & Irrigating Company, Truxtun Lakes, Carrier Canal loss and percolation and Kern River channel loss and percolation.

UTILIZATION OF STORAGE - ISABELLA RESERVOIR
KERN RIVER FIRST POINT GROUP

Year: 1993

Quantities in acre-feet

End of Month Unit Storage

STORAGE UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern Island	2,500	7,458	9,961	13,813	17,481	11,630	2,127	1,591	2,500	2,500	2,500	2,500	76,561
Buena Vista	1,500	2,372	1,360	3,150	8,170	5,548	3,267	222	1,500	1,500	1,500	1,500	31,589
Stine	1,496	2,608	1,337	2,917	4,405	4,218	3,106	212	0	4	62	240	20,605
Farmers	1,236	1,970	2,342	5,096	6,000	6,000	4,000	541	0	0	0	0	27,185
KERN DELTA WD TOTAL	6,732	14,408	15,000	24,976	36,056	27,396	12,500	2,566	4,000	4,004	4,062	4,240	155,940
City of Bakersfield	1,910	3,246	13,102	26,338	47,556	52,033	44,912	20,692	17,608	16,127	16,745	16,202	276,471
Kern River Canal & Irr. Co.	345	435	1,605	3,199	7,793	9,299	8,244	6,888	6,360	5,427	5,128	5,101	59,824
South Fork	600	745	819	1,007	1,412	1,692	1,922	1,752	2,270	2,866	600	600	16,285
CITY OF BAKERSFIELD TOTAL	2,855	4,426	15,526	30,544	56,761	63,024	55,078	29,332	26,238	24,420	22,473	21,903	352,580
NORTH KERN WSD	54,647	58,691	67,583	95,222	132,150	152,884	138,870	126,966	114,435	109,591	110,708	110,515	1,272,262
TOTAL 1ST POINT STORAGE	64,234	77,525	98,109	150,742	224,967	243,304	206,448	158,864	144,673	138,015	137,243	136,658	1,780,782

KERN DELTA WATER DISTRICT
Monthly Summary of Kern River Entitlements, Diversions,
Deliveries and Storage ... All Canals

Quantities in acre-feet

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	+ 26,633	27,960	24,319	28,517	33,773	30,525	25,867	18,818	15,578	13,547	13,638	17,114	276,289
Release	+ or - (18,708)	(10,677)	(1,085)	(463)	(1,210)	(825)	(783)	0	(4,676)	(8,861)	(10,367)	(9,577)	(67,232)
Entitlement + or - Releases	= 7,925	17,283	23,234	28,054	32,563	29,700	25,084	18,818	10,902	4,686	3,271	7,537	209,057
Into Isabella Storage	- 3,877	9,626	5,033	10,321	12,152	1,309	88	1,777	2,267	70	251	206	46,977
From Isabella Storage	+ 0	1,809	4,207	0	466	9,325	14,480	11,550	745	0	149	6	42,737
From City of Bakersfield	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
From Buena Vista WSD	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
Friant-Kern via Buena Vista Canal	+ 0	0	0	3,312	1,999	0	0	0	0	0	0	0	5,311
To City of Bakersfield	- 0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Transfer/Exch.	+ or - 0	(2,192)	0	0	0	0	0	0	0	0	0	0	(2,192)
Carrier Canal Loss	- 0	0	0	0	0	0	0	0	230	20	280	69	599
To North Kern WSD	- 0	0	0	1,489	708	0	0	0	0	0	0	0	2,197
Via Cawelo Water District	- 0	0	0	0	0	0	0	0	0	0	0	0	0
Other	+ or - 0	0	0	0	0	0	0	0	8	0	0	0	8
Diverted at Heads of Canals	= 4,048	7,274	22,408	19,556	22,168	37,716	39,476	28,591	9,158	4,596	2,889	7,268	205,148
From Cawelo Water District	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
From North Kern WSD	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
Friant-Kern Inflow via A-E/KI Siphon	+ 0	0	0	897	1,674	0	0	0	0	0	0	0	2,571
Total Utility Supply	= 4,048	7,274	22,408	20,453	23,842	37,716	39,476	28,591	9,158	4,596	2,889	7,268	207,719
Utility Deliveries	+ 2,339	4,160	15,620	11,279	14,170	29,179	30,809	21,787	5,160	1,712	1,115	5,134	142,464
Friant-Kern Deliveries	+ 0	0	0	519	900	0	0	0	0	0	0	0	1,419
Contract Deliveries	+ 161	316	781	754	682	1,091	889	318	308	712	153	243	6,408
Total Irrigation Deliveries	= 2,500	4,476	16,401	12,552	15,752	30,270	31,698	22,105	5,468	2,424	1,268	5,377	150,291
Spreading Deliveries (Friant-Kern)	- 0	0	0	2,182	1,692	0	0	0	0	0	0	0	3,874
Canal Conveyance Losses	= 1,548	2,798	6,007	5,719	6,398	7,446	7,778	6,486	3,690	2,172	1,621	1,891	53,554
Delivery Percentage	62%	62%	73%	72%	73%	80%	80%	77%	60%	53%	44%	74%	74%
Reservoir Evaporation Loss	84	141	234	345	606	644	504	161	88	66	44	22	2,939
End of Month Reservoir Storage	6,732	14,408	15,000	24,976	36,056	27,396	12,500	2,566	4,000	4,004	4,062	4,240	

Year: 1993

Total Flow via the Kern Island Canal Headgate

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	81	95	157	170	170	378	407	452	180	115	0	210
2	80	75	143	179	173	331	415	464	178	104	0	221
3	77	66	132	181	235	341	418	465	156	106	0	258
4	79	62	133	162	245	353	421	462	130	112	0	250
5	77	52	146	161	233	240	424	430	130	103	0	247
6	63	53	153	162	221	200	415	375	162	98	0	247
7	69	40	161	164	219	191	427	345	166	85	0	249
8	76	40	196	151	157	221	436	332	164	97	0	268
9	98	29	224	132	114	270	360	345	146	92	0	267
10	99	27	292	126	115	299	341	366	139	81	0	239
11	95	26	299	130	97	287	338	403	128	97	0	176
12	19	29	285	149	130	277	371	397	115	97	0	195
13	24	45	253	166	128	290	370	396	128	90	0	197
14	21	55	222	225	137	352	388	327	126	80	0	174
15	19	85	214	263	129	416	450	279	124	69	32	135
16	14	145	205	261	125	459	463	315	135	69	34	57
17	15	146	206	241	139	462	470	322	120	63	23	19
18	14	152	204	219	197	461	466	310	122	73	22	22
19	18	124	208	242	212	462	462	325	114	65	24	21
20	73	110	247	249	216	461	446	314	130	67	24	20
21	80	123	224	265	203	461	417	277	126	67	22	21
22	71	148	245	221	175	460	415	260	140	79	22	20
23	72	144	291	223	173	466	412	253	138	83	34	22
24	71	151	320	209	202	453	406	252	140	73	82	23
25	71	149	213	171	281	454	410	251	141	92	115	20
26	71	141	156	162	319	436	455	251	94	98	167	20
27	85	140	141	157	373	394	464	218	123	94	178	22
28	98	148	150	155	357	375	466	200	110	86	165	36
29	98	-	138	161	316	383	466	190	118	80	181	43
30	101	-	160	174	319	406	462	208	131	81	206	41
31	112	-	157	-	344	-	451	182	-	28	-	32
TOTAL	2,041	2,600	6,275	5,631	6,454	11,039	13,112	9,966	4,054	2,624	1,331	3,772
MAXIMUM DAY	112	152	320	265	373	466	470	465	180	115	206	268
MINIMUM DAY	14	26	132	126	97	191	338	182	94	28	0	19
MEAN	66	93	202	188	208	368	423	321	135	85	44	122
TOTAL AC.FT.	4,048	5,157	12,446	11,169	12,801	21,896	26,007	19,767	8,041	5,205	2,640	7,482
WHOLE YEAR:-	TOTAL,	68,899	MAX.,	470	MIN.,	0	MEAN,	189	TOTAL AC.FT.,	136,659		

Quantities in acre-feet

**KERN DELTA WATER DISTRICT
KERN ISLAND CANAL SERVICE AREA**

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	+ 18,244	16,661	18,228	17,867	19,418	18,008	18,446	18,446	15,455	13,547	13,464	16,713	204,497
Release	- 14,158	6,569	2,144	0	923	272	0	0	6,850	8,927	10,743	9,431	60,017
Entitlement + or - Releases	= 4,086	10,092	16,084	17,867	18,495	17,736	18,446	18,446	8,605	4,620	2,721	7,282	144,480
Into Storage	- 38	5,364	3,283	4,070	4,451	504	0	1,777	963	42	28	20	20,540
From Storage	+ 0	341	665	0	464	6,054	9,314	2,291	0	0	0	6	19,135
Friant-Kern via Buena Vista Canal	+ 0	0	0	1,120	0	0	0	0	0	0	0	0	1,120
From Buena Vista Canal (F-K In Lieu)	+ 0	0	0	34	0	0	0	0	0	0	0	0	34
Via Buena Vista (F-K Utilization)	- 0	0	0	0	254	0	0	0	0	0	0	0	254
Via Stine (F-K Spreading)	- 0	0	0	91	77	0	0	0	0	0	0	0	168
Via Farmers (F-K Spreading)	- 0	0	0	334	240	0	0	0	0	0	0	0	574
Carrier Canal Loss	- 0	0	0	0	0	0	0	0	6	18	105	0	129
Transfer in Storage	- 0	(539)	0	0	0	0	0	0	0	0	0	0	(539)
Eastside Canal Entitlement	- 0	0	851	1,965	2,882	2,453	2,481	1,039	0	0	0	0	11,671
Via Cawelo Water District	- 0	0	0	0	0	0	0	0	0	0	0	0	0
To North Kern WSD	- 0	0	0	1,073	573	0	0	0	0	0	0	0	1,646
Diverted at Head	= 4,048	4,530	12,615	11,488	10,482	20,833	25,279	17,921	7,636	4,560	2,588	7,268	129,248
From Cawelo Water District	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
From North Kern WSD	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
Friant-Kern Inflow via A-E/KI Siphon	+ 0	0	0	897	1,674	0	0	0	0	0	0	0	2,571
Total Utility Supply	= 4,048	4,530	12,615	12,385	12,156	20,833	25,279	17,921	7,636	4,560	2,588	7,268	131,819
Utility Deliveries	2,339	2,564	8,832	8,222	8,266	16,155	20,226	14,269	4,526	1,704	1,059	5,134	93,296
Contract Deliveries	161	316	781	653	557	1,078	873	309	308	712	153	243	6,144
Total Irrigation Deliveries	- 2,500	2,880	9,613	8,875	8,823	17,233	21,099	14,578	4,834	2,416	1,212	5,377	99,440
Spreading Deliveries (Friant-Kern)	- 0	0	0	553	530	0	0	0	0	0	0	0	1,083
Canal Conveyance Losses	= 1,548	1,650	3,002	2,957	2,803	3,600	4,180	3,343	2,802	2,144	1,376	1,891	31,296
Delivery Percentage	62%	64%	76%	76%	77%	83%	83%	81%	63%	53%	47%	74%	76%
Into Reservoir Storage	38	5,364	3,283	4,070	4,451	504	0	1,777	963	42	28	20	20,540
Reservoir Evaporation Loss	38	65	115	218	319	301	189	22	54	42	28	14	1,405
From Reservoir Storage	0	341	665	0	464	6,054	9,314	2,291	0	0	0	6	19,135
End of Month Reservoir Storage	2,500	7,458	9,961	13,813	17,481	11,630	2,127	1,591	2,500	2,500	2,500	2,500	2,500
State Exchange Diverted	0	182	585	280	786	1,200	1,761	1,829	103	0	0	89	6,815
1988 State Pool Payback Diverted	0	0	0	0	0	0	0	0	119	30	0	0	149
State Exchange Delivered	0	182	585	280	786	1,200	1,761	1,745	103	0	0	89	6,731
1988 State Pool Payback Delivered	0	0	0	0	0	0	0	0	119	30	0	0	149

KERN ISLAND CANAL
ENTITLEMENT AND DIVERSION OF CONTRACT WATER
BALFOUR - GUTHRIE CONTRACT

Year: 1993

Quantities in acre-feet
except where noted.....

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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KERN ISLAND CANAL ENTITLEMENT:

Maximum	18,446	16,661	18,424	17,851	18,446	17,851	18,446	18,446	17,851	18,446	17,851	18,446	217,165
Actual	18,244	16,661	18,228	17,851	18,446	17,851	18,446	18,446	15,455	13,547	13,464	16,713	203,352
Maximum Percentage	98.90%	100.00%	98.94%	100.00%	100.00%	100.00%	100.00%	100.00%	86.58%	73.44%	75.42%	90.61%	

CONTRACT ENTITLEMENT:

Maximum	269	242	269	260	269	260	269	269	260	269	260	--	2,896
Actual	266	242	266	260	269	260	269	269	225	198	196	--	2,720
Sum to Date	266	508	774	1,034	1,303	1,563	1,832	2,101	2,326	2,524	2,720	2,720	

CONTRACT DIVERTED:

For Month	0	133	392	341	326	904	670	91	0	0	0	0	2,857
To Date	0	133	525	866	1,192	2,096	2,766	2,857	2,857	2,857	2,857	2,857	

UNUSED ENTITLEMENT:

For Month	266	109	(126)	(81)	(57)	(644)	(401)	178	225	198	196	0	(137)
Sum to Date	266	375	249	168	111	(533)	(934)	(756)	(531)	(333)	(137)	(137)	

KERN ISLAND CANAL
ENTITLEMENT AND DIVERSION OF CONTRACT WATER
BLOOMFIELD CONTRACT

Year: 1993

Quantities in acre-feet
except where noted.....

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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KERN ISLAND CANAL ENTITLEMENT:

Maximum	18,446	16,661	18,424	17,851	18,446	17,851	18,446	18,446	17,851	18,446	17,851	18,446	217,165
Actual	18,244	16,661	18,228	17,851	18,446	17,851	18,446	18,446	15,455	13,547	13,464	16,713	203,352
Maximum Percentage	98.90%	100.00%	98.94%	100.00%	100.00%	100.00%	100.00%	100.00%	86.58%	73.44%	75.42%	90.61%	

CONTRACT ENTITLEMENT:

Maximum	336	303	336	325	336	325	336	336	325	336	325	--	3,619
Actual	332	303	332	325	336	325	336	336	281	247	245	--	3,398
Sum to Date	332	635	967	1,292	1,628	1,953	2,289	2,625	2,906	3,153	3,398	3,398	

CONTRACT DIVERTED:

For Month	161	183	389	312	231	174	203	218	308	712	153	243	3,287
To Date	161	344	733	1,045	1,276	1,450	1,653	1,871	2,179	2,891	3,044	3,287	

UNUSED ENTITLEMENT:

For Month	171	120	(57)	13	105	151	133	118	(27)	(465)	92	(243)	111
Sum to Date	171	291	234	247	352	503	636	754	727	262	354	111	

Year: 1993

Total Flow via the Eastside Canal Headgate

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	7	59	54	61	49	21	27	0	11
2	0	0	0	12	58	54	53	52	19	11	0	9
3	0	0	0	17	60	56	46	53	26	12	0	7
4	0	0	16	17	53	37	59	54	25	18	0	4
5	0	0	19	20	51	24	60	56	19	18	0	5
6	0	0	19	26	50	29	66	43	27	16	0	5
7	0	0	21	26	48	36	68	36	32	16	0	4
8	0	0	30	27	44	40	59	45	32	18	0	0
9	0	0	30	26	43	43	58	56	29	16	0	0
10	0	0	37	26	53	45	58	69	20	12	0	0
11	0	0	38	30	60	47	63	65	10	21	0	0
12	0	0	37	34	61	44	62	53	7	22	0	0
13	0	0	23	44	59	52	62	37	17	22	0	0
14	0	0	39	43	58	53	62	35	21	20	0	0
15	0	0	43	40	57	56	59	30	22	18	7	0
16	0	0	45	34	52	56	59	37	25	20	20	0
17	0	0	47	37	58	55	54	47	21	19	16	0
18	0	0	40	47	65	52	58	47	15	22	16	0
19	0	0	35	50	66	45	63	42	13	28	9	0
20	0	0	33	52	58	49	61	33	17	27	4	0
21	0	0	34	54	55	55	57	23	18	23	4	0
22	0	0	38	61	56	62	61	28	22	13	4	0
23	0	0	49	61	58	61	60	42	19	11	3	0
24	0	0	48	49	65	60	47	43	19	16	0	0
25	0	0	14	51	62	63	50	43	10	21	1	0
26	0	0	25	53	55	67	55	41	14	22	7	0
27	0	0	13	55	54	69	57	31	25	25	12	3
28	0	0	21	61	47	67	60	27	27	26	11	6
29	0	-	14	59	46	68	57	34	28	28	11	10
30	0	-	0	60	46	70	46	36	30	34	14	10
31	0	-	6	-	49	-	44	33	-	21	-	6
TOTAL	0	0	814	1,179	1,706	1,569	1,785	1,320	630	623	139	80
MAXIMUM DAY	0	0	49	61	66	70	68	69	32	34	20	11
MINIMUM DAY	0	0	0	7	43	24	44	23	7	11	0	0
MEAN	0	0	26	39	55	52	58	43	21	20	5	3
TOTAL AC.FT.	0	0	1,615	2,338	3,384	3,112	3,540	2,618	1,250	1,236	276	159
WHOLE YEAR:-	TOTAL,	9,845	MAX.,	70	MIN.,	0	MEAN,	27	TOTAL AC.FT.,	19,528		

City of Bakersfield Diverted to Kern Delta WD via Eastside Canal
(Pursuant to City/KDWD Miscellaneous Water Purchase Agreement dated 5-26-93) Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	2	2	1	0	0	1
2	0	0	0	0	0	0	2	2	1	0	0	1
3	0	0	0	0	0	0	1	2	1	0	0	0
4	0	0	0	0	0	0	2	1	1	3	0	1
5	0	0	0	0	0	0	1	1	1	2	0	0
6	0	0	0	0	0	0	2	1	1	0	0	0
7	0	0	0	0	0	0	1	1	0	0	0	0
8	0	0	0	0	0	0	2	0	1	0	0	0
9	0	0	0	0	0	0	1	0	1	0	0	0
10	0	0	0	0	0	2	1	1	0	0	0	0
11	0	0	0	0	0	2	1	1	1	1	0	0
12	0	0	0	0	0	2	1	2	0	2	0	0
13	0	0	0	0	0	2	2	2	1	4	0	0
14	0	0	0	0	0	0	2	0	1	4	0	0
15	0	0	0	0	0	0	1	0	0	2	7	0
16	0	0	0	0	0	0	0	0	0	1	3	0
17	0	0	0	0	0	0	0	0	0	2	2	0
18	0	0	0	0	0	0	0	0	0	2	2	0
19	0	0	0	0	0	0	2	0	0	0	2	0
20	0	0	0	0	0	0	2	0	0	0	2	0
21	0	0	0	0	0	0	1	0	0	0	2	0
22	0	0	0	0	0	0	1	0	1	0	2	0
23	0	0	0	0	0	0	2	0	1	0	0	0
24	0	0	0	0	0	1	2	0	0	0	0	0
25	0	0	0	0	0	2	2	0	1	0	0	0
26	0	0	0	0	0	3	2	0	0	2	0	0
27	0	0	0	0	0	2	2	0	0	3	0	0
28	0	0	0	0	0	3	1	2	0	3	0	0
29	0	-	0	0	0	3	1	2	0	2	0	0
30	0	-	0	0	0	3	1	1	0	1	0	0
31	0	-	0	-	0	-	1	1	-	1	-	2
TOTAL	0	0	0	0	0	25	42	22	14	35	22	5
MAXIMUM DAY	0	0	0	0	0	3	2	2	1	4	7	2
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	1	1	1	0	1	1	0
TOTAL AC.FT.	0	0	0	0	0	50	83	44	28	70	44	10
WHOLE YEAR:-	TOTAL,	165	MAX.,	7	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	329		

**KERN DELTA WATER DISTRICT
EASTSIDE CANAL SERVICE AREA**

Quantities in acre-feet

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	0	0	851	1,965	2,882	2,453	2,481	1,039	0	0	0	0	11,671
Total River Diverted	0	0	851	1,965	2,882	2,453	2,481	1,039	0	0	0	0	11,671
State Exchange Diverted	0	0	764	373	502	609	976	1,535	104	0	0	149	5,012
1988 State Pool Payback Div.	0	0	0	0	0	0	0	0	1,118	1,166	232	0	2,516
City of Bksfd. Miscellaneous	0	0	0	0	0	50	83	44	28	70	44	10	329
Total State/Other Div.	0	0	764	373	502	659	1,059	1,579	1,250	1,236	276	159	7,857
Eastside Canal at Head	0	0	1,615	2,338	3,384	3,112	3,540	2,618	1,250	1,236	276	159	19,528
Utility Deliveries	0	0	701	1,256	2,147	1,889	1,928	770	0	0	0	0	8,691
Contract Deliveries	0	0	0	101	125	13	16	9	0	0	0	0	264
Total Utility Deliveries	0	0	701	1,357	2,272	1,902	1,944	779	0	0	0	0	8,955
State Exchange Delivered	0	0	456	373	502	609	976	1,258	72	0	0	55	4,301
1988 State Pool Payback Del.	0	0	0	0	0	0	0	0	777	788	146	0	1,711
Misc./Other Deliveries	0	0	0	0	0	50	83	44	28	70	44	10	329
Total State/Other Del.	0	0	456	373	502	659	1,059	1,302	877	858	190	65	6,341
Total Irrigation Deliveries	0	0	1,157	1,730	2,774	2,561	3,003	2,081	877	858	190	65	15,296
Canal Loss (Utility)	0	0	150	608	610	551	537	260	0	0	0	0	2,716
Canal Loss (State/Other)	0	0	308	0	0	0	0	277	373	378	86	94	1,516
Total Canal Loss	0	0	458	608	610	551	537	537	373	378	86	94	4,232
Delivery Percentage	0%	0%	72%	74%	82%	82%	85%	79%	70%	69%	69%	41%	78%

Year: 1993

Total Flow via the Buena Vista Canal Headgate

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	98	66	49	47	152	151	69	10	0	0
2	0	0	105	68	54	55	152	157	68	8	0	0
3	0	0	121	68	63	59	150	157	61	0	0	0
4	0	0	120	63	67	82	149	155	42	0	0	0
5	0	0	120	63	70	83	159	154	27	0	0	0
6	0	7	120	75	70	76	162	152	20	0	0	0
7	0	19	120	86	72	74	163	144	26	0	0	0
8	0	18	123	89	76	81	163	139	31	0	0	0
9	0	18	118	94	81	108	164	139	21	0	0	0
10	0	12	126	99	85	117	156	131	20	0	0	0
11	0	12	129	102	80	137	140	126	20	0	0	0
12	0	13	145	104	80	144	138	116	19	0	0	0
13	0	13	141	99	67	148	143	103	19	0	0	0
14	0	12	134	105	68	162	157	101	18	0	0	0
15	0	12	134	101	66	161	162	97	5	0	0	0
16	0	14	132	72	60	162	160	100	22	0	0	0
17	0	17	139	72	40	160	163	103	18	0	0	0
18	0	19	137	71	36	159	164	109	17	0	0	0
19	0	20	125	67	40	163	164	115	8	0	0	0
20	0	22	124	56	47	162	162	109	7	0	0	0
21	0	42	129	57	43	163	160	99	3	0	0	0
22	0	95	126	48	37	161	159	98	7	0	0	0
23	0	95	131	48	36	155	159	109	19	0	0	0
24	0	97	123	49	36	154	150	124	16	0	0	0
25	0	87	123	48	34	158	145	114	19	0	0	0
26	0	93	105	49	39	160	152	101	21	0	0	0
27	0	102	102	47	44	162	155	93	18	0	0	0
28	0	98	83	48	37	161	160	88	20	0	0	0
29	0	-	71	54	23	155	160	83	22	0	0	0
30	0	-	69	50	27	148	157	82	17	0	0	0
31	0	-	67	-	42	-	151	77	-	0	-	0
TOTAL	0	937	3,640	2,118	1,669	3,917	4,831	3,626	700	18	0	0
MAXIMUM DAY	0	102	145	105	85	163	164	157	69	10	0	0
MINIMUM DAY	0	0	67	47	23	47	138	77	3	0	0	0
MEAN	0	33	117	71	54	131	156	117	23	1	0	0
TOTAL AC.FT.	0	1,859	7,220	4,201	3,310	7,769	9,582	7,192	1,388	36	0	0
WHOLE YEAR:-	TOTAL,	21,456	MAX.,	164	MIN.,	0	MEAN,	59	TOTAL AC.FT.,	42,557		

KERN DELTA WATER DISTRICT
BUENA VISTA CANAL SERVICE AREA

Quantities in acre-feet

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	+ 3,797	4,242	1,279	2,610	5,187	4,207	1,565	97	123	0	174	401	23,682
Release	+ or - (2,666)	(1,724)	1,093	98	971	381	178	0	2,174	62	(158)	(324)	85
Entitlement + or - Releases	= 1,131	2,518	2,372	2,708	6,158	4,588	1,743	97	2,297	62	16	77	23,767
Into Storage	- 1,131	1,263	545	1,826	5,125	359	0	0	1,304	24	16	8	11,601
From Storage	+ 0	363	1,531	0	0	2,836	2,172	3,007	0	0	0	0	9,909
Friant-Kern via Buena Vista Canal	+ 0	0	0	2,010	1,715	0	0	0	0	0	0	0	3,725
Via Kern Island (F-K In Lieu)	- 0	0	0	34	0	0	0	0	0	0	0	0	34
Via Stine (F-K In Lieu)	- 0	0	0	135	0	0	0	0	0	0	0	0	135
Via Farmers (F-K In Lieu)	- 0	0	0	196	0	0	0	0	0	0	0	0	196
From Kern Island (F-K In Lieu)	+ 0	0	0	0	254	0	0	0	0	0	0	0	254
To North Kern WSD	- 0	0	0	329	0	0	0	0	0	0	0	0	329
Transfer in Storage	+ or - 0	(416)	0	0	0	0	0	0	0	0	0	0	(416)
Carrier Canal Loss	- 0	0	0	0	0	0	0	0	204	2	0	69	275
Diverted at Head of Canal	= 0	1,202	3,358	2,198	3,002	7,065	3,915	3,104	789	36	0	0	24,669
Utility Deliveries	0	760	2,894	571	637	5,949	3,312	2,624	207	8	0	0	16,962
Friant-Kern Deliveries	0	0	0	519	900	0	0	0	0	0	0	0	1,419
Total Irrigation Deliveries	- 0	760	2,894	1,090	1,537	5,949	3,312	2,624	207	8	0	0	18,381
Spreading Deliveries (Friant-Kern)	- 0	0	0	778	696	0	0	0	0	0	0	0	1,474
Canal Conveyance Losses	= 0	442	464	330	769	1,116	603	480	582	28	0	0	4,814
Delivery Percentage	0%	63%	86%	85%	74%	84%	85%	85%	26%	22%	0%	0%	80%

Into Reservoir Storage	1,131	1,263	545	1,826	5,125	359	0	0	1,304	24	16	8	11,601
Reservoir Evaporation Loss	18	28	26	36	105	145	109	38	26	24	16	8	579
From Reservoir Storage	0	363	1,531	0	0	2,836	2,172	3,007	0	0	0	0	9,909
End of Month Reservoir Storage	1,500	2,372	1,360	3,150	8,170	5,548	3,267	222	1,500	1,500	1,500	1,500	11,601

State Exchange Diverted	0	0	111	0	0	0	3,112	1,269	112	0	0	0	4,604
State Exch. Diverted via Maples Canal	0	0	0	0	0	0	298	0	0	0	0	0	298
1988 State Pool Payback Diverted	0	0	0	0	0	0	0	0	82	0	0	0	82
State Exchange Delivered	0	0	98	0	0	0	2,725	1,098	91	0	0	0	4,012
State Exch. Delivered via Maples Canal	0	0	0	0	0	0	298	0	0	0	0	0	298
1988 State Pool Payback Delivered	0	0	0	0	0	0	0	0	67	0	0	0	67

**KERN DELTA WATER DISTRICT
BUENA VISTA CANAL
DISTRIBUTION OF WATER**

Year: 1993

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
BUENA VISTA CANAL AT HEAD	0	1,859	7,220	4,201	3,310	7,769	9,582	7,192	1,388	36	0	0	42,557
Deliveries: Head to Section 17													
Buena Vista Utility	0	518	1,323	571	619	2,851	2,606	1,859	207	8	0	0	10,562
Buena Vista State Exchange	0	0	98	0	0	0	472	532	158	0	0	0	1,260
Buena Vista Friant-Kern	0	0	0	519	440	0	0	0	0	0	0	0	959
Stine Utility	0	12	415	102	95	159	428	0	0	0	0	0	1,211
Stine State Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
Improvement District #4	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total	0	530	1,836	1,192	1,154	3,010	3,506	2,391	365	8	0	0	13,992
Deliveries: At or Below Section 17													
Buena Vista Utility	0	242	1,571	0	18	3,098	706	765	0	0	0	0	6,400
Buena Vista State Exchange	0	0	0	0	0	0	2,253	566	0	0	0	0	2,819
Buena Vista Friant-Kern	0	0	0	0	460	0	0	0	0	0	0	0	460
Stine Utility	0	337	252	0	143	20	363	781	0	0	0	0	1,896
Stine State Exchange	0	0	0	0	0	0	446	778	0	0	0	0	1,224
Kern Island Utility	24	123	2,473	1,505	0	365	1,012	888	359	0	0	0	6,749
Kern Island State Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total	24	702	4,296	1,505	621	3,483	4,780	3,778	359	0	0	0	19,548
TOTAL DELIVERED	24	1,232	6,132	2,697	1,775	6,493	8,286	6,169	724	8	0	0	33,540
Spreading Deliveries (Friant-Kern)	0	0	0	778	696	0	0	0	0	0	0	0	1,474
Canal Conveyance Losses	(24)	627	1,088	726	839	1,276	1,296	1,023	664	28	0	0	7,543
Delivery Percentage	0%	66%	85%	83%	75%	84%	86%	86%	52%	22%	0%	0%	82%
DISTRIBUTION:													
Buena Vista Utility	0	1,202	3,358	882	1,033	7,065	3,915	3,104	789	36	0	0	21,384
Buena Vista State Exchange	0	0	111	0	0	0	3,112	1,269	188	0	0	0	4,680
Buena Vista Friant-Kern	0	0	0	1,316	1,969	0	0	0	0	0	0	0	3,285
Stine Utility	0	470	831	182	308	236	932	906	0	0	0	0	3,865
Stine State Exchange	0	0	0	0	0	0	500	899	0	0	0	0	1,399
Improvement District #4	0	0	0	0	0	0	0	0	0	0	0	0	0
Kern Island Utility	0	187	2,920	1,821	0	468	1,123	1,014	411	0	0	0	7,944
Kern Island State Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1,859	7,220	4,201	3,310	7,769	9,582	7,192	1,388	36	0	0	42,557

Year: 1993

Total Flow via the Stine Canal Headgate

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	33	46	85	123	138	42	0	0	0
2	0	0	0	34	46	83	112	149	40	0	0	0
3	0	0	0	36	48	85	115	146	44	0	0	0
4	0	0	3	31	60	86	124	123	47	0	0	0
5	0	0	10	31	74	79	131	106	47	0	0	0
6	0	0	14	31	70	68	123	103	47	0	0	0
7	0	0	24	31	64	70	116	105	44	0	0	0
8	0	0	41	32	62	71	118	97	41	0	0	0
9	0	0	54	30	61	72	108	90	41	0	0	0
10	0	0	54	29	63	83	105	87	38	0	0	0
11	0	0	54	33	75	99	104	84	36	0	0	0
12	0	0	54	45	74	107	102	79	33	0	0	0
13	0	0	55	47	75	109	105	76	33	0	0	0
14	0	0	55	47	76	114	114	69	33	0	0	0
15	0	0	59	47	76	122	123	75	30	0	0	0
16	0	0	58	48	76	128	136	84	30	0	19	0
17	0	0	65	46	71	115	133	93	30	0	18	0
18	0	0	67	47	58	121	131	98	30	0	20	0
19	0	0	64	50	55	129	137	105	31	0	24	0
20	0	6	56	46	57	134	134	116	32	0	17	0
21	0	28	56	47	58	136	126	102	32	0	17	0
22	0	43	56	49	58	137	123	82	31	0	15	0
23	0	25	56	52	56	132	120	84	32	0	14	0
24	0	32	59	53	59	110	112	82	23	0	8	0
25	0	36	63	54	62	96	96	79	0	0	0	0
26	0	34	58	51	64	95	97	77	0	0	0	0
27	0	18	49	52	80	98	112	62	0	0	0	0
28	0	0	46	53	85	100	120	50	0	0	0	0
29	0	-	41	53	79	108	120	44	0	0	0	0
30	0	-	37	50	81	125	126	46	0	0	0	0
31	0	-	33	-	79	-	132	46	-	0	-	0
TOTAL	0	222	1,341	1,288	2,048	3,097	3,678	2,777	867	0	152	0
MAXIMUM DAY	0	43	67	54	85	137	137	149	47	0	24	0
MINIMUM DAY	0	0	0	29	46	68	96	44	0	0	0	0
MEAN	0	8	43	43	66	103	119	90	29	0	5	0
TOTAL AC.FT.	0	440	2,660	2,555	4,062	6,143	7,295	5,508	1,720	0	301	0
WHOLE YEAR:-	TOTAL,	15,470	MAX.,	149	MIN.,	0	MEAN,	42	TOTAL AC.FT.,	30,684		

KERN DELTA WATER DISTRICT
STINE CANAL SERVICE AREA

Quantities in acre-feet

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	+ 3,455	4,457	2,406	4,020	4,584	4,155	2,928	184	0	0	0	0	26,189
Release	+ or - (1,995)	(1,535)	0	(22)	385	0	0	0	0	4	534	178	(2,451)
Entitlement + or - Releases	= 1,460	2,922	2,406	3,998	4,969	4,155	2,928	184	0	4	534	178	23,738
Into Storage	- 1,460	1,807	194	1,616	1,561	303	34	0	0	4	207	178	7,364
From Storage	+ 0	667	1,426	0	2	405	1,067	2,854	208	0	149	0	6,778
Friant-Kern via Buena Vista Canal	+ 0	0	0	182	284	0	0	0	0	0	0	0	466
From Kern Island (F-K In Lieu)	+ 0	0	0	91	77	0	0	0	0	0	0	0	168
From Buena Vista (F-K In Lieu)	+ 0	0	0	135	0	0	0	0	0	0	0	0	135
To North Kern WSD	- 0	0	0	87	135	0	0	0	0	0	0	0	222
Transfer in Storage	+ or - 0	(766)	0	0	0	0	0	0	0	0	0	0	(766)
Carrier Canal Loss	- 0	0	0	0	0	0	0	0	11	0	175	0	186
Other	+ or - 0	0	0	0	0	0	0	0	4	0	0	0	4
Diverted at Head	= 0	1,016	3,638	2,703	3,636	4,257	3,961	3,038	201	0	301	0	22,751
Utility Deliveries	0	534	1,821	786	1,933	2,746	2,568	1,875	44	0	56	0	12,363
Contract Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Irrigation Deliveries	- 0	534	1,821	786	1,933	2,746	2,568	1,875	44	0	56	0	12,363
Spreading Deliveries (Friant-Kern)	- 0	0	0	321	226	0	0	0	0	0	0	0	547
Conveyance Losses	= 0	482	1,817	1,596	1,477	1,511	1,393	1,163	157	0	245	0	9,841
Delivery Percentage	0%	53%	50%	41%	59%	65%	65%	62%	22%	0%	19%	0%	57%

Into Reservoir Storage	1,460	1,807	194	1,616	1,561	303	34	0	0	4	207	178	7,364
Reservoir Evaporation Loss	16	28	39	36	71	85	79	40	4	0	0	0	398
From Reservoir Storage	0	667	1,426	0	2	405	1,067	2,854	208	0	149	0	6,778
End of Month Reservoir Storage	1,496	2,608	1,337	2,917	4,405	4,218	3,106	212	0	4	62	240	

State Exchange Diverted	0	0	0	0	0	8	1,775	1,634	183	0	0	0	3,600
1988 State Pool Payback Diverted	0	0	0	0	0	0	0	0	778	311	0	0	1,089
State Exchange Delivered	0	0	0	0	0	5	1,402	1,399	74	0	0	0	2,880
1988 State Pool Payback Delivered	0	0	0	0	0	0	0	0	232	103	0	0	335

KERN DELTA WATER DISTRICT
FARMERS CANAL SERVICE AREA

Year: 1993

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	1,137	2,600	2,406	4,020	4,584	4,155	2,928	91	0	0	0	0	21,921
Release	+ or -	(849)	(34)	(539)	(1,643)	(934)	(961)	0	0	0	0	0	(4,849)
Entitlement + or - Releases	=	1,248	1,751	2,372	3,481	3,221	1,967	91	0	0	0	0	17,072
Into Storage	-	1,248	1,192	1,011	2,809	143	54	0	0	0	0	0	7,472
From Storage	+	0	438	585	0	30	1,927	3,398	537	0	0	0	6,915
From Kern Island (F-K In Lieu)	+	0	0	334	240	0	0	0	0	0	0	0	574
From Buena Vista (F-K In Lieu)	+	0	0	196	0	0	0	0	0	0	0	0	196
To North Kern WSD	-	0	0	0	0	0	0	0	0	0	0	0	0
Transfer in Storage	+ or -	0	(471)	0	0	0	0	0	0	0	0	0	(471)
Carrier Canal Loss	-	0	0	0	0	0	0	0	9	0	0	0	9
Other	+ or -	0	0	0	0	0	0	0	4	0	0	0	4
Diverted at Head	=	0	526	1,946	1,202	3,108	3,840	3,489	532	0	0	0	16,809
Utility Deliveries	0	302	1,372	444	1,187	2,440	2,775	2,249	383	0	0	0	11,152
Contract Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Irrigation Deliveries	-	0	302	1,372	444	2,440	2,775	2,249	383	0	0	0	11,152
Spreading Deliveries (Friant-Kern)	-	0	0	530	240	0	0	0	0	0	0	0	770
Conveyance Losses	=	0	224	574	228	668	1,065	1,240	149	0	0	0	4,887
Delivery Percentage	0%	57%	71%	81%	66%	79%	72%	64%	72%	0%	0%	0%	71%

Into Reservoir Storage	1,248	1,192	1,011	2,809	1,015	143	54	0	0	0	0	0	7,472
Reservoir Evaporation Loss	12	20	54	55	111	113	127	61	4	0	0	0	557
From Reservoir Storage	0	438	585	0	0	30	1,927	3,398	537	0	0	0	6,915
End of Month Reservoir Storage	1,236	1,970	2,342	5,096	6,000	6,000	4,000	541	0	0	0	0	

State Exchange Diverted	0	0	0	0	0	0	0	0	0	0	0	125	125
1988 State Pool Payback Diverted	0	0	0	0	0	0	0	0	573	254	52	0	879
State Exchange Delivered	0	0	0	0	0	0	0	0	0	0	0	104	104
1988 State Pool Payback Delivered	0	0	0	0	0	0	0	0	407	180	29	0	616

**KERN DELTA WATER DISTRICT
FRIANT - KERN CANAL WATER PROGRAM**

APRIL 1993

Quantities in S.F.D except where noted...

Day	Friant - Kern Supply			Diverted for Direct Use			Available for In Lieu Use or Exchange			Inter - District In Lieu Use (Spreading)			Exchange to North Kern WSD			
	Buena Vista At Head	AE/KI Siphon	Inflow via	Irrigation	Buena Vista Spreading	Total	Kern Island Canal	Stine Canal	Buena Vista Canal	Kern Island Canal	Stine Canal	Farmers Canal	Kern Island Canal	Stine Canal	Buena Vista Canal	Total
1	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	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	41	0	0	0	14	14	20	7	27	0	0	0	20	0	7	27
8	89	0	0	0	17	17	52	20	72	8	7	7	37	0	14	51
9	94	0	0	0	20	20	56	18	74	10	8	8	39	0	12	51
10	99	0	0	0	20	20	60	19	79	12	7	7	42	0	13	55
11	102	0	0	0	16	16	61	0	86	11	8	8	43	0	17	60
12	104	0	0	0	17	17	52	0	87	6	7	7	39	0	27	66
13	99	0	0	0	15	15	54	0	84	10	8	8	39	0	22	61
14	105	0	0	0	16	16	57	0	89	7	9	11	40	0	22	62
15	101	0	0	0	17	17	51	0	84	7	9	11	35	0	22	57
16	72	0	0	0	19	19	32	0	53	9	8	11	15	0	10	25
17	72	0	0	16	17	33	19	0	39	17	8	14	0	0	0	0
18	71	0	0	18	16	34	19	0	37	15	8	14	0	0	0	0
19	67	0	0	17	16	33	20	0	34	13	8	13	0	0	0	0
20	56	0	0	2	17	19	12	0	37	16	8	13	0	0	0	0
21	57	0	0	7	17	24	0	0	33	13	8	13	0	0	0	0
22	48	48	48	31	17	48	48	0	48	12	6	11	19	0	0	19
23	48	51	50	31	17	48	51	0	51	15	7	12	17	0	0	17
24	49	50	50	22	15	37	50	0	62	15	8	14	21	4	0	25
25	48	50	50	20	15	35	50	0	63	12	7	14	24	6	0	30
26	49	52	52	24	14	38	52	0	63	9	6	15	28	5	0	33
27	47	54	54	20	14	34	54	0	67	12	8	12	30	5	0	35
28	48	49	49	21	14	35	49	0	62	16	7	14	19	6	0	25
29	54	49	49	26	14	40	49	0	63	17	6	15	17	8	0	25
30	50	49	49	16	18	34	49	0	65	17	6	15	17	10	0	27
SFD	1670	452	452	271	392	663	1017	92	1459	279	162	267	541	44	166	751
AcFt	3312	897	897	538	778	1316	2017	182	2893	553	321	530	1073	87	329	1489

**KERN DELTA WATER DISTRICT
FRIANT --KERN CANAL WATER PROGRAM**

MAY 1993

Quantities in S.F.D. except where noted...

Day	Friant--Kern Supply			Diverted for Direct Use		Available for In Lieu Use or Exchange			Inter--District In Lieu Use (Irrigation/Spreading)					Exchange to North Kern WSD					
	Buena Vista		Total	Buena Vista Canal		Total	Kern Island		Stine	Farmers		Buena Vista Canal	Total	Kern Island		Stine	Buena Vista Canal	Total	
	At Head	AE/KI Siphon		Irrigation	Spreading		Canal	Canal		Canal	Canal			Canal	Canal				Canal
1	49	48	97	19	20	39	48	10	58	20	7	16	0	0	43	12	3	0	15
2	54	47	101	22	20	42	47	12	59	15	9	6	0	0	30	26	3	0	29
3	63	50	113	30	20	50	50	13	63	16	8	6	0	0	30	28	5	0	33
4	67	50	117	36	20	56	50	11	61	16	6	6	0	0	28	28	5	0	33
5	70	50	120	33	20	53	50	17	67	16	5	6	0	0	27	28	12	0	40
6	70	50	120	31	20	51	50	19	69	16	7	6	0	0	29	28	12	0	40
7	72	51	123	39	21	60	51	12	63	16	7	7	0	0	30	28	5	0	33
8	76	51	127	42	21	63	51	13	64	16	6	7	0	0	29	28	7	0	35
9	81	53	134	47	21	68	53	13	66	16	6	6	0	0	28	31	7	0	38
10	85	48	133	52	22	74	48	11	59	16	7	6	0	0	29	26	4	0	30
11	80	48	128	47	21	68	48	12	60	15	7	7	0	0	29	26	5	0	31
12	47	50	97	47	0	47	50	0	50	15	7	7	0	0	50	0	0	0	0
13	46	49	95	46	0	46	49	0	49	15	6	7	0	0	49	0	0	0	0
14	45	50	95	45	0	45	50	0	50	14	6	7	2	21	50	0	0	0	0
15	44	50	94	44	0	44	50	0	50	14	7	7	1	21	50	0	0	0	0
16	39	49	88	39	0	39	49	0	49	14	7	7	1	20	49	0	0	0	0
17	20	50	70	19	1	20	50	0	50	17	6	7	0	0	50	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SFD	1008	844	1852	638	227	865	844	143	987	267	114	121	4	124	630	289	68	0	357
AcFt	1999	1674	3673	1265	450	1715	1674	284	1958	530	226	240	8	246	1250	573	135	0	708

Kern Delta Water District Kern River Water Diverted
via Kern River Canal

Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	45	0	0	0	0	0
2	0	0	0	0	0	0	45	0	0	0	0	0
3	0	0	0	0	0	0	25	0	0	0	0	0
4	0	0	0	0	0	0	20	0	0	0	0	0
5	0	0	0	0	0	0	10	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	40	0	0	0	0	0
10	0	0	0	0	0	0	40	0	0	0	0	0
11	0	0	0	0	0	0	40	0	0	0	0	0
12	0	0	0	0	0	0	40	0	0	0	0	0
13	0	0	0	0	0	0	40	0	0	0	0	0
14	0	0	0	0	0	0	40	0	0	0	0	0
15	0	0	0	0	0	0	40	0	0	0	0	0
16	0	0	0	0	0	0	40	0	0	0	0	0
17	0	0	0	0	0	25	40	0	0	0	0	0
18	0	0	0	0	0	25	40	0	0	0	0	0
19	0	0	0	0	0	30	30	0	0	0	0	0
20	0	0	0	0	0	30	30	0	0	0	0	0
21	0	0	0	0	0	30	15	0	0	0	0	0
22	0	0	0	0	0	30	15	0	0	0	0	0
23	0	0	0	0	0	30	13	0	0	0	0	0
24	0	0	0	0	0	30	30	0	0	0	0	0
25	0	0	0	0	0	30	30	0	0	0	0	0
26	0	0	0	0	0	30	30	0	0	0	0	0
27	0	0	0	0	0	30	30	0	0	0	0	0
28	0	0	0	0	0	30	30	0	0	0	0	0
29	0	-	-	0	0	30	30	0	0	0	0	0
30	0	-	-	0	0	45	0	0	0	0	0	0
31	0	-	-	0	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	425	648	0	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	45	45	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	14	21	0	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	843	1,285	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	1,073	MAX.,	45	MIN.,	0	MEAN,	3	TOTAL AC.FT.,	2,128		

Quantities in acre-feet

KERN DELTA WATER DISTRICT
State Aqueduct Exchange Diversion and Storage Recapitulation

Year: 1993

	Kern Island	Eastside	East of Kern Island	Buena Vista		Stine	Farmers	Reservoir Loss	Other	Total	Storage
											Balance
November	0	0	0	0	0	0	0	0	0	0	591
December	0	0	0	0	0	0	0	0	0	0	591
January	0	0	0	0	0	0	0	0	0	0	591
February	110	0	72	0	0	0	0	0	0	182	409
March	50	219	140	0	0	0	0	0	0	409	0
Total	160	219	212	0	0	0	0	0	0	591	

March	74	545	321	111	0	0	0	0	0	1,051	25,500
April	180	373	100	0	0	0	0	0	0	653	24,449
May	325	502	461	0	0	0	0	0	0	1,288	23,796
June	464	609	736	0	8	0	0	0	0	1,817	22,508
July	694	976	1,067	3,410	1,775	0	0	0	0	7,922	20,691
August	790	1,535	1,039	1,269	1,634	0	0	0	0	6,267	12,769
September	21	104	82	112	183	0	0	0	0	502	6,502
October	0	0	0	0	0	0	0	0	0	0	6,000
November	0	0	0	0	0	0	0	0	0	0	6,000
Total	2,548	4,644	3,806	4,902	3,600	0	0	0	0	19,500	

November	0	0	0	0	0	0	0	0	0	0	6,000
December	60	149	29	0	0	0	125	0	0	363	6,000
Total	60	149	29	0	0	0	125	0	0	363	5,637

KERN DELTA WATER DISTRICT
1988 State Pool Payback Diversion Recapitulation

Year: 1993

Quantities in acre-feet

	Kern Island	Eastside	East of Kern Island		Buena Vista	Stine	Farmers	Total	Payback Balance
			Kern Island	Buena Vista					
January	0	0	0	0	0	0	0	6,609	
February	0	0	0	0	0	0	0	6,609	
March	0	0	0	0	0	0	0	6,609	
April	0	0	0	0	0	0	0	6,609	
May	0	0	0	0	0	0	0	6,609	
June	0	0	0	0	0	0	0	6,609	
July	0	0	0	0	0	0	0	6,609	
August	0	0	0	0	0	0	0	6,609	
September	21	1,118	98	82	778	573	2,670	3,939	
October	0	1,166	30	0	311	254	1,761	2,178	
November	0	232	0	0	0	52	284	1,894	
December	0	0	0	0	0	0	0	1,894	
Total	21	2,516	128	82	1,089	879	4,715		

CITY OF BAKERSFIELD

**KERN RIVER CHANNEL OPERATIONS
CITY OF BAKERSFIELD**

Quantities in acre-feet

Year: 1993

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
+ Kern River at First Point of Measurement	22,062	25,426	52,479	45,489	63,322	107,357	118,677	88,671	51,846	34,725	14,021	18,264	642,339
- Computed Loss	676	611	676	655	676	655	676	676	655	676	655	676	7,963
- Beardsley Canal at Head	2,828	5,446	12,286	18,496	32,303	34,767	36,506	32,565	22,405	16,953	9,596	9,310	233,461
- Carrier Canal at Head	18,180	18,115	24,918	19,983	25,307	34,538	36,958	33,296	15,261	11,006	3,449	7,710	248,721
= Rocky Point Weir	378	1,254	14,599	6,355	5,036	37,397	44,537	22,134	13,525	6,090	321	568	152,194
+ Carrier Waste Gate	0	0	571	597	0	1,372	1,502	1,537	1,472	2,108	0	0	9,159
+ Farmers-Stine-Anderson: to River	468	1,789	0	234	0	0	0	26	0	460	0	0	2,977
- Farmers-Stine-Anderson: from River	0	736	10,778	2,571	0	11,242	10,032	3,374	4,822	2,291	0	0	45,846
- Calloway Canal at Head	149	1,384	2,174	2,507	3,778	16,566	20,352	7,355	4,834	3,703	216	81	63,099
- River Loss: Rocky Point to Calloway Weir	697	923	837	940	1,214	1,764	1,362	1,446	1,142	925	67	439	11,756
= Calloway River Weir	0	0	1,381	1,168	44	9,197	14,293	11,522	4,199	1,739	38	48	43,629
+ CVC T.O. #4 to River	269	89	2,579	2,083	3,934	4,160	2,210	0	646	2,222	3,901	4,152	26,245
+ CVC T.O. #3 to River	0	75	2,602	255	616	466	1,573	6,261	2,331	1,470	1,060	3,715	20,424
+ Friant-Kern Inflow	0	2,000	2,683	54,018	40,600	25,557	10,642	482	0	0	0	0	195,982
- River Canal from River	0	0	0	9,780	7,242	9,897	13,262	9,931	785	0	0	0	50,897
- River Loss: Cally Weir to River Canal Weir	269	1,472	6,008	4,595	4,884	6,036	7,016	6,361	4,685	4,861	4,639	4,695	55,521
= River Canal Weir	0	692	3,237	43,149	33,068	23,447	8,440	1,973	1,706	570	360	3,220	119,862
+ Pioneer Turnout	11,871	8,591	5,839	4,883	2,289	242	0	0	0	0	0	0	33,715
+ CVC T.O. #2 to River	27	3	6,791	0	1,963	0	0	764	0	2,959	6,249	8,479	27,235
- Rosedale Channel at Head	10,951	7,734	4,649	11,103	10,338	6,557	2,878	0	0	0	0	0	54,210
- Pioneer Canal at Head	0	0	0	7,101	11,816	6,135	2,751	0	0	0	0	0	27,803
- Berrenda Mesa Pipeline Turnout	0	0	0	0	0	0	0	0	0	1,505	3,908	3,554	8,967
- River Loss: River Canal to Bellevue Weir	846	1,552	3,386	2,694	1,992	1,823	2,811	1,973	1,706	1,159	1,155	1,696	22,793
= Flow at Bellevue Weir	101	0	7,832	27,134	13,174	9,174	0	764	0	865	1,546	6,449	67,039
- River Loss: Bellevue Weir to ID#4 Boundary	0	0	0	893	922	528	0	0	0	659	863	893	4,758
- Berrenda Mesa Diversion from River	0	0	0	1,718	2,447	1,761	0	0	0	0	0	0	5,926
- River Loss: ID#4 Boundary to 2800 Acres	0	0	0	684	815	454	0	0	0	206	683	893	3,735
+ Outflow from Berrenda Mesa Spdg. Grounds	0	0	0	0	0	0	0	0	0	0	0	167	167
+ CVC T.O. #1 to River	64	9	9,561	3,706	11,760	179	1,444	13,848	8,789	8,946	9,209	13,626	81,141
+ River Canal T.O. to 2800 Acres	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pioneer (P-1 Lateral) from 2800 Acres	0	0	0	130	0	0	0	0	0	0	0	0	130
- 2800 Acre Recharge Facility	165	9	17,393	25,606	18,027	6,399	1,444	14,612	8,789	8,946	9,209	18,456	129,055
= Second Point via Kern River Channel	0	0	0	1,809	2,723	211	0	0	0	0	0	0	4,743

**CARRIER CANAL OPERATIONS
CITY OF BAKERSFIELD**

Quantities in acre-feet

Year: 1993

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
+ Carrier Canal at Head	18,180	18,115	24,918	19,983	25,307	34,538	36,958	33,296	15,261	11,006	3,449	7,710	248,721
- Carrier Waste Gate	0	0	571	597	0	1,372	1,502	1,537	1,472	2,108	0	0	9,159
+ Oilfield Discharge (Texaco Inc.)	338	0	0	0	0	0	0	0	0	0	0	0	338
- Canal Refill	0	0	0	0	0	0	0	0	0	0	58	0	58
= Carrier Reclamation Weir	18,518	18,115	24,347	19,386	25,307	33,166	35,456	31,759	13,789	8,898	3,391	7,710	239,842
+ Oilfield Discharge (Arco Oil)	27	0	0	0	0	0	0	0	0	0	0	0	27
+ Storm Drain Inflow/Canal Drainage	58	67	38	0	0	0	0	0	0	0	0	24	187
- Eastside Canal at Head	0	0	1,615	2,338	3,384	3,112	3,540	2,618	1,250	1,236	276	159	19,528
- Kern Island Canal at Head	4,048	5,157	12,446	11,169	12,801	21,896	26,007	19,767	8,041	5,205	2,640	7,482	136,659
= Levee No. 1	14,555	13,025	10,324	5,879	9,122	8,158	5,909	9,374	4,498	2,457	475	93	83,869
- Farmers-Stine-Anderson: to River	468	1,789	0	234	0	0	0	26	0	460	0	0	2,977
+ Farmers-Stine-Anderson: from River	0	736	10,778	2,571	0	11,242	10,032	3,374	4,822	2,291	0	0	45,846
= Carrier Canal at Oak Street	14,087	11,972	21,102	8,216	9,122	19,400	15,941	12,722	9,320	4,288	475	93	126,738
- Stine Canal at Head	0	440	2,660	2,555	4,062	6,143	7,295	5,508	1,720	0	301	0	30,684
- Truxtun Lakes	1,361	288	738	1,004	1,176	1,166	1,149	1,214	809	442	0	0	9,347
- Arvin-Edison Turnout	0	0	0	0	0	0	0	752	4,681	3,388	0	0	8,821
- Total Carrier Canal Loss	855	794	827	1,011	917	1,142	1,241	1,072	839	422	174	93	9,387
+ River Canal from River	0	0	0	9,780	7,242	9,897	13,262	9,931	785	0	0	0	50,897
= River Canal at Stockdale Highway	11,871	10,450	16,877	13,426	10,209	20,846	19,518	14,107	2,056	36	0	0	119,396
- Buena Vista Canal at Head	0	1,859	7,220	4,201	3,310	7,769	9,582	7,192	1,388	36	0	0	42,557
- Pioneer Turnout	11,871	8,591	5,839	4,883	2,289	242	0	0	0	0	0	0	33,715
- James Canal at Head	0	0	0	456	1,498	1,718	286	1,006	307	0	0	0	5,271
= River Canal at Alternate Second Point	0	0	3,818	3,886	3,112	11,117	9,650	5,909	361	0	0	0	37,853
+ 2800 Acre Well Water Production	0	0	0	0	0	0	0	0	0	0	0	0	0
- River Canal Turnout	0	0	0	0	0	0	0	0	0	0	0	0	0
- Kern Delta WD via River Canal	0	0	0	0	0	843	1,285	0	0	0	0	0	2,128
- Henry Miller WD via River Canal	0	0	1,720	1,200	0	0	0	0	0	0	0	0	2,920
- County of Kern	0	0	0	240	599	1,012	1,260	1,014	0	0	0	0	4,125
= Buena Vista WSD Flow via River Canal	0	0	2,098	2,446	2,513	9,262	7,105	4,895	361	0	0	0	28,680

Year: 1993

**MONTHLY SUMMARY OF ENTITLEMENT, EXCHANGES, DIVERSIONS, DELIVERIES, LOSSES & SALES
CITY OF BAKERSFIELD**

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	1,331	1,087	27,004	28,254	45,819	32,161	21,864	8,274	186	0	69	157	166,206
Release	1,197	175	448	284	358	390	535	0	978	1,230	1,121	841	7,557
ENTITLEMENT + OR - RELEASE	= 2,528	1,262	27,452	28,538	46,177	32,551	22,399	8,274	1,164	1,230	1,190	998	173,763
NKWS to City	13,221	11,651	0	0	0	0	0	0	0	0	0	0	24,872
From Reservoir Storage	0	0	40	1,386	2,032	7,247	8,292	23,370	2,928	1,322	1,993	449	49,059
Into Reservoir Storage	1,076	1,376	9,976	14,985	23,868	12,625	2,299	0	300	167	2,805	0	69,477
Other	0	1,096	0	0	0	508	512	0	(8)	0	2,813	7	4,928
TOTAL SUPPLY	= 14,673	12,633	17,516	14,939	24,341	27,681	28,904	31,644	3,784	2,385	3,191	1,454	183,145

Lake Ming	16	16	44	60	77	105	127	121	91	65	42	26	790
Kern Valley Golf Course	0	2	8	22	21	23	25	26	20	14	5	0	166
Olcose Water District	19	27	45	102	196	199	263	232	203	131	77	39	1,533
County of Kern	0	0	0	240	599	1,012	1,260	1,014	0	0	0	0	4,125
North Kern WSD	0	0	2,292	1,850	2,500	7,500	7,500	9,880	0	0	0	0	31,522
Cawelo WD	228	678	2,309	3,828	8,649	6,400	6,400	6,400	0	353	1,421	867	37,533
Kern-Tulare WD	129	1,204	4,548	3,592	5,707	2,917	4,064	5,415	1,756	0	0	0	29,332
Rag Gulch WD	20	180	686	539	854	437	609	809	260	0	0	0	4,394
Rosedale RBWSD (Direct)	10,951	7,734	4,649	2,056	0	0	0	0	0	0	0	0	25,390
Rosedale RBWSD (via Cawelo WD)	0	0	0	0	0	0	0	0	0	1,000	500	0	1,500
James Canal (KCWA)	0	0	0	0	0	573	0	1,006	307	0	0	0	1,886
Rosedale Ranch ID (NKWSD Contract)	0	0	0	280	1,936	2,287	2,676	2,291	0	0	0	0	9,470
Rosedale Ranch ID (NKWSD Misc.)	0	0	0	1,320	2,886	1,692	1,057	859	620	729	1,103	511	10,777
Kern Delta WD	0	0	0	0	0	50	83	44	28	70	44	10	329
Henry Miller WD	0	0	1,720	0	0	0	0	0	0	0	0	0	1,720
Paramount Citrus Association	0	0	0	0	0	0	0	318	0	0	0	0	318
Kern River Canal & Irrigating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0
Via Calloway Canal (KCWA-ID4)	0	0	0	0	0	0	0	0	210	26	0	0	236
Truxtun Lakes (Direct)	938	245	0	0	0	0	0	0	0	0	0	0	1,183
Truxtun Lakes (via I.D. #4)	319	744	0	0	0	508	512	0	0	0	0	0	2,083
2800 Acre Banking	0	0	0	0	0	0	0	0	0	0	0	0	0
River and Carrier Canal Loss	2,053	1,803	1,215	1,050	916	3,978	4,328	3,229	289	(3)	(1)	1	18,858
TOTAL DIVERTED	= 14,673	12,633	17,516	14,939	24,341	27,681	28,904	31,644	3,784	2,385	3,191	1,454	183,145

Into Reservoir Storage	1,076	1,376	9,976	14,985	23,868	12,625	2,299	0	300	167	2,805	0	69,477
Reservoir Evaporation Loss	29	40	80	363	618	901	1,128	850	456	326	194	94	5,079
From Reservoir Storage	0	0	40	1,386	2,032	7,247	8,292	23,370	2,928	1,322	1,993	449	49,059
End of Month Reservoir Storage	1,910	3,246	13,102	26,338	47,556	52,033	44,912	20,692	17,608	16,127	16,745	16,202	

**CITY OF BAKERSFIELD
STATUS OF LONG TERM CONTRACTS**

Quantities in acre-feet

NORTH KERN WATER STORAGE DISTRICT					
Year	Basic Contract Amount	Cumulative Contract Amount	Basic Contract Delivered	Cumulative Contract Delivery	Basic Contract Balance
1977	20,000	20,000	20,000	20,000	0
1978	20,000	40,000	20,000	40,000	0
1979	20,000	60,000	20,000	60,000	0
1980	20,000	80,000	20,000	80,000	0
1981	20,000	100,000	20,000	100,000	0
1982	20,000	120,000	20,000	120,000	0
1983	20,000	140,000	20,000	140,000	0
1984	20,000	160,000	20,000	160,000	0
1985	20,000	180,000	20,000	180,000	0
1986	20,000	200,000	20,000	200,000	0
1987	20,000	220,000	20,000	220,000	0
1988	20,000	240,000	20,000	240,000	0
1989	20,000	260,000	20,000	260,000	0
1990	20,000	280,000	20,000	280,000	0
1991	20,000	300,000	20,000	300,000	0
1992	20,000	320,000	14,381	314,381	(5,619)
1993	20,000	340,000	23,700	338,081	(1,919)

CAWELO WATER DISTRICT					
Year	Basic Contract Amount	Cumulative Contract Amount	Basic Contract Delivered	Cumulative Contract Delivery	Basic Contract Balance
1977	27,000	27,000	5,024	5,024	(21,976)
1978	27,000	54,000	35,404	40,428	(13,572)
1979	27,000	81,000	36,780	77,208	(3,792)
1980	27,000	108,000	30,792	108,000	0
1981	27,000	135,000	27,000	135,000	0
1982	27,000	162,000	27,000	162,000	0
1983	27,000	189,000	27,000	189,000	0
1984	27,000	216,000	27,000	216,000	0
1985	27,000	243,000	27,000	243,000	0
1986	27,000	270,000	27,000	270,000	0
1987	27,000	297,000	27,000	297,000	0
1988	27,000	324,000	22,460	309,821	(14,179)
1989	27,000	351,000	22,460	332,281	(18,719)
1990	27,000	378,000	17,723	350,004	(27,996)
1991	27,000	405,000	29,316	379,320	(25,680)
1992	27,000	432,000	28,868	408,188	(23,812)
1993	27,000	459,000	32,000	440,188	(18,812)

KERN-TULARE WATER DISTRICT					
Year	Basic Contract Amount	Cumulative Contract Amount	Basic Contract Delivered	Cumulative Contract Delivery	Basic Contract Balance
1977	20,000	20,000	4,673	4,673	(15,327)
1978	20,000	40,000	23,690	28,363	(11,637)
1979	20,000	60,000	24,122	52,485	(7,515)
1980	20,000	80,000	23,403	75,888	(4,112)
1981	20,000	100,000	23,700	99,588	(412)
1982	20,000	120,000	20,412	120,000	0
1983	20,000	140,000	4,587	124,587	(15,413)
1984	20,000	160,000	20,000	144,587	(15,413)
1985	20,000	180,000	20,000	164,587	(15,413)
1986	20,000	200,000	20,000	184,587	(15,413)
1987	20,000	220,000	20,000	204,587	(15,413)
1988	20,000	240,000	11,763	216,350	(23,650)
1989	20,000	260,000	16,635	232,985	(27,015)
1990	20,000	280,000	0	232,985	(47,015)
1991	20,000	300,000	20,000	252,985	(47,015)
1992	20,000	320,000	9,089	262,074	(57,926)
1993	20,000	340,000	29,332	291,408	(48,594)

RAG GULCH WATER DISTRICT					
Year	Basic Contract Amount	Cumulative Contract Amount	Basic Contract Delivered	Cumulative Contract Delivery	Basic Contract Balance
1977	3,000	3,000	449	449	(2,551)
1978	3,000	6,000	3,550	3,999	(2,001)
1979	3,000	9,000	3,550	7,549	(1,451)
1980	3,000	12,000	3,550	11,099	(901)
1981	3,000	15,000	3,550	14,649	(351)
1982	3,000	18,000	3,351	18,000	0
1983	3,000	21,000	600	18,600	(2,400)
1984	3,000	24,000	3,000	21,600	(2,400)
1985	3,000	27,000	3,000	24,600	(2,400)
1986	3,000	30,000	3,000	27,600	(2,400)
1987	3,000	33,000	3,000	30,600	(2,400)
1988	3,000	36,000	1,764	32,364	(3,636)
1989	3,000	39,000	2,495	34,859	(4,141)
1990	3,000	42,000	0	34,859	(7,141)
1991	3,000	45,000	3,000	37,859	(7,141)
1992	3,000	48,000	1,363	39,222	(8,778)
1993	3,000	51,000	4,384	43,616	(7,384)

CITY OF BAKERSFIELD
Deliveries to Long Term Contractors

Basic Contract

Year: 1993

Quantities in acre-feet

	NORTH KERN WSD		CAWELO WD		KERN-TULARE WD		RAG GULCH WD		MONTH TOTALS	
	Basic	Accum.	Basic	Accum.	Basic	Accum.	Basic	Accum.	Basic	Accum.
January	0	0	0	0	129	129	20	20	149	149
February	0	0	0	0	1,204	1,333	180	200	1,384	1,533
March	0	0	2,309	2,309	4,548	5,881	2) 686	886	7,543	9,076
April	2,130	2,130	3,828	6,137	3,592	9,473	2) 539	1,425	10,089	19,165
May	4,436	6,566	6,663	12,800	5,707	15,180	2) 854	2,279	17,660	36,825
June	4,787	11,353	6,400	19,200	2,917	18,097	437	2,716	14,541	51,366
July	5,176	16,529	6,400	25,600	4,064	22,161	609	3,325	16,249	67,615
August	7,171	23,700	6,400	32,000	5,415	27,576	809	4,134	19,795	87,410
September	0	23,700	0	32,000	1,756	29,332	260	4,394	2,016	89,426
October	0	23,700	0	32,000	0	29,332	0	4,394	0	89,426
November	0	23,700	0	32,000	0	29,332	0	4,394	0	89,426
December	0	23,700	0	32,000	0	29,332	0	4,394	0	89,426
Year Total	23,700		32,000		29,332		4,394		89,426	

1) Includes water delivered pursuant to terms of City/K-TWD Agreement No. 88-14 W.B. dated August 31, 1988.

2) Includes water delivered pursuant to terms of City/RGWD Agreement No. 88-15 W.B. dated August 31, 1988.

City of Bakersfield Diverted to North Kern WSD
(Basic Contract)
Year: 1993

(Does not include deliveries into Isabella Reservoir storage)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	35	44	49	17	0	0	0	0
2	0	0	0	0	35	42	47	31	0	0	0	0
3	0	0	0	0	31	43	37	41	0	0	0	0
4	0	0	0	0	33	19	19	42	0	0	0	0
5	0	0	0	0	34	19	31	39	0	0	0	0
6	0	0	0	3	22	18	37	42	0	0	0	0
7	0	0	0	3	27	17	47	45	0	0	0	0
8	0	0	0	3	24	15	38	22	0	0	0	0
9	0	0	0	0	24	24	37	26	0	0	0	0
10	0	0	0	0	22	20	32	24	0	0	0	0
11	0	0	0	0	29	26	20	30	0	0	0	0
12	0	0	0	0	21	22	25	36	0	0	0	0
13	0	0	0	0	27	25	33	33	0	0	0	0
14	0	0	0	0	31	30	38	29	0	0	0	0
15	0	0	0	8	27	33	35	12	0	0	0	0
16	0	0	0	3	25	37	34	32	0	0	0	0
17	0	0	0	8	27	39	33	38	0	0	0	0
18	0	0	0	8	39	40	43	40	0	0	0	0
19	0	0	0	8	33	34	52	33	0	0	0	0
20	0	0	0	8	35	43	51	26	0	0	0	0
21	0	0	0	0	38	58	57	26	0	0	0	0
22	0	0	0	0	31	60	63	18	0	0	0	0
23	0	0	0	4	42	56	65	18	0	0	0	0
24	0	0	0	8	25	54	71	38	0	0	0	0
25	0	0	0	8	36	54	36	67	0	0	0	0
26	0	0	0	8	35	58	54	76	0	0	0	0
27	0	0	0	8	28	53	55	72	0	0	0	0
28	0	0	0	8	34	59	60	57	0	0	0	0
29	0	-	-	28	43	55	63	44	0	0	0	0
30	0	-	-	17	37	56	43	47	0	0	0	0
31	0	-	-	-	46	-	44	54	-	-	-	0
TOTAL	0	0	0	141	976	1,153	1,349	1,155	0	0	0	0
MAXIMUM DAY	0	0	0	28	46	60	71	76	0	0	0	0
MINIMUM DAY	0	0	0	0	21	15	19	12	0	0	0	0
MEAN	0	0	0	5	31	38	44	37	0	0	0	0
TOTAL AC.FT.	0	0	0	280	1,936	2,287	2,676	2,291	0	0	0	0
WHOLE YEAR:-	TOTAL,	4,774	MAX.,	76	MIN.,	0	MEAN,	13	TOTAL AC.FT.,	9,470		

CAWELO WATER DISTRICT OPERATIONS

Quantities in acre-feet

Year: 1993

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
+ Cawelo WD via Pump Station "B"	315	1,037	2,109	4,004	10,609	12,196	13,035	12,006	7,727	5,357	2,440	1,366	72,201
+ Lerdo Delivery Gate No. 8-0-2	0	0	0	0	10	24	32	44	4	0	0	0	114
+ Lerdo Delivery Gate No. 8-0-10	0	0	0	0	0	159	224	83	0	0	0	0	466
+ Lerdo Delivery Gate No. 8-0-22	0	0	155	130	135	172	214	142	149	43	0	0	1,140
+ Lerdo Delivery Gate No. 8-0-25	0	0	0	0	16	6	48	54	67	0	8	0	199
+ Lerdo Delivery Gate No. 8-0-288	0	0	0	0	48	101	24	0	0	0	0	0	173
+ Lerdo Delivery Gate No. 8-0-289	0	0	0	0	0	0	0	0	0	0	0	0	0
+ Lerdo Delivery Gate No. 8-0-291	0	32	61	95	169	177	178	67	101	58	10	0	948
+ Lerdo Delivery Gate No. 8-0-292	0	4	10	22	32	32	40	22	18	16	6	0	202
+ Lerdo Delivery Gate No. 8-23-006	0	0	0	36	83	83	101	48	12	36	0	0	399
+ Total Lerdo Gate Deliveries	0	36	226	283	493	754	861	460	351	153	24	0	3,641
+ Beardsley Canal Loss	16	56	61	60	61	60	61	61	60	61	60	60	677
+ Lerdo Loss	4	4	11	26	116	135	145	128	84	58	25	14	792
+ Total Loss	20	67	87	106	177	195	206	189	144	119	85	74	1,469
= Total Diverted for Cawelo WD	335	1,140	2,422	4,393	11,279	13,145	14,102	12,655	8,222	5,629	2,549	1,440	77,311

Cawelo Water District Source of Supply:

+ City of Bakersfield Basic Contract	0	0	2,309	3,828	6,663	6,400	6,400	6,400	0	0	0	0	32,000
+ City of Bakersfield Miscellaneous	228	678	0	0	1,986	0	0	0	0	353	1,421	867	5,533
+ City of Bakersfield 2800 Acre Well Water Purchase	107	462	113	565	647	501	267	0	0	415	628	573	4,278
+ City of Bakersfield Oilfield Discharge	0	0	0	0	1,983	6,244	7,435	6,255	8,222	3,861	0	0	34,000
+ Buena Vista WSD Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
+ Kern Delta WD Exchange	0	0	0	0	0	0	0	0	0	1,000	500	0	1,500
+ Rosedale RBWSD Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
+ North Kern WSD Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
+ via CVC Conduit "A"	0	0	0	0	0	0	0	0	0	0	0	0	0
- North Kern WSD Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
= Total Cawelo Water District Supply	335	1,140	2,422	4,393	11,279	13,145	14,102	12,655	8,222	5,629	2,549	1,440	77,311

Year: 1993

Cawelo Water District Total from Beardsley-Lerdo Canal System

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	23	18	17	17	185	226	232	221	181	126	100	17
2	11	18	20	17	185	226	231	225	201	116	97	17
3	0	18	17	21	189	221	227	227	198	115	92	17
4	0	19	17	17	171	222	220	231	195	122	98	17
5	0	18	17	17	165	220	228	228	191	125	101	17
6	0	19	21	21	168	202	231	230	179	128	97	17
7	0	18	20	20	182	205	225	221	149	125	97	18
8	0	18	20	42	177	200	224	216	148	124	97	17
9	0	18	27	40	175	177	226	228	137	118	82	17
10	0	41	36	39	169	160	237	235	136	115	49	32
11	0	46	35	39	175	167	229	235	135	115	48	33
12	0	44	35	40	162	226	241	225	141	83	17	32
13	0	20	39	42	165	225	234	225	143	83	17	32
14	0	17	38	52	178	224	237	187	120	48	17	40
15	0	20	47	91	176	223	232	185	116	49	18	39
16	0	17	45	117	172	228	227	183	126	48	17	32
17	0	17	49	112	178	229	226	178	127	49	17	33
18	0	17	64	110	179	240	218	178	119	49	17	32
19	0	18	65	114	182	237	234	185	117	67	17	32
20	0	17	62	121	179	226	234	186	119	64	17	17
21	0	17	58	119	194	239	232	184	106	65	18	0
22	0	17	61	89	197	235	228	182	119	86	17	18
23	0	17	62	80	195	235	230	187	89	85	17	17
24	0	17	65	76	223	228	219	188	125	84	17	17
25	0	17	56	76	224	228	217	221	120	81	17	17
26	22	18	57	78	213	230	232	218	118	82	17	17
27	22	17	38	117	208	232	229	216	128	97	18	17
28	24	17	38	154	183	242	236	190	126	97	17	18
29	22	-	39	151	175	234	235	190	113	97	17	32
30	22	-	38	186	180	240	237	193	123	97	18	32
31	23	-	18	-	182	-	222	182	-	98	-	33
TOTAL	169	575	1,221	2,215	5,686	6,627	7,110	6,380	4,145	2,638	1,285	726
MAXIMUM DAY	24	46	65	186	224	242	241	235	201	128	101	40
MINIMUM DAY	0	17	17	17	162	160	217	178	89	48	17	0
MEAN	5	21	39	74	183	221	229	206	138	92	43	23
TOTAL AC.FT.	335	1,140	2,422	4,393	11,279	13,145	14,102	12,655	8,222	5,629	2,549	1,440
WHOLE YEAR:-	TOTAL,	38,977	MAX.,	242	MIN.,	0	MEAN,	107	TOTAL AC.FT.,	77,311		

**City of Bakersfield Diverted to Cawelo Water District
via Beardsey Canal Headgate
(Basic Contract)**

Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	8	9	174	217	223	221	0	0	0	0
2	0	0	12	8	174	214	222	225	0	0	0	0
3	0	0	8	11	178	213	215	227	0	0	0	0
4	0	0	12	7	161	211	208	231	0	0	0	0
5	0	0	11	10	155	208	220	228	0	0	0	0
6	0	0	14	14	158	190	223	230	0	0	0	0
7	0	0	10	10	172	196	216	221	0	0	0	0
8	0	0	17	31	166	192	215	216	0	0	0	0
9	0	0	27	31	164	169	216	228	0	0	0	0
10	0	0	36	30	158	152	224	235	0	0	0	0
11	0	0	35	29	165	158	219	235	0	0	0	0
12	0	0	35	31	152	214	232	225	0	0	0	0
13	0	0	39	33	155	212	226	225	0	0	0	0
14	0	0	38	43	168	219	228	187	0	0	0	0
15	0	0	47	81	164	218	140	93	0	0	0	0
16	0	0	45	108	159	223	0	0	0	0	0	0
17	0	0	49	102	167	20	0	0	0	0	0	0
18	0	0	64	100	170	0	0	0	0	0	0	0
19	0	0	65	105	171	0	0	0	0	0	0	0
20	0	0	62	111	169	0	0	0	0	0	0	0
21	0	0	58	110	59	0	0	0	0	0	0	0
22	0	0	61	80	0	0	0	0	0	0	0	0
23	0	0	62	70	0	0	0	0	0	0	0	0
24	0	0	65	65	0	0	0	0	0	0	0	0
25	0	0	56	65	0	0	0	0	0	0	0	0
26	0	0	57	69	0	0	0	0	0	0	0	0
27	0	0	38	108	0	0	0	0	0	0	0	0
28	0	0	38	144	0	0	0	0	0	0	0	0
29	0	0	39	140	0	0	0	0	0	0	0	0
30	0	0	38	175	0	0	0	0	0	0	0	0
31	0	0	18	-	0	-	0	0	-	0	-	0
TOTAL	0	0	1,164	1,930	3,359	3,226	3,227	3,227	0	0	0	0
MAXIMUM DAY	0	0	65	175	178	223	232	235	0	0	0	0
MINIMUM DAY	0	0	8	7	0	0	0	0	0	0	0	0
MEAN	0	0	38	64	108	108	104	104	0	0	0	0
TOTAL AC.FT.	0	0	2,309	3,828	6,663	6,400	6,400	6,400	0	0	0	0
WHOLE YEAR:-	TOTAL,	16,133	MAX.,	235	MIN.,	0	MEAN,	44	TOTAL AC.FT.,	32,000		

Year: 1993

City of Bakersfield Diverted to Cawelo Water District
via Beardsley Canal Headgate
(Miscellaneous)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	17	10	0	0	0	0	0	0	0	0	0	7
2	9	11	0	0	0	0	0	0	0	0	0	8
3	0	10	0	0	0	0	0	0	0	0	0	8
4	0	11	0	0	0	0	0	0	0	0	89	7
5	0	10	0	0	0	0	0	0	0	0	90	7
6	0	10	0	0	0	0	0	0	0	0	85	8
7	0	8	0	0	0	0	0	0	0	0	84	9
8	0	18	0	0	0	0	0	0	0	0	87	9
9	0	11	0	0	0	0	0	0	0	0	73	9
10	0	34	0	0	0	0	0	0	0	0	38	22
11	0	38	0	0	0	0	0	0	0	0	38	21
12	0	34	0	0	0	0	0	0	0	0	7	21
13	0	10	0	0	0	0	0	0	0	0	5	22
14	0	8	0	0	0	0	0	0	0	0	6	29
15	0	12	0	0	0	0	0	0	0	0	7	30
16	0	9	0	0	0	0	0	0	0	0	6	23
17	0	8	0	0	0	0	0	0	0	0	8	23
18	0	8	0	0	0	0	0	0	0	0	7	20
19	0	11	0	0	0	0	0	0	0	0	6	20
20	0	6	0	0	0	0	0	0	0	0	5	7
21	0	7	0	0	63	0	0	0	0	0	6	0
22	0	9	0	0	93	0	0	0	0	0	5	8
23	0	8	0	0	92	0	0	0	0	34	6	7
24	0	8	0	0	107	0	0	0	0	72	6	7
25	0	10	0	0	107	0	0	0	0	72	7	6
26	14	9	0	0	102	0	0	0	0	0	8	6
27	15	7	0	0	98	0	0	0	0	0	8	8
28	17	7	0	0	87	0	0	0	0	0	7	9
29	14	-	0	0	82	0	0	0	0	0	6	26
30	14	-	0	0	85	0	0	0	0	0	8	26
31	15	-	0	-	85	-	0	0	-	0	-	23
TOTAL	115	342	0	0	1,001	0	0	0	0	178	716	437
MAXIMUM DAY	17	38	0	0	107	0	0	0	0	72	90	30
MINIMUM DAY	0	6	0	0	0	0	0	0	0	0	0	0
MEAN	4	12	0	0	32	0	0	0	0	6	24	14
TOTAL AC.FT.	228	678	0	0	1,986	0	0	0	0	353	1,421	867
WHOLE YEAR-- TOTAL,		2,789	MAX.,	107	MIN.,	0	MEAN,	8	TOTAL AC.FT.,		5,533	

Year: 1993

City of Bakersfield Diverted to Cawelo Water District
(Non-Kern River)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6	8	9	8	11	9	9	0	0	0	11	10
2	2	7	8	9	11	12	9	0	0	0	9	9
3	0	8	9	10	11	8	12	0	0	0	9	8
4	0	8	5	10	10	11	12	0	0	0	9	10
5	0	8	6	7	10	12	8	0	0	0	11	10
6	0	9	7	7	10	12	8	0	0	0	12	9
7	0	10	10	10	10	9	9	0	0	0	13	9
8	0	0	3	11	11	8	9	0	0	0	10	8
9	0	7	0	9	11	8	10	0	0	0	9	8
10	0	7	0	9	11	8	13	0	0	0	11	10
11	0	8	0	10	10	9	10	0	0	0	10	12
12	0	10	0	9	10	12	9	0	0	10	10	11
13	0	10	0	9	10	13	8	0	0	11	12	10
14	0	9	0	9	10	5	9	0	0	11	11	11
15	0	8	0	10	12	5	0	0	0	11	11	9
16	0	8	0	9	13	5	0	0	0	11	11	9
17	0	9	0	10	11	5	0	0	0	12	9	10
18	0	9	0	10	9	3	0	0	0	10	10	12
19	0	7	0	9	11	5	0	0	0	9	11	12
20	0	11	0	10	10	5	0	0	0	9	12	10
21	0	10	0	9	10	9	0	0	0	9	12	0
22	0	8	0	9	11	4	0	0	0	9	12	10
23	0	9	0	10	11	12	0	0	0	12	11	10
24	0	9	0	11	9	10	0	0	0	12	11	10
25	0	7	0	11	9	9	0	0	0	9	10	11
26	8	9	0	9	10	10	0	0	0	9	9	11
27	7	10	0	9	11	10	0	0	0	11	10	9
28	7	10	0	10	9	7	0	0	0	10	10	9
29	8	-	0	11	11	7	0	0	0	10	11	6
30	8	-	0	11	11	11	0	0	0	12	10	6
31	8	-	0	-	12	-	0	0	-	12	-	10
TOTAL	54	233	57	285	326	253	135	0	0	209	317	289
MAXIMUM DAY	8	11	10	11	13	13	13	0	0	12	13	12
MINIMUM DAY	0	0	0	7	9	3	0	0	0	0	9	0
MEAN	2	8	2	10	11	8	4	0	0	7	11	9
TOTAL AC.FT.	107	462	113	565	647	501	267	0	0	415	628	573
WHOLE YEAR:-	TOTAL,	2,158	MAX.,	13	MIN.,	0	MEAN,	6	TOTAL AC.FT.,	4,278		

Year: 1993

Buena Vista WSD Diverted to Cawelo WD

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	181	126	0	0
2	0	0	0	0	0	0	0	0	201	116	0	0
3	0	0	0	0	0	0	0	0	198	115	0	0
4	0	0	0	0	0	0	0	0	195	122	0	0
5	0	0	0	0	0	0	0	0	191	125	0	0
6	0	0	0	0	0	0	0	0	179	128	0	0
7	0	0	0	0	0	0	0	0	149	125	0	0
8	0	0	0	0	0	0	0	0	148	124	0	0
9	0	0	0	0	0	0	0	0	137	118	0	0
10	0	0	0	0	0	0	0	0	136	115	0	0
11	0	0	0	0	0	0	0	0	135	115	0	0
12	0	0	0	0	0	0	0	0	141	73	0	0
13	0	0	0	0	0	0	0	0	143	72	0	0
14	0	0	0	0	0	0	0	0	120	37	0	0
15	0	0	0	0	0	0	92	92	116	38	0	0
16	0	0	0	0	0	0	227	183	126	37	0	0
17	0	0	0	0	0	204	226	178	127	37	0	0
18	0	0	0	0	0	237	218	178	119	39	0	0
19	0	0	0	0	0	232	234	185	117	58	0	0
20	0	0	0	0	0	221	234	186	119	55	0	0
21	0	0	0	0	62	230	232	184	106	56	0	0
22	0	0	0	0	93	231	228	182	119	77	0	0
23	0	0	0	0	92	223	230	187	89	39	0	0
24	0	0	0	0	107	218	219	188	125	0	0	0
25	0	0	0	0	108	219	217	221	120	0	0	0
26	0	0	0	0	101	220	232	218	118	0	0	0
27	0	0	0	0	99	222	229	216	128	0	0	0
28	0	0	0	0	87	235	236	190	126	0	0	0
29	0	-	0	0	82	227	235	190	113	0	0	0
30	0	-	0	0	84	229	237	193	123	0	0	0
31	0	-	0	-	85	-	222	182	-	0	-	0
TOTAL	0	0	0	0	1,000	3,148	3,748	3,153	4,145	1,947	0	0
MAXIMUM DAY	0	0	0	0	108	237	237	221	201	128	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	89	0	0	0
MEAN	0	0	0	0	32	105	121	102	138	63	0	0
TOTAL AC.FT.	0	0	0	0	1,983	6,244	7,435	6,255	8,222	3,861	0	0
WHOLE YEAR:-	TOTAL,	17,141	MAX.,	237	MIN.,	0	MEAN,	47	TOTAL AC.FT.,	34,000		

**RECAPITULATION OF CITY OF BAKERSFIELD DIVERSIONS FOR
KERN-TULARE AND RAG GULCH WATER DISTRICTS**

Quantities in acre-feet

Year: 1993

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
+ Total Basic Contract Diverted	149	1,384	2,350	2,950	4,150	3,354	4,673	6,224	2,016	0	0	0	27,250
- Kern-Tulare Water District	129	1,204	2,040	2,565	3,610	2,917	4,064	5,415	1,756	0	0	0	23,700
= Rag Gulch Water District	20	180	310	385	540	437	609	809	260	0	0	0	3,550
+ Total * 1983 Contract* Diverted	0	0	2,884	1,181	2,411	0	0	0	0	0	0	0	6,476
- Kern-Tulare Water District	0	0	2,508	1,027	2,097	0	0	0	0	0	0	0	5,632
= Rag Gulch Water District	0	0	376	154	314	0	0	0	0	0	0	0	844
+ Total Misc. Quantity Diverted	0	0	0	0	0	0	0	0	0	0	0	0	0
- Kern-Tulare Water District	0	0	0	0	0	0	0	0	0	0	0	0	0
= Rag Gulch Water District	0	0	0	0	0	0	0	0	0	0	0	0	0
= Total Diverted	149	1,384	5,234	4,131	6,561	3,354	4,673	6,224	2,016	0	0	0	33,726

+ via Calloway Canal	149	1,384	2,174	1,751	3,778	2,359	3,774	3,856	1,210	0	0	0	20,435
+ River Transportation Loss/Spreading	0	0	2,176	1,081	1,258	125	107	863	338	0	0	0	5,948
+ Carrier Canal Recharge	0	0	738	1,004	1,176	658	637	1,214	399	0	0	0	5,826
+ via Kern River Canal & Irrigating Co.	0	0	146	295	349	212	155	291	69	0	0	0	1,517
+ via Cawelo Water District	0	0	0	0	0	0	0	0	0	0	0	0	0
- Total Diverted to I.D. #4	149	1,384	5,234	4,131	6,561	3,354	4,673	6,224	2,016	0	0	0	33,726
- Kern-Tulare Water District	129	1,204	4,548	3,592	5,707	2,917	4,064	5,415	1,756	0	0	0	29,332
= Rag Gulch Water District	20	180	686	539	854	437	609	809	260	0	0	0	4,394

+ via Arvin-Edison Turnout	0	0	0	0	0	0	0	0	0	0	0	0	0
+ Canal Transportation Loss	0	0	0	0	0	0	0	0	0	0	0	0	0
= Total Diverted to Arvin-Edison T.O.	0	0	0	0	0	0	0	0	0	0	0	0	0
- Kern-Tulare Water District	0	0	0	0	0	0	0	0	0	0	0	0	0
= Rag Gulch Water District	0	0	0	0	0	0	0	0	0	0	0	0	0

= Via North Kern Water Storage District	0	0	0	0	0	0	0	0	0	0	0	0	0
- Kern-Tulare Water District	0	0	0	0	0	0	0	0	0	0	0	0	0
= Rag Gulch Water District	0	0	0	0	0	0	0	0	0	0	0	0	0

**City of Bakersfield Diverted for Kern-Tulare WD
(Kern-Tulare WD/Improvement District No. 4 Exchange)**

Year: 1983

DISCHARGE IN CUBIC FEET PER SECOND

(Basic Contract)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	27	47	74	69	84	53	78	89	0	0	0
2	0	23	46	58	69	69	64	87	87	0	0	0
3	0	23	54	57	58	43	57	85	83	0	0	0
4	0	22	61	56	69	36	53	75	83	0	0	0
5	0	23	89	57	94	32	49	79	97	0	0	0
6	0	27	91	53	86	34	57	73	102	0	0	0
7	0	29	116	57	98	36	57	77	90	0	0	0
8	0	20	104	66	134	30	56	77	96	0	0	0
9	0	21	115	74	104	33	55	78	91	0	0	0
10	0	20	137	78	88	33	56	80	67	0	0	0
11	0	22	167	68	88	36	63	73	0	0	0	0
12	0	20	2	67	98	36	57	77	0	0	0	0
13	0	21	0	98	114	33	49	77	0	0	0	0
14	0	22	0	110	100	34	53	97	0	0	0	0
15	0	20	0	82	101	36	54	93	0	0	0	0
16	0	22	0	87	90	36	76	90	0	0	0	0
17	0	21	0	82	88	45	79	100	0	0	0	0
18	0	20	0	69	97	67	76	98	0	0	0	0
19	0	19	0	0	102	66	77	95	0	0	0	0
20	0	21	0	0	73	67	74	87	0	0	0	0
21	0	20	0	0	0	59	74	89	0	0	0	0
22	0	20	0	0	0	56	72	98	0	0	0	0
23	0	20	0	0	0	57	75	98	0	0	0	0
24	0	19	0	0	0	58	77	93	0	0	0	0
25	0	18	0	0	0	58	81	94	0	0	0	0
26	0	22	0	0	0	55	78	92	0	0	0	0
27	0	23	0	0	0	59	74	102	0	0	0	0
28	13	22	0	0	0	67	73	98	0	0	0	0
29	21	-	0	0	0	62	77	101	0	0	0	0
30	12	-	0	0	0	54	77	97	0	0	0	0
31	19	-	0	-	0	-	76	92	-	0	-	0
TOTAL	65	607	1,029	1,293	1,820	1,471	2,049	2,730	885	0	0	0
MAXIMUM DAY	21	29	167	110	134	84	81	102	102	0	0	0
MINIMUM DAY	0	18	0	0	0	30	49	73	0	0	0	0
MEAN	2	22	33	43	59	49	66	88	30	0	0	0
TOTAL AC.FT.	129	1,204	2,040	2,565	3,610	2,917	4,064	5,415	1,756	0	0	0
WHOLE YEAR:-	TOTAL,	11,949	MAX.,	167	MIN.,	0	MEAN,	33	TOTAL AC.FT.,	23,700	0	0

City of Bakersfield Diverted for Kern-Tulare WD
(Kern-Tulare WD/Improvement District No. 4 Exchange)
(1983 Contract)

Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	90	0	0	0	0	0	0	0	0	0
13	0	0	110	0	0	0	0	0	0	0	0	0
14	0	0	71	0	0	0	0	0	0	0	0	0
15	0	0	50	0	0	0	0	0	0	0	0	0
16	0	0	42	0	0	0	0	0	0	0	0	0
17	0	0	48	0	0	0	0	0	0	0	0	0
18	0	0	43	59	0	0	0	0	0	0	0	0
19	0	0	36	83	0	0	0	0	0	0	0	0
20	0	0	39	46	30	0	0	0	0	0	0	0
21	0	0	36	23	110	0	0	0	0	0	0	0
22	0	0	42	24	99	0	0	0	0	0	0	0
23	0	0	32	24	101	0	0	0	0	0	0	0
24	0	0	53	36	88	0	0	0	0	0	0	0
25	0	0	135	40	73	0	0	0	0	0	0	0
26	0	0	92	16	64	0	0	0	0	0	0	0
27	0	0	82	16	62	0	0	0	0	0	0	0
28	0	0	65	35	100	0	0	0	0	0	0	0
29	0	-	80	55	114	0	0	0	0	0	0	0
30	0	-	61	61	108	0	0	0	0	0	0	0
31	0	-	58	-	108	-	0	0	-	0	-	0
TOTAL	0	0	1,265	518	1,057	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	135	83	114	0	0	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	41	17	34	0	0	0	0	0	0	0
TOTAL AC.FT.	0	0	2,508	1,027	2,097	0	0	0	0	0	0	0
WHOLE YEAR-- TOTAL,	2,840	2,840	MAX.,	135	MIN.,	0	MEAN,	8	TOTAL AC.FT.,	5,632		

City of Bakersfield Diverted for Rag Gulch WD (Rag Gulch WD/Improvement District No. 4 Exchange) (Basic Contract)												Year: 1993		
DISCHARGE IN CUBIC FEET PER SECOND														
DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
1	0	4	7	10	11	12	8	12	13	0	0	0		
2	0	3	7	9	11	10	9	13	13	0	0	0		
3	0	3	8	9	9	7	8	13	13	0	0	0		
4	0	3	9	9	11	5	8	11	13	0	0	0		
5	0	3	14	9	14	5	8	12	15	0	0	0		
6	0	4	14	8	13	5	8	11	16	0	0	0		
7	0	4	18	9	15	5	8	11	14	0	0	0		
8	0	3	16	10	20	5	8	12	15	0	0	0		
9	0	3	17	11	15	5	8	12	14	0	0	0		
10	0	3	21	11	13	5	8	12	5	0	0	0		
11	0	3	25	10	13	5	9	11	0	0	0	0		
12	0	3	0	10	15	5	9	11	0	0	0	0		
13	0	3	0	15	16	5	8	11	0	0	0	0		
14	0	3	0	16	15	5	8	15	0	0	0	0		
15	0	3	0	12	15	6	8	14	0	0	0	0		
16	0	3	0	13	13	6	11	13	0	0	0	0		
17	0	3	0	13	13	7	12	15	0	0	0	0		
18	0	3	0	10	15	10	11	15	0	0	0	0		
19	0	3	0	0	15	9	12	15	0	0	0	0		
20	0	3	0	0	11	10	11	13	0	0	0	0		
21	0	3	0	0	0	9	11	13	0	0	0	0		
22	0	3	0	0	0	8	11	14	0	0	0	0		
23	0	3	0	0	0	9	11	15	0	0	0	0		
24	0	3	0	0	0	9	12	14	0	0	0	0		
25	0	3	0	0	0	9	12	14	0	0	0	0		
26	0	3	0	0	0	8	12	14	0	0	0	0		
27	0	4	0	0	0	9	11	15	0	0	0	0		
28	2	6	0	0	0	9	11	14	0	0	0	0		
29	3	-	0	0	0	10	12	15	0	0	0	0		
30	2	-	0	0	0	8	12	14	0	0	0	0		
31	3	-	0	-	0	-	12	14	-	0	-	-		
TOTAL	10	91	156	194	273	220	307	408	131	0	0	0		
MAXIMUM DAY	3	6	25	16	20	12	12	15	16	0	0	0		
MINIMUM DAY	0	3	0	0	0	5	8	11	0	0	0	0		
MEAN	0	3	5	6	9	7	10	13	4	0	0	0		
TOTAL AC.FT.	20	180	310	385	540	437	609	809	260	0	0	0		
WHOLE YEAR:-	TOTAL,	1,790	MAX.,	25	MIN.,	0	MEAN,	5	TOTAL AC.FT.,	3,550				

Year: 1993

City of Bakersfield Diverted for Rag Gulch WD
 (Rag Gulch WD/Improvement District No. 4 Exchange)
 (1983 Contract)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	13	0	0	0	0	0	0	0	0	0
13	0	0	17	0	0	0	0	0	0	0	0	0
14	0	0	11	0	0	0	0	0	0	0	0	0
15	0	0	8	0	0	0	0	0	0	0	0	0
16	0	0	6	0	0	0	0	0	0	0	0	0
17	0	0	7	0	0	0	0	0	0	0	0	0
18	0	0	7	9	0	0	0	0	0	0	0	0
19	0	0	5	12	0	0	0	0	0	0	0	0
20	0	0	6	7	5	0	0	0	0	0	0	0
21	0	0	5	4	16	0	0	0	0	0	0	0
22	0	0	6	4	15	0	0	0	0	0	0	0
23	0	0	5	4	15	0	0	0	0	0	0	0
24	0	0	8	5	13	0	0	0	0	0	0	0
25	0	0	19	6	11	0	0	0	0	0	0	0
26	0	0	14	3	10	0	0	0	0	0	0	0
27	0	0	12	3	10	0	0	0	0	0	0	0
28	0	0	10	5	15	0	0	0	0	0	0	0
29	0	-	12	8	16	0	0	0	0	0	0	0
30	0	-	9	8	16	0	0	0	0	0	0	0
31	0	-	9	-	16	-	0	0	-	0	-	0
TOTAL	0	0	189	78	158	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	19	12	16	0	0	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	6	3	5	0	0	0	0	0	0	0
TOTAL AC.F.T.	0	0	376	154	314	0	0	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	425	MAX.,	19	MIN.,	0	MEAN,	1	TOTAL AC.F.T.,	844		

Year: 1993

Total Flow via the Rosedale Channel at Head (All Sources)
(Diverted from Kern River Channel)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	82	106	105	58	184	179	0	0	0	0	0	0
2	151	122	35	62	170	155	61	0	0	0	0	0
3	165	125	41	61	160	100	155	0	0	0	0	0
4	123	129	45	74	202	137	149	0	0	0	0	0
5	139	130	54	76	199	218	167	0	0	0	0	0
6	217	123	50	100	192	219	143	0	0	0	0	0
7	274	128	86	162	192	219	137	0	0	0	0	0
8	273	153	93	202	193	219	145	0	0	0	0	0
9	232	199	53	208	191	217	142	0	0	0	0	0
10	229	208	70	220	181	221	135	0	0	0	0	0
11	225	212	54	228	189	215	121	0	0	0	0	0
12	196	208	45	222	195	194	96	0	0	0	0	0
13	196	207	78	221	201	179	0	0	0	0	0	0
14	189	198	71	217	207	112	0	0	0	0	0	0
15	188	163	103	216	220	107	0	0	0	0	0	0
16	188	106	95	209	220	159	0	0	0	0	0	0
17	212	97	71	204	166	106	0	0	0	0	0	0
18	214	103	108	207	0	37	0	0	0	0	0	0
19	203	148	103	222	0	73	0	0	0	0	0	0
20	200	161	54	216	0	62	0	0	0	0	0	0
21	185	149	53	220	0	0	0	0	0	0	0	0
22	191	87	53	227	113	0	0	0	0	0	0	0
23	184	118	49	220	205	0	0	0	0	0	0	0
24	182	128	52	223	221	20	0	0	0	0	0	0
25	183	125	95	220	212	0	0	0	0	0	0	0
26	157	60	119	219	188	14	0	0	0	0	0	0
27	110	102	153	225	166	57	0	0	0	0	0	0
28	111	105	111	216	191	87	0	0	0	0	0	0
29	104	-	66	226	218	0	0	0	0	0	0	0
30	113	-	98	217	224	0	0	0	0	0	0	0
31	105	-	81	-	212	-	0	0	-	0	-	0
TOTAL	5,521	3,899	2,344	5,598	5,212	3,306	1,451	0	0	0	0	0
MAXIMUM DAY	274	212	153	228	224	221	167	0	0	0	0	0
MINIMUM DAY	82	60	35	58	0	0	0	0	0	0	0	0
MEAN	178	139	76	187	168	110	47	0	0	0	0	0
TOTAL AC.FT.	10,951	7,734	4,649	11,103	10,338	6,557	2,878	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	27,331	MAX.,	274	MIN.,	0	MEAN,	75	TOTAL AC.FT.,	54,210		

DISCHARGE IN CUBIC FEET PER SECOND

City of Bakersfield Diverted for Rosedale Rio Bravo WSD
via Beardsley Canal Headgate (Miscellaneous)
 (Per terms of RRBWSD/Cawelo WD/City of Bakersfield Exch. Agmt. dated 10-26-93)

Year: 1993

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	89	0
2	0	0	0	0	0	0	0	0	0	0	88	0
3	0	0	0	0	0	0	0	0	0	0	75	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	73	0	0
27	0	0	0	0	0	0	0	0	0	86	0	0
28	0	0	0	0	0	0	0	0	0	87	0	0
29	0	0	0	0	0	0	0	0	0	87	0	0
30	0	0	0	0	0	0	0	0	0	85	0	0
31	0	0	0	0	0	0	0	0	0	86	0	0
TOTAL	0	0	0	0	0	0	0	0	0	504	252	0
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	87	89	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	16	8	0
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	1,000	500	0
WHOLE YEAR:-	TOTAL,	756	MAX.,	89	MIN.,	0	MEAN,	2	TOTAL AC.FT.,	1,500		

Quantities in acre-feet

Year: 1993

ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
Hydrographic and Accounting Report by City of Bakersfield

	1	2	3	4	5		6		7		8		9	10
	(a) Friant-Kern Inflow	(b) Friant-Kern Delivered	(c) River Canal Transportation Charge on Column 2	Total Kern River Delivered	No Charge (1st 4000)	Basic Contract acre-feet Sold at \$1.00	acre-feet Sold at \$6.00	Miscellaneous acre-feet Sold at \$21.00	(f) Mandatory Release Delivered		Other			
January	0	0	0	10,951	4,000	6,000	951	0	0	0	0	0		
February	0	0	0	7,734	0	0	7,734	0	0	0	0	0		
March	0	0	0	4,649	0	0	4,649	0	0	0	0	0		
April	9,047	9,047	0	2,056	0	0	2,056	0	0	0	0	0		
May	10,338	10,338	0	0	0	0	0	0	0	0	0	0		
June	6,557	6,557	0	0	0	0	0	0	0	0	0	0	(g) 40	
July	2,878	2,878	0	0	0	0	0	0	0	0	0	0	0	
August	0	0	0	0	0	0	0	0	0	0	0	0	0	
September	0	0	0	0	0	0	0	0	0	0	0	0	0	
October	0	0	0	(h) 1,000	0	0	1,000	0	0	0	0	0	0	
November	0	0	0	(h) 500	0	0	500	0	0	0	0	0	0	
December	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	28,820	28,820	0	26,890	4,000	6,000	16,890	0	0	0	0	0	40	

3,734	=	Current Escalator	=	3,734
\$0.00	=	Totals	=	\$22,404.00
				(per 1961 Agreement)

1992	0
1991	0
1990	0
1989	4,500
Five Year Totals	21,390
Five Year Averages	4,278

Notes : (a) As charged RRBWSD by U.S.B.R.

(b) Column 1 less transportation losses.

(c) \$0.10 per acre-foot escalated annually (31.6 = 1-82 base index).

(d) \$1.00 per acre-foot escalated annually (31.6 = 1-82 base index)

after the first 4,000 AcFt of each successive 10,000 acre-feet delivered.

(e) Subject to annual escalation per 1976 agreement (62.8 = 1-82 base index).

(f) Delivered during periods of Kern River Mandatory Release

when designated by U.S. Army Corps of Engineers.

(g) Reflects City of Bakersfield delivery to RRBWSD of Friant-Kern operational spill.

(h) Delivered pursuant to RRBWSD/Cawelo WD/City of Bakersfield Exchange Agreement dated October 26, 1993.

STATUS OF CONTRACT
per terms of
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
Service Agreement, dated August 31, 1961.

Quantities in acre-feet

Year	TOTAL DELIVERED	FRIANT-KERN DELIVERED	TOTAL KERN RIVER DELIVERED	(1) KERN RIVER BASIC CONTRACT DELIVERED	KERN RIVER BASIC CONTRACT OBLIGATION	(2) CARRY FORWARD OVER (UNDER)	END of YEAR CONTRACT BALANCE (3)	
							(4)	60,000
1976	0	0	0	0	10,000	(10,000)	50,000	
1977	2,199	0	2,199	2,199	10,000	(7,801)	42,199	
1978	76,365	4,371	71,994	10,000	10,000	0	42,199	
1979	14,568	9,921	4,647	4,647	10,000	(5,353)	36,846	
1980	70,790	4,167	66,623	10,000	10,000	0	36,846	
1981	773	0	773	773	10,000	(9,227)	27,619	
1982	88,374	40,595	47,779	10,000	10,000	0	27,619	
1983	134,534	1,440	133,094	10,000	10,000	0	27,619	
1984	38,854	0	38,854	10,000	10,000	0	27,619	
1985	20,694	0	20,694	0	10,000	(10,000)	17,619	
1986	87,761	5,209	82,552	20,000	10,000	10,000	27,619	
1987	6,000	0	6,000	0	10,000	(10,000)	17,619	
1988	7,845	0	7,845	0	10,000	(10,000)	7,619	
1989	4,500	0	4,500	0	10,000	(10,000)	(2,381)	
1990	0	0	0	0	10,000	(10,000)	(12,381)	
1991	9,076	0	9,076	9,076	10,000	(924)	(13,305)	
1992	1,117	0	1,117	1,117	10,000	(8,883)	(22,188)	
1993	55,710	28,820	26,890	10,000	10,000	0	(22,188)	

- (1) Not less than 5,000 acre-feet for any consecutive 5-Year period.
- (2) Limit 30,000 acre-feet during any One year.
- (3) Gross limit of 60,000 acre-feet.
- (4) Pursuant to Article 3.2 of 1976 Agreement No. 76-80; City of Bakersfield carryover credit was 60,000 acre-feet as of January 1, 1976.

CITY OF BAKERSFIELD
STATUS OF MISCELLANEOUS WATER DELIVERIES
TO ROSEDALE RIO BRAVO WATER STORAGE DISTRICT

Pursuant to June 6, 1976 Agreement No. 76-80

Year: 1993

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
City Entitlement + or - Release	2,528	1,262	27,452	28,538	46,177	32,551	22,399	8,274	1,164	1,230	1,190	998	173,763
Lake Ming	16	16	44	60	77	105	127	121	91	65	42	26	790
North Kern Water Storage District	0	0	0	2,130	4,436	4,787	5,176	7,171	0	0	0	0	23,700
Cawelo Water District	0	0	2,309	3,828	6,663	6,400	6,400	6,400	0	0	0	0	32,000
Kern-Tulare Water District	129	1,204	4,548	3,592	5,707	2,917	4,064	5,415	1,756	0	0	0	29,332
Rag Gulch Water District	20	180	686	539	854	437	609	809	260	0	0	0	4,394
Rosedale Rio Bravo WSD	10,000	0	0	0	0	0	0	0	0	0	0	0	10,000
Kern River Canal & Irrigating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0
First Point Passing Second Point	0	0	0	0	0	0	0	0	0	0	0	0	0
Isabella Reservoir Loss	29	40	80	363	618	901	1,128	850	456	326	194	94	5,079
River Transportation Loss	2,053	1,803	1,215	1,050	916	3,978	4,328	3,229	289	(3)	(1)	1	18,858
Total Basic Commitments	12,247	3,243	8,882	11,562	19,271	19,525	21,832	23,995	2,852	388	235	121	124,153

Total City Miscellaneous Water.....	49,610
Rosedale Rio Bravo WSD 1/3 Share.....	16,537

Misc. Water Delivered to RRBWSD	951	7,734	4,649	2,056	0	0	0	0	0	1,000	500	0	16,890
Del. under Art. 11, Sec. 2.1 (IX7)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Misc. Delivered to RRBWSD	951	7,734	4,649	2,056	0	0	0	0	0	1,000	500	0	16,890

Over (Under) City Miscellaneous Water Obligation.....	353
Prior Year Miscellaneous Water Delivery Balance.....	(14,874)
Cumulative Miscellaneous Water Delivery Balance.....	(14,521)

STATUS OF CONTRACT

ROSEDALE RIO BRAVO WATER STORAGE DISTRICT

**Cumulative Miscellaneous Water Balance
Pursuant to June 6, 1976 Agreement No. 76-80**

Quantities in acre-feet

Year	(A) TOTAL CITY MISCELLANEOUS WATER	(B) RRBWS 1/3 SHARE OF MISC.	(C) MISC. WATER DELIVERED TO RRBWS (1)	(D) OVER (UNDER) 1/3 SHARE	(E) END of YEAR CUMULATIVE MISC. WATER BALANCE
					0
1977	0	0	0	0	0
1978	75,473	25,158	29,405	4,247	4,247
1979	34,885	11,628	0	(11,628)	(7,381)
1980	81,572	27,191	28,246	1,055	(6,326)
1981	1,634	545	0	(545)	(6,871)
1982	184,335	61,445	37,779	(23,666)	(30,537)
1983	64,686	21,562	12,292	(9,270)	(39,807)
1984	56,816	18,939	20,856	1,917	(37,890)
1985	50,537	16,846	20,694	3,848	(34,042)
1986	161,307	53,769	56,590	2,821	(31,221)
1987	0	0	6,000	6,000	(25,221)
1988	2,157	719	7,845	7,126	(18,095)
1989	3,838	1,279	4,500	3,221	(14,874)
1990	0	0	0	0	(14,874)
1991	0	0	0	0	(14,874)
1992	0	0	0	0	(14,874)
1993	49,610	16,537	16,890	353	(14,521)

Notes:

- (1) Includes water delivered pursuant to Article II, Section 2.1 (l) (7) of Agreement No. 76-80, "Failure to Accept Water".
- Column (B) = Column (A) x 1/3.
- Column (D) = Column (C) minus Column (B).

**KERN RIVER CANAL & IRRIGATING COMPANY
CITY OF BAKERSFIELD**

Quantities in acre-feet

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	476	302	1,956	3,711	9,521	5,026	1,603	0	0	0	0	0	22,595
Release	0	(115)	0	0	0	0	0	0	0	0	0	0	(115)
ENTITLEMENT + OR - RELEASE	476	187	1,956	3,711	9,521	5,026	1,603	0	0	0	0	0	22,480
Oilfield Discharge	129	20	431	0	0	0	296	602	642	244	0	20	2,384
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Into Isabella Storage	349	96	1,196	1,642	4,757	1,841	95	0	0	0	0	0	9,976
From Isabella Storage	0	0	14	0	50	168	926	1,160	378	835	243	0	3,774
To NKWSD in Isabella Storage	127	0	0	0	0	0	0	0	0	0	0	0	127
DIVERTED AT HEAD	129	111	1,205	2,069	4,814	3,353	2,730	1,762	1,020	1,079	243	20	18,535
Irrigation Deliveries	0	18	511	801	1,672	1,591	1,927	1,446	752	894	195	12	9,819
NKWSD at Seventh Standard Line	0	91	587	1,113	2,857	1,508	481	0	0	0	0	0	6,637
Cawelo WD at Pump Station "B"	0	0	0	0	0	0	0	0	0	0	0	0	0
Spreading Deliveries	107	0	0	0	0	0	6	34	77	0	0	0	224
Canal Loss	22	2	107	155	285	254	316	282	191	185	48	8	1,855
Irrigation Delivery Percentage	0%	98%	91%	93%	94%	92%	88%	82%	74%	83%	80%	60%	89%

Into Isabella Storage	349	96	1,196	1,642	4,757	1,841	95	0	0	0	0	0	9,976
Isabella Evaporation Loss	4	6	12	48	113	167	224	196	150	98	56	27	1,101
From Isabella Storage	0	0	14	0	50	168	926	1,160	378	835	243	0	3,774
Transfer in Storage	0	0	0	0	0	0	0	0	0	0	0	0	0
End of Month Isabella Storage	345	435	1,605	3,199	7,793	9,299	8,244	6,898	6,360	5,427	5,128	5,101	

SOUTH FORK DIVERSION RIGHT SUMMARY

Quantities in acre-feet

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	493	553	167	294	323	297	210	12	87	0	36	75	2,547
Release	(296)	(408)	(20)	(52)	183	163	248	0	524	646	511	(75)	1,424
Entitlement + or - Release	197	145	147	242	506	460	458	12	611	646	547	0	3,971
Into Isabella Storage	197	145	76	194	413	300	260	8	518	596	547	0	3,254
From Isabella Storage	0	0	2	6	8	20	30	178	0	0	0	0	244
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Deliveries	0	0	73	54	101	180	228	182	93	50	0	0	961
Old South Fork	0	0	0	0	0	0	0	0	0	0	0	0	0
Panama Ranch	0	0	73	54	101	180	228	182	93	50	0	0	961
Into Isabella Storage	197	145	76	194	413	300	260	8	518	596	547	0	3,254
From Isabella Storage	0	0	2	6	8	20	30	178	0	0	0	0	244
Transfer in Storage	0	0	0	0	0	0	0	0	0	0	2,813	0	2,813
End of Month Isabella Storage	600	745	819	1,007	1,412	1,692	1,922	1,752	2,270	2,866	600	600	3,254

Year: 1993

City of Bakersfield Diverted to Olcese Water District

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	1	1	3	3	4	4	4	2	1	1
2	1	1	1	1	3	3	4	4	3	2	2	1
3	0	0	1	2	4	4	5	3	4	2	1	0
4	0	0	0	2	3	3	4	4	4	3	1	1
5	0	1	1	2	3	4	4	4	3	2	2	1
6	0	0	1	2	3	3	5	4	4	2	1	1
7	1	1	1	1	3	4	4	3	4	2	1	0
8	0	0	0	2	4	3	4	4	3	2	1	1
9	0	1	1	1	3	4	5	4	4	2	2	1
10	0	0	1	2	3	3	4	4	3	2	1	1
11	1	0	1	2	3	3	4	4	4	2	1	0
12	0	1	0	2	3	3	5	3	3	3	2	1
13	0	1	1	2	3	4	4	4	4	2	1	0
14	1	0	1	2	4	3	4	4	3	2	1	1
15	0	0	1	2	3	3	4	4	3	2	2	0
16	0	1	0	1	3	4	5	3	3	2	1	1
17	0	0	1	1	3	3	4	4	4	2	1	0
18	1	1	1	2	3	3	4	4	3	2	1	1
19	0	0	1	2	3	4	5	4	3	2	1	1
20	0	0	0	2	4	3	4	3	3	3	2	0
21	1	1	0	1	3	3	4	4	4	2	1	1
22	0	1	1	1	3	3	4	4	3	2	1	0
23	1	0	1	2	3	3	4	4	4	2	2	0
24	0	1	1	2	4	3	5	4	3	2	1	1
25	0	1	0	2	3	4	4	3	3	2	1	1
26	1	0	1	1	3	3	4	4	3	2	2	0
27	0	1	1	2	3	3	4	4	4	2	1	0
28	1	0	1	2	4	4	5	4	3	3	1	1
29	0	-	0	2	3	3	4	3	3	2	1	0
30	0	-	1	2	3	4	5	4	3	2	2	1
31	1	-	1	-	3	-	4	4	-	2	-	1
TOTAL	10	13	23	51	99	100	133	117	102	66	39	20
MAXIMUM DAY	1	1	1	2	4	4	5	4	4	3	2	1
MINIMUM DAY	0	0	0	1	3	3	4	3	3	2	1	0
MEAN	0	0	1	2	3	3	4	4	3	2	1	1
TOTAL AC.FT.	19	27	45	102	196	199	263	232	203	131	77	39
WHOLE YEAR:-	TOTAL,	773	MAX.,	5	MIN.,	0	MEAN,	2	TOTAL AC.FT.,	1,533		

City of Bakersfield Diverted to County of Kern
(Pursuant to City/County Letter Agreement dated March 30, 1993) Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	20	25	20	0	0	0	0
2	0	0	0	0	0	20	25	20	0	0	0	0
3	0	0	0	0	0	18	25	20	0	0	0	0
4	0	0	0	0	0	15	20	20	0	0	0	0
5	0	0	0	0	0	15	20	20	0	0	0	0
6	0	0	0	0	0	15	20	20	0	0	0	0
7	0	0	0	0	0	15	20	20	0	0	0	0
8	0	0	0	0	0	12	20	20	0	0	0	0
9	0	0	0	10	0	12	20	20	0	0	0	0
10	0	0	0	19	0	12	20	20	0	0	0	0
11	0	0	0	17	0	10	20	20	0	0	0	0
12	0	0	0	11	6	10	20	18	0	0	0	0
13	0	0	0	4	6	10	20	18	0	0	0	0
14	0	0	0	0	10	12	20	18	0	0	0	0
15	0	0	0	0	10	15	20	18	0	0	0	0
16	0	0	0	0	15	17	20	18	0	0	0	0
17	0	0	0	0	15	17	20	18	0	0	0	0
18	0	0	0	0	15	17	20	18	0	0	0	0
19	0	0	0	0	15	18	20	15	0	0	0	0
20	0	0	0	0	15	18	20	15	0	0	0	0
21	0	0	0	0	15	18	20	15	0	0	0	0
22	0	0	0	0	15	18	20	15	0	0	0	0
23	0	0	0	0	15	20	20	15	0	0	0	0
24	0	0	0	16	15	20	20	15	0	0	0	0
25	0	0	0	19	15	20	20	15	0	0	0	0
26	0	0	0	13	20	22	20	15	0	0	0	0
27	0	0	0	3	20	22	20	15	0	0	0	0
28	0	0	0	3	20	22	20	15	0	0	0	0
29	0	-	-	3	20	25	20	15	0	0	0	0
30	0	-	-	3	20	25	20	0	0	0	0	0
31	0	-	-	-	20	-	20	0	-	-	-	0
TOTAL	0	0	0	121	302	510	635	511	0	0	0	0
MAXIMUM DAY	0	0	0	19	20	25	25	20	0	0	0	0
MINIMUM DAY	0	0	0	0	0	10	20	0	0	0	0	0
MEAN	0	0	0	4	10	17	20	16	0	0	0	0
TOTAL AC.FT.	0	0	0	240	599	1,012	1,260	1,014	0	0	0	0
WHOLE YEAR--	TOTAL,	2,079	MAX.,	25	MIN.,	0	MEAN,	6	TOTAL AC.FT.,	4,125		

City of Bakersfield Diverted to Henry Miller Water District
 (Pursuant to terms of City/HMWD Water Purchase Agreement Dated 3-16-93) Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	37	0	0	0	0	0	0	0	0	0
17	0	0	88	0	0	0	0	0	0	0	0	0
18	0	0	98	0	0	0	0	0	0	0	0	0
19	0	0	101	0	0	0	0	0	0	0	0	0
20	0	0	101	0	0	0	0	0	0	0	0	0
21	0	0	101	0	0	0	0	0	0	0	0	0
22	0	0	70	0	0	0	0	0	0	0	0	0
23	0	0	52	0	0	0	0	0	0	0	0	0
24	0	0	50	0	0	0	0	0	0	0	0	0
25	0	0	45	0	0	0	0	0	0	0	0	0
26	0	0	46	0	0	0	0	0	0	0	0	0
27	0	0	37	0	0	0	0	0	0	0	0	0
28	0	0	41	0	0	0	0	0	0	0	0	0
29	0	-	0	0	0	0	0	0	0	0	0	0
30	0	-	0	0	0	0	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	867	0	0	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	101	0	0	0	0	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	28	0	0	0	0	0	0	0	0	0
TOTAL AC.FT.	0	0	1,720	0	0	0	0	0	0	0	0	0
WHOLE YEAR-- TOTAL,	867	0	1,720	101	MIN.,	0	MEAN,	2	TOTAL AC.FT.,	1,720		

Year: 1993

City of Bakersfield Diverted for Kern County Water Agency
Via James Canal Headgate
(Miscellaneous)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	17	0	0	0
2	0	0	0	0	0	0	0	4	16	0	0	0
3	0	0	0	0	0	0	0	18	16	0	0	0
4	0	0	0	0	0	0	0	22	17	0	0	0
5	0	0	0	0	0	0	0	21	16	0	0	0
6	0	0	0	0	0	0	0	20	15	0	0	0
7	0	0	0	0	0	0	0	21	16	0	0	0
8	0	0	0	0	0	0	0	21	16	0	0	0
9	0	0	0	0	0	0	0	21	16	0	0	0
10	0	0	0	0	0	0	0	21	10	0	0	0
11	0	0	0	0	0	0	0	20	0	0	0	0
12	0	0	0	0	0	0	0	15	0	0	0	0
13	0	0	0	0	0	0	0	15	0	0	0	0
14	0	0	0	0	0	0	0	15	0	0	0	0
15	0	0	0	0	0	0	0	15	0	0	0	0
16	0	0	0	0	0	0	0	14	0	0	0	0
17	0	0	0	0	0	0	0	13	0	0	0	0
18	0	0	0	0	0	0	0	13	0	0	0	0
19	0	0	0	0	0	0	0	14	0	0	0	0
20	0	0	0	0	0	0	0	14	0	0	0	0
21	0	0	0	0	0	7	0	14	0	0	0	0
22	0	0	0	0	0	25	0	15	0	0	0	0
23	0	0	0	0	0	34	0	17	0	0	0	0
24	0	0	0	0	0	36	0	19	0	0	0	0
25	0	0	0	0	0	40	0	18	0	0	0	0
26	0	0	0	0	0	40	0	15	0	0	0	0
27	0	0	0	0	0	41	0	20	0	0	0	0
28	0	0	0	0	0	37	0	19	0	0	0	0
29	0	0	0	0	0	29	0	18	0	0	0	0
30	0	0	0	0	0	0	0	19	0	0	0	0
31	0	0	0	0	0	0	0	16	0	0	0	0
TOTAL	0	0	0	0	0	289	0	507	155	0	0	0
MAXIMUM DAY	0	0	0	0	0	41	0	22	17	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	10	0	16	5	0	0	0
TOTAL AC.FT.	0	0	0	0	0	573	0	1,006	307	0	0	0
WHOLE YEAR:-	TOTAL,	951	MAX.,	41	MIN.,	0	MEAN,	3	TOTAL AC.FT.,	1,886		

Year: 1993

City of Bakersfield Diverted for Kern County Water Agency
Via Calloway Canal Headgate
(Miscellaneous)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	13	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	61	0	0	0
12	0	0	0	0	0	0	0	0	45	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	-	0	0	0	0	0	0	0	0	0	0
30	0	-	0	0	0	0	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	0	0	0	106	13	0	0
MAXIMUM DAY	0	0	0	0	0	0	0	0	61	13	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	4	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	0	0	210	26	0	0
WHOLE YEAR:-	TOTAL,	119	MAX.,	61	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	236		

DISCHARGE IN CUBIC FEET PER SECOND **City of Bakersfield Diverted for Paramount Citrus Association** **Year: 1993**
via Arvin-Edison Turnout
(Miscellaneous)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	15	0	0	0	0
2	0	0	0	0	0	0	0	56	0	0	0	0
3	0	0	0	0	0	0	0	52	0	0	0	0
4	0	0	0	0	0	0	0	37	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	-	0	0	0	0	0	0	0	0	0	0
30	0	-	0	0	0	0	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	0	0	160	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	0	0	56	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	5	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	0	318	0	0	0	0
WHOLE YEAR:-	TOTAL,	160	MAX.,	56	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	318	0	0

Year: 1993

Total Flow via the James Canal Headgate

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	32	21	34	0	17	0	0	0
2	0	0	0	0	32	22	32	4	16	0	0	0
3	0	0	0	0	33	24	29	18	16	0	0	0
4	0	0	0	0	29	28	30	22	17	0	0	0
5	0	0	0	0	20	29	19	21	16	0	0	0
6	0	0	0	0	20	29	0	20	15	0	0	0
7	0	0	0	0	18	29	0	21	16	0	0	0
8	0	0	0	0	18	28	0	21	16	0	0	0
9	0	0	0	0	17	25	0	21	16	0	0	0
10	0	0	0	0	18	24	0	21	10	0	0	0
11	0	0	0	0	21	28	0	20	0	0	0	0
12	0	0	0	0	24	29	0	15	0	0	0	0
13	0	0	0	0	25	31	0	15	0	0	0	0
14	0	0	0	0	25	34	0	15	0	0	0	0
15	0	0	0	0	24	32	0	15	0	0	0	0
16	0	0	0	0	25	25	0	14	0	0	0	0
17	0	0	0	0	25	23	0	13	0	0	0	0
18	0	0	0	0	25	21	0	13	0	0	0	0
19	0	0	0	0	26	21	0	14	0	0	0	0
20	0	0	0	0	26	21	0	14	0	0	0	0
21	0	0	0	2	29	20	0	14	0	0	0	0
22	0	0	0	17	31	25	0	15	0	0	0	0
23	0	0	0	29	28	34	0	17	0	0	0	0
24	0	0	0	35	30	36	0	19	0	0	0	0
25	0	0	0	10	30	40	0	18	0	0	0	0
26	0	0	0	27	31	40	0	15	0	0	0	0
27	0	0	0	30	24	41	0	20	0	0	0	0
28	0	0	0	33	17	37	0	19	0	0	0	0
29	0	-	0	23	15	34	0	18	0	0	0	0
30	0	-	0	24	16	35	0	19	0	0	0	0
31	0	-	0	-	21	-	0	16	-	0	-	0
TOTAL	0	0	0	230	755	866	144	507	155	0	0	0
MAXIMUM DAY	0	0	0	35	33	41	34	22	17	0	0	0
MINIMUM DAY	0	0	0	0	15	20	0	0	0	0	0	0
MEAN	0	0	0	8	24	29	5	16	5	0	0	0
TOTAL AC.FT.	0	0	0	456	1,498	1,718	286	1,006	307	0	0	0
WHOLE YEAR:-	TOTAL,	2,657	MAX.,	41	MIN.,	0	MEAN,	7	TOTAL AC.FT.,	5,271		

Year: 1993

Total Flow via the Pioneer Canal Headgate

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	242	142	0	0	0	0	0	0
2	0	0	0	0	244	127	49	0	0	0	0	0
3	0	0	0	0	252	159	129	0	0	0	0	0
4	0	0	0	0	214	164	116	0	0	0	0	0
5	0	0	0	0	161	165	115	0	0	0	0	0
6	0	0	0	0	158	166	69	0	0	0	0	0
7	0	0	0	0	201	165	74	0	0	0	0	0
8	0	0	0	0	254	165	84	0	0	0	0	0
9	0	0	0	0	261	163	82	0	0	0	0	0
10	0	0	0	94	260	151	80	0	0	0	0	0
11	0	0	0	98	260	149	77	0	0	0	0	0
12	0	0	0	97	263	150	59	0	0	0	0	0
13	0	0	0	95	265	152	38	0	0	0	0	0
14	0	0	0	100	264	151	26	0	0	0	0	0
15	0	0	0	117	264	156	0	0	0	0	0	0
16	0	0	0	105	263	151	0	0	0	0	0	0
17	0	0	0	111	260	127	7	0	0	0	0	0
18	0	0	0	113	165	43	27	0	0	0	0	0
19	0	0	0	128	16	40	40	0	0	0	0	0
20	0	0	0	171	5	39	58	0	0	0	0	0
21	0	0	0	175	13	36	55	0	0	0	0	0
22	0	0	0	199	14	0	59	0	0	0	0	0
23	0	0	0	240	156	0	53	0	0	0	0	0
24	0	0	0	244	220	16	52	0	0	0	0	0
25	0	0	0	237	150	0	33	0	0	0	0	0
26	0	0	0	241	153	86	5	0	0	0	0	0
27	0	0	0	260	153	123	0	0	0	0	0	0
28	0	0	0	253	176	107	0	0	0	0	0	0
29	0	-	0	250	230	0	0	0	0	0	0	0
30	0	-	0	252	223	0	0	0	0	0	0	0
31	0	-	0	-	197	-	0	0	-	0	-	0
TOTAL	0	0	0	3,580	5,957	3,093	1,387	0	0	0	0	0
MAXIMUM DAY	0	0	0	260	265	166	129	0	0	0	0	0
MINIMUM DAY	0	0	0	0	5	0	0	0	0	0	0	0
MEAN	0	0	0	119	192	103	45	0	0	0	0	0
TOTAL AC.FT.	0	0	0	7,101	11,816	6,135	2,751	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	14,017	MAX.,	265	MIN.,	0	MEAN,	38	TOTAL AC.FT.,	27,803		

Cross Valley Canal - Pioneer Siphon
(As reported by Kern County Water Agency) Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	13	33	22	0	0	0	0	36
2	0	0	0	0	40	32	35	0	0	0	0	36
3	0	0	0	0	45	33	35	0	0	0	0	36
4	0	0	0	0	36	33	41	0	0	0	0	36
5	0	0	0	0	36	33	36	0	0	0	0	36
6	0	0	0	0	36	33	42	0	0	0	0	36
7	0	0	0	0	36	32	0	0	0	0	0	37
8	0	0	0	0	32	33	0	0	0	0	0	36
9	0	0	0	0	34	31	0	0	0	0	0	36
10	0	0	0	0	46	33	0	0	0	0	0	36
11	0	0	0	0	28	33	0	0	0	0	0	36
12	0	0	0	0	33	32	0	0	0	0	0	0
13	0	0	0	0	34	31	0	0	0	0	0	36
14	0	0	0	0	36	33	0	0	0	0	0	37
15	0	0	0	0	33	32	0	0	0	0	0	36
16	0	0	0	0	36	33	0	0	0	0	0	36
17	0	0	0	0	38	32	0	0	0	0	0	36
18	0	0	0	0	35	29	0	0	0	0	0	36
19	0	0	0	0	34	29	0	0	0	0	0	36
20	0	0	0	18	35	30	0	27	0	0	0	37
21	0	0	0	45	36	29	0	27	0	0	0	36
22	0	0	0	45	34	30	0	27	0	0	0	36
23	0	0	0	45	35	29	0	27	0	0	0	36
24	0	0	0	45	37	30	0	27	0	0	0	36
25	0	0	0	45	38	30	0	27	0	0	0	36
26	0	0	0	45	32	33	0	27	0	0	0	37
27	0	0	0	45	36	32	0	27	0	0	0	36
28	0	0	0	45	36	32	0	0	0	0	0	36
29	0	-	-	45	40	30	0	0	0	0	0	36
30	0	-	-	45	29	31	0	0	0	0	21	36
31	0	-	-	-	40	-	0	0	-	-	-	36
TOTAL	0	0	0	468	1,089	946	211	216	0	0	21	1,084
MAXIMUM DAY	0	0	0	45	46	33	42	27	0	0	21	37
MINIMUM DAY	0	0	0	0	13	29	0	0	0	0	0	0
MEAN	0	0	0	16	35	32	7	7	0	0	1	35
TOTAL AC.FT.	0	0	0	929	2,159	1,877	419	428	0	0	42	2,150
WHOLE YEAR:-	TOTAL,	4,035	MAX.,	46	MIN.,	0	MEAN,	11	TOTAL AC.FT.,	8,004		

Cross Valley Canal - Turnout #1 to Kern River Channel
(As reported by Kern County Water Agency)

DISCHARGE IN CUBIC FEET PER SECOND

Year: 1993

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	234	51	0	0	245	134	217	69	241
2	0	0	0	234	49	0	0	245	137	224	69	241
3	0	0	0	234	116	0	0	234	135	220	66	241
4	0	4	0	234	181	0	0	234	102	224	0	230
5	0	0	0	234	225	77	0	234	102	214	67	241
6	0	0	0	234	214	0	0	210	58	263	30	251
7	0	0	0	234	247	0	0	234	196	135	63	245
8	0	0	0	230	192	0	0	234	139	135	143	232
9	0	0	0	0	223	0	0	234	147	192	22	232
10	0	0	0	0	243	0	0	234	103	248	158	240
11	0	0	0	0	250	0	0	234	102	237	139	247
12	0	0	209	0	170	0	0	234	102	230	163	0
13	0	0	245	0	198	0	0	245	103	253	137	228
14	0	0	245	0	218	0	0	245	135	263	173	237
15	25	0	215	0	198	0	0	245	211	164	173	235
16	7	0	235	0	221	0	0	234	189	74	173	232
17	0	0	238	0	229	0	0	234	192	107	173	233
18	0	0	250	0	197	4	0	234	71	121	173	232
19	0	0	243	0	229	0	0	234	147	77	173	241
20	0	0	245	0	232	0	0	234	184	69	211	232
21	0	0	248	0	124	0	0	234	162	54	205	225
22	0	0	238	0	227	0	0	234	122	52	194	230
23	0	0	245	0	236	0	0	234	127	52	194	230
24	0	0	239	0	251	9	0	245	132	54	194	230
25	0	0	240	0	231	0	0	240	137	50	233	228
26	0	0	240	0	225	0	0	234	130	47	256	232
27	0	0	245	0	252	0	0	234	201	113	262	235
28	0	0	248	0	252	0	111	194	254	113	256	235
29	0	-	252	0	248	0	235	156	256	101	245	241
30	0	-	250	0	0	0	238	136	221	130	229	217
31	0	-	250	-	0	-	144	130	-	77	-	56
TOTAL	32	4	4,820	1,868	5,929	90	728	6,982	4,431	4,510	4,643	6,870
MAXIMUM DAY	25	4	252	234	252	77	238	245	256	263	262	251
MINIMUM DAY	0	0	0	0	0	0	0	130	58	47	0	0
MEAN	1	0	155	62	191	3	23	225	148	145	155	222
TOTAL AC.FT.	64	9	9,561	3,706	11,760	179	1,444	13,848	8,789	8,946	9,209	13,626
WHOLE YEAR:-	TOTAL,	40,907	MAX.,	263	MIN.,	0	MEAN,	112	TOTAL AC.FT.,	81,141		

Cross Valley Canal - Turnout #2 to Kern River Channel
(As reported by Kern County Water Agency)

Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	97	155
2	0	0	0	0	0	0	0	0	0	0	85	155
3	0	0	0	0	0	0	0	0	0	0	76	157
4	0	0	0	0	0	0	0	0	0	0	96	150
5	0	0	0	0	111	0	0	0	0	20	67	154
6	0	0	0	0	114	0	0	0	0	25	67	150
7	0	0	0	0	98	0	0	0	0	27	67	150
8	0	0	0	0	105	0	0	0	0	27	66	156
9	0	0	0	0	111	0	0	0	0	25	42	156
10	0	0	0	0	121	0	0	0	0	26	142	152
11	0	0	154	0	129	0	0	0	0	25	117	154
12	0	2	166	0	85	0	0	0	0	25	130	0
13	0	0	155	0	116	0	0	0	0	25	130	161
14	0	0	167	0	0	0	0	0	0	0	133	161
15	11	0	162	0	0	0	0	0	0	82	132	154
16	3	0	159	0	0	0	0	0	0	81	130	154
17	0	0	166	0	0	0	0	0	0	79	132	149
18	0	0	168	0	0	0	0	0	0	81	124	151
19	0	0	159	0	0	0	0	0	0	92	125	151
20	0	0	153	0	0	0	0	0	0	63	130	154
21	0	0	169	0	0	0	0	0	0	63	103	154
22	0	0	159	0	0	0	0	0	0	54	103	156
23	0	0	157	0	0	0	0	0	0	63	102	115
24	0	0	170	0	0	0	0	0	0	63	120	116
25	0	0	162	0	0	0	0	0	0	75	108	112
26	0	0	164	0	0	0	0	97	0	73	104	116
27	0	0	161	0	0	0	0	97	0	54	104	112
28	0	0	168	0	0	0	0	97	0	80	108	114
29	0	-	173	0	0	0	0	68	0	80	108	116
30	0	-	170	0	0	0	0	26	0	92	102	120
31	0	-	162	-	0	-	0	0	-	92	-	120
TOTAL	14	2	3,424	0	990	0	0	385	0	1,492	3,150	4,275
MAXIMUM DAY	11	2	173	0	129	0	0	97	0	92	142	161
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	42	0
MEAN	0	0	110	0	32	0	0	12	0	48	105	138
TOTAL AC.FT.	27	3	6,791	0	1,963	0	0	764	0	2,959	6,249	8,479
WHOLE YEAR:-	TOTAL,	13,732	MAX.,	173	MIN.,	0	MEAN,	38	TOTAL AC.FT.,	27,235		

Cross Valley Canal - Turnout #3 to Kern River Channel
(As reported by Kern County Water Agency)
Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	11	1	3	0	0	100	25	21	25
2	0	0	0	21	3	2	14	0	101	25	19	24
3	0	0	0	10	3	3	14	115	99	25	19	24
4	0	0	0	14	3	2	14	121	99	26	25	25
5	0	0	0	10	2	3	8	123	100	25	23	25
6	0	0	0	10	3	3	14	123	74	0	19	26
7	0	0	0	10	2	2	0	123	40	0	19	26
8	0	0	0	12	3	2	13	126	26	0	20	26
9	0	0	0	0	3	3	14	124	29	0	10	26
10	0	4	0	0	3	2	11	120	23	0	22	26
11	0	0	46	0	2	3	9	116	24	0	22	26
12	0	0	96	0	2	2	10	116	27	20	25	0
13	0	0	96	0	3	3	12	91	22	15	23	22
14	0	0	96	0	3	2	14	102	19	25	22	24
15	0	0	96	0	8	2	14	104	22	20	22	48
16	0	0	84	0	4	3	14	105	23	19	23	80
17	0	13	71	0	6	2	54	102	18	19	22	81
18	0	5	68	0	6	15	57	105	18	19	22	80
19	0	4	72	0	6	15	66	100	30	20	22	77
20	0	4	70	0	10	15	69	102	28	20	15	75
21	0	4	83	2	64	15	68	106	25	79	13	73
22	0	4	77	3	58	15	66	106	25	81	13	75
23	0	0	63	3	68	15	75	106	25	82	13	30
24	0	0	63	4	8	15	63	106	26	71	7	112
25	0	0	63	3	5	15	50	101	26	19	13	115
26	0	0	67	3	5	15	50	101	25	18	13	115
27	0	0	53	3	3	15	0	104	25	17	13	111
28	0	0	10	3	3	15	0	106	25	17	11	122
29	0	-	11	3	6	14	0	101	26	18	11	112
30	0	-	12	3	7	14	0	101	25	19	12	121
31	0	-	15	-	8	-	0	100	-	17	-	121
TOTAL	0	38	1,312	128	311	235	793	3,156	1,175	741	534	1,873
MAXIMUM DAY	0	13	96	21	68	15	75	126	101	82	25	122
MINIMUM DAY	0	0	0	0	1	2	0	0	18	0	7	0
MEAN	0	1	42	4	10	8	26	102	39	24	18	60
TOTAL AC.FT.	0	75	2,602	255	616	466	1,573	6,261	2,331	1,470	1,060	3,715
WHOLE YEAR:-	TOTAL,	10,296	MAX.,	126	MIN.,	0	MEAN,	28	TOTAL AC.FT.,	20,424		

Cross Valley Canal - Turnout #4 to Kern River Channel
 (As reported by Kern County Water Agency)

Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	22	11	58	65	0	0	0	70	60
2	0	0	0	25	24	62	65	0	0	0	70	63
3	0	0	0	25	26	64	75	0	0	0	72	65
4	0	0	0	33	32	69	70	0	0	0	72	60
5	0	0	0	39	26	82	71	0	30	0	67	62
6	0	0	0	30	18	94	64	0	45	0	68	62
7	0	0	0	30	26	75	69	0	66	0	68	62
8	0	0	0	34	31	71	77	0	91	0	71	65
9	0	0	0	0	88	73	76	0	94	0	59	65
10	0	0	0	60	90	65	76	0	0	0	70	63
11	0	0	0	63	78	56	73	0	0	0	75	63
12	0	0	0	63	70	55	63	0	0	69	72	0
13	0	0	0	41	90	57	67	0	0	75	72	67
14	0	0	0	41	90	54	68	0	0	77	70	58
15	54	0	66	41	76	60	68	0	0	68	78	61
16	82	15	66	47	80	47	67	0	0	67	72	70
17	0	15	61	45	60	42	0	0	0	68	70	68
18	0	15	72	40	73	87	0	0	0	68	70	68
19	0	0	52	44	90	72	0	0	0	67	72	69
20	0	0	58	55	72	82	0	0	0	67	40	69
21	0	0	60	29	103	99	0	0	0	0	46	69
22	0	0	73	26	63	86	0	0	0	0	50	67
23	0	0	76	26	69	93	0	0	0	0	57	76
24	0	0	93	27	65	93	0	0	0	61	51	75
25	0	0	96	28	37	67	0	0	0	50	60	74
26	0	0	111	28	61	43	0	0	0	53	62	81
27	0	0	131	29	4	71	0	0	0	52	57	82
28	0	0	66	29	18	54	0	0	0	60	69	77
29	0	-	75	28	57	62	0	0	0	75	68	91
30	0	-	58	22	144	104	0	0	0	75	69	94
31	0	-	86	-	211	-	0	0	-	68	-	87
TOTAL	136	45	1,300	1,050	1,983	2,097	1,114	0	326	1,120	1,967	2,093
MAXIMUM DAY	82	15	131	63	211	104	77	0	94	77	78	94
MINIMUM DAY	0	0	0	0	4	42	0	0	0	0	40	0
MEAN	4	2	42	35	64	70	36	0	11	36	66	68
TOTAL AC.-FT.	269	89	2,579	2,083	3,934	4,160	2,210	0	646	2,222	3,901	4,152
WHOLE YEAR:-	TOTAL,	13,231	MAX.,	211	MIN.,	0	MEAN,	36	TOTAL AC.-FT.,	26,245		

NORTH KERN WATER STORAGE DISTRICT

NORTH KERN WATER STORAGE DISTRICT

Quantities in acre-feet

Year: 1993

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NKWS River Entitlement	9,122	9,051	15,839	34,513	46,131	44,590	15,142	431	0	0	0	141	174,960
Release	17,807	11,025	657	231	669	272	0	0	3,174	6,985	8,735	8,811	58,366
ENTITLEMENT + OR - RELEASE	26,929	20,076	16,496	34,744	46,800	44,862	15,142	431	3,174	6,985	8,735	8,952	233,326
From KRC & Irr. Company	127	91	587	1,113	2,857	1,508	481	0	0	0	0	0	6,764
From City of Bakersfield	0	0	2,292	3,450	7,322	11,479	11,233	13,030	620	729	1,103	511	51,769
From Buena Vista WSD	0	0	0	1,075	877	0	0	0	0	0	0	0	1,952
From Kern Delta WD	0	0	0	1,489	708	0	0	0	0	0	0	0	2,197
From Rosedale Rio Bravo WSD	0	0	0	460	0	0	0	0	0	0	0	0	460
From Isabella Reservoir Storage	127	0	0	0	2,966	69	17,671	17,059	9,807	3,562	283	837	52,381
To City of Bakersfield	13,221	11,651	0	0	0	0	0	0	0	0	0	0	24,872
To Cawelo Water District	0	0	0	0	0	0	0	0	0	0	0	0	0
To La Hacienda, Inc.	2	9	0	0	0	0	0	0	0	0	51	45	107
To Improvement District #4	0	0	0	0	0	0	0	0	0	0	0	568	568
Into Isabella Reservoir Storage	11,360	4,835	9,745	29,091	42,165	23,645	7,386	8,657	0	539	2,598	1,247	141,268
Transfer In Storage	0	0	0	0	0	0	0	0	0	0	0	3	3
Other	0	1,096	0	(309)	(2,037)	(60)	0	(2,157)	(2,142)	(1,093)	(486)	(511)	(7,699)
TOTAL DIVERTED FROM RIVER	2,600	4,768	9,630	12,931	17,328	34,213	37,141	19,706	11,459	9,644	6,986	7,932	174,338
Loss to Seventh Standard Line	87	110	68	145	202	1,973	2,658	1,266	155	87	144	234	7,129
Offfield Discharge	453	675	754	773	855	716	781	829	843	877	837	837	9,230
City of Bakersfield Non-Kern River	0	0	0	0	0	0	0	0	0	0	0	16	16
NKWS Deep Well Production	0	0	0	0	0	0	0	0	0	0	0	0	0
Poso Creek Natural Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Friant-Kern Inflow to Poso Creek	0	0	3,548	6,864	7,817	504	0	5,309	1,152	0	0	0	25,194
Friant-Kern (215 Contract) via Calloway	0	0	0	180	0	0	0	0	0	0	0	0	180
ID4 Exchange via Calloway Canal	0	0	0	1,379	3,372	0	0	0	0	1,797	736	0	7,284
Rosedale Ranch ID	0	0	0	1,291	2,785	3,919	3,733	993	0	456	617	148	13,942
Semitropic WSD via Poso Creek	0	0	0	743	0	0	0	0	0	0	0	0	743
CVC Conduit "A" Inflow	0	0	0	0	0	0	0	0	0	0	0	839	839
TOTAL DISTRICT SUPPLY	2,966	5,333	13,864	19,948	26,385	29,541	31,531	23,585	13,299	11,775	7,798	9,242	195,267
Class 1 Irrigation Deliveries	36	1,692	5,203	8,797	13,265	15,360	17,744	11,523	6,232	6,246	1,868	601	88,567
Class 2 Irrigation Deliveries	33	871	2,791	3,428	7,210	7,599	9,636	5,768	3,452	2,460	1,303	667	45,218
Shafter-Wasco Irrigation District	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL IRRIGATION USE	69	2,563	7,994	12,225	20,475	22,959	27,380	17,291	9,684	8,706	3,171	1,268	133,785
District Spreading Ponds (Kern)	2,059	1,245	819	1,705	0	493	0	314	750	971	3,072	6,430	17,858
District Spreading Ponds (Other)	0	0	1,836	2,706	1,429	0	0	2,758	399	0	0	839	9,967
Poso Creek Spreading (Kern)	0	0	0	0	0	0	0	0	0	0	0	0	0
Poso Creek Spreading (Other)	0	0	1,712	1,488	1,844	149	0	833	208	0	0	0	6,234
TOTAL DISTRICT SPREADING	2,059	1,245	4,367	5,899	3,273	642	0	3,905	1,357	971	3,072	7,269	34,059
TOTAL DISTRICT USE	2,128	3,808	12,361	18,124	23,748	23,601	27,380	21,196	11,041	9,677	6,243	8,537	167,844
Total NKWS Canal Loss	838	1,525	1,503	1,824	2,637	5,940	4,151	2,389	2,258	2,098	1,555	705	27,423
Into Reservoir Storage	11,360	4,835	9,745	29,091	42,165	23,645	7,386	8,657	0	539	2,598	1,247	141,268
Reservoir Evaporation Loss	750	791	853	1,452	2,271	2,842	3,729	3,502	2,724	1,821	1,198	603	22,536
From Reservoir Storage	127	0	0	0	2,966	69	17,671	17,059	9,807	3,562	283	837	52,381
END OF MONTH RESERVOIR STORAGE	54,647	58,691	67,583	95,222	132,150	152,884	138,870	126,966	114,435	109,591	110,708	110,515	

Total Flow via the Beardsley Canal
(At Head of Lined Section)

Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	35	47	75	143	445	695	601	481	502	458	225	94
2	9	50	79	116	447	686	593	548	498	447	206	73
3	0	69	100	88	457	668	563	580	481	450	201	86
4	0	68	123	123	410	656	554	619	434	443	231	83
5	0	69	140	121	387	608	609	613	417	415	210	72
6	0	73	146	111	401	566	620	608	396	422	202	68
7	0	89	160	122	473	554	628	507	406	400	218	65
8	0	97	181	204	461	496	645	500	385	362	191	63
9	0	112	229	231	447	446	626	546	350	358	180	66
10	0	121	253	183	446	405	572	549	319	337	182	80
11	0	112	262	208	440	444	561	556	302	335	206	96
12	0	102	215	230	453	465	571	592	300	301	212	98
13	123	84	219	289	478	471	595	574	335	268	192	70
14	125	86	221	328	521	568	616	488	329	197	196	101
15	96	96	231	433	484	614	611	467	366	181	106	144
16	87	103	227	471	478	646	579	511	379	137	120	212
17	88	104	220	456	514	659	556	509	375	139	134	233
18	122	98	240	425	517	655	537	442	349	165	119	226
19	109	84	262	457	547	621	588	470	330	205	130	247
20	50	85	258	471	571	637	597	480	326	220	159	244
21	52	87	269	454	603	685	611	431	321	220	186	236
22	52	94	270	461	566	708	642	431	313	217	183	235
23	62	246	269	438	583	677	616	479	341	188	175	239
24	57	108	280	383	660	566	570	558	343	182	134	252
25	52	115	282	360	640	543	584	620	332	171	102	253
26	51	119	241	358	679	515	627	637	344	170	68	247
27	52	116	168	385	660	520	599	577	397	219	83	168
28	51	112	144	406	615	575	618	479	412	245	96	161
29	52	-	144	425	619	584	629	485	461	238	94	163
30	51	-	129	445	628	595	587	545	453	236	97	167
31	50	-	157	-	656	-	500	536	-	221	-	152
TOTAL	1,426	2,746	6,194	9,325	16,286	17,528	18,405	16,418	11,296	8,547	4,838	4,694
MAXIMUM DAY	125	246	282	471	679	708	645	637	502	458	231	253
MINIMUM DAY	0	47	75	88	387	405	500	431	300	137	68	63
MEAN	46	98	200	311	525	584	594	530	377	276	161	151
TOTAL AC.FT.	2,828	5,446	12,286	18,496	32,303	34,767	36,506	32,565	22,405	16,953	9,596	9,310
WHOLE YEAR:-	TOTAL,	117,703	MAX.,	708	MIN.,	0	MEAN,	322	TOTAL AC.FT.,	233,461		

DISCHARGE IN CUBIC FEET PER SECOND

Oilfield Discharge Diverted via Beardsley Canal (Total Flow)

Year: 1993

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15	19	21	20	26	21	22	24	25	27	25	23
2	6	17	20	22	26	28	21	22	27	28	22	21
3	0	19	22	24	25	20	27	20	25	27	22	19
4	0	19	20	23	23	25	28	19	24	24	22	24
5	0	19	19	18	23	27	20	19	27	25	26	24
6	0	22	23	18	24	27	20	19	27	23	27	22
7	0	24	23	23	24	21	21	26	25	25	29	22
8	0	23	19	25	25	20	21	24	24	25	24	23
9	0	18	19	22	26	20	23	23	24	26	22	24
10	0	18	16	22	26	20	29	23	27	28	25	24
11	0	20	15	23	23	22	24	19	27	25	24	28
12	0	23	25	21	23	28	22	21	24	23	24	25
13	0	23	24	21	23	29	20	22	23	25	27	24
14	0	22	22	21	23	14	22	24	26	25	26	26
15	11	19	23	23	27	14	17	24	25	25	26	22
16	25	19	19	22	29	13	14	24	22	26	26	22
17	22	21	21	23	25	14	18	22	25	28	22	24
18	19	22	20	24	21	10	22	22	27	24	23	28
19	20	18	21	22	25	14	20	22	27	21	25	27
20	19	25	24	23	23	14	23	24	23	22	28	23
21	20	23	23	21	24	21	20	26	23	22	27	20
22	20	20	21	21	25	12	23	26	22	22	27	23
23	19	22	21	24	26	27	23	22	22	28	25	23
24	19	21	22	25	22	23	27	20	28	27	25	24
25	19	18	20	26	21	21	26	24	25	22	23	26
26	19	21	23	22	23	24	20	24	26	22	22	26
27	18	24	23	21	26	24	17	25	26	26	23	22
28	18	24	24	24	22	17	21	27	21	23	24	22
29	19	-	21	26	26	18	22	30	25	24	25	22
30	19	-	20	25	25	26	21	30	27	28	23	22
31	20	-	20	27	-	-	24	25	-	28	-	24
TOTAL	347	583	654	675	757	614	678	722	749	774	739	729
MAXIMUM DAY	25	25	25	26	29	29	29	30	28	28	29	28
MINIMUM DAY	0	17	15	18	21	10	14	19	21	21	22	19
MEAN	11	21	21	23	24	20	22	23	25	25	25	24
TOTAL AC.FT.	689	1,157	1,298	1,338	1,502	1,217	1,344	1,431	1,485	1,536	1,465	1,446
WHOLE YEAR:-	TOTAL,	8,021	MAX.,	30	MIN.,	0	MEAN,	22	TOTAL AC.FT.,	15,908		

DISCHARGE IN CUBIC FEET PER SECOND

Total Diverted via
Cross Valley Canal Conduit "A"

Year: 1993

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	47
23	0	0	0	0	0	0	0	0	0	0	0	47
24	0	0	0	0	0	0	0	0	0	0	0	47
25	0	0	0	0	0	0	0	0	0	0	0	47
26	0	0	0	0	0	0	0	0	0	0	0	47
27	0	0	0	0	0	0	0	0	0	0	0	47
28	0	0	0	0	0	0	0	0	0	0	0	47
29	0	-	0	0	0	0	0	0	0	0	0	47
30	0	-	0	0	0	0	0	0	0	0	0	47
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	423
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	47
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	14
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	0	0	839
WHOLE YEAR:-	TOTAL,	423	MAX.,	47	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	839		

**NORTH KERN WATER STORAGE DISTRICT
BEARDSLEY CANAL OPERATIONS**

Year: 1993

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
+ Kern River	2,828	5,446	12,286	18,496	32,303	34,767	36,506	32,565	22,405	16,953	9,596	9,310	233,461
+ Oilfield Discharge	689	1,157	1,298	1,338	1,502	1,217	1,344	1,431	1,485	1,536	1,465	1,446	15,908
+ C.V.C. Conduit "A"	0	0	0	0	0	0	0	0	0	0	0	839	839
+ TOTAL BEARDSLEY CANAL SUPPLY =	3,517	6,603	13,584	19,834	33,805	35,984	37,850	33,996	23,890	18,489	11,061	11,595	250,208
+ KRC & Irr. Co. # 1 Lateral	107	0	200	581	722	262	210	519	535	470	6	0	3,612
+ KRC & Irr. Co. # 2 Lateral	0	0	134	144	210	180	203	210	32	237	0	0	1,350
+ KRC & Irr. Co. # 4 Lateral	0	0	4	58	474	534	611	558	90	12	30	0	2,371
+ KRC & Irr. Co. # 5 Lateral	0	0	42	278	492	402	489	452	209	0	98	0	2,462
+ KRC & Irr. Co. Bidart Boosters	0	18	344	305	340	339	405	84	296	466	29	10	2,636
+ KRC & Irr. Co. via 1-0-20	0	0	0	0	0	0	0	0	0	0	0	2	2
+ KRC & Irr. Co. via 1-0-80	0	0	0	2	7	4	3	4	2	0	0	0	22
+ Lined Section Loss	22	2	54	60	61	60	61	61	60	61	12	8	522
- TOTAL KRC & IRR. CO. DIVERTED =	129	20	778	1,428	2,306	1,781	1,982	1,888	1,224	1,246	175	20	12,977
- Kern River Supply	0	0	347	1,428	2,306	1,781	1,686	1,286	582	1,002	175	0	10,593
- Oilfield Discharge Supply	129	20	431	0	0	0	296	602	642	244	0	20	2,384
= C.V.C. Conduit "A" Supply	0	0	0	0	0	0	0	0	0	0	0	0	0
+ Cawelo WD via Pump Station "B"	315	1,037	2,109	4,004	10,609	12,196	13,035	12,006	7,727	5,357	2,440	1,366	72,201
+ Cawelo WD Lerdo Gate Deliveries	0	36	226	283	493	754	861	460	351	153	24	0	3,641
+ Lined Section Loss	16	56	61	60	61	60	61	61	60	61	60	60	677
+ Lerdo Canal Loss	4	11	26	46	116	135	145	128	84	58	25	14	792
- TOTAL CAWELO WD DIVERTED =	335	1,140	2,422	4,393	11,279	13,145	14,102	12,655	8,222	5,629	2,549	1,440	77,311
- Kern River Supply	228	678	2,309	3,828	10,632	12,644	13,835	12,655	8,222	5,214	1,921	867	73,033
- Oilfield Discharge Supply	107	462	113	565	647	501	267	0	0	415	628	573	4,278
= C.V.C. Conduit "A" Supply	0	0	0	0	0	0	0	0	0	0	0	0	0
- Rosedale Ranch ID Diverted	0	0	0	309	2,037	60	0	2,157	2,142	1,093	486	659	8,943
- Kern-Tulare WD/Rag Guich WD Diverted	0	0	0	0	0	0	0	0	0	0	0	0	0
+ Lined Section Loss: NKWSD	87	110	68	60	61	60	61	61	60	61	108	115	912
= NKWSD FROM LERDO CANAL	2,966	5,333	10,316	13,644	18,122	20,938	21,705	17,235	12,242	10,460	7,743	9,361	150,065
- Kern River Supply	2,600	4,768	9,630	12,931	17,328	20,282	20,985	16,467	11,459	9,644	7,014	7,932	141,040
- Oilfield Discharge Supply	453	675	754	773	855	716	781	829	843	877	837	705	9,098
= C.V.C. Conduit "A" Supply	0	0	0	0	0	0	0	0	0	0	0	839	839

Year: 1993

Lerdo Canal at Seventh Standard Line (Total Flow)

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	47	63	93	143	435	656	597	486	494	460	229	114
2	12	64	96	125	438	653	586	527	492	451	206	91
3	0	85	119	102	446	648	563	553	471	458	204	102
4	0	84	138	136	400	648	549	591	432	450	239	104
5	0	85	155	127	382	607	593	583	419	423	222	93
6	0	92	164	117	402	575	599	591	404	425	219	87
7	0	110	180	133	477	562	604	517	416	403	244	84
8	0	108	193	209	467	502	632	508	397	361	212	82
9	0	127	236	237	455	447	602	533	362	358	199	86
10	0	136	251	191	455	405	560	540	332	340	204	101
11	0	129	249	220	448	452	547	548	315	337	227	121
12	0	122	227	229	453	478	561	587	312	302	233	120
13	120	104	231	289	474	484	586	576	346	271	216	91
14	122	105	232	329	521	558	607	492	338	204	219	124
15	101	112	242	429	490	602	603	479	373	185	129	163
16	103	119	236	468	489	634	570	523	384	143	143	231
17	102	122	230	460	501	649	562	518	375	147	153	254
18	133	117	245	429	501	635	545	434	358	167	139	251
19	121	99	264	445	524	600	583	454	339	206	152	271
20	61	107	262	460	533	610	576	470	334	219	184	264
21	63	107	273	436	576	668	591	424	329	217	210	253
22	63	111	273	442	544	678	617	427	313	215	207	302
23	73	265	272	420	561	660	588	458	341	192	197	306
24	69	126	284	366	627	547	546	522	347	185	156	320
25	64	130	280	346	591	519	562	588	336	168	122	323
26	67	137	240	337	635	489	610	612	346	168	87	317
27	67	137	165	367	625	500	584	555	378	221	103	234
28	66	133	145	389	577	557	604	475	395	245	117	227
29	68	-	140	409	583	570	613	494	444	239	116	227
30	67	-	122	430	590	591	577	533	446	242	117	231
31	67	-	153	-	618	-	505	528	-	229	-	173
TOTAL	1,656	3,236	6,390	9,220	15,818	17,184	18,022	16,126	11,368	8,631	5,405	5,747
MAXIMUM DAY	133	265	284	468	635	678	632	612	494	460	244	323
MINIMUM DAY	0	63	93	102	382	405	505	424	312	143	87	82
MEAN	53	116	206	307	510	573	581	520	379	278	180	185
TOTAL AC.FT.	3,285	6,417	12,677	18,286	31,377	34,083	35,746	31,986	22,546	17,121	10,718	11,400
WHOLE YEAR--	TOTAL,	118,803	MAX.,	678	MIN.,	0	MEAN,	325	TOTAL AC.FT.,	235,642		

NORTH KERN WATER STORAGE DISTRICT
LERDO CANAL OPERATIONS

Year: 1993

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Total Beardsley Canal Supply	+ 3,517	6,603	13,584	19,834	33,805	35,984	37,850	33,996	23,890	18,489	11,061	11,595	250,208
+ KRC & Irr. Co. Laterals	107	0	380	1,061	1,898	1,378	1,513	1,739	866	719	134	0	9,795
+ KRC & Irr. Co. Boosters	0	18	344	307	347	343	408	88	298	466	29	12	2,660
+ Lined Section Loss: KRC & Irr. Co.	22	2	54	60	61	60	61	61	60	61	12	8	522
= KRC & Irr. Co. from Beardsley	- 129	20	778	1,428	2,306	1,781	1,982	1,888	1,224	1,246	175	20	12,977
Rosedale Ranch ID via 1-1-0	- 0	0	0	0	0	0	0	0	0	0	0	0	0
NKWSD via 1-1-0 Lateral	- 0	0	0	0	0	0	0	0	0	0	0	0	0
Other from Beardsley	- 0	0	0	0	0	0	0	0	0	0	0	0	0
Lined Section Loss: Cawelo WD	- 16	56	61	60	61	60	61	61	60	61	60	60	677
Lined Section Loss: NKWSD	- 87	110	68	60	61	60	61	61	60	61	108	115	912
Lerdo Canal Total Flow	= 3,285	6,417	12,677	18,286	31,377	34,083	35,746	31,986	22,546	17,121	10,718	11,400	235,642
KRC & Irr. Co. via 8-1-0	- 0	0	0	0	0	0	0	0	0	0	0	0	0
City via 8-1-0	- 0	0	0	0	0	0	0	0	0	0	0	0	0
Rosedale Ranch ID via Lerdo	- 0	0	0	309	2,037	60	0	2,157	2,142	1,093	486	659	8,943
K-TWD/RGWD via 8-17-0	- 0	0	0	0	0	0	0	0	0	0	0	0	0
+ Cawelo WD Delivered at Sta. "B"	315	1,037	2,109	4,004	10,609	12,196	13,035	12,006	7,727	5,357	2,440	1,366	72,201
+ Cawelo WD 8-0 Deliveries	0	36	226	283	493	754	861	460	351	153	24	0	3,641
+ Lerdo Loss: to Station "B"	4	10	21	40	106	122	130	120	77	54	24	14	722
+ Lerdo Loss: 8-0 Deliveries	0	1	5	6	10	13	15	8	7	4	1	0	70
= Cawelo WD Total from Lerdo	- 319	1,084	2,361	4,333	11,218	13,085	14,041	12,594	8,162	5,568	2,489	1,380	76,634

North Kern WSD from Lerdo	= 2,966	5,333	10,316	13,644	18,122	20,938	21,705	17,235	12,242	10,460	7,743	9,361	150,065
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Year: 1993

Total Flow via the Calloway Canal Headgate

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	31	26	72	34	109	413	241	82	75	59	0
2	0	26	33	83	32	159	406	243	83	75	50	0
3	0	26	35	76	27	177	372	245	79	78	0	0
4	0	25	32	73	37	180	364	231	83	76	0	0
5	0	26	34	79	60	211	357	231	85	78	0	0
6	0	31	37	79	60	209	357	226	82	74	0	0
7	0	33	35	70	66	215	354	220	75	75	0	0
8	0	23	40	73	73	214	358	229	91	77	0	0
9	0	24	51	67	66	216	359	216	80	69	0	0
10	0	23	65	85	62	218	353	177	80	81	0	0
11	0	25	117	68	67	217	351	145	82	68	0	0
12	0	23	52	48	67	214	321	56	96	65	0	0
13	0	24	51	46	69	210	318	57	80	64	0	0
14	0	25	44	46	69	207	328	64	78	51	0	0
15	0	23	35	51	72	226	329	61	65	49	0	0
16	0	25	31	53	66	253	314	59	69	47	0	0
17	0	24	31	51	63	281	320	66	90	50	0	0
18	0	23	32	49	68	314	327	60	87	44	0	0
19	0	22	23	44	69	318	332	61	85	50	0	0
20	0	24	22	39	73	323	327	58	73	51	0	0
21	0	23	21	4	81	316	327	57	79	52	0	0
22	0	23	14	0	76	306	328	65	73	49	0	0
23	0	23	14	0	74	317	324	65	80	51	0	0
24	0	22	14	0	62	404	319	65	76	50	0	0
25	0	21	17	0	44	421	297	64	80	54	0	0
26	0	25	29	0	33	426	303	67	83	53	0	0
27	0	27	32	0	31	424	291	69	88	54	0	0
28	15	28	31	0	67	423	290	65	85	51	0	0
29	24	-	31	0	84	423	288	72	86	52	0	0
30	14	-	31	8	75	421	278	88	82	54	0	9
31	22	-	36	-	78	-	256	85	-	50	-	32
TOTAL	75	698	1,096	1,264	1,905	8,352	10,261	3,708	2,437	1,867	109	41
MAXIMUM DAY	24	33	117	85	84	426	413	245	96	81	59	32
MINIMUM DAY	0	21	14	0	27	109	256	56	65	44	0	0
MEAN	2	25	35	42	61	278	331	120	81	60	4	1
TOTAL AC.-FT.	149	1,384	2,174	2,507	3,778	16,566	20,352	7,355	4,834	3,703	216	81
WHOLE YEAR--	TOTAL,	31,813	MAX.,	426	MIN.,	0	MEAN,	87	TOTAL AC.-FT.,	63,089		

Cross Valley Canal - Calloway Canal Turnout
(As reported by Kern County Water Agency)
Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	138	27	0	0	0	0	41	0
2	0	0	0	0	148	13	0	0	0	0	41	0
3	0	0	0	0	137	0	0	0	0	0	42	0
4	0	0	0	0	123	0	0	0	0	0	42	0
5	0	0	0	0	99	0	0	0	0	0	40	0
6	0	0	0	0	114	0	0	0	0	0	40	0
7	0	0	0	0	117	0	0	0	0	0	42	0
8	0	0	0	0	125	0	0	0	0	0	44	0
9	0	0	0	0	123	0	0	0	0	0	45	0
10	0	0	0	0	121	0	0	0	0	0	45	0
11	0	0	0	0	95	0	0	0	0	0	43	0
12	0	0	0	0	37	0	0	34	0	0	44	0
13	0	0	0	40	36	0	0	28	0	0	42	0
14	0	0	0	93	41	0	0	34	0	110	44	0
15	28	0	0	43	41	0	0	31	19	99	43	0
16	59	0	123	47	47	0	0	34	11	104	40	0
17	0	0	127	48	47	0	0	36	0	100	42	0
18	0	0	129	53	47	0	0	38	0	100	42	0
19	0	0	126	47	48	0	0	34	0	97	41	0
20	0	0	126	46	50	0	0	37	0	96	49	0
21	0	0	123	40	47	0	0	34	0	96	52	0
22	0	0	105	90	41	0	0	30	0	96	48	0
23	0	0	97	118	45	0	0	30	0	95	23	0
24	0	0	95	112	45	0	0	30	0	89	7	0
25	0	0	92	121	48	0	0	31	0	86	7	0
26	0	0	84	115	48	0	0	35	0	56	7	0
27	0	0	77	124	47	0	0	35	0	46	4	0
28	0	0	72	121	58	0	0	34	0	46	0	0
29	0	-	67	125	53	0	0	20	0	48	0	0
30	0	-	63	122	52	0	0	0	0	46	0	0
31	0	-	30	-	53	-	0	0	-	50	-	0
TOTAL	87	0	1,881	1,455	2,271	40	0	585	30	1,460	1,000	0
MAXIMUM DAY	59	0	129	125	148	27	0	38	19	110	52	0
MINIMUM DAY	0	0	0	0	36	0	0	0	0	0	0	0
MEAN	3	0	61	49	73	1	0	19	1	47	33	0
TOTAL AC.FT.	173	0	3,730	2,886	4,504	79	0	1,160	60	2,896	1,983	0
WHOLE YEAR:-	TOTAL,	8,809	MAX.,	148	MIN.,	0	MEAN,	24	TOTAL AC.FT.,	17,471		

DISCHARGE IN CUBIC FEET PER SECOND **Year: 1993**
Total Flow Passing Seventh Standard Line
via Calloway Canal for North Kern WSD

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	11	0	222	77	0	0	5	0
2	0	0	0	0	33	10	217	64	0	0	4	0
3	0	0	0	0	29	49	212	50	0	0	0	0
4	0	0	0	0	26	83	209	64	0	0	0	0
5	0	0	0	0	7	108	189	59	0	0	0	0
6	0	0	0	0	13	112	181	56	0	0	0	0
7	0	0	0	0	14	118	182	68	0	0	0	0
8	0	0	0	0	34	120	195	65	0	0	0	0
9	0	0	0	0	26	121	196	45	0	0	0	0
10	0	0	0	0	32	115	202	25	0	0	0	0
11	0	0	0	0	0	120	183	0	0	0	0	0
12	0	0	0	0	0	112	168	0	0	0	0	0
13	0	0	0	0	0	107	164	0	0	0	0	0
14	0	0	0	0	0	108	166	0	0	49	0	0
15	0	0	0	0	0	120	169	0	0	49	0	0
16	0	0	0	0	0	144	162	0	0	52	0	0
17	0	0	0	0	0	152	152	0	0	51	4	0
18	0	0	0	0	0	147	147	0	0	53	0	0
19	0	0	0	0	0	144	150	0	0	46	2	0
20	0	0	0	0	0	138	150	0	0	46	9	0
21	0	0	0	0	0	135	141	0	0	50	12	0
22	0	0	0	0	0	134	136	0	0	52	10	0
23	0	0	0	22	0	140	132	0	0	60	0	0
24	0	0	0	3	0	211	157	0	0	58	0	0
25	0	0	0	9	0	226	127	0	0	49	0	0
26	0	0	0	18	0	236	128	0	0	15	0	0
27	0	0	0	17	0	215	113	0	0	5	0	0
28	0	0	0	13	0	215	97	0	0	0	0	0
29	0	-	-	3	0	215	105	0	0	13	0	0
30	0	-	-	7	0	228	102	0	0	16	0	0
31	0	-	-	-	0	-	100	0	-	12	-	0
TOTAL	0	0	0	92	225	4,083	4,954	573	0	676	46	0
MAXIMUM DAY	0	0	0	22	34	236	222	77	0	60	12	0
MINIMUM DAY	0	0	0	0	0	0	97	0	0	0	0	0
MEAN	0	0	0	3	7	136	160	18	0	22	2	0
TOTAL AC.FT.	0	0	0	183	446	8,099	9,826	1,138	0	1,341	91	0
WHOLE YEAR-- TOTAL	10,649	MAX.,	236	MIN.,	0	MEAN,	29	TOTAL AC.FT.,	21,124			

**NORTH KERN WATER STORAGE DISTRICT
CALLOWAY CANAL OPERATIONS**

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
FLOW AT HEADWORKS	+	149	1,384	2,174	3,778	16,566	20,352	7,355	4,834	3,703	216	81	63,099
KCWA Armco Turnout	-	79	1,154	1,642	3,144	2,240	3,589	3,620	3,581	3,036	164	63	23,889
Seepage Loss	-	70	230	228	271	119	185	198	176	144	8	18	1,821
FLOW AT MEASURING STATION	=	0	0	304	363	14,207	16,578	3,537	1,077	523	44	0	37,389
CVC Turnout to Calloway	+	173	0	3,730	4,504	79	0	1,160	60	2,896	1,983	0	17,471
Seepage Loss	-	173	0	1,297	472	493	706	548	278	244	170	0	4,709
FLOW AT STANDARD WEIR	=	0	0	2,737	4,395	13,793	15,872	4,149	859	3,175	1,857	0	50,151
Bartell Spreading	-	0	0	0	0	0	0	0	0	0	0	0	0
Friant-Kern Inflow	+	0	0	0	0	0	0	0	0	0	0	0	0
KRC & Irr. Co. 1-1-0 Inflow	+	0	0	40	355	18	0	180	254	313	2	0	1,271
KRC & Irr. Co. Calloway Del.	-	0	0	30	183	151	159	139	119	234	0	0	1,102
Seepage Loss	-	0	0	2,238	878	1,153	1,492	1,431	573	1,211	972	0	11,444
FLOW AT LABORDE WEIR	=	0	0	509	3,689	12,507	14,221	2,759	421	2,043	887	0	38,876
KRC & Irr. Co. Calloway Del.	-	0	0	0	65	76	168	126	61	0	56	0	552
Rosedale Ranch ID at Headworks	-	0	0	1,267	4,334	3,563	3,303	2,993	2,077	1,440	1,049	659	20,685
Seepage Loss	-	0	0	509	393	413	494	599	455	272	159	119	3,779
NKWSD 8-1-0 Inflow	+	0	0	139	1,708	46	0	2,192	2,172	1,024	468	778	8,527
FLOW AT SEVENTH STANDARD LINE	=	0	0	346	605	8,501	10,256	1,233	0	1,355	91	0	22,387
for Rosedale Ranch ID	-	0	0	163	159	402	430	95	0	14	0	0	1,263
for North Kern WSD	=	0	0	183	446	8,099	9,826	1,138	0	1,341	91	0	21,124

KERN COUNTY WATER AGENCY / I.D. #4:

Operating Loss	+	82	277	276	198	325	169	259	236	196	12	22	2,298
ID #4 Treatment Plant	+	67	1,107	1,594	1,553	3,090	2,190	3,559	3,521	2,984	160	59	23,412
Spreading Below Measuring Sta.	+	173	0	4,034	2,083	1,495	79	1,293	1,137	1,622	1,247	0	13,163
TOTAL DIVERTED	=	322	1,384	5,904	3,834	4,910	2,438	5,111	4,894	4,802	1,419	81	38,873

KERN RIVER CANAL & IRRIGATING CO.:

Calloway Irrigation Deliveries	+	0	0	30	87	248	327	265	180	234	56	0	1,654
Delivery Loss/ Spreading	+	0	0	10	22	107	95	80	74	79	18	0	552
TOTAL DIVERTED	=	0	0	40	109	355	422	345	254	313	74	0	2,206

ROSEDALE RANCH ID:

Flow at Headworks	+	0	0	0	1,267	4,334	3,303	2,993	2,077	1,440	1,049	659	20,685
Flow at Seventh Standard Line	+	0	0	0	163	159	402	95	0	14	0	0	1,263
Assigned Loss	+	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL DIVERTED	=	0	0	0	1,430	4,493	3,965	3,088	2,077	1,454	1,049	659	21,948

NORTH KERN WATER STORAGE DISTRICT:

Flow at Seventh Standard Line	+	0	0	0	183	446	8,099	1,138	0	1,341	91	0	21,124
Total Loss	+	0	0	0	85	141	1,913	1,205	95	26	36	119	6,217
TOTAL DIVERTED	=	0	0	0	268	587	10,012	2,343	95	1,367	127	119	27,341

Year: 1993

North Kern Water Storage District
Class 1 Irrigation Deliveries

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9	6	34	23	183	275	301	178	179	139	79	15
2	9	10	37	26	156	291	336	200	140	142	77	15
3	0	11	45	39	181	262	307	232	137	127	80	18
4	0	13	63	18	160	249	294	228	100	138	61	17
5	0	13	61	30	152	226	342	223	97	133	51	16
6	0	17	58	29	201	201	349	255	96	115	45	34
7	0	18	65	42	237	226	312	206	102	112	41	14
8	0	20	78	44	210	222	318	155	98	101	34	17
9	0	17	79	31	188	202	288	178	65	100	19	13
10	0	21	100	16	218	188	268	196	65	91	26	20
11	0	22	100	15	203	202	241	195	60	120	39	10
12	0	25	94	145	186	157	292	187	40	102	42	14
13	0	20	99	167	201	159	309	189	79	97	40	6
14	0	32	89	209	209	223	312	148	90	84	32	6
15	0	51	109	209	170	246	303	134	130	73	33	0
16	0	56	110	226	142	268	301	151	119	60	32	0
17	0	45	101	203	178	297	294	182	116	54	28	0
18	0	55	90	207	179	298	254	184	110	80	16	0
19	0	49	116	241	190	278	265	149	91	107	12	4
20	0	52	117	235	185	289	279	170	95	129	15	6
21	0	44	108	256	242	325	304	158	92	118	12	0
22	0	36	155	257	198	325	300	157	80	100	19	4
23	0	24	155	258	189	318	290	208	84	61	20	7
24	0	39	164	245	262	298	249	214	97	55	4	0
25	0	39	134	216	276	290	228	207	113	76	4	0
26	0	39	89	215	308	261	275	226	87	104	22	1
27	0	44	48	218	330	254	249	197	125	109	10	16
28	0	35	40	209	326	299	281	186	139	102	10	9
29	0	-	35	208	294	322	290	152	163	122	21	8
30	0	-	31	198	266	293	282	174	153	107	18	19
31	0	-	19	-	268	-	233	190	-	91	-	14
TOTAL	18	853	2,623	4,435	6,688	7,744	8,946	5,809	3,142	3,149	942	303
MAXIMUM DAY	9	56	164	258	330	325	349	255	179	142	80	34
MINIMUM DAY	0	6	19	15	142	157	228	134	40	54	4	0
MEAN	1	30	85	148	216	258	289	187	105	102	31	10
TOTAL AC.FT.	36	1,692	5,203	8,797	13,265	15,360	17,744	11,523	6,232	6,246	1,868	601
WHOLE YEAR--	TOTAL,	44,652	MAX.,	349	MIN.,	0	MEAN,	122	TOTAL AC.FT.,	88,567		

North Kern Water Storage District
 Class 2 Irrigation Deliveries
 Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4	0	24	31	105	174	175	73	108	80	39	29
2	0	6	20	23	98	135	175	130	101	85	43	28
3	0	12	41	27	107	138	157	140	80	73	37	28
4	0	21	47	20	131	123	138	133	61	75	43	22
5	0	26	65	25	126	111	187	141	49	79	37	13
6	0	24	79	27	101	101	182	145	47	63	20	16
7	0	26	92	33	109	108	183	87	59	56	19	26
8	0	29	86	43	129	114	187	77	51	30	22	23
9	0	25	75	48	121	94	189	106	47	44	33	21
10	0	25	80	32	117	88	162	116	49	35	30	18
11	0	23	59	32	109	116	131	102	38	46	20	14
12	0	23	50	45	116	108	162	108	20	40	21	8
13	0	24	55	67	121	102	160	84	37	32	14	3
14	0	22	56	83	119	112	170	81	54	65	17	0
15	0	18	62	97	109	125	161	52	52	43	23	0
16	0	13	68	101	93	142	167	79	56	29	26	0
17	0	10	54	94	109	147	132	73	56	25	27	5
18	0	10	24	93	131	132	120	80	41	27	25	5
19	0	6	25	110	129	120	150	90	34	31	25	5
20	0	10	39	95	121	113	148	82	73	31	14	7
21	0	12	51	66	111	139	135	40	66	37	12	7
22	0	14	51	65	102	150	167	23	70	26	17	7
23	0	22	40	72	84	153	160	86	51	15	13	4
24	0	10	31	66	151	150	146	105	70	19	3	3
25	2	8	22	68	129	132	125	115	76	18	3	0
26	2	10	31	70	157	122	150	111	61	18	4	0
27	4	5	23	57	146	116	150	94	56	28	8	12
28	5	5	23	45	95	147	158	85	61	27	8	9
29	0	-	14	44	116	155	156	76	64	24	31	11
30	0	-	12	49	119	164	160	85	52	22	23	7
31	0	-	8	-	124	-	115	109	-	17	-	5
TOTAL	17	439	1,407	1,728	3,635	3,831	4,858	2,908	1,740	1,240	657	336
MAXIMUM DAY	5	29	92	110	157	174	189	145	108	85	43	29
MINIMUM DAY	0	0	8	20	84	88	115	23	20	15	3	0
MEAN	1	16	45	58	117	128	157	94	58	40	22	11
TOTAL AC.FT.	33	871	2,791	3,428	7,210	7,599	9,636	5,768	3,452	2,460	1,303	667
WHOLE YEAR:-	TOTAL,	22,796	MAX.,	189	MIN.,	0	MEAN,	62	TOTAL AC.FT.,	45,218		

Year: 1993

Total Diverted to Rosedale Ranch Improvement District

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	91	73	66	37	74	51	10	14
2	0	0	0	0	85	85	62	52	72	53	13	14
3	0	0	0	0	80	77	41	54	69	53	13	14
4	0	0	0	0	72	59	48	54	61	47	18	14
5	0	0	0	0	68	54	62	52	54	46	18	14
6	0	0	0	8	72	49	65	56	50	44	17	14
7	0	0	0	8	76	48	64	41	44	42	24	15
8	0	0	0	7	81	48	53	45	40	37	24	15
9	0	0	0	0	73	49	49	41	43	44	24	15
10	0	0	0	0	68	50	40	38	41	42	21	15
11	0	0	0	0	69	50	42	40	36	37	21	10
12	0	0	0	0	64	50	47	42	36	30	22	7
13	0	0	0	0	77	55	56	40	42	25	22	7
14	0	0	0	0	79	55	55	33	36	13	22	9
15	0	0	0	13	80	66	56	40	31	7	30	10
16	0	0	0	15	77	65	48	47	16	9	33	12
17	0	0	0	35	84	67	60	45	7	15	13	11
18	0	0	0	34	87	66	70	49	12	15	19	7
19	0	0	0	33	89	68	67	34	13	22	18	5
20	0	0	0	36	92	81	71	31	17	22	14	12
21	0	0	0	29	94	84	78	34	22	18	14	7
22	0	0	0	37	88	82	78	31	33	14	14	9
23	0	0	0	50	80	81	85	31	42	6	14	10
24	0	0	0	61	75	79	57	60	35	2	14	9
25	0	0	0	66	82	83	74	87	23	7	14	10
26	0	0	0	63	79	75	72	91	21	13	19	10
27	0	0	0	69	70	83	79	94	26	16	19	8
28	0	0	0	74	74	76	85	78	17	18	19	8
29	0	-	0	85	65	76	66	73	31	13	19	8
30	0	-	0	84	70	72	52	67	36	10	14	9
31	0	-	0	-	90	-	34	71	-	10	-	10
TOTAL	0	0	0	807	2,431	2,006	1,882	1,588	1,080	781	556	332
MAXIMUM DAY	0	0	0	85	94	85	85	94	74	53	33	15
MINIMUM DAY	0	0	0	0	64	48	34	31	7	2	10	5
MEAN	0	0	0	27	78	67	61	51	36	25	19	11
TOTAL AC.FT.	0	0	0	1,600	4,822	3,979	3,733	3,150	2,142	1,549	1,103	659
WHOLE YEAR:-	TOTAL,	11,463	MAX.,	94	MIN.,	0	MEAN,	31	TOTAL AC.FT.,	22,737		

**ROSEDALE RANCH IMPROVEMENT DISTRICT
SUMMARY OF OPERATIONS**

Year: 1993

Quantities in acre-feet

	Points of Diversion				Irrigation Deliveries					Canal Loss				
	RRID @ Head	R-7	R-21	Total	NKWSD Contract	NKWSD		City		Total	NKWSD Other	City		Total
						Other	Miscellaneous	Miscellaneous	City			Miscellaneous	Non-Kern River	
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	1,267	333	0	1,600	280	0	0	0	0	280	0	1,320	0	1,320
May	4,334	488	0	4,822	1,936	0	0	0	0	1,936	0	2,886	0	2,886
Jun	3,563	416	0	3,979	2,287	0	0	0	0	2,287	0	1,692	0	1,692
Jul	3,303	430	0	3,733	2,676	0	0	0	0	2,676	0	1,057	0	1,057
Aug	2,993	157	0	3,150	2,291	0	0	0	0	2,291	0	859	0	859
Sep	2,077	65	0	2,142	1,522	0	0	0	0	1,522	0	620	0	620
Oct	1,440	109	0	1,549	820	0	0	70	890	890	0	659	0	659
Nov	1,049	54	0	1,103	0	0	0	151	151	151	0	952	0	952
Dec	659	0	0	659	0	8	0	0	8	8	124	511	16	651
Total	20,685	2,052	0	22,737	11,812	8	221	12,041	124	10,556	16	10,696	16	10,696

Year: 1993

Poso Creek Natural Flow as Measured at Highway # 99

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	-	0	0	0	0	0	0	0	0	0	0
30	0	-	0	0	0	0	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	0	0	0	0	0	0	0	0	0	0	0
	TOTAL,	0	0	0	0	0	0	0	0	0	0	0
	MEAN,	0	0	0	0	0	0	0	0	0	0	0
	TOTAL AC.FT.,	0	0	0	0	0	0	0	0	0	0	0

**NORTH KERN WATER STORAGE DISTRICT
STATUS OF EXCHANGE**

Quantities in acre-feet

Year: 1993

	CAWEL0 WD		KERN DELTA WD		SEMITROPIC WSD		SHAFTER-WASCO ID		IMPROVEMENT DISTRICT NO. 4		ROSEDALE RBWSD		ROSEDALE RANCH ID		LA HACIENDA, INC.		BUENA VISTA WSD	
	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from
January	0	0	0	0	0	0	0	0	2,871	0	0	0	0	0	0	34,253	0	4,649
February	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
March	0	0	0	0	0	0	0	3,548	0	0	0	0	0	0	9	0	0	0
April	0	1,489	0	1,489	0	0	6,121	0	1,944	0	460	0	0	0	0	0	0	1,075
May	0	708	0	708	0	0	7,817	0	4,957	0	0	0	0	0	0	0	0	877
June	0	0	0	0	0	0	504	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	5,309	0	0	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	1,152	0	0	0	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	1,797	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	736	0	0	0	0	51	0	0	0
December	0	0	0	0	0	0	0	0	568	0	0	0	0	0	45	0	0	0
Yearly Status	0	2,197	0	2,197	0	6,461	0	17,990	568	9,434	460	460	0	0	107	0	1,952	1,952
Overall Status	695	0	0	0	6,461	0	17,990	5,995	0	3,497	0	3,497	0	34,146	4,649	0	4,649	0

NKWSD/IMPROVEMENT DISTRICT #4 EXCHANGE SUMMARY

Block	Agreement	Date		NKWSD		Balance
		of	to	ID #4	to	
A	12-13-85			21,635	21,635	0
B	12-08-87			13,350	13,350	0
C	09-09-88			12,163	7,796	4,367
D	03-03-89			403	403	0
E	11-29-89			1,500	1,500	0
F	06-06-90			0	1,630	(1,630)
G	05-13-91			395	0	395
H	08-22-91			0	261	(261)
I	04-23-93			568	9,434	(8,866)
To Date Totals				50,014	56,009	(5,995)

Improvement District No. 4 Exchange Water Delivered to North Kern WSD
(Pursuant to ID4/North Kern WSD Exchange Agreement Dated April 23, 1993)

DISCHARGE IN CUBIC FEET PER SECOND

Year: 1993

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	162	0	0	0	0	0	15	0
2	0	0	0	0	192	0	0	0	0	0	17	0
3	0	0	0	0	188	0	0	0	0	0	15	0
4	0	0	0	0	179	0	0	0	0	0	15	0
5	0	0	0	0	162	0	0	0	0	0	12	0
6	0	0	0	0	173	0	0	0	0	0	14	0
7	0	0	0	0	170	0	0	0	0	0	14	0
8	0	0	0	0	198	0	0	0	0	0	15	0
9	0	0	0	0	170	0	0	0	0	0	15	0
10	0	0	0	0	163	0	0	0	0	0	17	0
11	0	0	0	0	117	0	0	0	0	0	13	0
12	0	0	0	0	22	0	0	0	0	0	14	0
13	0	0	0	0	26	0	0	0	0	0	14	0
14	0	0	0	0	30	0	0	0	0	62	15	0
15	0	0	0	0	24	0	0	0	0	56	16	0
16	0	0	0	0	28	0	0	0	0	61	16	0
17	0	0	0	0	29	0	0	0	0	66	17	0
18	0	0	0	0	30	0	0	0	0	68	16	0
19	0	0	0	0	32	0	0	0	0	68	20	0
20	0	0	0	0	32	0	0	0	0	68	23	0
21	0	0	0	0	31	0	0	0	0	68	26	0
22	0	0	0	29	34	0	0	0	0	66	24	0
23	0	0	0	75	28	0	0	0	0	66	8	0
24	0	0	0	67	28	0	0	0	0	60	0	0
25	0	0	0	77	25	0	0	0	0	56	0	0
26	0	0	0	128	26	0	0	0	0	28	0	0
27	0	0	0	124	25	0	0	0	0	21	0	0
28	0	0	0	154	42	0	0	0	0	18	0	0
29	0	-	0	157	51	0	0	0	0	26	0	0
30	0	-	0	169	38	0	0	0	0	26	0	0
31	0	-	0	-	44	-	0	0	-	22	-	0
TOTAL	0	0	0	980	2,499	0	0	0	0	906	371	0
MAXIMUM DAY	0	0	0	169	198	0	0	0	0	68	26	0
MINIMUM DAY	0	0	0	0	22	0	0	0	0	0	0	0
MEAN	0	0	0	33	81	0	0	0	0	29	12	0
TOTAL AC.FT.	0	0	0	1,944	4,957	0	0	0	0	1,797	736	0
WHOLE YEAR:--	TOTAL,	4,756	MAX.,	198	MIN.,	0	MEAN,	13	TOTAL AC.FT.,	9,434		

North Kern WSD Exchange Water Delivered to Improvement District No. 4
(Pursuant to ID4/North Kern WSD Exchange Agreement Dated April 23, 1993) Year: 1993

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	77
28	0	0	0	0	0	0	0	0	0	0	0	67
29	0	0	0	0	0	0	0	0	0	0	0	54
30	0	0	0	0	0	0	0	0	0	0	0	41
31	0	0	0	0	0	0	0	0	0	0	0	47
TOTAL	0	0	0	0	0	0	0	0	0	0	0	286
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	77
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	9
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	0	0	568
WHOLE YEAR:- TOTAL,	286	0	0	77	0	0	0	1	0	0	0	568
MAX.,	286	0	0	77	0	0	0	1	0	0	0	568
MIN.,	0	0	0	0	0	0	0	0	0	0	0	0
MEAN,	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL AC.FT.,	286	0	0	77	0	0	0	1	0	0	0	568

WATER EXCHANGE BETWEEN
NORTH KERN WSD and CITY OF BAKERSFIELD
THREE YEAR RECAPITULATION

Quantities in acre-feet

1991	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NKWSD to CITY	0	0	2,939	937	0	0	0	0	0	0	2,563	2,324	8,763
CITY to NKWSD	204	0	0	0	0	0	0	0	75	0	0	706	985
Other Purchase Rate	0	0	0	0	0	0	0	0	0	0	0	0	0
CITY Debit to NKWSD	33,495	33,495	36,434	37,371	37,371	37,371	37,371	37,371	37,296	37,296	39,859	41,477	

1992	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NKWSD to CITY	1,088	122	75	2	0	0	0	0	0	0	0	2,235	3,522
CITY to NKWSD	99	383	1,120	2,508	0	0	0	0	0	0	13	153	4,276
Other Purchase Rate	0	0	0	0	0	0	0	0	0	0	0	0	0
CITY Debit to NKWSD	42,466	42,205	41,160	38,654	38,654	38,654	38,654	38,654	38,654	38,654	38,641	40,723	

1993	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NKWSD to CITY	13,221	11,651	0	0	0	0	0	0	0	0	0	0	24,872
CITY to NKWSD	0	0	2,292	0	0	5,000	5,000	5,000	0	0	0	0	17,292
Other Purchase Rate	0	0	0	0	0	0	0	0	0	0	0	0	0
CITY Debit to NKWSD	53,944	65,595	63,303	63,303	63,303	58,303	53,303	48,303	48,303	48,303	48,303	48,303	

COST ALLOCATION AND WATERMASTER SUMMARIES

CARRIER CANAL SYSTEM - ALLOCATION
Utilization of Water - Preceding Five Years

Year: 1993

Quantities in acre-feet

	1989	1990	1991	1992	1993	Five Year	
						Total	Allocation Percentage
TOTAL CARRIER CANAL FLOW (1)	46,492	11,375	94,595	43,743	177,635	373,840	100.00%
Stine Canal Total Diverted (2)	10,913	0	6,665	0	30,925	48,503	12.98%
Buena Vista Canal Total Diverted (2)	21,844	11,350	15,070	17,861	42,919	109,044	29.17%
River Canal Total Diverted	63	0	555	1,827	2,128	4,573	1.22%
KERN DELTA WATER DISTRICT TOTAL DIVERTED FROM CARRIER CANAL	32,820	11,350	22,290	19,688	75,972	162,120	43.37%
KERN RIVER CONDUIT (City of Bakersfield)	13,672	25	72,305	24,055	101,663	211,720	56.63%

Notes: (1) Sum of Carrier Canal flow at Oak Street and River Canal inflow.
(2) Sum of headgate diversion and pro-rated share of Carrier Canal loss.

CALLOWAY AND BEARDSLEY CANALS

Allocation of Joint Accounts

1993

Quantities in acre-feet

BEARDSLEY CANAL USED

Preceding Five Years

Year	Diverted via Beardsley Canal						
	North Kern Water Storage District			CITY	Subtotal	CWD/Other	TOTAL
	NKWSD	RRID	TOTAL				
1989	70,197	0	70,197	16,892	87,089	81,783	168,872
1990	57,127	0	57,127	15,470	72,597	60,557	133,154
1991	34,997	0	34,997	16,446	51,443	40,264	91,707
1992	51,067	0	51,067	14,896	65,963	42,674	108,637
1993	144,312	8,943	153,255	23,920	177,175	73,033	250,208
Total	357,700	8,943	366,643	87,624	454,267	298,311	752,578
Percent	78.74%	1.97%	80.71%	19.29%	100.00%		

CALLOWAY CANAL USED

Preceding Ten Years

Year	Diverted via Calloway Canal				
	NKWSD	CITY	Subtotal	ID4	TOTAL
1984	10,478	4,607	15,085	16,534	31,619
1985	9,550	4	9,554	27,827	37,381
1986	110,443	33,807	144,250	63,711	207,961
1987	1,900	0	1,900	27,183	29,083
1988	0	0	0	26,406	26,406
1989	0	0	0	17,669	17,669
1990	0	0	0	3,317	3,317
1991	0	0	0	14,857	14,857
1992	0	0	0	10,095	10,095
1993	27,341	14,356	41,697	38,873	80,570
Total	159,712	52,774	212,486	246,472	458,958
Percent	75.16%	24.84%	100.00%		

IMPROVEMENT DISTRICT NO. 4 USE OF CALLOWAY CANAL

Pursuant to Calloway Canal Agreement dated April 28, 1982

Year: 1993

Quantities in acre-feet
except where noted...

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Operating Loss	82	277	276	198	325	169	246	259	236	196	12	22	2,298
Treatment Plant	67	1,107	1,594	1,553	3,090	2,190	3,528	3,559	3,521	2,984	160	59	23,412
Reverse Flow via Pump Plant #7	0	0	0	0	0	0	0	0	0	0	0	0	0
T.O. #4 to River	0	0	0	0	0	0	0	0	0	0	0	0	0
Loss to Standard Weir	173	0	1,297	328	472	38	0	167	278	244	170	0	3,167
Western Reach Flow	0	0	2,737	3,134	4,395	41	0	1,126	859	3,175	1,813	0	17,280
Trans. Charge Waived	0	0	0	1,379	3,372	0	0	0	0	1,797	736	0	7,284
EC SUB-TOTAL DIVERSION	322	1,384	5,904	3,834	4,910	2,438	3,774	5,111	4,894	4,802	1,419	81	39,873
Base Rate	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	
Escalator	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	
Current Rate	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	
EC SUB-TOTAL CHARGE	\$286.58	\$1,231.76	\$5,254.56	\$3,412.26	\$4,399.90	\$2,169.82	\$3,358.86	\$4,548.79	\$4,355.66	\$4,273.78	\$1,262.91	\$72.09	\$34,596.97
W R S E T A E C R H N	0	0	0	0	0	0	0	0	0	0	0	0	0
Bartell Spreading	0	0	0	0	0	0	0	0	0	0	0	0	0
Loss Below Standard Weir	0	0	2,737	1,755	1,023	41	0	1,126	859	1,378	1,077	0	9,999
Other (ID4/NKWSD Exchange)	0	0	0	1,379	3,372	0	0	0	0	1,797	736	0	7,284
Trans. Charge Waived	0	0	2,737	3,134	4,395	41	0	1,126	859	3,175	1,813	0	17,280
EC SUB-TOTAL DIVERSION	0	0	0	0	0	0	0	0	0	0	0	0	0
Current Rate	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	\$0.89	
EC SUB-TOTAL CHARGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL CHARGE	\$286.58	\$1,231.76	\$5,254.56	\$3,412.26	\$4,399.90	\$2,169.82	\$3,358.86	\$4,548.79	\$4,355.66	\$4,273.78	\$1,262.91	\$72.09	\$34,596.97

HYDROGRAPHIC SUMMARY
UTILIZATION OF WATER - FIRST POINT GROUP - PRECEDING FIVE YEARS

Year: 1993

Quantities in acre-feet

Canal	1989					1990					1991					1992					1993					Five Year Total		Percentage																	
Kern Island	145,657	114,497	115,718	116,586	135,092	17,285	12,012	11,700	15,327	19,528	13,805	2,354	10,229	10,882	25,922	10,892	0	6,884	3,740	26,952	7,171	34	7,248	3,407	17,789	627,550	75,852	63,192	48,468	35,649	39.53%	4.78%	3.98%	3.05%	2.25%	53.59%									
Eastside																																													
Buena Vista																																													
Stine																																													
Farmers																																													
Subtotal Kern Delta WD	194,810	128,897	151,779	149,942	225,283																					850,711																			
City of Bakersfield	32,390	16,829	50,090	28,150	122,553	12,780	11,166	10,181	8,963	10,593	17,669	3,317	14,857	10,095	38,418	0	0	0	0	1,886	0	0	0	0	0	250,012	53,683	84,356	1,886	0	15.75%	3.38%	5.31%	0.12%	0.00%	24.56%									
K.R.C. & I. Co. (Beardsley)																																													
Central - I.D. #4 (Calloway)																																													
James																																													
Pioneer																																													
Subtotal City of Bakersfield	62,839	31,312	75,128	47,208	173,450																					389,937																			
North Kern WSD	59,688	42,733	27,984	42,080	174,338																					346,823															21.85%				
Total First Point Group	317,337	202,942	254,891	239,230	573,071																					1,587,471															100.00%				
South Fork	1,133	672	488	727	961																																								
First Point passing 2nd Point	0	0	0	0	0	23,234	15,887	23,499	18,376	42,648	934	904	1,092	2,084	2,582																														
River Loss and Spreading																																													
Flow Above First Point																																													
Total 1st Point Group Diverted	342,638	220,405	279,970	260,417	619,262																																								

- Note:

ALL FIGURES REFLECT
GROSS DIVERSIONS...

**KERN COUNTY RECREATION POOL REPORT
FROM THE KERN RIVER WATERMASTER**

Quantities in acre-feet
except where noted...

Year: 1993

	Total Storage in Reservoir	Total Water Surface Area (Acres)	Area Attributable to Rec. Pool (Acres)	Total Reservoir Loss	County of Kern	
					Ming Lake Net Inflow	Recreation Pool Loss
End of Previous Year	82,262	3,657	1,025			
January	98,413	4,150	945	970	16	236
February	111,418	4,522	890	1,081	16	236
March	151,708	5,559	755	1,365	44	236
April	237,142	7,324	565	2,888	60	288
May	369,206	9,304	395	5,185	77	286
June	416,883	9,879	355	7,057	105	274
July	376,123	9,391	390	9,080	127	333
August	311,773	8,526	450	8,063	121	377
September	270,313	7,890	510	5,808	91	343
October	245,951	7,480	550	3,652	65	258
November	243,862	7,443	550	2,291	42	177
December	242,525	7,419	555	1,139	26	77
ISABELLA RESERVOIR RECREATION POOL:				TOTALS	790	3,121

15,125 S.F.D.

30,000 ACRE-FEET

NOTE: Storage & Area quantities reflect last day of month

REPORT OF THE KERN RIVER WATERMASTER

SUMMARY OF KERN RIVER RUNOFF

Quantities in acre-feet

Year: 1993

	CALENDAR YEAR				WATER YEAR					
	FIRST POINT		ENTITLEMENT		FIRST POINT		ENTITLEMENT			
	REGULATED	NATURAL	NKWSD	BVWSD	HWD	REGULATED	NATURAL	NKWSD	BVWSD	HWD
JANUARY	22,062	39,221	38,731	490	0	7,789	9,414	9,414	0	0
To Date	22,062	39,221	38,731	490	0	7,789	9,414	9,414	0	0
FEBRUARY	25,426	39,564	39,564	0	0	10,383	11,054	11,054	0	0
	47,488	78,785	78,295	490	0	18,172	20,468	20,468	0	0
MARCH	52,479	94,231	69,961	24,270	0	13,880	14,577	14,577	0	0
	99,967	173,018	148,256	24,760	0	32,052	35,045	35,045	0	0
APRIL	45,489	133,993	95,944	38,049	0	22,062	39,221	38,731	490	0
	145,456	307,009	244,200	62,809	0	54,114	74,266	73,776	490	0
MAY	63,322	200,864	136,243	64,621	0	25,426	39,564	39,564	0	0
	208,778	507,873	380,443	127,430	0	79,540	113,830	113,340	490	0
JUNE	107,357	162,420	113,254	49,166	0	52,479	94,231	69,961	24,270	0
	316,135	670,293	493,697	176,596	0	132,019	208,061	183,301	24,760	0
JULY	118,677	87,414	65,362	22,052	0	45,489	133,993	95,944	38,049	0
	434,812	757,707	559,059	198,648	0	177,508	342,054	279,245	62,809	0
AUGUST	88,671	32,763	28,211	4,552	0	63,322	200,864	136,243	64,621	0
	523,483	790,470	587,270	203,200	0	240,830	542,918	415,488	127,430	0
SEPTEMBER	51,846	16,506	16,506	0	0	107,357	162,420	113,254	49,166	0
	575,329	806,976	603,776	203,200	0	348,187	705,338	528,742	176,596	0
OCTOBER	34,725	14,223	14,223	0	0	118,677	87,414	65,362	22,052	0
	610,054	821,199	617,999	203,200	0	466,864	792,752	594,104	198,648	0
NOVEMBER	14,021	14,398	14,398	0	0	88,671	32,763	28,211	4,552	0
	624,075	835,597	632,397	203,200	0	555,535	825,515	622,315	203,200	0
DECEMBER	18,264	18,163	18,163	0	0	51,846	16,506	16,506	0	0
Year	642,339	853,760	650,560	203,200	0	607,381	842,021	638,821	203,200	0

1894 to 1993 Mean April-July Runoff = 465,515 acre-feet (100% of Average)
 1993 April-July Runoff = 584,691 acre-feet (126% of Average)

1894 to 1993 Mean March-October Runoff = 596,597 acre-feet (100% of Average)
 1993 March-October Runoff = 742,414 acre-feet (124% of Average)

REPORT OF THE KERN RIVER WATERMASTER

JANUARY 1993

Quantities in S.F.D. except where noted

PAGE 1 of 5

DAY	ELEVATION (FEET)	ISABELLA MIDNIGHT STORAGE	RESERVOIR STORAGE	S.F.D. LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	STORAGE + LOSS + FLOW ABOVE 1ST POINT	CHANGE IN		MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (30,164 ACFT)	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT - KERN INFLOW	DAY										
								FLOW ABOVE 1ST POINT	COMPUTED NATURAL FLOW																
Previous Day	2542.11	82,226	41,474	10	263	1	274	274	41,474	26,256	3	0	0	0	1										
1	2542.10	82,226	41,456	8	267	1	258	290	41,488	26,270	2	0	0	0	2										
2	2542.10	82,226	41,456	15	337	1	353	314	41,449	26,231	4	0	0	0	3										
3	2542.11	82,262	41,474	15	296	1	330	307	41,444	26,226	4	0	0	0	4										
4	2542.10	82,226	41,456	9	247	0	236	271	41,459	26,241	3	0	0	0	4										
5	2542.08	82,153	41,419	17	267	0	247	275	41,450	26,232	5	0	0	0	5										
6	2542.09	82,189	41,437	0	322	1	341	310	41,437	26,219	0	0	0	0	6										
7	2542.64	84,217	42,459	19	430	1	1,472	1,472	42,459	27,241	5	0	0	0	7										
8	2543.58	87,764	44,248	10	479	0	2,278	2,278	44,248	29,030	3	0	0	0	8										
9	2543.89	86,957	44,949	14	413	0	1,028	1,028	44,949	29,631	4	0	0	0	9										
10	2544.02	89,460	45,103	17	384	1	656	619	45,068	29,648	4	0	0	0	10										
11	2544.11	89,810	45,279	9	359	1	545	573	45,270	30,052	2	0	0	0	11										
12	2544.19	90,122	45,437	17	344	0	519	549	45,458	30,240	4	0	0	0	12										
13	2544.29	90,512	45,633	3	384	0	583	617	45,688	30,470	1	0	0	0	13										
14	2544.47	91,219	45,990	11	381	1	750	687	45,982	30,764	3	0	0	0	14										
15	2544.64	91,889	46,327	21	370	1	729	702	46,292	31,074	5	0	0	0	15										
16	2544.77	92,404	46,587	2	364	0	626	671	46,597	31,379	0	0	0	0	16										
17	2544.91	92,962	46,968	2	374	0	657	647	46,888	31,650	0	0	0	0	17										
18	2545.16	93,982	47,373	12	407	1	925	925	47,373	32,155	3	0	0	0	18										
19	2545.31	94,566	47,677	16	386	0	706	654	47,825	32,407	4	0	0	0	19										
20	2545.38	94,849	47,820	27	378	1	549	642	47,861	32,643	6	0	0	0	20										
21	2545.52	95,416	48,106	17	368	1	672	626	48,101	32,883	4	0	0	0	21										
22	2545.65	95,945	48,372	25	367	0	658	689	48,378	33,160	6	0	0	0	22										
23	2545.79	96,517	48,661	22	366	1	678	641	48,630	33,412	5	0	0	0	23										
24	2545.89	96,927	48,967	22	360	0	588	606	48,854	33,636	6	0	0	0	24										
25	2545.97	97,258	49,033	26	358	1	551	545	48,014	33,798	6	0	0	0	25										
26	2546.03	97,503	49,158	22	347	1	495	514	49,158	33,940	5	0	0	0	26										
27	2546.09	97,750	49,282	16	352	1	495	491	49,278	34,090	4	0	0	0	27										
28	2546.14	97,957	49,387	22	355	1	483	488	49,388	34,170	5	0	0	0	28										
29	2546.19	98,164	49,491	29	354	0	487	470	49,475	34,257	7	0	0	0	29										
30	2546.22	98,289	49,554	22	354	1	440	456	49,554	34,336	5	0	0	0	30										
31	2546.25	98,413	49,617	20	353	1	437	437	49,617	34,399	5	0	0	0	31										
TOTAL SECOND FOOT DAYS													11,123	19	19,774	19,774	49,617	34,399	119	0	0	0	0	0	0
TOTAL ACRE-FEET													22,062	37	39,221	39,221	96,413	66,229	236	0	0	0	0	0	0

By: *[Signature]* Date: FEBRUARY 10, 1993

WATERMASTER NOTES *** KERN RIVER BULLETIN

MONTH DAY(S) TITLE OF COLUMN

PAGE NO.

COMMENT

January

None

SNOW SURVEY DATA FOR KERN RIVER BASIN

Date: February 1, 1983

SNOW COURSE	SNOW SENSOR	CALIF. NUMBER	ELEV. IN FEET	APRIL 1ST AVERAGE WATER CONTENT	DATE MEASURED	SNOW DEPTH IN INCHES	DENSITY (%)	WATER CONTENT IN INCHES	% OF APRIL 1ST AVERAGE	MEASURED BY
Bighorn Plateau	Upper Tyndall Creek	516	11,450	27.7	1-26	83.0	31%	26.1	94%	DWR
		250	11,350	21.9	1-26	62.9	31%	19.7	90%	DWR
		251	11,050	13.4	1-22	44.1	31%	13.5	101%	DWR
		252	10,900	18.3	1-23	62.5	29%	17.9	98%	DWR
Siberian Pass	Crabtree Meadow	253	10,700	18.8	1-27	59.5	30%	17.9	95%	DWR
		253	10,700	19.8						
Guyot Flat	Tyndall Creek	254	10,650	20.0	1-24	70.7	30%	21.2	106%	DWR
		255	10,650	18.3	1-25	61.6	29%	17.9	98%	DWR
		275	10,650	18.3	1-26	62.8	30%	18.8	103%	DWR
Sandy Meadow	Chagoopa Plateau	514	10,300	21.8	1-28	67.0	29%	19.6	90%	DWR
		257	9,750	16.6	1-23	61.1	29%	17.6	106%	DWR
Big Whitney Meadow	Pascoe	256	9,600	17.2	1-29	66.1	33%	21.5	125%	DWR
		569	9,130	24.9	1-27	83.5	32%	26.7	107%	USFS
Rock Creek	Tunnel Guard	258	9,000	24.9	1-27	76.7	36%	27.6	111%	USFS
		830	8,960	15.6	1-30	53.3	31%	16.4	105%	DWR
Round Meadow	Wet Meadow	518	8,950	30.3						
		259	8,700	11.3	1-30	48.5	29%	14.2	126%	DWR
Ramshaw Meadow	Little Whitney Mea.	260	8,500	13.5	1-30	60.1	31%	18.7	139%	DWR
262		8,400	19.6	1-28	67.4	33%	22.0	112%	USFS	
Casa Vieja Meadow	Casa Vieja Meadows	262	8,400	20.9	1-28	67.0	31%	20.5	98%	USFS
264		8,350	19.4							
Quinn Ranger Sta.	Bonita Meadows	261	8,300	13.8	1-27	56.5	33%	18.5	134%	USFS
265		7,650	8.9	1-28	40.1	32%	13.0	146%	USFS	
Beach Meadows	Beach Meadows	265	7,650	11.0	1-28	43.6	33%	14.3	130%	USFS

CALIFORNIA COOPERATIVE SNOW SURVEYS FORECAST as of FEBRUARY 1, 1993 for KERN RIVER INFLOW TO ISABELLA RESERVOIR...

April-July = 470,000 acre-feet (102% of Average) *** Water Year = 685,000 acre-feet (96% of Average)

80 Percent Probability Range (Actual runoff should fall within the stated limits eight times out of ten)...

April-July = 290,000 AcFt (63% of Average) to 820,000 AcFt (178% of Average)*** Water Year = 440,000 AcFt (61% of Average) to 1,150,000 AcFt (161% of Average)

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR STORAGE		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN STORAGE+LOSS +1ST POINT +FLOW ABOVE	COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (30,184 ACFT)	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT-KERN INFLOW	DAY
		ACRE-FEET	S.F.D.	ACRE-FEET	S.F.D.											
Previous Day	2548.25	98,413	49,617	20	353	437	437	437	49,617	34,398	5	0	0	0	0	1
1	2548.28	98,537	49,679	17	343	422	0	422	49,682	34,484	4	0	0	0	0	2
2	2548.31	98,662	49,742	22	345	431	1	431	48,734	34,516	5	0	0	0	0	3
3	2548.33	98,745	49,784	21	342	406	1	406	48,788	34,570	5	0	0	0	0	4
4	2548.35	98,828	49,826	30	343	416	1	416	48,815	34,597	7	0	0	0	0	5
5	2548.38	98,870	49,847	20	339	381	1	381	48,872	34,654	5	0	0	0	0	6
6	2548.40	99,037	49,931	24	344	453	1	453	48,948	34,731	5	0	0	0	0	7
7	2548.46	99,287	50,057	28	351	508	1	508	50,131	34,913	6	0	0	0	0	8
8	2548.61	99,915	50,374	28	384	728	1	728	50,425	35,207	6	0	0	0	0	9
9	2548.81	100,758	50,798	10	448	881	1	881	50,776	35,558	2	0	0	0	0	10
10	2548.97	101,433	51,139	16	458	816	1	816	51,090	35,872	4	0	0	0	0	11
11	2547.06	101,814	51,331	20	457	670	1	670	51,317	36,099	4	0	0	0	0	12
12	2547.14	102,155	51,503	15	440	628	1	628	51,476	36,258	3	0	0	0	0	13
13	2547.18	102,325	51,589	20	439	546	1	546	51,589	36,371	4	0	0	0	0	14
14	2547.22	102,496	51,675	18	439	544	1	544	51,671	36,453	4	0	0	0	0	15
15	2547.25	102,624	51,740	23	442	531	1	531	51,730	36,512	5	0	0	0	0	16
16	2547.27	102,709	51,782	21	437	501	1	501	51,801	36,583	5	0	0	0	0	17
17	2547.31	102,880	51,869	26	444	558	1	558	51,894	36,678	6	0	0	0	0	18
18	2547.38	103,180	52,020	25	455	632	1	632	52,042	36,824	5	0	0	0	0	19
19	2547.47	103,587	52,215	29	473	688	1	688	52,305	37,087	8	0	0	0	0	20
20	2547.68	104,473	52,672	4	505	967	1	967	52,816	37,398	1	0	0	0	0	21
21	2547.80	104,992	52,933	18	517	797	1	797	52,928	37,708	4	0	0	0	0	22
22	2547.81	105,471	53,175	23	507	773	1	773	53,414	38,196	5	0	0	0	0	23
23	2548.24	106,915	53,903	13	746	1,468	1	1,468	53,874	38,656	3	0	0	0	60	24
24	2548.56	108,327	54,815	16	669	1,398	1	1,398	54,491	39,273	3	0	0	0	175	25
25	2548.76	109,216	55,063	13	582	1,024	1	1,024	55,061	39,843	3	0	0	0	175	26
26	2548.97	110,156	55,537	11	531	1,017	1	1,017	55,515	40,297	2	0	0	0	175	27
27	2549.15	110,968	55,945	19	522	950	1	950	55,945	40,727	4	0	0	0	228	28
28	2549.25	111,418	56,173	17	539	785	1	785	56,173	40,955	3	0	0	0	1,008	
TOTAL SECOND FOOT DAYS				545	12,819	19,947	27	19,947	56,173	40,955	119	0	0	0	2,000	
TOTAL ACRE-FEET				1,081	25,428	39,584	54	39,584	111,418	81,234	236	0	0	0		

By:  Date: MARCH 16, 1993

DAY	NORTH KERN WATER STORAGE DISTRICT										BUENA VISTA WATER STORAGE DISTRICT										HACENDA WATER DISTRICT									
	KERN VALLEY					HACENDA					KERN VALLEY					HACENDA					KERN VALLEY					HACENDA				
	ENTL AT 1ST POINT	FLOW AT 1ST POINT	LAKE MING	OLCESE LAKE	HACENDA INC.	VALLEY GOLF COURSE	RESEVOIR LOSS	STORAGE	ENTL AT 1ST POINT	FLOW VIA AT 2ND POINT	CARMEL WATER	OLCESE 2600 ACRES	WELL EXCH.	RESEVOIR LOSS	STORAGE	ENTLMENT Contributed by:	OLCESE HACENDA	INC.	FLOW ABOVE FIRST POINT	LA	RESEVOIR LOSS	STORAGE	ENTLMENT Contributed by:	OLCESE HACENDA	INC.	FLOW ABOVE FIRST POINT	LA	RESEVOIR LOSS	STORAGE	
Previous Day	437	353	0	1	0	0	18	32,385	0	0	0	0	0	2	2,014		0	0	0	0	2	2,014		0	0	0	0	0	0	0
1	425	343	0	0	0	15	32,452	0	0	0	0	0	0	2	2,012		0	0	0	0	2	2,012		0	0	0	0	0	0	1
2	420	345	0	1	0	20	32,506	0	0	0	0	0	0	2	2,010		0	0	0	0	2	2,010		0	0	0	0	0	0	2
3	418	342	0	0	1	18	32,562	0	0	0	0	0	0	2	2,008		0	0	0	0	2	2,008		0	0	0	0	0	0	3
4	401	343	1	0	0	27	32,582	0	0	0	0	0	0	3	2,005		0	0	0	0	3	2,005		0	0	0	0	0	0	4
5	417	339	0	1	0	18	32,651	0	0	0	0	0	0	2	2,003		0	0	0	0	2	2,003		0	0	0	0	0	0	5
6	448	344	0	0	1	22	32,790	0	0	0	0	0	0	2	2,001		0	0	0	0	2	2,001		0	0	0	0	0	0	6
7	562	351	0	1	0	25	32,915	0	0	0	0	0	0	3	1,988		0	0	0	0	3	1,988		0	0	0	0	0	0	7
8	705	384	1	0	0	23	33,212	0	0	0	0	0	0	3	1,995		0	0	0	0	3	1,995		0	0	0	0	0	0	8
9	808	446	0	1	0	9	33,564	0	0	0	0	0	0	1	1,984		0	0	0	0	1	1,984		0	0	0	0	0	0	9
10	789	456	0	0	1	14	33,880	0	0	0	0	0	0	2	1,982		0	0	0	0	2	1,982		0	0	0	0	0	0	10
11	705	457	1	0	0	18	34,109	0	0	0	0	0	0	2	1,990		0	0	0	0	2	1,990		0	0	0	0	0	0	11
12	615	440	0	1	0	14	34,269	0	0	0	0	0	0	1	1,989		0	0	0	0	1	1,989		0	0	0	0	0	0	12
13	573	439	0	1	0	18	34,384	0	0	0	0	0	0	2	1,987		0	0	0	0	2	1,987		0	0	0	0	0	0	13
14	540	439	1	0	0	16	34,488	0	0	0	0	0	0	2	1,985		0	0	0	0	2	1,985		0	0	0	0	0	0	14
15	525	442	0	0	0	1	34,529	0	0	0	0	0	0	2	1,983		0	0	0	0	2	1,983		0	0	0	0	0	0	15
16	530	437	0	1	0	19	34,602	0	0	0	0	0	0	2	1,981		0	0	0	0	2	1,981		0	0	0	0	0	0	16
17	564	444	1	0	0	23	34,698	0	0	0	0	0	0	3	1,978		0	0	0	0	3	1,978		0	0	0	0	0	0	17
18	629	455	0	1	0	23	34,648	0	0	0	0	0	0	2	1,976		0	0	0	0	2	1,976		0	0	0	0	0	0	18
19	768	468	0	0	1	26	35,119	0	0	0	0	0	0	3	1,968		0	0	0	0	3	1,968		0	0	0	0	0	0	19
20	821	502	1	0	0	4	35,433	0	0	0	0	0	0	0	1,965		0	0	0	0	0	1,965		0	0	0	0	0	0	20
21	848	512	0	1	0	16	35,750	0	0	0	0	0	0	2	1,958		0	0	0	0	2	1,958		0	0	0	0	0	0	21
22	1,019	497	0	1	0	21	36,250	0	0	0	0	0	0	2	1,946		0	0	0	0	2	1,946		0	0	0	0	0	0	22
23	1,220	735	1	0	0	12	36,722	0	0	0	0	0	0	1	1,934		0	0	0	0	1	1,934		0	0	0	0	0	0	23
24	1,303	659	0	1	0	15	37,350	0	0	0	0	0	0	1	1,923		0	0	0	0	1	1,923		0	0	0	0	0	0	24
25	1,148	551	0	1	0	12	37,932	0	0	0	0	0	0	1	1,911		0	0	0	0	1	1,911		0	0	0	0	0	0	25
26	897	519	1	0	0	10	38,399	0	0	0	0	0	0	1	1,898		0	0	0	0	1	1,898		0	0	0	0	0	0	26
27	972	510	0	1	0	17	38,843	0	0	0	0	0	0	2	1,884		0	0	0	0	2	1,884		0	0	0	0	0	0	27
28	785	526	0	0	1	16	39,085	0	0	0	0	0	0	1	1,870		0	0	0	0	1	1,870		0	0	0	0	0	0	28
S.F.D.	19,847	12,727	8	13	5	1	493	39,085	0	92	0	0	0	52	1,870		0	0	0	0	52	1,870		0	0	0	0	0	0	S.F.D.
AC.F.T.	39,564	25,244	16	27	9	2	975	77,525	0	182	0	0	0	103	3,709		0	0	0	0	103	3,709		0	0	0	0	0	0	AC.F.T.
TOTAL ACRE - FOOT STORAGE DAYS										TOTAL ACRE - FOOT STORAGE DAYS										TOTAL ACRE - FOOT STORAGE DAYS										
1,985,578										109,376										0										

MONTH DAY(S) PAGE NO. TITLE OF COLUMN

February 23 1 FRIANT-KERN INFLOW

WATERMASTER NOTES *** KERN RIVER BULLETIN

COMMENT

Friant-Kern Inflow to Kern River channel as per terms of Kern-Tulare Water District/Rag Gulch Water District/ City of Bakersfield/Improvement District No. 4 Exchange Agreement dated February 22, 1983.

1983 SNOW SURVEY DATA FOR KERN RIVER BASIN

SNOW COURSE	SNOW SENSOR	CALIF. NUMBER	ELEV. IN FEET	APRIL 1ST AVERAGE WATER CONTENT	DATE MEASURED	SNOW DEPTH IN INCHES	DENSITY (%)	WATER CONTENT IN INCHES	% OF APRIL 1ST AVERAGE	MEASURED BY
Bighorn Plateau	Upper Tyndall Creek	516	11,450	27.7	1-26	83.0	31%	26.1	94%	DWR
		250	11,350	21.9	1-26	62.9	31%	19.7	90%	DWR
Cottonwood Pass		251	11,050	13.4	3-02	96.4	32%	31.1	142%	DWR
		252	10,900	18.3	3-05	60.5	34%	20.5	153%	DWR
Siberian Pass		253	10,700	18.8	1-23	62.5	29%	17.9	98%	DWR
		254	10,650	19.8	3-01	91.9	29%	26.4	144%	DWR
Crabtree Meadow		255	10,650	18.3	1-27	59.5	30%	17.9	95%	DWR
		256	10,650	20.0	2-28	88.0	31%	27.1	144%	DWR
Guyot Flat	Crabtree Meadow	257	10,300	21.8	1-24	70.7	30%	21.2	106%	DWR
		258	9,750	16.6	3-01	97.1	31%	30.0	150%	DWR
Tyndall Creek		259	10,650	18.3	3-01	61.6	29%	17.9	98%	DWR
		275	10,650	18.3	1-25	92.8	30%	27.6	151%	DWR
Sandy Meadow		514	10,300	21.8	3-02	62.8	30%	18.8	103%	DWR
		257	9,750	16.6	1-26	90.4	30%	27.4	150%	DWR
Big Whitney Meadow	Chagooopa Plateau	256	9,600	17.2	3-02	61.1	29%	19.6	90%	DWR
		256	9,600	17.2	1-28	67.0	29%	17.6	106%	DWR
Rock Creek		569	9,130	24.9	2-27	87.9	31%	26.9	162%	DWR
		258	9,000	24.9	1-29	66.1	33%	21.5	125%	DWR
Round Meadow	Pascoe	518	8,950	30.3	3-01	99.3	30%	29.3	170%	USFS
		259	8,700	11.3	1-27	83.5	32%	26.7	107%	USFS
Ramshaw Meadow	Tunnel Guard	830	8,960	15.6	1-27	76.7	36%	27.6	111%	USFS
		518	8,950	30.3	3-02	113.4	35%	39.6	159%	USFS
Little Whitney Mea.	Wet Meadow	260	8,500	13.5	1-30	53.3	31%	16.4	105%	DWR
		262	8,400	19.6	2-27	88.5	27%	23.8	153%	DWR
Casa Vieja Meadow		262	8,400	19.6	2-25	124.0	27%	33.2	110%	SKNP
		262	8,400	19.6	1-30	48.5	29%	14.2	126%	DWR
Quinn Ranger Sta.	Casa Vieja Meadows	262	8,400	20.9	2-25	76.8	27%	20.9	185%	DWR
		264	8,350	19.4	1-30	60.1	31%	18.7	139%	DWR
Bonita Meadows		261	8,300	13.8	2-26	98.2	27%	26.3	195%	DWR
		265	7,650	8.9	1-28	67.4	33%	22.0	112%	USFS
Beach Meadows	Beach Meadows	265	7,650	8.9	3-01	98.7	33%	32.9	168%	USFS
		265	7,650	11.0	1-28	43.6	33%	13.0	146%	USFS

CALIFORNIA COOPERATIVE SNOW SURVEYS FORECAST as of MARCH 1, 1983 for KERN RIVER INFLOW TO ISABELLA RESERVOIR...

April-July = 600,000 acre-feet (130% of Average) *** Water Year = 820,000 acre-feet (115% of Average)

80 Percent Probability Range (Actual runoff should fall within the stated limits eight times out of ten)...

April-July = 470,000 AcFt (102% of Average) to 820,000 AcFt (178% of Average)*** Water Year = 670,000 AcFt (94% of Average) to 1,080,000 AcFt (151% of Average)

REPORT OF THE KERN RIVER WATERMASTER

MARCH 1993

Quantities in S.F.D. except where noted

DAY	ISABELLA		RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN		COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (90,184 ACFT)	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT- KERN INFLOW	DAY
	ELEVATION (FEET)	ACRE-FOOT	MIDNIGHT STORAGE	S.F.D.				STORAGE+LOSS +1ST POINT	+FLOW ABOVE 1ST POINT							
Previous Day	2549.25	111,418	56,173	17	539	1	785		785	785	56,173	40,955	3	0	228	
1	2549.31	111,688	58,309	15	598	2	751		751	739	56,297	41,079	3	0	74	1
2	2549.38	112,008	56,470	19	533	1	714		714	761	56,505	41,287	4	11	100	2
3	2549.46	112,370	56,653	21	611	2	817		817	782	56,663	41,445	4	0	100	3
4	2549.54	112,738	56,836	12	649	1	845		845	857	56,858	41,640	2	0	100	4
5	2549.64	113,190	57,087	23	654	1	909		909	894	57,074	41,856	4	0	100	5
6	2549.74	113,649	57,298	23	673	2	929		929	868	57,344	42,126	4	0	30	6
7	2549.85	114,153	57,552	20	782	1	1,067		1,067	1,045	57,576	42,358	4	16	0	7
8	2549.97	114,708	57,831	14	846	1	1,140		1,140	1,117	57,832	42,614	3	31	0	8
9	2550.06	115,121	58,040	20	913	1	1,143		1,143	1,144	58,042	42,824	4	30	0	9
10	2550.09	115,280	58,110	31	1,047	2	1,150		1,150	1,178	58,140	42,922	6	30	0	10
11	2550.15	115,538	58,250	20	1,079	2	1,241		1,241	1,197	58,236	43,018	4	30	0	11
12	2550.25	116,003	58,485	17	946	1	1,199		1,199	1,233	58,505	43,287	3	30	0	12
13	2550.36	116,514	58,743	32	967	1	1,258		1,258	1,239	58,744	43,526	6	30	0	13
14	2550.51	117,215	59,096	13	891	2	1,259		1,259	1,323	59,161	43,943	2	30	0	14
15	2550.73	118,249	59,617	30	900	2	1,453		1,453	1,411	59,640	44,422	6	32	0	15
16	2550.86	119,430	60,213	27	886	1	1,520		1,520	1,519	60,235	45,017	5	39	0	16
17	2551.23	120,619	60,812	15	969	1	1,584		1,584	1,761	61,011	45,793	3	48	0	17
18	2551.71	122,925	61,975	27	968	2	2,180		2,180	1,915	61,909	46,691	5	32	0	18
19	2552.11	124,869	62,955	21	877	2	1,980		1,980	2,004	62,913	47,695	4	22	0	19
20	2552.46	126,588	63,821	19	967	1	1,853		1,853	1,914	63,940	48,622	3	28	0	20
21	2552.83	128,421	64,746	24	958	1	1,908		1,908	1,891	64,748	49,530	4	28	0	21
22	2553.19	130,222	65,654	30	972	2	1,912		1,912	1,940	65,684	50,466	5	38	0	22
23	2553.57	132,141	66,621	34	998	2	1,998		1,998	1,978	66,630	51,412	5	34	49	23
24	2553.94	134,029	67,573	26	1,044	2	2,024		2,024	2,079	67,637	52,419	4	35	100	24
25	2554.38	136,296	68,716	10	1,059	2	2,214		2,214	2,298	68,864	53,846	2	35	100	25
26	2554.84	139,743	70,454	18	897	2	2,655		2,655	2,420	70,367	55,149	3	35	100	26
27	2555.69	142,875	72,033	23	788	2	2,392		2,392	2,388	71,922	56,704	3	38	100	27
28	2556.11	145,458	73,334	21	734	2	2,056		2,056	2,098	73,264	58,046	3	49	100	28
29	2556.52	147,684	74,457	22	702	1	1,948		1,948	1,888	74,427	59,209	3	132	100	29
30	2556.89	149,715	75,481	25	708	2	1,759		1,759	1,789	75,481	60,263	3	122	100	30
31	2557.25	151,708	76,486	36	704	2	1,747		1,747	1,747	76,486	61,268	5	75	100	31
TOTAL				688	26,458	49	47,508		47,508	47,508	76,486	61,268	119	1,058	1,353	
TOTAL ACRE-FOOT				1,365	52,479	97	94,231		94,231	94,231	151,708	121,524	236	2,088	2,683	

BY: *gal* Date: APRIL 20, 1993

REPORT OF THE KERN RIVER WATERMASTER

MARCH 1993

WATERMASTER NOTES *** KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
March	1-6	1	FRIANT-KERN INFLOW	Friant-Kern inflow to Kern River channel as per terms of Kern-Tulare Water District/Rag Gulch Water District/City of Bakersfield/Improvement District No. 4 Exchange Agreement dated February 22, 1993. (1,000 acre-feet for March 1993)
March	29-31	1	FRIANT-KERN INFLOW	Friant-Kern inflow to Kern River channel as per terms of Tulare Irrigation District/Improvement District No. 4 Exchange Agreement dated March 18, 1993. (1,693 acre-feet for March 1993)
March	31	2	BWISD FLOW - FOR ID #4	Delivered as per terms of BUENA VISTA WATER STORAGE DISTRICT/Improvement District No. 4 Exchange Agreement dated March 31, 1993.

1993 SNOW SURVEY DATA FOR KERN RIVER BASIN

SNOW COURSE	CALIF. NUMBER	ELEV. IN FEET	APRIL 1ST AVERAGE WATER CONTENT	DATE MEASURED	SNOW DEPTH IN INCHES	DENSITY (%)	WATER CONTENT IN INCHES	% OF APRIL 1ST AVERAGE	MEASURED BY
Bighorn Plateau	250	11,350	21.9	1-26	62.9	31%	19.7	90%	DWR
				3-02	96.4	32%	31.1	142%	DWR
				3-29	90.7	37%	33.7	154%	DWR
Cottonwood Pass	251	11,050	13.4	1-22	44.1	31%	13.5	101%	DWR
				3-05	60.5	34%	20.5	153%	DWR
				3-25	59.5	33%	19.6	146%	DWR
Siberian Pass	252	10,900	18.3	1-23	62.5	29%	17.9	98%	DWR
				3-01	91.8	29%	26.4	144%	DWR
				3-27	81.4	37%	28.9	163%	DWR
Crabtree Meadow	253	10,700	18.8	1-27	59.5	30%	17.9	95%	DWR
				2-28	86.0	31%	27.1	144%	DWR
				3-29	73.3	38%	27.6	147%	DWR
Guyot Flat	254	10,650	20.0	1-24	70.7	30%	21.2	106%	DWR
				3-01	97.1	31%	30.0	150%	DWR
				3-28	83.7	36%	30.2	151%	DWR
Tyndall Creek	255	10,650	18.3	1-25	61.6	29%	17.9	98%	DWR
				3-02	92.8	29%	27.6	144%	DWR
				3-29	84.3	35%	29.3	180%	DWR
Sandy Meadow	275	10,650	18.3	1-26	62.8	30%	18.8	103%	DWR
				3-02	90.4	30%	27.4	150%	DWR
				3-29	71.2	39%	27.7	151%	DWR
Big Whitney Meadow	257	9,750	16.6	1-23	61.1	29%	17.6	106%	DWR
				2-27	87.9	31%	26.9	162%	DWR
				3-27	65.4	40%	26.4	159%	DWR
Rock Creek	256	9,600	17.2	1-29	66.1	33%	21.5	125%	DWR
				3-01	99.3	30%	28.3	170%	DWR
				3-28	69.0	42%	28.8	187%	DWR
Round Meadow	258	9,000	24.9	1-27	76.7	36%	27.6	111%	USFS
				3-02	113.4	35%	39.6	159%	USFS
				3-30	84.0	49%	41.0	185%	USFS
Ramshaw Meadow	259	8,700	11.3	1-30	48.5	25%	14.2	126%	DWR
				2-25	78.8	27%	20.9	185%	DWR
				4-02	45.1	44%	19.8	175%	DWR
Little Whitney Mea.	260	8,500	13.5	1-30	60.1	31%	18.7	139%	DWR
				2-26	98.2	27%	26.3	195%	DWR
				4-01	48.2	47%	22.5	187%	DWR
Casa Vieja Meadow	262	8,400	19.6	1-28	67.4	33%	22.0	112%	USFS
				3-01	98.7	33%	32.9	168%	USFS
				3-31	62.0	48%	30.0	153%	USFS
Quinn Ranger Sta.	264	8,350	19.4	2-25	111.5	20%	32.0	113%	SKNP
				3-25	73.2	44%	32.1	165%	SKNP
Bonita Meadows	261	8,300	13.8	1-27	58.5	33%	18.5	134%	USFS
				3-02	84.1	34%	29.0	210%	USFS
				3-30	48.0	50%	24.0	174%	USFS
Beech Meadows	265	7,650	8.9	1-28	40.1	32%	13.0	146%	USFS
				3-30	30.0	48%	14.5	163%	USFS

CALIFORNIA COOPERATIVE SNOW SURVEYS FORECAST as of APRIL 1, 1993 for KERN RIVER INFLOW TO ISABELLA RESERVOIR...
 April-July = 590,000 acre-feet (128% of Average) *** Water Year = 890,000 acre-feet (116% of Average)
 80 Percent Probability Range (Actual runoff should fall within the stated limits eight times out of ten) ...
 April-July = 510,000 AcFt (111% of Average) to 680,000 AcFt (148% of Average)*** Water Year = 740,000 AcFt (103% of Average) to 930,000 AcFt (130% of Average)

REPORT OF THE KERN RIVER WATERMASTER

APRIL 1983

Quantities in S.F.D. except where noted

PAGE 1 of 5

DAY	ELEVATION (FEET)	ISABELLA RESERVOIR MIDNIGHT STORAGE	LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	STORAGE + LOSS + FLOW ABOVE 1ST POINT	COMPUTED NATURAL FLOW	MEAN TOTAL IRRIGATION	STORAGE Recreation Pool + Dead Storage	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.		FRIANT - KERN INFLOW	DAY						
											KERN	F-KERN								
Previous Day	2557.25	151,708	78,486	36	704	1,747	1,747	76,486	61,268	5	75	0	100							
1	2557.61	153,717	77,489	22	693	1,731	1,772	77,540	62,322	3	35	0	100	1						
2	2558.01	155,970	78,635	29	667	1,855	1,826	78,647	63,429	4	41	0	100	2						
3	2558.42	158,308	79,814	31	678	1,892	1,908	79,842	64,624	4	40	0	100	3						
4	2558.86	160,830	81,085	29	673	1,976	2,020	81,157	65,939	4	29	0	100	4						
5	2559.37	163,782	82,578	25	671	2,183	2,087	82,545	67,327	3	26	0	100	5						
6	2559.84	166,552	83,970	33	664	2,091	2,094	83,939	68,721	4	47	0	150	6						
7	2560.29	169,222	85,316	28	620	1,997	2,013	85,301	70,093	3	35	0	400	7						
8	2560.70	171,879	86,555	57	652	1,951	1,987	86,578	71,358	7	38	46	800	8						
9	2561.13	174,279	87,866	43	657	2,014	2,058	87,929	72,711	5	20	81	1,000	9						
10	2561.62	177,272	89,375	41	649	2,202	2,125	89,361	74,143	5	24	58	1,100	10						
11	2562.09	180,174	90,838	49	651	2,160	2,186	90,852	75,634	5	18	63	1,200	11						
12	2562.57	183,167	92,347	42	647	2,201	2,121	92,281	77,093	5	22	43	1,325	12						
13	2562.97	185,886	93,817	48	682	2,003	2,056	93,804	78,398	5	0	128	1,400	13						
14	2563.32	187,906	94,736	54	789	1,965	1,986	94,744	79,528	6	0	96	1,400	14						
15	2563.65	190,016	95,900	32	891	1,990	2,032	95,850	80,632	3	0	40	1,213	15						
16	2564.00	192,268	96,936	67	934	2,140	2,092	96,938	81,720	7	0	27	1,075	16						
17	2564.37	194,667	98,145	42	893	2,147	2,166	98,166	82,948	4	0	26	1,000	17						
18	2564.73	197,020	99,351	59	964	2,212	2,233	98,373	84,155	8	0	39	1,000	18						
19	2565.08	199,323	100,482	37	1,140	2,341	2,288	100,481	85,263	4	0	62	1,125	19						
20	2565.48	201,976	101,830	62	907	2,310	2,354	101,863	86,645	6	0	86	1,402	20						
21	2565.92	204,918	103,313	63	883	2,412	2,400	103,334	88,116	6	0	88	1,260	21						
22	2566.39	208,089	104,912	42	832	2,476	2,441	104,898	89,660	4	0	141	1,177	22						
23	2566.85	211,221	106,491	36	817	2,495	2,428	106,470	91,252	3	0	101	1,170	23						
24	2567.29	214,243	108,014	76	770	2,372	2,395	108,016	92,798	7	0	221	1,200	24						
25	2567.75	217,492	109,622	49	718	2,378	2,450	109,696	94,478	4	0	225	1,200	25						
26	2568.27	221,067	111,455	51	712	2,589	2,560	111,510	96,292	4	31	11	1,087	26						
27	2568.82	224,953	113,414	70	729	2,762	2,692	113,399	98,181	6	38	0	975	27						
28	2569.35	228,735	115,321	67	739	2,718	2,795	115,365	100,167	5	0	40	988	28						
29	2569.91	232,772	117,356	81	768	2,907	2,843	117,356	102,198	8	0	41	1,037	29						
30	2570.51	237,142	119,559	97	823	3,127	3,127	119,559	104,341	7	0	48	1,050	30						
TOTAL SECOND FOOT DAYS											1,456	22,934	92	67,555	104,341	145	444	1,701	27,234	
TOTAL ACRE-FEET											2,888	45,489	194	133,993	297,142	288	861	3,374	54,018	

By: *[Signature]* Date: MAY 17, 1993

REPORT OF THE KERN RIVER WATERMASTER

MAY 1983

Quantities in S.F.D. except where noted

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Previous Day	DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN STORAGE + LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (30,184 ACFT)	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT - KERN INFLOW
			ACRE-FEET	S.F.D.	ACRE-FEET	S.F.D.				STORAGE	STORAGE						
	1	2570.51	237,142	119,559	97	823	4	3,127	3,369	104,341	7	0	43	1,050			
	2	2571.17	242,005	122,011	46	823	4	3,325	3,369	106,837	3	0	43	880			
	3	2571.85	247,074	124,587	71	828	5	3,458	3,425	108,360	5	0	42	844			
	4	2572.51	252,051	127,078	87	880	5	3,491	3,505	111,943	6	0	43	727			
	5	2573.24	257,824	129,886	84	868	5	3,747	3,511	114,517	4	0	45	805			
	6	2573.84	262,254	132,220	84	874	4	3,296	3,370	116,925	6	0	44	805			
	7	2574.36	266,462	134,341	76	865	4	3,068	3,090	119,070	5	0	45	571			
	8	2574.86	270,234	136,243	66	836	4	2,908	2,965	121,029	4	0	45	530			
	9	2575.35	274,114	138,189	84	886	5	2,921	2,913	122,977	4	0	45	649			
	10	2575.85	278,106	140,212	92	901	5	2,811	2,938	125,017	6	0	56	717			
	11	2576.36	282,210	142,281	116	793	4	2,982	3,001	127,105	7	0	78	682			
	12	2576.90	286,582	144,490	100	797	4	3,110	3,119	129,323	6	0	76	665			
	13	2577.45	291,093	146,759	78	912	5	3,264	3,149	131,477	5	24	54	697			
	14	2577.94	295,135	148,797	76	954	4	3,074	3,075	133,516	4	34	48	822			
	15	2578.37	298,706	150,598	88	983	5	2,887	2,858	135,388	5	30	122	822			
	16	2578.82	302,468	152,494	87	945	5	2,913	2,923	137,294	4	30	173	985			
	17	2579.28	306,340	154,447	102	911	4	2,970	3,013	139,290	6	23	187	1,074			
	18	2579.77	310,494	156,541	88	968	5	3,155	3,168	141,395	5	25	109	942			
	19	2580.29	314,935	158,780	88	1,040	5	3,372	3,391	143,653	5	25	88	803			
	20	2580.85	319,755	161,210	114	1,098	5	3,645	3,554	145,992	6	26	66	283			
	21	2581.43	324,768	163,747	97	1,119	5	3,758	3,758	148,529	5	22	13	102			
	22	2581.98	329,599	166,173	81	1,152	5	3,664	3,664	150,955	4	29	23	0			
	23	2582.54	334,533	168,660	66	1,084	5	3,642	3,642	153,442	3	45	51	225			
	24	2583.14	339,864	171,348	112	1,086	5	3,891	3,891	156,130	5	29	272	715			
	25	2583.73	345,148	174,012	98	1,190	5	3,957	3,957	158,784	5	32	143	965			
	26	2584.29	350,200	176,559	80	1,228	6	3,659	3,723	161,205	4	25	74	720			
	27	2584.74	354,290	178,821	91	1,294	5	3,452	3,495	163,310	4	23	45	595			
	28	2585.12	357,760	180,371	79	1,341	5	3,175	3,161	165,048	3	23	17	494			
	29	2585.43	360,605	181,805	92	1,324	5	2,855	2,906	166,551	4	25	5	489			
	30	2585.71	363,184	183,105	88	1,284	5	2,687	2,813	167,957	4	23	17	488			
	31	2586.03	366,141	184,596	111	1,289	5	2,896	2,826	169,378	5	20	26	837			
	31	2586.36	369,206	186,141	40	1,348	5	2,938	2,938	170,923	2	20	12	984			
TOTAL SECOND FOOT DAYS				2,614	31,925	148	101,269	101,269	101,269	186,141	144	533	2,107	20,489			
TOTAL ACRE-FEET				5,185	63,322	294	200,864	200,864	200,864	369,206	286	1,057	4,179	40,600			

By:  Date: JUNE 22, 1993

Revision of report dated June 16, 1983

WATERMASTER NOTES *** KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
May	1-20	1	FRIANT-KERN INFLOW	Friant-Kern inflow to Kern River channel as per terms of Tulare Irrigation District/Improvement District No. 4 Exchange Agreement dated April 2, 1983.
May	22-30	1	FRIANT-KERN INFLOW	Friant-Kern inflow to Kern River channel as per understanding among Kern County Water Agency, Arvin-Edison Water Storage District, Lower Tule Irrigation District and Pixley Irrigation District.
May	21	2	BVWSD FLOW - VIA CAWELO WD	Delivered as per terms of BUENA VISTA WATER STORAGE DISTRICT/Cawelo Water District Exchange Agreement dated May 17, 1983.

KERN RIVER

APRIL-JULY SNOWMELT PERIOD

PEAK NATURAL FLOW WITH DATE OF OCCURRENCE

1954 to 1993

YEAR	FLOW IN CFS	DATE OF OCCURRENCE
1993	3,957	May 24
1992	1,584	May 13
1991	2,432	June 12
1990	845	May 8
1989	1,907	April 19
1988	1,418	May 16
1987	1,817	May 15
1986	6,969	May 31
1985	3,353	April 15
1984	3,305	May 14
1983	14,038	May 29
1982	9,075	April 11
1981	2,211	May 2
1980	5,814	May 22
1979	3,540	May 22
1978	7,922	June 9
1977	905	June 4
1976	1,188	May 15
1975	3,783	June 2
1974	4,141	June 7
1973	5,886	May 19
1972	1,006	June 8
1971	1,895	June 17
1970	2,713	June 1
1969	13,176	June 1
1968	1,923	May 29
1967	7,223	May 23
1966	1,581	May 7
1965	3,322	June 12
1964	1,458	May 22
1963	4,111	June 19
1962	3,604	May 7
1961	626	May 27
1960	1,342	May 13
1959	944	May 15
1958	6,592	May 20
1957	3,411	June 6
1956	3,689	May 24
1955	2,773	June 8
1954	2,948	May 20
NORMAL		May 22

REPORT OF THE KERN RIVER WATERMASTER

JUNE 1993

Quantities in S.F.D. except where noted

PAGE 1 of 5

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN STORAGE+LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL	STORAGE		KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.		FRIANT - KERN INFLOW	DAY	
		ACRE-FEET	S.F.D.	ACRE-FEET	S.F.D.				IRRIGATION	Dead Storage			KERN	F-KERN						
Previous Day	2588.38	369,206	186,141	40	1,348	5	2,938	2,938	188,141	170,923	2	20	12	984						
1	2588.66	372,003	187,552	101	1,479	5	2,896	2,896	187,403	172,185	4	34	0	928						
2	2588.85	373,779	188,447	68	1,581	5	2,549	2,549	188,439	173,221	3	48	0	707						
3	2587.01	375,277	188,202	119	1,845	5	2,524	2,545	188,215	173,987	5	141	0	638						
4	2587.17	376,781	189,981	111	1,886	6	2,562	2,549	189,961	174,743	5	193	0	577						
5	2587.46	378,512	191,337	17	1,543	5	2,841	2,841	191,337	176,119	1	130	13	728						
6	2587.70	381,779	192,480	40	1,390	5	2,578	2,518	192,420	177,202	2	112	18	778						
7	2587.91	383,768	193,483	66	1,324	5	2,398	2,398	193,448	178,230	3	74	38	828						
8	2588.08	385,477	194,345	89	1,335	6	2,292	2,324	194,342	179,124	4	96	22	792						
9	2588.28	387,094	195,160	95	1,368	5	2,283	2,314	195,188	179,970	4	112	17	821						
10	2588.44	388,812	196,026	115	1,381	5	2,367	2,425	196,112	180,894	5	112	0	781						
11	2588.65	390,819	197,038	148	1,459	5	2,624	2,584	197,084	181,868	6	141	0	752						
12	2588.88	393,119	198,198	113	1,484	5	2,762	2,756	198,238	183,020	4	149	0	788						
13	2589.14	395,523	199,410	105	1,560	5	2,882	2,842	199,410	184,192	4	163	0	886						
14	2589.39	397,933	200,625	149	1,758	6	3,128	3,128	200,625	185,407	6	210	0	594						
15	2589.64	400,351	201,844	158	1,847	5	3,329	3,329	201,844	186,626	6	245	0	416						
16	2589.85	402,387	202,870	138	2,082	6	3,252	3,174	202,792	187,574	5	255	0	449						
17	2590.01	403,941	203,654	109	2,120	6	3,019	3,094	203,651	188,433	4	228	0	374						
18	2590.16	405,403	204,381	130	2,138	5	3,010	3,013	204,381	189,173	5	211	0	197						
19	2590.32	406,963	205,177	130	2,087	6	3,009	3,009	205,177	189,959	5	204	0	101						
20	2590.50	408,724	206,065	130	2,123	6	3,147	3,147	206,065	190,847	5	258	0	99						
21	2590.59	409,604	206,509	162	2,174	5	2,785	2,717	206,441	191,223	6	263	0	98						
22	2590.65	410,192	206,805	131	2,147	6	2,580	2,658	206,813	191,595	5	182	0	49						
23	2590.74	411,075	207,250	128	2,023	6	2,602	2,604	207,260	192,042	5	68	0	0						
24	2590.85	412,154	207,794	122	1,958	5	2,629	2,674	207,849	192,631	4	30	0	98						
25	2590.98	413,433	208,439	146	1,986	6	2,793	2,771	208,472	193,254	5	75	0	0						
26	2591.13	414,810	209,184	134	2,007	6	2,892	2,848	209,173	193,955	5	125	0	88						
27	2591.28	416,191	209,890	167	2,039	6	2,858	2,784	209,745	194,527	6	178	0	218						
28	2591.33	416,883	210,179	155	2,091	6	2,801	2,587	210,080	194,862	6	204	0	269						
29	2591.34	416,982	210,229	144	2,103	6	2,303	2,402	210,229	195,011	5	238	0	89						
30	2591.33	416,883	210,179	138	2,098	6	2,182	2,182	210,179	194,981	5	197	0	35						
TOTAL SECOND FOOT DAYS				3,558	54,128	165	81,887	81,887	210,179	194,981	138	4,870	106	12,865						
TOTAL ACRE-FEET				7,057	107,357	327	182,420	182,420	416,883	396,699	274	9,262	211	25,557						

By: *gal* Date: July 14, 1993

WATERMASTER NOTES *** KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
June	1-22, 28-30	1	FRIANT-KERN INFLOW	Friant-Kern inflow to Kern River channel as per understanding among Kern County Water Agency, Arvin-Edison Water Storage District, Lower Tule Irrigation District and Pickley Irrigation District
June	24	1	FRIANT-KERN INFLOW	Operational spill to Kern River channel as reported by Friant Water Users Authority.

ISABELLA RESERVOIR
HISTORICAL QUANTITIES OF MAXIMUM & MINIMUM STORAGE WITH DATE OF OCCURRENCE, CARRYOVER STORAGE & EVAPORATION LOSS

ACRE-FEET

Year	Maximum Annual Storage	Date of Occurrence	Minimum Annual Storage	Date of Occurrence	December 31 Carryover Storage	Annual Evaporation Loss
1954	85,380	June 9	0	April 16, 1954	7,908	10,129
1955	76,567	December 31	4,330	April 21	78,567	7,556
1956	283,033	June 30	79,823	January 1	130,313	33,616
1957	183,979	June 20	101,074	December 14	101,413	27,379
1958	455,162	June 28	100,947	January 23	198,112	40,519
1959	207,674	May 21	71,344	December 19	71,808	29,258
1960	119,253	May 19	29,119	December 31	29,119	16,663
1961	53,068	June 17	17,410	November 19	17,524	10,847
1962	173,675	June 29	17,448	January 11	82,849	23,530
1963	369,990	June 28	82,190	January 28	170,043	37,218
1964	203,628	June 7	94,497	December 18	118,303	28,540
1965	288,937	July 9	117,117	March 23	171,193	32,290
1966	337,969	December 21	81,941	November 27	313,258	31,288
1967	538,688	July 20	189,282	December 14	199,937	42,855
1968	261,193	June 6	119,349	December 7	124,480	31,405
1969	578,116	July 14	124,283	January 12	225,535	45,760
1970	327,771	June 10	156,517	November 24	172,038	40,691
1971	240,998	June 22	120,161	November 25	122,040	33,678
1972	126,754	June 11	50,030	October 16	55,589	22,800
1973	398,448	June 29	55,449	January 7	205,948	43,411
1974	475,881	June 23	201,710	March 1	223,930	53,936
1975	348,695	June 17	169,893	December 17	170,190	46,169
1976	171,617	January 26	67,668	December 29	67,701	30,250
1977	82,347	June 16	34,504	December 16	43,820	19,368
1978	491,451	July 16	44,060	January 1	244,904	55,497
1979	442,035	June 11	208,632	December 30	208,768	51,942
1980	585,381	July 3	208,224	January 7	223,613	57,335
1981	312,458	June 7	166,907	December 27	168,210	47,541
1982	560,083	June 29	168,984	January 1	261,558	54,193
1983	630,825	July 6	260,010	January 9	311,944	55,001
1984	407,745	June 7	244,755	December 15	244,979	52,220
1985	368,621	June 13	189,823	November 23	195,516	49,981
1986	562,134	June 16	195,579	January 1	244,085	61,827
1987	276,266	June 7	142,661	December 1	143,410	42,029
1988	158,189	June 6	72,838	December 9	73,545	27,004
1989	184,801	June 1	71,111	February 18	85,978	33,497
1990	97,420	June 12	45,895	December 18	46,014	22,423
1991	175,558	June 19	89,654	February 27	89,654	28,106
1992	153,942	June 5	82,080	December 28	82,262	29,118
Average					146,978	36,073

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Quantities in S.F.D. except where noted

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DAY	ISABELLA RESERVOIR		S.F.D.	LOSS	CHANGE IN STORAGE+LOSS		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	STORAGE+LOSS +FLOW ABOVE 1ST POINT	COMPUTED 1ST POINT NATURAL FLOW	MEAN		KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT-KERN INFLOW
	ELEVATION (FEET)	MIDNIGHT STORAGE			TOTAL	Recreation Pool + Dead Storage = 15,216 S.F.D. (30,184 ACFT)					IRRIGATION	STORAGE			
Previous Day	2591.33	416,883	210,179	138	2,088	2,192	6	2,192	2,192	2,192	210,179	194,961	5	187	35
1	2591.33	416,883	210,179	80	2,087	2,173	6	2,173	2,180	2,180	210,186	194,968	3	185	34
2	2591.32	416,784	210,129	178	2,058	2,193	7	2,193	2,171	2,171	210,114	194,896	6	166	34
3	2591.32	416,784	210,129	175	1,984	2,146	7	2,146	2,133	2,133	210,101	194,883	6	161	238
4	2591.31	416,685	210,079	153	1,953	2,082	6	2,082	2,076	2,076	210,085	194,847	5	168	402
5	2591.28	416,388	209,929	143	2,019	2,019	7	2,019	2,077	2,077	209,973	194,755	5	187	386
6	2591.28	416,388	209,929	162	1,882	2,151	7	2,151	2,090	2,090	209,912	194,684	6	175	383
7	2591.27	416,290	209,880	172	1,972	2,101	6	2,101	2,120	2,120	209,862	194,664	6	121	357
8	2591.26	416,191	209,830	172	1,979	2,108	7	2,108	2,053	2,053	209,777	194,559	6	117	313
9	2591.24	415,966	209,731	178	1,665	1,951	7	1,951	1,987	1,987	209,714	194,496	6	52	314
10	2591.23	415,897	209,682	172	1,773	1,903	7	1,903	1,894	1,894	209,656	194,438	6	69	313
11	2591.21	415,899	209,582	165	1,757	1,828	6	1,828	1,820	1,820	209,548	194,330	6	71	313
12	2591.16	415,206	209,333	185	1,786	1,729	7	1,729	1,690	1,690	209,280	194,042	7	61	315
13	2591.06	414,219	209,836	185	1,839	1,514	7	1,514	1,508	1,508	208,757	193,539	6	62	182
14	2590.90	412,948	208,042	159	1,911	1,282	6	1,282	1,329	1,329	208,010	192,792	6	91	88
15	2590.71	410,781	207,102	143	1,980	1,190	7	1,190	1,242	1,242	207,122	191,804	5	82	28
16	2590.53	409,016	206,212	142	1,984	1,253	7	1,253	1,182	1,182	206,161	190,843	5	87	0
17	2590.53	407,061	205,227	138	1,945	1,102	6	1,102	1,112	1,112	205,186	189,968	5	80	50
18	2590.11	404,918	204,145	139	1,917	981	7	981	1,018	1,018	204,141	188,923	5	82	101
19	2589.87	402,562	202,969	163	1,977	871	7	871	962	962	202,956	187,738	6	76	100
20	2589.62	400,157	201,748	156	1,984	934	7	934	933	933	201,732	186,514	6	115	100
21	2589.37	397,740	200,527	134	1,973	894	6	894	901	901	200,520	185,302	5	141	115
22	2589.11	395,234	199,264	134	1,996	874	7	874	885	885	199,288	184,050	5	146	126
23	2588.66	392,831	198,052	130	1,961	866	7	866	908	908	198,076	182,858	5	129	129
24	2588.64	390,723	196,990	136	1,876	957	7	957	974	974	197,031	181,813	5	146	127
25	2588.45	388,908	196,075	146	1,840	1,080	7	1,080	1,021	1,021	196,057	180,839	6	134	127
26	2588.23	388,810	195,017	120	1,957	1,028	7	1,028	1,028	1,028	194,999	178,781	5	153	127
27	2588.00	384,823	193,814	101	1,969	974	7	974	994	994	193,916	176,998	4	180	127
28	2587.76	382,345	192,768	147	1,975	981	7	981	971	971	192,758	177,540	6	146	108
29	2587.52	380,076	191,822	128	1,966	957	7	957	961	961	191,618	176,400	5	122	102
30	2587.30	378,003	190,577	134	1,948	944	7	944	946	946	190,577	175,359	5	76	103
31	2587.10	376,123	189,629	126	1,720	907	7	907	907	907	189,629	174,411	5	64	103
TOTAL SECOND FOOT DAYS			4,578	58,833	58,833	44,071	210	44,071	44,071	44,071	189,629	174,411	168	3,582	5,345
TOTAL ACRE-FEET			9,080	118,877	118,877	87,414	415	87,414	87,414	87,414	376,123	345,939	333	7,105	10,642

By: *[Signature]* Date: AUGUST 16, 1993

MONTH DAY(S) PAGE NO. TITLE OF COLUMN

July 1-31 1 FRIANT-KERN INFLOW

COMMENT

Friant-Kern Inflow to Kern River channel as per terms of Madera ID/Weilands WD/KCWA Agreement dated May 28, 1983.
 Friant-Kern Inflow to Kern River channel as per terms of Madera ID/Weilands WD/KCWA Agreement dated May 28, 1983.

KERN RIVER NATURAL FLOW

FIRST POINT OF MEASUREMENT

APRIL - JULY

1884 TO DATE

ACRE - FEET

In order of Magnitude

YEAR	APR	MAY	JUN	JUL	TOTAL	% OF AVERAGE	YEAR	APR	MAY	JUN	JUL	TOTAL	% OF AVERAGE
1881	24,137	29,890	24,305	8,952	87,374	19%	1884	101,203	139,719	73,553	39,642	354,117	76%
1882	28,540	41,722	14,069	6,225	92,556	20%	1885	62,047	117,748	132,766	53,835	396,396	79%
1883	23,391	25,630	35,655	10,973	95,649	21%	1886	57,864	86,174	146,124	82,760	372,822	80%
1884	41,987	24,262	6,493	8,493	86,062	21%	1887	46,802	147,001	140,660	51,917	369,180	83%
1885	25,924	47,151	20,930	14,749	108,754	23%	1888	107,403	109,904	128,853	43,436	369,596	84%
1886	38,600	29,345	13,380	113,344	184,809	24%	1889	109,658	155,476	85,880	39,733	390,747	84%
1887	39,919	38,600	29,345	113,344	184,809	25%	1890	74,315	132,079	139,222	53,355	388,889	86%
1888	28,288	45,985	38,531	14,936	127,700	27%	1891	102,079	164,935	106,112	46,733	419,859	90%
1889	40,566	39,945	32,061	18,013	130,585	28%	1892	83,114	161,613	83,114	77,048	423,132	91%
1890	42,248	45,213	32,809	15,033	135,303	29%	1893	138,241	146,799	99,858	41,385	424,293	91%
1891	58,350	43,140	20,969	16,883	162,043	36%	1894	83,370	158,904	137,840	50,689	430,613	93%
1892	58,350	43,140	20,969	16,883	162,043	36%	1895	60,818	124,508	172,324	77,488	455,242	98%
1893	46,272	54,448	32,987	16,324	179,153	38%	1896	148,357	131,939	169,344	85,288	456,668	98%
1894	42,946	61,521	54,858	23,803	182,928	39%	1897	69,412	137,858	145,503	50,471	510,614	110%
1895	37,757	68,295	78,885	18,718	193,702	42%	1898	118,175	186,465	145,503	50,471	510,614	110%
1896	28,102	68,295	78,885	24,125	196,888	42%	1899	100,362	184,721	161,153	75,481	521,717	112%
1897	50,517	84,508	57,895	17,201	209,911	45%	1902	112,568	150,036	166,876	89,529	522,905	112%
1898	55,296	75,108	56,146	24,918	211,408	45%	1903	97,553	159,683	168,876	89,529	522,905	112%
1899	42,484	73,561	60,738	34,929	211,722	45%	1904	154,742	154,742	166,404	84,013	526,432	119%
1900	51,353	51,353	79,178	30,048	211,722	48%	1905	114,113	163,733	167,740	89,580	535,186	115%
1901	85,985	63,487	30,988	219,532	47%	1906	126,329	165,062	187,638	81,275	560,304	120%	
1902	68,778	62,336	45,431	23,347	219,893	47%	1907	157,290	219,404	197,028	87,902	581,624	125%
1903	37,567	69,544	86,660	31,014	224,785	48%	1908	83,190	166,446	162,420	87,414	584,881	126%
1904	66,079	87,851	82,824	28,401	232,582	50%	1909	133,983	200,864	183,995	172,890	685,012	147%
1905	53,506	96,598	49,530	18,575	234,430	50%	1910	144,834	210,878	201,064	126,338	685,012	147%
1906	66,079	96,598	49,530	18,575	234,430	50%	1911	162,071	268,635	172,890	86,648	617,710	133%
1907	91,390	71,849	49,823	21,378	239,980	52%	1912	242,259	205,509	189,002	88,648	617,710	133%
1908	43,976	86,108	78,585	42,472	244,475	53%	1913	173,393	281,639	137,393	81,837	654,262	141%
1909	65,584	87,981	62,707	42,472	244,475	53%	1914	197,720	199,950	183,995	126,338	685,012	147%
1910	80,353	110,325	57,778	21,116	249,572	54%	1915	144,834	210,878	201,064	126,338	685,012	147%
1911	37,246	80,471	100,925	33,170	251,812	54%	1916	268,635	254,785	155,650	86,011	697,162	150%
1912	69,320	91,914	65,817	25,630	252,681	54%	1917	198,798	254,785	220,076	156,498	701,168	151%
1913	79,320	79,418	60,305	41,651	260,694	56%	1918	138,113	184,481	232,390	93,834	723,768	155%
1914	85,039	88,980	38,941	261,984	56%	1919	110,892	288,652	290,390	130,098	831,669	171%	
1915	92,136	58,400	25,480	268,289	59%	1920	212,963	254,985	186,748	130,098	786,794	171%	
1916	56,092	79,763	100,423	38,285	276,534	59%	1921	168,105	316,874	230,866	115,724	831,669	171%
1917	88,644	98,359	132,359	41,888	292,346	63%	1922	183,505	352,050	225,395	91,097	852,047	183%
1918	68,974	98,801	84,564	43,081	295,400	63%	1923	208,147	293,335	263,784	121,398	886,674	183%
1919	76,155	80,028	125,395	56,898	299,564	64%	1924	99,509	269,631	311,063	243,802	924,005	186%
1920	58,408	102,016	96,252	58,407	313,113	67%	1925	319,880	319,880	311,063	243,802	924,005	186%
1921	83,512	113,205	103,904	38,725	319,408	68%	1926	223,925	287,825	287,825	208,715	991,025	213%
1922	89,513	110,057	95,700	50,138	319,408	68%	1927	386,866	386,866	309,960	174,416	895,657	214%
1923	100,098	120,387	49,119	321,325	69%	1928	363,157	354,825	354,825	159,858	1,084,375	235%	
1924	86,019	103,164	69,657	328,570	71%	1929	222,633	434,769	302,557	159,858	1,118,815	241%	
1925	70,730	86,019	86,019	55,800	332,532	72%	1930	247,402	362,817	394,066	194,870	1,218,975	262%
1926	73,355	120,849	82,528	55,800	332,532	72%	1931	173,143	360,234	458,418	398,841	1,381,636	289%
1927	74,513	136,753	44,828	334,816	74%	1932	206,473	478,825	571,646	288,866	1,545,810	332%	
1928	81,844	140,215	42,364	342,947	75%	1933	481,749	472,884	391,700	225,154	1,571,597	339%	
1929	103,787	133,634	103,787	350,847	75%	1934	378,333	817,968	496,786	254,777	1,747,874	375%	
1930	102,883	127,733	78,464	42,046	352,128	76%	MAX	481,749	617,968	571,646	398,841	1,747,874	
							MIN	25,630	25,630	138,000	6,225	87,374	
							AVG	99,458	155,632	149,000	71,434	465,515	

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Quantities in S.F.D. except where noted

DAY	ISABELLA RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN STORAGE+LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (90,184 ACFT)	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRONT-KERN INFLOW
	ELEVATION (FEET)	MIDNIGHT STORAGE ACRE-FEET				S.F.D.	+1ST POINT FLOW						
Previous Day	2587.10	376,123	188,829	1,720	7	907	907	907	188,829	174,411	5	64	103
1	2586.86	374,080	188,589	1,728	6	867	867	850	188,572	173,354	7	61	102
2	2586.62	371,629	187,383	1,804	6	817	817	819	187,348	172,130	7	52	99
3	2586.34	368,020	186,048	1,920	6	774	774	805	186,084	170,846	7	88	42
4	2586.07	366,512	184,783	1,901	6	824	824	786	184,761	169,543	8	102	0
5	2585.80	364,014	183,524	1,851	6	759	759	775	183,518	168,300	8	100	0
6	2585.54	361,616	182,315	1,755	7	743	743	768	182,332	167,114	8	89	0
7	2585.33	359,695	181,341	1,606	6	786	786	743	181,305	166,087	7	98	0
8	2585.11	357,689	180,325	1,575	6	681	681	711	180,309	165,081	6	84	0
9	2584.88	355,566	178,265	1,585	7	645	645	637	179,241	164,023	5	70	0
10	2584.63	353,288	176,116	1,570	6	574	574	600	178,118	162,900	7	55	0
11	2584.38	351,017	176,971	1,589	6	581	581	572	178,964	161,746	6	77	0
12	2584.14	348,844	175,876	1,526	6	561	561	557	175,865	160,647	6	88	0
13	2583.91	346,768	174,829	1,444	6	527	527	534	174,825	159,607	6	60	0
14	2583.71	344,988	173,921	1,280	7	515	515	484	173,898	158,678	6	81	0
15	2583.51	343,171	173,015	1,233	6	441	441	465	173,014	157,788	5	80	0
16	2583.29	341,202	172,023	1,312	6	438	438	433	172,016	156,788	5	61	0
17	2583.06	339,150	170,986	1,336	6	420	420	448	171,008	155,791	5	58	0
18	2582.85	337,282	170,046	1,287	6	465	465	446	170,028	154,810	6	63	0
19	2582.62	335,241	169,017	1,318	6	432	432	430	168,987	153,779	7	79	0
20	2582.39	333,119	167,946	1,308	6	373	373	422	167,977	152,759	6	103	0
21	2582.18	331,357	167,058	1,235	6	481	481	418	167,043	151,825	5	139	0
22	2581.97	329,511	166,129	1,211	7	412	412	428	166,129	150,911	6	122	0
23	2581.75	327,583	165,157	1,244	6	410	410	427	165,174	149,956	7	87	0
24	2581.52	325,572	164,143	1,330	6	480	480	420	164,120	148,902	7	87	0
25	2581.26	323,308	163,001	1,383	6	390	390	407	162,985	147,777	7	68	0
26	2581.01	321,139	161,908	1,348	6	372	372	363	161,913	146,695	6	41	0
27	2580.80	318,323	160,982	1,232	7	388	388	358	160,987	145,749	3	45	0
28	2580.60	315,598	160,123	1,115	6	314	314	348	160,130	144,812	3	96	0
29	2580.39	315,794	159,213	1,137	6	336	336	340	159,224	144,006	5	58	0
30	2580.15	313,737	158,176	1,274	6	370	370	359	158,178	142,858	7	90	0
31	2579.92	311,773	157,186	1,220	6	341	341	341	157,186	141,968	6	65	0
TOTAL SECOND FOOT DAYS			4,005	44,705	181	10,518	10,518	16,518	157,186	141,968	190	2,488	243
TOTAL ACRE-FEET			8,083	88,671	379	32,783	32,783	32,763	311,773	281,589	377	4,895	482

By: *Paul* Date: **SEPTEMBER 15, 1993**

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Quantities in S.F.D. except where noted

NORTH KERN WATER STORAGE DISTRICT

BUENA VISTA WATER STORAGE DISTRICT

HACIENDA WATER DISTRICT

DAY	KERN VALLEY										BUENA VISTA WATER STORAGE DISTRICT										HACIENDA WATER DISTRICT																						
	ENTL	FLOW	AT 1ST	LAKE	OLCESE	HACIENDA	GOLF	RESERVOIR	LOSS	COURSE	INC.	WD	MING	POINT	AT 2ND	POINT	VIA	FOR	AT 2ND	POINT	WD	INC.	LOSS	RESERVOIR	CONTRIBUTED BY:	ENTITLED	WD	INC.	LOSS	RESERVOIR	CONTRIBUTED BY:	ENTITLED	WD	INC.	LOSS								
Previous Day	714	1,255	2	4	0	1	77	104,084	193	178	222	0	64	0	0	0	0	0	0	0	0	0	0	51	70,327	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1	675	1,447	2	4	0	0	104	103,202	175	220	0	0	61	0	0	0	0	0	0	0	0	0	0	69	70,152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
2	654	1,583	2	4	0	0	104	102,163	165	229	0	0	52	0	0	0	0	0	0	0	0	0	0	69	69,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
3	644	1,801	2	3	0	1	98	101,102	181	230	0	0	89	0	0	0	0	0	0	0	0	0	0	65	68,744	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4	631	1,557	2	4	0	0	109	100,061	155	242	0	0	102	0	0	0	0	0	0	0	0	0	0	73	69,482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	624	1,478	2	4	0	0	108	99,093	151	253	0	0	100	0	0	0	0	0	0	0	0	0	0	73	69,207	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
6	618	1,404	2	4	0	1	113	98,187	148	262	0	0	89	0	0	0	0	0	0	0	0	0	0	77	68,927	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7	602	1,398	2	3	0	1	94	97,293	141	112	0	0	98	0	0	0	0	0	0	0	0	0	0	64	68,794	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	580	1,386	2	4	0	0	75	96,408	131	105	0	0	84	0	0	0	0	0	0	0	0	0	0	51	68,685	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
9	530	1,412	2	4	0	1	61	95,456	107	113	0	0	70	0	0	0	0	0	0	0	0	0	0	42	68,587	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	505	1,496	2	4	0	0	87	94,372	95	19	0	0	55	0	0	0	0	0	0	0	0	0	0	60	69,528	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
11	485	1,494	2	4	0	0	77	93,280	87	18	0	0	77	0	0	0	0	0	0	0	0	0	0	54	68,486	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
12	475	1,425	2	3	0	1	73	92,251	82	13	0	0	88	0	0	0	0	0	0	0	0	0	0	51	68,386	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
13	480	1,371	2	4	0	0	72	91,282	74	13	0	0	60	0	0	0	0	0	0	0	0	0	0	52	68,345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
14	432	1,184	2	4	0	1	79	90,424	62	15	0	0	81	0	0	0	0	0	0	0	0	0	0	57	68,254	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
15	413	1,053	2	4	0	0	62	89,716	52	8	92	0	80	0	0	0	0	0	0	0	0	0	0	48	68,080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
16	391	1,020	2	3	0	1	65	89,018	42	48	183	0	61	0	0	0	0	0	0	0	0	0	0	48	67,782	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
17	401	1,042	2	4	0	0	65	88,304	47	58	178	0	58	0	0	0	0	0	0	0	0	0	0	48	67,487	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	
18	400	988	2	4	0	0	77	87,822	48	47	178	0	63	0	0	0	0	0	0	0	0	0	0	57	67,188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
19	389	1,002	2	4	0	0	79	86,924	41	52	185	0	79	0	0	0	0	0	0	0	0	0	0	58	66,855	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
20	383	988	2	3	0	1	73	86,242	39	33	186	0	103	0	0	0	0	0	0	0	0	0	0	55	66,517	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
21	379	861	2	4	0	0	62	85,892	37	51	184	0	139	0	0	0	0	0	0	0	0	0	0	47	66,133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
22	387	845	2	4	0	1	71	85,156	41	62	182	0	122	0	0	0	0	0	0	0	0	0	0	53	65,755	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	
23	387	898	2	4	0	0	76	84,565	40	74	187	0	87	0	0	0	0	0	0	0	0	0	0	56	65,391	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
24	382	882	2	4	0	0	79	83,880	38	73	188	0	87	0	0	0	0	0	0	0	0	0	0	59	65,022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
25	373	975	2	3	0	1	82	83,190	34	99	221	0	88	0	0	0	0	0	0	0	0	0	0	61	64,587	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
26	357	928	2	4	0	0	65	82,547	28	158	218	0	41	0	0	0	0	0	0	0	0	0	0	48	64,148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
27	340	839	2	4	0	1	37	82,004	18	132	216	0	45	0	0	0	0	0	0	0	0	0	0	28	63,745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	
28	331	713	2	4	0	0	35	81,581	15	118	190	0	96	0	0	0	0	0	0	0	0	0	0	27	63,331	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	
29	327	739	2	3	0	1	59	81,104	13	116	180	0	58	0	0	0	0	0	0	0	0	0	0	44	62,902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	
30	340	748	1	4	0	1	73	80,617	19	119	183	124	90	0	0	0	0	0	0	0	0	0	0	54	62,341	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30		
31	328	785	2	4	0	0	60	80,094	13	70	182	118	85	0	0	0	0	0	0	0	0	0	0	45	61,874	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31		
S.F.D.	14,223	35,848	61	117	0	13	2,374	80,094	2,285	3,180	3,153	276	2,488	0	0	0	0	0	0	0	0	0	0	1,891	61,874	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S.F.D.	
AC.FT.	28,211	70,707	121	232	0	26	4,709	158,864	4,552	6,287	6,255	547	4,895	0	0	0	0	0	0	0	0	0	0	3,954	122,725	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AC.FT.	
										TOTAL ACRE-FOOT STORAGE DAYS										TOTAL ACRE-FOOT STORAGE DAYS																							
										5,539,447										4,115,010																							

WATERMASTER NOTES *** KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
August	1-3	1	FRIANT-KERN INFLOW	Friant-Kern inflow to Kern River channel as per terms of Madera ID/Westlands WD/KCWA Agreement dated May 27, 1983 and Chowchilla WD/Westlands WD/KCWA Agreement dated May 28, 1983.
August	29	2	BWSD FLOW - FOR ID4	Delivered as per terms of BUENA VISTA WATER STORAGE DISTRICT/Improvement District No. 4 water exchange agreement dated August 25, 1988.

1993 APRIL-JULY UNIMPAIRED RUNOFF
Central Valley Streams

April-July Flows
in 1000 Acre-feet

Watershed	(1) 50-Year Average	Forecast as of				(2) 1993 Actual	% of Average
		Feb. 1	Mar. 1	Apr. 1	May 1		
Sacramento River above Bend Bridge	2,491	2,570	2,820	2,600	2,880	3,535	142%
Feather River at Oroville Reservoir	1,857	2,300	2,830	2,400	2,550	2,521	136%
Yuba River at Smartville	1,047	1,300	1,520	1,360	1,360	1,404	134%
American River at Folsom Reservoir	1,284	1,680	1,930	1,760	1,730	1,675	130%
Cosumnes River at Michigan Bar	129	160	180	170	160	139	108%
Mokelumne River at Pardee Reservoir	465	620	700	660	640	650	140%
Stanislaus River at Melones Reservoir	713	970	1,050	1,030	1,020	974	137%
Tuolumne River at Don Pedro Reservoir	1,200	1,620	1,800	1,730	1,720	1,716	143%
Merced River at Exchequer Reservoir	617	850	1,000	960	940	920	149%
San Joaquin River at Millerton Lake	1,228	1,630	1,900	1,960	1,880	1,947	158%
Kings River at Pine Flat Reservoir	1,203	1,520	1,830	1,900	1,810	1,876	156%
Kaweah River at Terminus Reservoir	284	340	400	390	360	379	134%
Tule River at Success Reservoir	63	60	80	70	65	62	98%
KERN RIVER AT ISABELLA RESERVOIR	461	470	600	580	560	587	127%

(1) All 50-year averages are based on data for water years 1941-1990

(2) Source: State of California Department of Water Resources

REPORT OF THE KERN RIVER WATERMASTER

SEPTEMBER 1993

Quantities in S.F.D. except where noted

DAY	ELEVATION (FEET)	ISABELLA RESERVOIR		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN STORAGE		COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (90.184 ACFT)	STORAGE		KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT-KERN INFLOW
		MIDNIGHT STORAGE	S.F.D.			LOSS	IRRIGATION			POOL LOSS				
Previous Day	2579.92	311.773	157.186	105	6	341	341	341	157,186	157,186	141,968	6	65	0
1	2579.71	309,986	156,285	106	5	371	371	352	156,266	141,048	141,048	6	62	0
2	2579.50	308,204	155,386	103	6	314	314	352	155,405	140,187	140,187	6	52	0
3	2579.31	306,594	154,575	115	6	372	372	344	154,566	139,348	139,348	6	47	0
4	2579.13	305,076	153,809	128	5	345	345	346	153,801	138,583	138,583	7	21	0
5	2578.96	303,645	153,088	114	6	321	321	338	153,097	137,879	137,879	6	0	0
6	2578.80	302,300	152,410	108	6	350	350	328	152,397	137,179	137,179	6	0	0
7	2578.63	300,877	151,692	105	5	313	313	317	151,683	136,465	136,465	6	0	0
8	2578.45	299,374	150,934	95	6	287	287	296	150,934	135,716	135,716	5	0	0
9	2578.27	297,873	150,178	110	5	289	289	296	150,185	134,967	134,967	6	0	0
10	2578.11	296,544	149,508	132	5	313	313	286	149,488	134,270	134,270	8	0	0
11	2577.96	295,301	148,881	150	5	256	256	282	148,887	133,669	133,669	9	0	0
12	2577.82	294,141	148,296	152	6	276	276	266	148,292	133,074	133,074	9	0	0
13	2577.67	292,904	147,673	88	6	266	266	262	147,665	132,447	132,447	5	0	0
14	2577.50	291,505	146,967	115	5	243	243	253	146,969	131,751	131,751	7	0	0
15	2577.33	290,107	146,262	94	5	249	249	242	146,257	131,039	131,039	6	0	0
16	2577.15	288,633	145,519	90	5	233	233	239	145,520	130,302	130,302	5	0	0
17	2576.99	287,327	144,861	69	6	234	234	239	144,867	129,649	129,649	4	0	0
18	2576.85	286,185	144,285	60	5	251	251	242	144,282	129,064	129,064	4	0	0
19	2576.72	285,128	143,752	54	5	242	242	249	143,756	128,538	128,538	3	0	0
20	2576.58	283,991	143,179	99	5	253	253	250	143,180	127,962	127,962	6	0	0
21	2576.44	282,858	142,608	89	5	254	254	254	142,609	127,391	127,391	5	0	0
22	2576.29	281,644	141,996	101	6	255	255	254	141,996	126,778	126,778	6	0	0
23	2576.13	280,355	141,346	77	5	252	252	252	141,346	126,128	126,128	5	0	0
24	2575.97	279,070	140,698	80	5	250	250	255	140,703	125,485	125,485	5	0	0
25	2575.82	277,865	140,090	77	5	263	263	258	140,090	124,872	124,872	5	0	0
26	2575.67	276,666	139,486	83	5	263	263	261	139,484	124,266	124,266	5	0	0
27	2575.48	275,150	138,722	97	5	257	257	254	138,717	123,499	123,499	6	0	0
28	2575.29	273,637	137,959	73	5	243	243	253	137,964	122,746	122,746	5	0	0
29	2575.08	271,972	137,119	88	5	259	259	254	137,119	121,901	121,901	6	0	0
30	2574.87	270,313	136,283	76	5	248	248	248	136,283	121,065	121,065	5	0	0
TOTAL SECOND FOOT DAYS				2,928	158	8,322	8,322	8,322	136,283	121,065	121,065	173	182	0
TOTAL ACRE-FEET				5,808	314	16,506	16,506	16,506	270,313	240,129	240,129	343	361	0

By: *April* Date: *OCTOBER 15, 1993*

REPORT OF THE KERN RIVER WATERMASTER

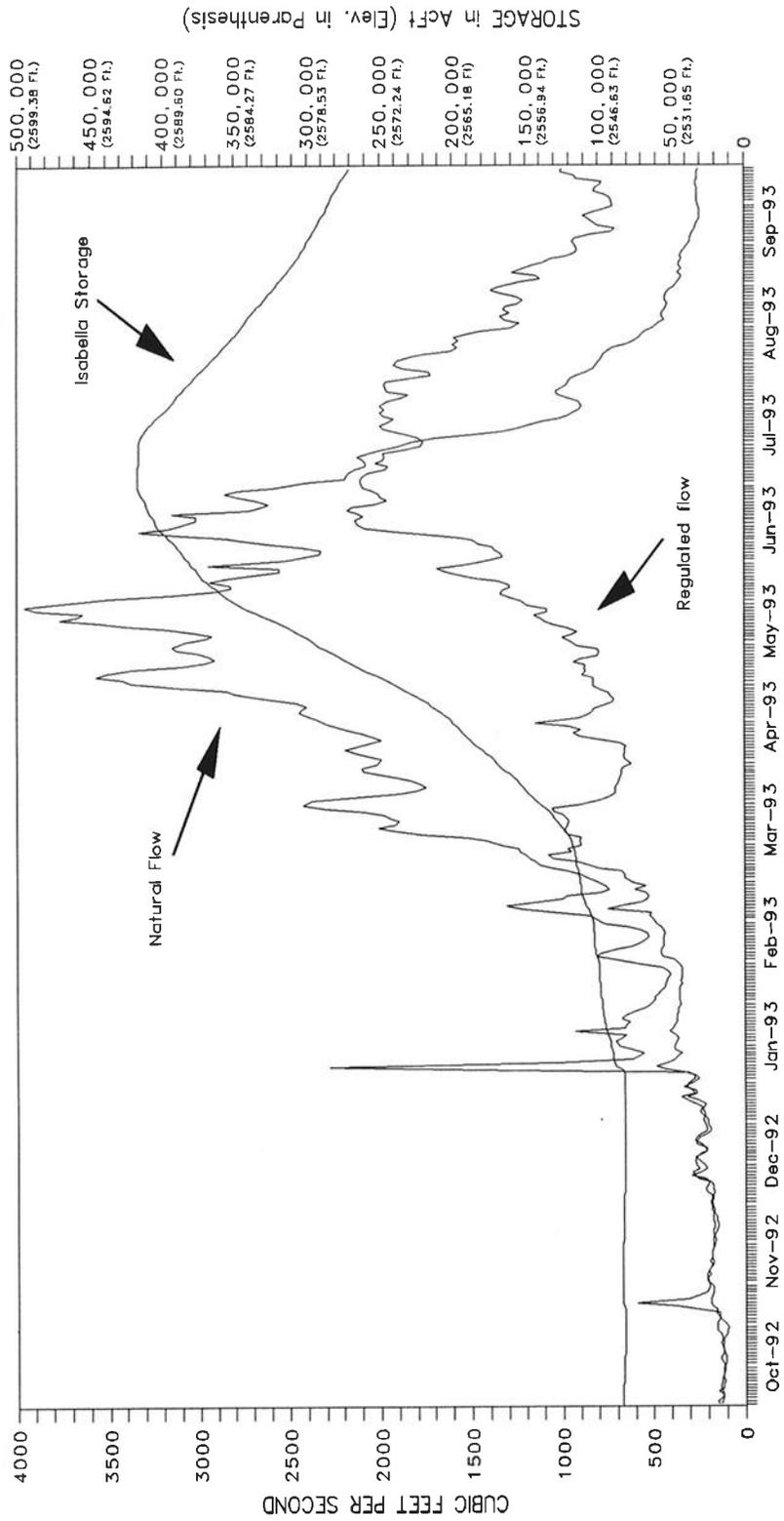
SEPTEMBER 1993

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WATERMASTER NOTES * KERN RIVER BULLETIN**

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
September	9	2	BWSD FLOW - FOR RRBWSD	Delivered as per terms of J.G. Boswell Company/BUENA VISTA WATER STORAGE DISTRICT letter dated October 8, 1993, Henry Miller Water District/Rosedale-Rio Bravo Water Storage District 1993 Water Banking Agreement dated September 9, 1993 and Rosedale-Rio Bravo Water Storage District/Improvement District #4 Exchange Agreement dated September 30, 1993.
September	1-30	2	BWSD FLOW - VIA KDWD	September 1993 delivery includes 502 acre-feet (253 s.f.d.) of 1993 State Exchange water and 2,670 acre-feet (1,346 s.f.d.) of 1988 State Pool Payback water.

**KERN RIVER NATURAL FLOW, REGULATED FLOW, & ISABELLA RESERVOIR STORAGE
1992-1993 WATER YEAR**



REPORT OF THE KERN RIVER WATERMASTER

OCTOBER 1983

Quantities in S.F.D. except where noted

PAGE 1 of 5

DAY	ELEVATION (FEET)	ISABELLA RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN STORAGE + LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	PRIANT-KERN INFLOW	DAY
		MIDNIGHT STORAGE	ACRE-FEET				S.F.D.	STORAGE + LOSS +1ST POINT + FLOW ABOVE							
Previous Day	2574.87	270,313	136,283	76	1,003	5	248	248	248	136,283	121,065	5	0	0	0
1	2574.66	268,659	135,449	90	986	3	245	245	243	135,447	120,229	6	0	0	1
2	2574.46	267,089	134,657	83	944	4	239	944	232	134,648	119,430	5	0	0	2
3	2574.25	265,447	133,830	86	949	4	212	212	235	133,844	118,626	6	0	0	3
4	2574.05	263,886	133,043	92	946	4	255	255	248	133,050	117,832	6	0	0	4
5	2573.87	262,487	132,337	74	905	4	277	277	256	132,323	117,105	5	0	0	5
6	2573.70	261,170	131,673	55	843	3	237	237	255	131,677	116,459	4	0	0	6
7	2573.53	259,855	131,010	79	830	4	250	250	243	131,007	115,789	5	0	0	7
8	2573.37	258,623	130,389	82	779	3	243	243	252	130,395	115,177	6	0	0	8
9	2573.23	257,547	129,847	51	751	4	264	264	243	129,832	114,614	4	0	0	9
10	2573.07	256,319	129,228	114	724	3	222	222	249	129,240	114,022	8	0	0	10
11	2572.95	255,402	128,765	15	707	3	262	262	249	128,764	113,546	1	0	0	11
12	2572.84	254,562	128,342	39	643	4	263	263	253	128,331	113,113	3	0	0	12
13	2572.73	253,724	127,919	75	578	4	294	294	244	127,918	112,700	5	0	0	13
14	2572.67	253,267	127,689	69	394	3	236	236	241	127,693	112,475	5	0	0	14
15	2572.63	252,963	127,536	51	351	3	252	252	237	127,525	112,307	4	0	0	15
16	2572.60	252,735	127,421	42	294	3	224	224	236	127,422	112,204	3	0	0	16
17	2572.57	252,507	127,306	39	303	4	231	231	225	127,301	112,083	3	0	0	17
18	2572.52	252,127	127,114	48	361	3	220	220	220	127,109	111,891	3	0	0	18
19	2572.46	251,673	126,885	42	393	3	209	209	231	126,902	111,684	3	0	0	19
20	2572.41	251,294	126,694	50	400	4	263	263	228	126,676	111,458	4	0	0	20
21	2572.35	250,840	126,465	42	397	3	213	213	237	126,471	111,253	3	0	0	21
22	2572.30	250,461	126,274	42	380	3	234	234	219	126,265	111,047	3	0	0	22
23	2572.25	250,085	126,085	42	352	4	209	209	218	126,085	110,867	3	0	0	23
24	2572.19	249,632	125,856	66	370	3	210	210	203	125,849	110,631	5	0	0	24
25	2572.12	249,103	125,589	50	404	3	190	190	211	125,603	110,385	4	0	0	25
26	2572.05	248,576	125,324	74	420	3	232	232	216	125,322	110,104	5	0	0	26
27	2571.98	248,051	125,059	47	442	3	227	227	207	125,037	109,819	3	0	0	27
28	2571.89	247,374	124,718	53	445	4	161	161	218	124,753	109,535	4	0	0	28
29	2571.83	246,942	124,500	47	434	4	267	267	203	124,471	109,253	3	0	0	29
30	2571.75	246,326	124,189	65	423	3	180	180	209	124,189	108,971	5	0	0	30
31	2571.70	245,951	124,000	37	359	3	210	210	210	124,000	108,782	3	0	0	31
TOTAL SECOND FOOT DAYS				1,841	17,507	106	7,171	7,171	7,171	124,000	108,782	130	0	0	0
TOTAL ACRE- FEET				3,652	34,725	210	14,223	14,223	14,223	245,951	215,767	258	0	0	0

By: *[Signature]* Date: NOVEMBER 12, 1993

REPORT OF THE KERN RIVER WATERMASTER

OCTOBER 1993

Quantities in S.F.D. except where noted

NORTH KERN WATER STORAGE DISTRICT

BUENA VISTA WATER STORAGE DISTRICT

HACIENDA WATER DISTRICT

DAY	Previous Day	FLOW ABOVE FIRST POINT				FLOW				FLOW ABOVE FIRST POINT				ENTITLEMENT				FLOW ABOVE FIRST POINT																																																					
		ENTL AT 1ST POINT	FLOW MING	LAKE	OLCESE	WD	VIA	KWD	CWD	VIA	FOR ID4	FOR KCWA	FOR RRBWSD	WD	OLCESE	RESERVOIR LOSS	STORAGE	CONTRIBUTED BY	RESERVOIR LOSS	STORAGE	HACIENDA INC.	RESERVOIR LOSS	STORAGE	DAY																																															
1	243	475	2	3	0	46	72,939	0	41	123	287	0	77	0	30	48,126	0	35	47,564	0	0	0	0	0	1																																														
2	232	445	1	2	0	55	72,665	0	47	126	209	39	106	0	35	47,564	0	32	47,033	0	0	0	0	0	2																																														
3	235	434	2	2	0	53	72,141	0	27	115	205	60	108	0	33	46,485	0	33	46,485	0	0	0	0	0	3																																														
4	248	433	1	3	0	57	71,895	0	26	122	212	56	97	0	35	45,937	0	35	45,937	0	0	0	0	0	4																																														
5	256	394	1	2	1	46	71,707	0	26	125	236	51	73	0	28	45,398	0	28	45,398	0	0	0	0	0	5																																														
6	255	390	1	2	0	34	71,535	0	26	128	176	43	80	0	21	44,924	0	21	44,924	0	0	0	0	0	6																																														
7	243	358	2	2	0	49	71,367	0	26	125	205	31	85	0	30	44,422	0	30	44,422	0	0	0	0	0	7																																														
8	252	328	1	2	0	51	71,237	0	33	124	221	0	73	0	31	43,940	0	31	43,940	0	0	0	0	0	8																																														
9	243	326	1	2	1	32	71,118	0	31	118	211	0	65	0	19	43,496	0	19	43,496	0	0	0	0	0	9																																														
10	249	304	1	2	0	72	70,988	0	20	115	230	0	55	0	42	43,034	0	42	43,034	0	0	0	0	0	10																																														
11	249	311	1	2	0	9	70,914	0	36	115	218	0	27	0	6	42,632	0	6	42,632	0	0	0	0	0	11																																														
12	253	326	1	3	0	25	70,812	0	30	73	214	0	0	0	14	42,301	0	14	42,301	0	0	0	0	0	12																																														
13	244	284	1	2	1	48	70,720	0	33	72	189	0	0	0	27	41,980	0	27	41,980	0	0	0	0	0	13																																														
14	241	234	1	2	0	44	70,680	0	34	37	89	0	0	0	25	41,795	0	25	41,795	0	0	0	0	0	14																																														
15	237	214	1	2	0	33	70,667	0	19	38	80	0	0	0	18	41,640	0	18	41,640	0	0	0	0	0	15																																														
16	236	178	1	2	0	27	70,695	0	19	37	60	0	0	0	15	41,509	0	15	41,509	0	0	0	0	0	16																																														
17	225	175	1	2	1	25	70,716	0	17	37	74	0	0	0	14	41,367	0	14	41,367	0	0	0	0	0	17																																														
18	220	195	1	2	0	31	70,707	0	34	39	93	0	0	0	17	41,184	0	17	41,184	0	0	0	0	0	18																																														
19	231	204	1	2	0	27	70,704	0	45	58	86	0	0	0	15	40,980	0	15	40,980	0	0	0	0	0	19																																														
20	228	224	1	3	0	32	70,672	0	44	55	77	0	0	0	18	40,786	0	18	40,786	0	0	0	0	0	20																																														
21	237	224	1	2	0	27	70,655	0	39	56	78	0	0	0	15	40,598	0	15	40,598	0	0	0	0	0	21																																														
22	219	218	1	2	0	27	70,626	0	23	77	62	0	0	0	15	40,421	0	15	40,421	0	0	0	0	0	22																																														
23	218	232	1	2	1	27	70,581	0	19	39	62	0	0	0	15	40,286	0	15	40,286	0	0	0	0	0	23																																														
24	203	251	1	2	0	43	70,487	0	28	0	91	0	0	0	23	40,144	0	23	40,144	0	0	0	0	0	24																																														
25	211	259	1	2	0	32	70,404	0	33	0	112	0	0	0	18	39,981	0	18	39,981	0	0	0	0	0	25																																														
26	216	267	1	2	0	48	70,302	0	32	0	121	0	0	0	26	39,802	0	26	39,802	0	0	0	0	0	26																																														
27	207	326	1	2	0	30	70,150	0	22	0	94	0	0	0	17	39,669	0	17	39,669	0	0	0	0	0	27																																														
28	218	342	1	3	0	34	69,988	0	23	0	80	0	0	0	19	39,547	0	19	39,547	0	0	0	0	0	28																																														
29	203	328	1	2	1	30	69,829	0	26	0	80	0	0	0	17	39,424	0	17	39,424	0	0	0	0	0	29																																														
30	209	326	1	2	0	42	69,667	0	33	0	64	0	0	0	23	39,304	0	23	39,304	0	0	0	0	0	30																																														
31	210	268	1	2	0	24	69,582	0	20	0	71	0	0	0	13	39,200	0	13	39,200	0	0	0	0	0	31																																														
S.F.D.	7,171	9,257	33	66	7	1,165	69,582	0	888	1,947	4,199	339	877	0	676	39,200	0	676	39,200	0	0	0	0	0	S.F.D.																																														
AC.FT.	14,223	18,363	65	131	14	2,311	138,015	0	1,761	3,861	8,329	672	1,739	0	1,341	77,752	0	1,341	77,752	0	0	0	0	0	AC.FT.																																														
TOTAL ACRE-FOOT STORAGE DAYS																							4,356,906	TOTAL ACRE-FOOT STORAGE DAYS																							2,591,965	TOTAL ACRE-FOOT STORAGE DAYS																							0

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	C-HANGE IN STORAGE+LOSS +1ST POINT +FLOW ABOVE	COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (90,194 AC-FT)	STORAGE		KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT-KERN INFLOW										
		MIDNIGHT	ACRE-FOOT	S.F.D.	LOSS						IRRIGATION	AT 2ND PT.													
Previous Day	2571.70	245,951	124,000	37	359	210	210	124,000	108,782	3	0	0	0												
1	2571.66	245,652	123,850	48	312	213	212	123,851	108,633	4	0	0	0												
2	2571.63	245,427	123,736	48	279	215	216	123,736	108,518	4	0	0	0												
3	2571.61	245,278	123,661	54	236	218	217	123,662	108,444	4	0	0	0												
4	2571.59	245,128	123,585	54	242	226	222	123,590	108,372	4	0	0	0												
5	2571.58	245,054	123,548	51	221	224	238	123,539	108,321	4	0	0	0												
6	2571.57	244,979	123,510	36	213	222	213	123,510	108,292	3	0	0	0												
7	2571.55	244,829	123,435	57	229	218	213	123,440	108,222	4	0	0	0												
8	2571.54	244,755	123,397	63	202	222	229	123,395	108,177	5	0	0	0												
9	2571.53	244,680	123,360	66	191	228	223	123,363	108,145	5	0	0	0												
10	2571.52	244,606	123,322	75	193	230	232	123,323	108,105	6	0	0	0												
11	2571.52	244,606	123,322	15	217	237	235	123,325	108,107	1	0	0	0												
12	2571.52	244,606	123,322	18	223	239	245	123,319	108,101	1	0	0	0												
13	2571.51	244,531	123,284	69	203	240	237	123,284	108,066	5	0	0	0												
14	2571.51	244,531	123,284	69	203	370	370	123,435	108,217	1	0	0	0												
15	2571.56	244,904	123,473	24	203	248	269	123,452	108,234	2	0	0	0												
16	2571.55	244,829	123,435	21	219	238	205	123,447	108,229	2	0	0	0												
17	2571.55	244,829	123,435	30	208	214	241	123,420	108,202	2	0	0	0												
18	2571.54	244,755	123,397	33	197	223	196	123,409	108,191	2	0	0	0												
19	2571.54	244,755	123,397	24	205	225	232	123,402	108,184	2	0	0	0												
20	2571.54	244,755	123,397	24	220	240	247	123,395	108,177	2	0	0	0												
21	2571.53	244,680	123,360	30	246	236	242	123,352	108,134	2	0	0	0												
22	2571.51	244,531	123,284	51	242	228	220	123,284	108,066	4	0	0	0												
23	2571.50	244,458	123,248	48	246	261	261	123,248	108,030	4	0	0	0												
24	2571.49	244,383	123,210	21	241	231	228	123,213	107,995	2	0	0	0												
25	2571.48	244,309	123,173	42	229	228	237	123,167	107,949	3	0	0	0												
26	2571.46	244,160	123,097	39	253	234	219	123,106	107,888	3	0	0	0												
27	2571.44	244,011	123,022	33	284	241	245	123,027	107,809	2	0	0	0												
28	2571.42	243,862	122,947	48	283	256	260	122,948	107,730	4	0	0	0												
29	2571.41	243,787	122,909	0	297	261	262	122,909	107,691	0	0	0	0												
30	2571.42	243,862	122,947	24	328	393	393	122,947	107,729	2	0	0	0												
TOTAL SECOND FOOT DAYS														1,155	7,069	88	7,259	14,398	175	88	107,729	213,678	177	0	0
TOTAL ACRE-FOOT														2,291	14,021	175	14,398	14,398	175	88	107,729	213,678	177	0	0

By: *[Signature]*

Date: DECEMBER 10, 1993

REPORT OF THE KERN RIVER WATERMASTER

NOVEMBER 1993

Quantities in S.F.D. except where noted

NORTH KERN WATER STORAGE DISTRICT

BUENA VISTA WATER STORAGE DISTRICT

HACIENDA WATER DISTRICT

DAY	POINT	FLOW	AT 1ST	M/G	WD	L _a	KERN VALLEY	FLOW ABOVE FIRST POINT		ENTL AT 1ST	POINT	RESERVOIR STORAGE	LOSS	VIA	KOWD	ID#	AT 2ND	POINT	WD	OLCESE	FLOW ABOVE FIRST POINT	RESERVOIR STORAGE	LOSS	ENTITLEMENT Contributed by:	NKWSD	BIWSD	HACIENDA	L _a	RESERVOIR STORAGE	LOSS	FLOW ABOVE FIRST POINT	DAY																							
								INC.	COURSE																								INC.	La																					
210	268	1	2	0	0	0	0	24	69,582	0	0	20	71	0	0	0	0	0	0	0	0	13	39,200	0	0	0	0	0	0	0	0	0																							
1	213	244	1	0	0	0	0	33	69,516	0	0	0	68	0	0	0	0	0	0	0	0	15	39,117	0	0	0	0	0	0	0	0	1																							
2	215	229	1	2	0	0	0	31	69,468	0	0	0	50	0	0	0	0	0	0	0	0	17	39,050	0	0	0	0	0	0	0	0	2																							
3	218	236	1	1	0	0	0	35	69,413	0	0	0	0	0	0	0	0	0	0	0	0	19	39,031	0	0	0	0	0	0	0	0	3																							
4	226	242	1	1	0	0	0	35	69,360	0	0	0	0	0	0	0	0	0	0	0	0	19	39,012	0	0	0	0	0	0	0	0	4																							
5	224	221	0	2	0	1	0	33	69,327	0	0	0	0	0	0	0	0	0	0	0	0	18	38,994	0	0	0	0	0	0	0	0	5																							
6	222	213	1	1	0	0	0	23	69,311	0	0	0	0	0	0	0	0	0	0	0	0	13	38,981	0	0	0	0	0	0	0	0	6																							
7	218	229	1	1	0	0	0	37	69,261	0	0	0	0	0	0	0	0	0	0	0	0	20	38,961	0	0	0	0	0	0	0	0	7																							
8	222	202	1	1	0	0	0	41	69,238	0	0	0	0	0	0	0	0	0	0	0	0	22	38,939	0	0	0	0	0	0	0	0	8																							
9	228	191	1	2	0	0	0	43	69,229	0	0	0	0	0	0	0	0	0	0	0	0	23	38,916	0	0	0	0	0	0	0	0	9																							
10	230	193	0	1	1	0	0	49	69,215	0	0	0	0	0	0	0	0	0	0	0	0	26	38,890	0	0	0	0	0	0	0	0	10																							
11	237	217	1	1	1	0	0	10	69,222	0	0	0	0	0	0	0	0	0	0	0	0	5	38,885	0	0	0	0	0	0	0	0	11																							
12	239	223	1	2	1	0	0	12	69,222	0	0	0	0	0	0	0	0	0	0	0	0	6	38,879	0	0	0	0	0	0	0	0	12																							
13	240	203	1	1	1	0	0	45	69,211	0	0	0	0	0	0	0	0	0	0	0	0	24	38,855	0	0	0	0	0	0	0	0	13																							
14	370	207	0	1	2	0	0	6	69,365	0	0	0	0	0	0	0	0	0	0	0	0	3	38,852	0	0	0	0	0	0	0	0	14																							
15	248	203	1	2	1	0	0	16	69,390	0	0	0	0	0	0	0	0	0	0	0	0	8	38,844	0	0	0	0	0	0	0	0	15																							
16	238	202	1	1	1	0	0	14	69,409	0	0	17	0	0	0	0	0	0	0	0	0	7	38,820	0	0	0	0	0	0	0	0	16																							
17	214	194	0	1	2	0	0	19	69,407	0	0	14	0	0	0	0	0	0	0	0	0	11	38,795	0	0	0	0	0	0	0	0	17																							
18	223	183	1	1	1	0	0	21	69,422	0	0	14	0	0	0	0	0	0	0	0	0	12	38,769	0	0	0	0	0	0	0	0	18																							
19	225	198	1	1	1	0	0	16	69,430	0	0	7	0	0	0	0	0	0	0	0	0	8	38,754	0	0	0	0	0	0	0	0	19																							
20	240	218	0	2	1	0	0	16	69,433	0	0	2	0	0	0	0	0	0	0	0	0	8	38,744	0	0	0	0	0	0	0	0	20																							
21	236	244	1	1	1	0	0	19	69,403	0	0	2	0	0	0	0	0	0	0	0	0	11	38,731	0	0	0	0	0	0	0	0	21																							
22	228	240	1	1	1	0	0	33	69,355	0	0	2	0	0	0	0	0	0	0	0	0	18	38,711	0	0	0	0	0	0	0	0	22																							
23	261	243	0	2	1	0	0	31	69,339	0	0	3	0	0	0	0	0	0	0	0	0	17	38,691	0	0	0	0	0	0	0	0	23																							
24	231	241	1	1	2	0	0	14	69,311	0	0	0	0	0	0	0	0	0	0	0	0	7	38,684	0	0	0	0	0	0	0	0	24																							
25	228	228	1	1	1	0	0	27	69,281	0	0	1	0	0	0	0	0	0	0	0	0	15	38,668	0	0	0	0	0	0	0	0	25																							
26	234	246	0	2	1	0	0	25	69,241	0	0	7	0	0	0	0	0	0	0	0	0	14	38,647	0	0	0	0	0	0	0	0	26																							
27	241	272	1	1	1	0	0	21	69,166	0	0	12	0	0	0	0	0	0	0	0	0	12	38,623	0	0	0	0	0	0	0	0	27																							
28	256	272	0	1	2	1	0	31	69,135	0	0	11	0	0	0	0	0	0	0	0	0	17	38,595	0	0	0	0	0	0	0	0	28																							
29	261	286	1	1	1	0	0	0	69,107	0	0	11	0	0	0	0	0	0	0	0	0	0	38,584	0	0	0	0	0	0	0	0	29																							
30	393	288	0	2	1	0	0	16	69,193	0	0	40	0	0	0	0	0	0	0	0	0	8	38,536	0	0	0	0	0	0	0	0	30																							
S.F.D.	7,259	6,808	21	39	25	3	752	69,193	0	0	143	118	0	0	0	0	0	0	0	0	0	403	38,536	0	0	0	0	0	0	0	0	S.F.D.																							
AC.FT.	14,398	13,503	42	77	51	5	1,492	137,243	0	0	284	234	0	0	0	0	0	0	0	0	0	799	76,435	0	0	0	0	0	0	0	0	AC.FT.																							
TOTAL ACRE-FOOT STORAGE DAYS																												4,124,427																											
TOTAL ACRE-FOOT STORAGE DAYS																												2,309,866																											
TOTAL ACRE-FOOT STORAGE DAYS																												0																											

WATERMASTER NOTES *** KERN RIVER BULLETIN

MONTH DAY(S) PAGE NO. TITLE OF COLUMN

November 16-30 2 BWSD FLOW - VIA KDWD

November 10 2 NKWSD - FLOW ABOVE FIRST POINT - La HACIENDA, INC.

COMMENT

Reflects delivery of 1988 State Pool Payback water.

North Kern Water Storage District delivery for La Hacienda, Inc. pursuant to terms of NKWSD/La Hacienda, Inc. exchange agreement dated February 20, 1987.

RELATIONSHIP OF OCTOBER - NOVEMBER PRECIPITATION TO WATER YEAR RUNOFF

WATER YEAR	ISABELLA DAM & RESERVOIR PRECIPITATION (1949-1993) (IN ORDER OF MAGNITUDE)		% OF NORMAL	WATER YEAR RUNOFF	RUNOFF IN % OF AVERAGE
	OCT	NOV			
1959-60	0.00	0.00	0.00	294,064	41%
1962-63	0.03	0.00	0.03	763,239	106%
1980-81	0.08	0.01	0.10	474,040	66%
1977-78	0.02	0.17	0.19	1,609,214	223%
1976-77	0.23	0.07	0.30	201,036	28%
1978-79	0.02	0.39	0.41	699,782	97%
1989-90	0.11	0.30	0.42	209,729	29%
1955-57	0.46	0.33	0.82	455,052	63%
1971-72	0.18	0.37	0.52	1,091,348	151%
1960-61	0.03	0.61	0.62	266,638	37%
1975-76	0.01	0.55	0.53	396,246	55%
1975-76	0.41	0.22	0.63	630,570	87%
1949-50	0.71	0.22	0.93	252,368	35%
1958-59	0.05	0.65	0.70	286,330	40%
1966-67	0.64	0.53	1.17	448,071	62%
1954-55	0.80	0.54	1.34	410,520	57%
1951-52	0.95	0.07	1.02	374,231	52%
1952-53	0.94	0.00	0.94	1,478,938	205%
1953-54	0.13	1.09	1.22	842,021	117%
1966-67	0.00	1.09	1.09	527,904	73%
1979-80	0.85	0.33	1.18	1,628,039	228%
1955-56	0.00	1.34	1.34	1,816,076	254%
1973-74	0.11	1.26	1.37	899,440	124%
1960-61	0.00	1.26	1.26	622,171	86%
1967-68	0.00	1.41	1.41	195,743	26%
1987-88	0.62	0.87	1.49	510,116	71%
1988-89	0.35	1.28	1.63	301,376	42%
1983-84	0.12	1.52	1.64	2,406,506	333%
1988-89	0.00	1.75	1.75	400,311	55%
1991-92	0.53	1.30	1.83	298,149	41%
1952-53	0.00	1.98	1.98	567,316	81%
1961-62	0.00	2.15	2.15	888,512	95%
1981-82	1.05	1.17	2.22	1,146,760	159%
1964-65	0.47	1.82	2.29	1,713,646	89%
1985-86	0.10	2.27	2.37	1,440,564	199%
1974-75	2.30	0.10	2.40	562,459	81%
1965-66	0.00	2.76	2.76	416,185	58%
1963-64	2.02	1.20	3.22	344,858	48%
1950-51	0.08	3.16	3.24	565,652	78%
1970-71	0.04	3.47	3.51	446,337	62%
1984-85	0.62	2.90	3.52	700,620	97%
1972-73	0.66	3.13	3.79	957,169	132%
1982-83	0.78	3.14	3.92	2,442,481	336%
1983-84	0.63	3.49	4.12	948,772	131%

SUMMARY:

OCT.-NOV PRECIPITATION STATUS	WATER YEAR RUNOFF PROBABILITY
DRY (0% TO 75% of NORMAL)	6.5 OUT OF 10 YEARS DRY (BELOW 75% OF AVERAGE)
NORMAL (75% TO 125% of NORMAL)	5 OUT OF 10 YEARS DRY (BELOW 75% OF AVERAGE)
WET (125% TO 275% of NORMAL)	7.5 OUT OF 10 YEARS NORMAL OR ABOVE (ABOVE 75% OF AVERAGE)

DAY	ISABELLA		RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN		COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage = 15,218 S.F.D. (90,184 ACFT)	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRIANT- KERN INFLOW							
	ELEVATION (FEET)	MIDNIGHT STORAGE ACRE-FEET	S.F.D.	STORAGE +LOSS +1ST POINT +FLOW ABOVE				STORAGE +LOSS +1ST POINT +FLOW ABOVE														
Previous Day	2571.42	243,862	122,947	24	328	3	393	393	122,947	107,729	2	0	0	0								
1	2571.41	243,787	122,909	15	326	2	305	305	122,909	107,691	1	0	0	0								
2	2571.39	243,638	122,834	17	314	2	258	258	122,837	107,619	1	0	0	0								
3	2571.36	243,415	122,722	15	362	2	267	267	122,713	107,495	1	0	0	0								
4	2571.32	243,117	122,572	40	348	1	239	239	122,585	107,367	3	0	0	0								
5	2571.30	242,969	122,497	15	335	2	277	277	122,489	107,271	1	0	0	0								
6	2571.27	242,746	122,385	32	331	2	253	253	122,391	107,173	2	0	0	0								
7	2571.25	242,589	122,310	17	329	1	272	272	122,307	107,089	1	0	0	0								
8	2571.22	242,376	122,198	32	342	2	264	264	122,205	106,987	2	0	0	0								
9	2571.20	242,228	122,123	15	344	2	286	286	122,118	106,900	1	0	0	0								
10	2571.18	242,079	122,048	17	330	1	273	273	122,048	106,830	1	0	0	0								
11	2571.22	242,376	122,198	0	283	2	435	435	122,198	106,980	0	0	0	0								
12	2571.26	242,671	122,347	9	304	1	463	463	122,347	107,129	0	0	0	0								
13	2571.27	242,746	122,385	9	278	2	327	327	122,385	107,167	1	0	0	0								
14	2571.27	242,746	122,385	0	286	1	287	287	122,385	107,167	0	0	0	0								
15	2571.29	242,894	122,459	26	290	2	392	392	122,459	107,241	2	0	0	0								
16	2571.30	242,969	122,497	9	280	1	328	328	122,497	107,279	1	0	0	0								
17	2571.30	242,969	122,497	26	263	2	291	291	122,479	107,261	2	0	0	0								
18	2571.29	242,894	122,459	15	259	1	237	237	122,468	107,250	1	0	0	0								
19	2571.28	242,820	122,422	20	279	2	264	264	122,432	107,214	1	0	0	0								
20	2571.28	242,820	122,422	17	275	2	294	294	122,419	107,201	1	0	0	0								
21	2571.28	242,820	122,422	17	268	1	286	286	122,410	107,192	1	0	0	0								
22	2571.27	242,746	122,385	20	266	2	251	251	122,399	107,181	1	0	0	0								
23	2571.27	242,746	122,385	20	272	1	293	293	122,378	107,160	1	0	0	0								
24	2571.26	242,671	122,347	23	286	2	273	273	122,360	107,142	2	0	0	0								
25	2571.26	242,671	122,347	29	284	1	314	282	122,328	107,110	2	0	0	0								
26	2571.25	242,589	122,310	15	278	2	258	282	122,315	107,097	1	0	0	0								
27	2571.24	242,525	122,273	29	281	1	274	277	122,281	107,063	2	0	0	0								
28	2571.24	242,525	122,273	17	281	1	299	295	122,277	107,059	1	0	0	0								
29	2571.24	242,525	122,273	29	281	2	312	303	122,268	107,050	2	0	0	0								
30	2571.24	242,525	122,273	20	276	2	298	298	122,273	107,055	1	0	0	0								
31	2571.24	242,525	122,273	9	277	1	287	287	122,273	107,055	1	0	0	0								
TOTAL SECOND FOOT DAYS														574	9,208	49	9,157	122,273	107,055	39	0	0
TOTAL ACRE-FEET														1,139	18,264	96	18,163	242,525	212,341	77	0	0

By: *[Signature]* Date: JANUARY 12, 1994

REPORT OF THE KERN RIVER WATERMASTER

DECEMBER 1993

Quantities in S.F.D. except where noted

NORTH KERN WATER STORAGE DISTRICT

BUENA VISTA WATER STORAGE DISTRICT

HACIENDA WATER DISTRICT

DAY	FLOW ABOVE FIRST POINT				FLOW ABOVE FIRST POINT				FLOW ABOVE FIRST POINT									
	ENTL AT 1ST POINT	FLOW FOR VIA	ENTL AT 1ST POINT	RESERVOIR STORAGE	ENTL AT 1ST POINT	FLOW FOR VIA	ENTL AT 1ST POINT	RESERVOIR STORAGE	ENTL AT 1ST POINT	FLOW FOR VIA	ENTL AT 1ST POINT	RESERVOIR STORAGE						
Previous Day	393	288	0	2	1	0	16	69,193	0	40	0	8	38,536					
1	305	302	1	1	0	0	10	69,184	0	24	0	5	38,507					
2	261	286	0	1	0	11	69,146	0	28	0	6	38,473						
3	255	333	1	0	1	10	69,056	0	29	0	5	38,439						
4	261	338	0	1	0	26	68,952	0	10	0	14	38,415						
5	256	330	1	1	0	10	68,866	0	5	0	5	38,405						
6	267	326	0	1	1	21	68,784	0	5	0	11	38,389						
7	263	325	1	0	0	11	68,710	0	4	0	6	38,379						
8	274	338	0	1	1	21	68,623	0	4	0	11	38,364						
9	274	339	1	1	0	10	68,546	0	5	0	5	38,354						
10	278	325	0	1	0	11	68,487	0	5	0	6	38,343						
11	435	279	1	0	1	0	68,641	0	4	0	0	38,339						
12	463	299	0	1	0	6	68,798	0	5	0	3	38,331						
13	327	273	1	0	1	6	68,844	0	5	0	3	38,323						
14	287	283	0	1	0	0	68,847	0	3	0	0	38,320						
15	392	290	1	0	1	17	68,930	0	0	0	9	38,311						
16	328	280	0	1	0	6	68,971	0	0	0	3	38,308						
17	273	263	1	0	1	17	68,962	0	0	0	9	38,299						
18	264	257	0	1	0	10	68,958	0	2	0	5	38,292						
19	265	277	0	1	1	13	68,931	0	2	0	7	38,283						
20	281	273	1	0	1	11	68,926	0	2	0	6	38,275						
21	277	266	0	1	0	11	68,925	0	2	0	6	38,267						
22	277	263	0	1	1	13	68,924	0	3	0	7	38,257						
23	272	269	1	0	0	13	68,913	0	3	0	7	38,247						
24	293	286	0	1	0	15	68,903	0	0	0	8	38,239						
25	282	284	0	1	0	19	68,881	0	0	0	10	38,229						
26	282	278	1	0	1	10	68,873	0	0	0	5	38,224						
27	277	278	0	0	1	19	68,852	0	3	0	10	38,211						
28	295	275	0	1	0	11	68,860	0	6	0	6	38,199						
29	303	271	1	0	1	19	68,871	0	10	0	10	38,179						
30	303	266	0	1	1	13	68,893	0	10	0	7	38,162						
31	287	273	0	1	0	6	68,898	0	4	0	3	38,157						
S.F.D.	9,157	9,025	13	20	16	0	376	68,898	0	183	0	198	38,157					
AC.FT.	18,163	17,901	26	39	31	0	746	136,658	0	363	0	393	75,683					
TOTAL ACRE-FOOT STORAGE DAYS												4,234,619	TOTAL ACRE-FOOT STORAGE DAYS		2,355,410	TOTAL ACRE-FOOT STORAGE DAYS		0

WATERMASTER NOTES *** KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN
December	1-31	2	BWSD FLOW - VIA KDWD
December	31	2	NKWSD RESERVOIR STORAGE BWSD RESERVOIR STORAGE

COMMENT

Reflects delivery of 1988 State Pool Payback water.

Reflects transfer of 4 acre-feet (2 s.f.d.) from NORTH KERN WATER STORAGE DISTRICT to BUENA VISTA WATER STORAGE DISTRICT (North Kern WSD on behalf of La Hacienda, Inc.) as compensation for additional evaporation of Kern River water due to Rio Bravo Power Plant operations during calendar year 1993 pursuant to terms of May 14, 1986 Memorandum of Understanding between Oicsee Water District and Kern River Interests. (Total of 14 acre-feet of additional evaporation; shared 75% NKWSD and 25% BWSD)

KERN RIVER BASIN SNOW ACCUMULATION
EIGHT SENSOR INDEX

