

# KERN RIVER

## 1991





1991  
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-foot mean s.f.d.										32,864	30,827	31,757				
1894	acre-foot mean s.f.d.	40,647	39,816	61,548	88,974	98,801	64,564	43,061	20,585	14,759	17,179	14,501	28,911	533,326			
1895	acre-foot mean s.f.d.	49,769	69,621	84,456	162,071	268,835	172,890	91,133	38,872	20,452	20,091	20,604	24,758	1,023,062	2,208	172	737
1896	acre-foot mean s.f.d.	45,951	35,510	58,494	57,884	86,174	148,124	82,760	29,885	18,061	18,401	21,108	21,360	619,892			
1897	acre-foot mean s.f.d.	22,949	44,941	56,756	173,393	281,639	137,393	61,837	28,842	17,728	20,898	21,146	25,922	893,434	3,611	223	854
1898	acre-foot 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	251,827	5,342	260	1,234
1899	acre-foot mean s.f.d.	16,185	16,754	36,279	53,133	51,353	79,178	30,046	6,600	6,248	9,852	13,180	17,064	338,872	1,342	80	348
1900	acre-foot mean s.f.d.	22,266	15,582	25,384	28,102	68,295	79,366	24,125	8,860	9,903	9,808	20,787	22,915	332,373	4,932	86	468
1901	acre-foot 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-foot 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-foot mean s.f.d.	21,531	25,192	35,575	74,315	132,097	139,222	59,355	18,623	11,357	10,661	12,107	12,340	546,395	3,758	160	763
1904	acre-foot mean s.f.d.	11,982	19,902	40,966	59,812	113,205	103,904	39,725	28,733	15,901	26,955	17,006	14,828	492,949	3,374	150	755
1905	acre-foot mean s.f.d.	17,258	22,001	50,596	62,047	117,748	132,766	59,835	20,134	12,563	12,744	14,041	16,074	531,809	3,167	156	679
1906	acre-foot mean s.f.d.	42,623	34,750	126,844	173,143	360,234	458,418	399,941	141,384	57,925	37,484	29,631	37,983	1,900,540			
1907	acre-foot mean s.f.d.	693	626	2,063	2,910	5,859	7,704	6,503	2,299	973	609	503	618	990,800	9,684	222	2,625
1908	acre-foot mean s.f.d.	27,878	32,491	65,079	79,320	79,418	60,305	41,951	32,378	21,763	21,487	18,206	18,337	498,503			
1909	acre-foot 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-foot mean s.f.d.	1,928	2,252	2,092	4,158	6,223	6,623	3,169	1,077	730	508	577	1,176	958,911	11,870	295	2,540
	acre-foot mean s.f.d.	73,523	48,904	85,085	102,893	127,733	79,494	42,046	24,216	17,201	18,976	18,881	19,999	658,911			
	acre-foot mean s.f.d.	1,196	881	1,384	1,729	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-foot	38,241	53,944	80,166	138,113	184,481	222,076	156,498	46,880	26,222	25,422	21,661	21,850	1,013,384	—	—	—
	mean s.f.d.	622	971	1,304	2,321	3,000	3,732	2,645	746	424	413	365	352	—	5,383	273	1,400
1912	acre-foot	23,320	21,302	28,080	37,246	80,471	100,925	33,170	16,653	10,899	11,772	11,772	11,804	387,432	—	—	—
	mean s.f.d.	379	370	457	628	1,309	1,666	539	271	183	192	198	192	—	3,220	147	534
1913	acre-foot	13,019	15,731	25,161	42,494	73,561	60,738	34,929	31,454	25,357	13,402	15,368	16,566	367,840	—	—	—
	mean s.f.d.	212	283	410	714	1,196	1,021	568	512	426	218	258	270	—	1,976	126	508
1914	acre-foot	116,541	62,575	102,739	144,934	210,676	201,064	128,338	55,127	25,240	24,462	20,360	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	388	343	348	—	18,287	285	1,538
1915	acre-foot	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-foot	172,346	202,510	378,116	481,749	472,694	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	8,098	7,663	6,583	3,662	923	568	679	519	526	—	17,962	274	3,481
1917	acre-foot	40,128	44,894	65,242	126,329	165,062	187,638	81,276	36,960	19,696	17,970	18,498	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	287	1,137
1918	acre-foot	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	1,262	1,260	2,298	729	338	295	529	372	407	—	3,478	227	744
1919	acre-foot	21,098	23,002	37,973	86,574	140,215	81,944	34,364	16,288	11,722	13,835	13,884	18,325	499,124	—	—	—
	mean s.f.d.	343	414	618	1,455	2,260	1,375	559	265	197	225	233	298	—	4,269	156	689
1920	acre-foot	17,220	18,044	40,397	83,370	158,904	137,840	50,689	22,431	14,949	16,596	19,490	20,703	600,643	—	—	—
	mean s.f.d.	280	314	657	1,401	2,594	2,316	825	365	251	270	328	337	—	4,456	196	827
1921	acre-foot	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.	383	554	901	869	1,628	2,023	799	294	212	214	218	352	—	3,548	110	704
1922	acre-foot	30,682	33,848	52,468	84,407	242,256	202,395	88,949	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	1,180
1923	acre-foot	26,963	25,720	31,372	73,355	120,849	82,528	55,800	22,322	18,054	15,465	14,348	13,809	500,515	—	—	—
	mean s.f.d.	437	463	510	1,233	1,965	1,367	908	363	303	252	241	225	—	3,275	179	691
1924	acre-foot	13,676	13,702	15,953	28,540	41,722	14,069	8,225	5,881	5,494	7,642	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-foot	17,962	26,333	31,299	56,408	102,016	96,252	58,437	25,938	11,405	12,806	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-foot	12,022	15,667	24,739	66,079	98,598	49,530	18,575	9,522	7,029	8,358	28,493	28,094	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-foot	20,485	75,279	73,083	100,362	184,721	161,153	75,481	26,817	14,842	14,037	27,180	19,140	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-foot	18,452	17,818	32,668	37,757	76,885	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-foot	13,864	14,654	25,176	39,084	85,965	63,487	30,988	12,797	9,146	8,793	9,035	9,961	322,958	—	—	—
	mean s.f.d.	225	264	409	656	1,399	1,067	504	208	154	143	152	162	—	2,003	119	446
1930	acre-foot	12,234	20,099	34,550	53,508	67,851	82,824	28,401	11,819	7,743	9,314	11,042	10,590	349,973	—	—	—
	mean s.f.d.	199	362	562	899	1,103	1,392	482	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	8,493	6,302	6,860	6,817	8,241	17,510	185,645	—	—	—
	mean s.f.d.	200	248	257	394	681	408	138	102	115	111	136	285	—	2,261	71	256
1932	acre-foot	22,235	39,598	68,647	111,273	154,742	168,404	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	1,529	459	228	227	203	211	—	3,726	180	1,016
1933	acre-foot	17,175	21,021	36,244	57,265	60,026	125,395	56,898	18,692	10,082	10,893	10,776	16,639	441,086	—	—	—
	mean s.f.d.	279	379	589	962	978	2,107	925	304	169	177	161	271	—	3,769	144	609
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	227,665	—	—	—
	mean s.f.d.	326	303	446	671	700	367	184	113	118	133	169	224	—	914	82	314
1935	acre-foot	14,840	18,500	24,841	71,042	103,787	133,634	42,184	17,183	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	796,447	—	—	—
	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	91,067	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	269	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	28,693	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	359	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	981	414	305	230	274	230	225	—	2,028	178	637
1940	acre-foot	45,082	65,032	77,810	118,175	196,465	145,503	50,471	18,928	13,234	14,670	16,007	27,723	789,098	—	—	—
	mean s.f.d.	733	1,131	1,265	1,986	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	1,765	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	1,328	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	260	312	394	—	21,701	252	1,686
1944	acre-foot	27,473	32,781	69,836	80,223	150,109	115,862	59,187	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	662
1945	acre-foot	20,783	70,522	63,925	131,246	205,509	169,002	91,593	41,632	21,548	41,268	36,845	44,182	938,055	—	—	—
	mean s.f.d.	338	1,270	1,040	2,208	3,342	2,840	1,490	677	362	671	619	719	—	9,370	155	1,296
1946	acre-foot	45,481	34,854	60,958	109,658	155,476	85,880	39,733	20,991	13,261	16,141	31,365	37,765	650,683	—	—	—
	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	8,140	12,607	13,492	13,942	408,698	—	—	—
	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	78,595	31,331	9,927	6,899	8,908	9,596	11,220	329,506	—	—	—
	mean s.f.d.	219	231	264	739	1,400	1,320	510	161	116	145	161	182	—	2,206	97	454
1949	acre-foot	11,982	12,992	21,136	50,517	84,508	67,685	17,201	8,982	6,541	7,704	11,131	12,791	302,870	—	—	—
	mean s.f.d.	195	234	344	849	1,374	969	280	141	110	125	167	208	—	2,128	69	418
1950	acre-foot	17,119	39,761	37,087	76,155	98,483	90,367	34,901	12,179	10,393	9,955	96,968	77,962	601,360	—	—	—
	mean s.f.d.	278	716	603	1,280	1,602	1,519	568	198	175	182	1,630	1,268	—	37,000	128	931

**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
1951	acre-foot	32,975	30,018	35,101	48,914	85,038	88,990	38,941	12,988	7,793	9,364	11,958	40,183	442,222	—	—	—
	mean s.f.d.	536	541	571	822	1,383	1,496	633	211	131	152	201	653	—	8,341	69	611
1952	acre-foot	60,367	53,673	84,726	222,633	434,789	302,557	159,956	98,200	30,670	23,417	24,871	35,260	1,500,999	—	—	—
	mean s.f.d.	982	933	1,378	3,741	7,071	5,085	2,800	1,109	515	381	418	573	—	8,530	254	2,073
1953	acre-foot	60,760	40,488	38,709	70,730	86,019	103,164	69,657	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	19,198	12,571	12,351	15,328	17,837	528,357	—	—	—
	mean s.f.d.	358	547	725	1,701	2,272	1,238	645	312	211	201	258	280	—	2,948	150	729
1955	acre-foot	20,438	24,625	29,734	37,567	69,544	86,680	31,014	19,283	9,840	10,100	12,526	92,959	444,300	—	—	—
	mean s.f.d.	332	443	484	631	1,131	1,458	504	314	165	164	211	1,512	—	12,711	101	614
1956	acre-foot	82,943	49,993	62,767	97,553	159,683	168,878	99,529	41,141	21,370	23,397	17,042	16,568	840,862	—	—	—
	mean s.f.d.	1,349	869	1,021	1,639	2,597	2,838	1,619	669	359	381	286	289	—	5,167	207	1,158
1957	acre-foot	18,535	26,178	31,357	38,644	79,355	132,359	41,988	17,518	12,111	13,648	14,013	18,632	444,338	—	—	—
	mean s.f.d.	301	471	510	649	1,291	2,224	983	285	204	222	235	303	—	3,411	147	614
1958	acre-foot	22,088	39,453	68,140	168,105	316,974	230,888	115,724	56,190	27,515	20,815	19,835	19,025	1,104,730	—	—	—
	mean s.f.d.	359	710	1,108	2,825	5,155	3,880	1,882	914	482	339	333	309	—	6,592	236	1,526
1959	acre-foot	20,592	22,258	33,274	40,566	39,945	32,061	16,013	10,084	9,852	9,689	10,419	11,215	257,978	—	—	—
	mean s.f.d.	335	401	541	682	650	539	283	164	166	158	175	162	—	944	104	356
1960	acre-foot	13,363	30,682	31,908	46,272	58,336	47,181	16,683	9,638	8,678	10,187	14,183	12,928	300,037	—	—	—
	mean s.f.d.	217	533	519	778	949	793	271	157	148	168	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	12,288	177,642	—	—	—
	mean s.f.d.	186	196	231	406	488	408	146	261	142	120	161	200	—	626	99	245
1962	acre-foot	13,507	53,411	37,680	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	962	612	2,478	2,210	2,843	1,218	413	233	229	209	194	—	3,604	144	964
1963	acre-foot	27,783	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	19,943	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	—	4,693	120	467
1965	acre-foot	46,768	31,702	36,359	80,043	131,980	149,357	95,288	49,105	22,036	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	226	895
1966	acre-foot	29,272	22,439	36,108	68,779	82,336	45,431	23,347	18,141	9,608	10,822	15,501	313,811	678,595	—	—	—
	mean s.f.d.	476	404	636	1,156	1,339	763	380	285	161	176	261	5,104	—	80,029	112	937
1967	acre-foot	63,580	65,831	88,200	99,509	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	4,365	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	30,680	20,600	11,466	13,589	16,982	19,595	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	496,798	254,777	111,100	49,936	36,038	34,862	34,132	2,481,370	—	—	—
	mean s.f.d.	2,903	2,005	2,563	6,358	10,050	8,349	4,144	1,807	839	586	586	555	—	24,216	344	3,400
1970	acre-foot	69,480	41,419	59,917	63,513	110,057	95,700	50,138	24,224	14,392	13,301	21,519	28,814	589,474	—	—	—
	mean s.f.d.	1,081	746	974	1,067	1,790	1,608	815	394	242	216	362	469	—	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-foot	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-foot	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-foot	33,628	36,395	52,778	110,892	288,652	230,390	93,834	41,028	23,030	18,895	22,342	27,788	979,652	—	—	—
	mean s.f.d.	547	655	858	1,864	4,894	3,872	1,526	667	387	307	375	452	—	5,886	220	1,363
1974	acre-foot	50,337	29,873	74,247	114,113	183,733	187,740	99,580	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-foot	21,521	26,725	42,815	46,802	147,001	140,680	51,917	22,825	17,133	18,209	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-foot	16,308	16,994	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	216	182	—	1,188	142	344
1977	acre-foot	13,456	13,704	14,765	23,391	25,630	35,955	10,973	10,978	7,815	8,146	8,456	24,028	196,998	—	—	—
	mean s.f.d.	219	247	240	393	417	599	178	179	131	132	142	381	—	2,049	57	272
1978	acre-foot	46,596	116,432	175,484	181,700	363,157	354,825	194,683	74,001	61,696	29,562	26,874	28,485	1,653,505	—	—	—
	mean s.f.d.	758	2,098	2,854	3,054	5,906	5,963	3,166	1,204	1,037	481	452	463	—	10,901	350	2,284
1979	acre-foot	34,062	41,825	72,299	102,079	164,935	106,112	46,733	27,243	19,593	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-foot	145,645	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	2,938	2,271	3,550	4,681	4,764	3,394	1,271	589	438	420	483	—	14,171	261	2,259
1981	acre-foot	28,709	34,762	45,608	69,320	91,914	65,817	25,630	17,389	13,222	14,781	18,922	23,189	449,283	—	—	—
	mean s.f.d.	467	628	742	1,165	1,495	1,108	417	283	222	240	316	377	—	2,211	157	621
1982	acre-foot	37,682	52,996	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-foot	87,905	138,514	285,543	206,473	478,625	571,846	288,868	154,935	68,503	59,300	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-foot	76,054	60,926	82,738	91,359	161,613	93,114	77,046	49,688	28,306	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-foot	40,423	40,910	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	2,280	2,387	1,678	673	390	286	268	375	552	—	3,353	208	929
1986	acre-foot	42,668	149,966	204,775	208,147	293,335	263,794	121,398	57,160	26,567	28,330	25,341	23,458	1,444,839	—	—	—
	mean s.f.d.	694	2,700	3,330	3,498	4,771	4,433	1,974	930	446	461	428	382	—	8,296	313	1,996
1987	acre-foot	25,595	29,504	41,568	55,238	75,108	56,146	24,918	14,795	10,683	11,484	14,745	16,215	375,935	—	—	—
	mean s.f.d.	416	531	676	928	1,222	944	405	240	180	187	248	284	—	1,817	145	519
1988	acre-foot	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	161	184	252	—	1,418	118	406
1989	acre-foot	15,947	23,528	67,430	91,380	71,849	49,823	21,378	13,010	10,213	10,824	10,707	10,949	367,038	—	—	—
	mean s.f.d.	259	424	1,067	1,536	1,169	837	348	212	172	176	180	178	—	2,068	123	548
1990	acre-foot	12,916	13,127	23,048	32,019	38,600	29,345	13,380	8,386	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 mean s.f.d.	10,931 178	9,215 166	47,341 770	56,092 976	79,763 1,297	100,423 1,698	38,285 622	14,854 242	11,040 186	9,358 152	13,940 234	13,067 213	406,289 —	— 5,025	— 109	— 581

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

YEAR: 1991

October 1893 to Date...

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Mean Monthly Flow (acre-feet)	36,074	42,876	64,393	99,556	155,989	139,842	71,833	31,169	18,413	17,604	19,880	27,885	725,514
Mean Monthly Flow (second foot days)	587	765	1,047	1,673	2,537	2,350	1,168	507	309	286	334	454	1,001
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	98	98	98	98	98	98	98	98	98	99	99	99	99
Cumulative Monthly Flow (All Months - acre-feet)	3,535,251	4,201,839	6,310,527	9,756,475	15,286,949	13,704,533	7,039,661	3,054,585	1,804,450	1,742,756	1,968,066	2,760,642	
Median Monthly Flow (acre-feet)	23,076	30,341	46,619	75,370	119,078	112,410	48,897	21,864	13,968	14,525	16,086	19,613	541,847
Median Monthly Flow (second foot days)	375	546	758	1,267	1,937	1,889	795	356	235	236	270	319	748

MEAN APRIL - JULY RUNOFF TO DATE = 467,220 AcFt      MEAN MARCH - OCTOBER RUNOFF TO DATE = 598,799 AcFt  
 MEDIAN APRIL - JULY RUNOFF TO DATE = 355,755 AcFt      MEDIAN MARCH - OCTOBER RUNOFF TO DATE = 452,731 AcFt

**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	80,539	81,189	61,059	39,830	22,114	14,450	17,500	17,685	510,320
1955	19,765	22,058	34,671	38,874	48,198	72,198	43,259	25,095	12,938	10,399	13,599	26,743	367,793
1956	41,377	40,326	62,779	49,291	94,887	115,428	124,007	99,489	52,098	42,294	18,990	16,534	755,500
1957	17,958	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	28,175	42,125	78,472	131,421	181,305	187,990	143,722	61,519	49,825	25,095	18,925	967,511
1959	20,811	20,991	37,767	29,936	27,483	94,028	59,817	22,698	10,524	8,700	9,798	10,643	353,165
1960	12,516	17,405	24,044	25,041	47,986	81,481	38,991	26,386	13,154	10,483	13,903	12,768	324,088
1961	11,280	10,736	14,017	16,318	16,780	19,321	25,222	21,316	13,404	7,287	9,281	12,121	177,063
1962	13,121	27,435	44,838	95,445	87,187	112,437	113,318	40,778	26,164	22,623	12,448	12,054	607,848
1963	12,067	24,175	32,959	38,914	54,758	80,083	127,710	118,179	68,388	64,828	31,174	23,044	676,237
1964	20,358	21,152	28,532	27,485	28,451	76,268	71,078	31,323	10,989	8,852	14,259	22,879	361,624
1965	35,784	35,907	41,383	39,399	61,313	85,934	98,236	75,497	52,397	47,220	34,356	28,877	634,303
1966	29,978	22,752	50,933	44,634	67,489	87,489	98,338	51,110	19,535	14,739	15,265	82,447	504,508
1967	146,180	40,516	57,923	92,732	190,249	200,743	183,586	240,154	146,509	85,002	56,799	35,482	1,465,855
1968	33,088	36,284	44,904	45,035	52,159	88,046	82,937	56,584	13,656	13,886	16,365	14,085	497,028
1969	50,469	106,247	237,265	378,817	332,015	374,787	283,903	221,738	121,359	102,494	90,523	34,122	2,313,769
1970	42,299	32,206	52,489	60,101	53,668	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	64,843	23,520	12,184	12,839	17,169	442,651
1972	19,527	22,094	32,130	29,780	32,410	44,965	47,986	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	69,848	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	12,948	11,341	320,784
1977	14,051	14,380	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	296,073	236,549	198,587	146,680	73,234	93,098	70,927	30,458	1,390,675
1979	32,549	31,793	45,903	46,508	62,557	109,987	128,343	107,605	32,287	22,792	18,855	18,909	656,088
1980	55,976	81,590	157,503	185,089	167,415	194,134	238,716	200,338	106,516	82,893	61,644	28,838	1,560,652
1981	25,482	27,013	40,594	41,788	46,348	78,405	80,908	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	57,568	71,165	152,862	286,005	370,706	419,760	387,505	176,194	153,814	117,233	97,616	90,549	2,381,575
1984	84,280	96,998	68,814	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	72,508	98,757	111,385	77,728	34,973	25,305	20,333	28,986	968,971
1986	31,277	39,039	65,946	172,221	205,204	233,197	183,767	141,114	67,589	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	14,664	432,309
1988	20,793	26,906	35,036	33,769	31,815	50,995	60,458	28,348	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	10,788	13,739	348,773
1990	12,926	16,124	25,071	24,422	25,454	30,030	31,129	21,519	6,885	8,979	8,037	6,925	219,501
1991	10,627	9,112	27,814	28,937	30,539	62,997	63,654	48,196	12,460	11,353	13,381	14,394	333,494
MAX. MONTH	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
MIN. MONTH	10,627	9,112	14,017	16,318	16,780	19,321	25,222	21,316	6,885	7,267	8,037	8,925	177,063
ACFT TOTAL	1,169,925	1,329,752	2,024,795	2,639,801	3,235,400	4,314,719	4,217,858	3,123,411	1,600,220	1,334,332	1,061,446	965,612	27,016,911
ACFT AVE.	30,780	34,993	53,283	66,468	85,142	113,545	110,996	82,195	42,111	35,114	27,933	25,411	710,971
S.F.D. AVE.	501	625	867	1,167	1,385	1,908	1,805	1,337	708	571	469	413	981
% OF TOTAL	4.33%	4.92%	7.50%	9.77%	11.98%	15.97%	15.61%	11.56%	5.92%	4.94%	3.93%	3.57%	100.00%

**KERN RIVER IN REVIEW  
1991**

**Introduction**

Hopes that the 1990-91 Water Year would begin a departure from the dry weather cycle begun in the fall of 1986 were short lived. Rainfall amounts throughout the Kern River drainage basin were 28% of normal during the period of October 1990 through February 1991. As late as February 26, 1991, forecasters were predicting that Kern River yield during the 1990-91 Water Year would be the driest of this century.

A remarkable turn of events began on February 27 when a series of powerful Pacific storms began their trek across the southern Sierra Nevada mountains. In the 30 days to follow, a total of six storm systems moved through the Kern River watershed, producing record-breaking precipitation amounts. During March 1991, Isabella, California received 6.43 inches of rain, the greatest amount recorded for the month in 43 years of precipitation records; an incredible 523% of normal.

The Sierra Nevada "storm window", wide-open during March, closed abruptly on April 1, 1991. Rainfall amounts throughout the Kern River drainage basin during the months of April, May and June of 1991 were less than 10% of normal.

Streamflow runoff from the Kern River drainage area as measured near Bakersfield during the 1991 April-July period amounted to 276,543 acre-feet, 59% of the 98-year average flow. The cumulative Kern River April-July runoff for the years 1987 through 1991 is the lowest on record for any five-year consecutive period. The severity of the current prolonged dryness is illustrated in the following table, comparing 1987-91 with previous periods of extended drought:

<u>Period</u>	<u>Cumulative April-July Runoff (Acre-Feet)</u>
1987-91	997,768
1947-51	1,261,253
1927-31	1,265,595

**Precipitation**

Monthly precipitation amounts in inches as recorded at selected Kern County stations during the 1990-1991 Water Year were as follows:

	<u>Bakersfield-DWR</u> (Elev. 403 ft.)			<u>Isabella Dam</u> (Elev. 2660 ft.)			<u>Glenville</u> (Elev. 3140 ft.)		
	<u>90-91</u>	<u>Ave.</u>	<u>% of Ave.</u>	<u>90-91</u>	<u>Ave.</u>	<u>% of Ave.</u>	<u>90-91</u>	<u>Ave.</u>	<u>% of Ave.</u>
Oct	0.00	0.30	0%	0.01	0.30	3%	0.00	0.75	0%
Nov	0.51	0.65	78%	0.61	1.15	53%	0.08	1.85	4%
Dec	0.22	0.65	34%	0.74	1.89	39%	0.79	2.96	27%
Jan	0.66	0.98	67%	0.99	2.07	48%	0.71	3.32	21%
Feb	0.46	1.07	43%	1.17	1.73	68%	0.26	2.99	9%
Mar	3.82	0.87	439%	6.43	1.23	523%	9.89	3.05	324%
Apr	0.04	0.70	6%	0.03	0.93	3%	0.37	2.06	18%
May	0.03	0.24	13%	0.09	0.28	32%	0.30	0.75	40%
Jun	0.00	0.07	0%	0.00	0.10	0%	0.00	0.18	0%
Jul	0.00	0.01	0%	0.00	0.09	0%	0.00	0.04	0%
Aug	0.00	0.05	0%	0.01	0.22	5%	0.02	0.10	20%
Sep	0.00	0.13	0%	0.19	0.44	43%	0.01	0.37	3%
<b>TOTAL</b>	<b>5.74</b>	<b>5.72</b>	<b>100%</b>	<b>10.27</b>	<b>10.43</b>	<b>98%</b>	<b>12.43</b>	<b>18.42</b>	<b>67%</b>

Two major storm systems affected the Kern River watershed during the period of October-December 1990. The first storm event occurred November 25-26, 1990, producing .53 inches of precipitation at Isabella, California and depositing the initial snowfall of the winter season in the higher elevations of the drainage basin. The final storm system of 1990 was encountered December 18-19 with rainfall amounts varying from .21 inches in Bakersfield to .68 inches at Isabella. Basin-wide precipitation during the period of October-December 1990 was 40% of normal.

The month of January 1991 began on a promising note. Approximately 35% of normal January rainfall for the southern Sierra Nevada mountains was recorded by the 4th day of the month. Beginning January 10, a pattern of blocking high pressure re-developed in the Eastern Pacific, forcing the storm track north of the Kern River basin. During the 48 days to follow, a period of time many consider the "heart" of the Sierra winter, skies were clear throughout the watershed.

During the first 149 days of the 1990-91 Water Year, Isabella Dam received a total of 2.35 inches of rain. In the seven days to follow (February 27-March 5, 1991), 4.58 inches were measured. March 4, 1991 rainfall total of 1.72 inches was the maximum daily precipitation amount on record for the month.

Temperature

Isabella, California 1991 mean air temperatures (°F) with comparative averages were as follows:

	<u>1991 Actual</u>	<u>Average</u>	<u>Variance from Norm</u>		<u>1991 Actual</u>	<u>Average</u>	<u>Variance from Norm</u>
Jan	42.7	43.9	-1.2	Jul	82.1	78.8	+3.3
Feb	50.8	46.9	+3.9	Aug	77.8	77.4	+0.4
Mar	43.6	49.8	-6.2	Sep	77.2	71.1	+6.1
Apr	51.2	55.1	-3.9	Oct	67.6	61.2	+6.4
May	56.7	62.9	-6.2	Nov	53.4	50.7	+2.7
Jun	71.0	72.4	-1.4	Dec	45.2	44.3	+0.9

Meteorologists termed 1991 as the "summer that forgot California". However, summer remembered the southern Sierra Nevada mountains. Temperature records for 1991 at Isabella Dam & Reservoir indicate that monthly maximum mean air temperatures were set in September (77.2) and October (67.6). The mean air temperature for the period of June through August was the warmest since 1981.

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, 1991, with April 1st historical average water contents of same shown for comparison:

	<u>Upper Tyndall Creek</u>	<u>Crabtree Meadow</u>	<u>Chagoopa Plateau</u>	<u>Pascoe</u>	<u>Wet Meadow</u>	<u>Tunnel Guard</u>	<u>Casa Vieja Meadow</u>	<u>Beach Meadows</u>
April 1, 1991	16.0	13.1	21.6	27.7	23.2	13.2	19.0	9.0
April 1, Average	27.7	19.8	21.8	24.9	30.3	15.6	20.9	11.0

### Forecasts

The State of California, Department of Water Resources issued the following forecasts of Kern River runoff into Isabella Reservoir for the 1991 April-July snowmelt period:

February 1, 1991:	24% of average (120,000 acre-feet)
March 1, 1991:	17% of average ( 85,000 acre-feet)
April 1, 1991:	65% of average (320,000 acre-feet)
May 1, 1991:	59% of average (290,000 acre-feet)

### Runoff

Actual 1991 April-July Kern River inflow to Isabella Reservoir was 272,683 acre-feet (55% of average). Peak inflow occurred on March 4, 1991 at 4,879 cubic feet per second. During the March 3-4, 1991 rainstorm, the flow of the North Fork of the Kern River as measured at Kernville rose from 253 cfs to a peak of 13,820 cfs. Peak inflow to Isabella Reservoir during the 1991 April-July snowmelt period occurred on June 12 at 2,444 cfs. Calendar year runoff at First Point of Measurement totaled 406,289 acre-feet, 56% of the long-term average and 75% of the historical median.

By month Kern River runoff as measured at First Point during 1991 with historical ranking (#1 is the lowest on record) was as follows:

	<u>Runoff in</u> <u>Acre-Feet</u>	<u>Rank</u>		<u>Runoff in</u> <u>Acre-Feet</u>	<u>Rank</u>
Jan	10,931	1	Jul	38,265	34
Feb	9,215	1	Aug	14,854	26
Mar	47,341	47	Sep	11,040	29
Apr	58,092	33	Oct	9,358	15
May	79,763	27	Nov	13,940	30
Jun	100,423	45	Dec	13,067	17

Lack of precipitation coupled with deficient soil moisture content in the Kern River drainage area contributed to the record low Kern River natural flows throughout the winter of 1990-91. January and February 1991 runoff volumes were the lowest measured in 98 years of history.

### Storage

On January 1, 1991, Isabella Reservoir contained 46,014 acre-feet of water. Peak storage volume for 1991 was reached on June 19, with 175,558 acre-feet. On December 31, 1991, 89,654 acre-feet remained in storage behind Isabella Dam, constituting 16% of the lake capacity and 60% of the 38-year average December 31st carryover storage volume of 148,679 acre-feet.

### Operations

Kern River regulated flow during the 1991 calendar year amounted to 333,494 acre-feet, 47% of the 1954-1991 average regulated flow at First Point of Measurement of 710,971 acre-feet. Peak regulated flow occurred on June 18, 1991, with a mean daily discharge of 1,364 cubic feet per second.

The total water yield of the Kern River basin and its surface storage reservoir in acre-feet during 1991 is summarized as follows:

Kern River Computed Natural Flow.....	406,289	+
Isabella Reservoir Storage Withdrawal .....	43,640	-
Isabella Reservoir Evaporation.....	28,106	-
Kern River Diversions Above First Point.....	2,419	-
Rio Bravo Well.....	1,315	+
Rio Bravo Power Canal Drainage.....	55	+
Kern River Regulated Flow at First Point.....	333,494	=

The delivery of Kern River water to canal and conveyance facilities located below First Point of Measurement during 1991 was as follows:

<u>Delivery Point</u>	<u>Flow in Acre-Feet</u>
Beardsley Canal	78,246
Calloway Canal	14,857
Kern Island Canal	120,104
Eastside Canal	11,700
Stine Canal	6,665
Truxtun Lakes	933
Buena Vista Canal	13,243
Rosedale Channel	9,076
River Canal	55,171
Seepage Loss	23,499

Deliveries of Kern River water to Second Point of Measurement for Buena Vista Water Storage District during calendar year 1991 totaled 54,616 acre-feet with a maximum daily flow rate of 504 cubic feet per second. Kern River flows at Second Point commenced on April 4, 1991 and continued without interruption through August 20, 1991. The average daily Second Point delivery during the 139 days of operations was 200 cubic feet per second.

Eight water wells owned by the City of Bakersfield and located within the 2800 Acre Recharge Facility were fully operated between May 1 and October 16, 1991, for purposes of the City, Buena Vista WSD and Olcese Water District. The water produced from this well operation was discharged into the Kern River Canal for distribution below Second Point of Measurement. The 1991 banked water recovery program yielded 16,984 acre-feet. Beneficiaries of the program included Buena Vista WSD (4,410 acre-feet), Olcese WD (1,400 acre-feet), Kern Delta Water District (1,227 acre-feet), North Kern WSD (2,155 acre-feet), Cawelo Water District (2,725 acre-feet), County of Kern (4,918 acre-feet) and the Kern Valley Golf Course (149 acre-feet). An additional 1,854 acre-feet of water was pumped from the City's 2800 acre groundwater storage account through operation of water wells owned by the Kern County Water Agency and transported via the Cross Valley Canal to Cawelo WD.

Year: 1991

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	164	160	490	770	1,053	1,523	863	353	175	154	201	187
2	187	160	444	766	1,035	1,679	961	345	215	148	197	191
3	228	156	397	794	983	1,937	1,072	336	195	160	191	201
4	258	164	2,145	901	952	2,146	1,115	317	188	168	194	204
5	254	164	5,025	1,034	943	2,257	1,085	301	198	158	203	205
6	227	168	1,451	1,191	1,017	2,244	1,041	282	215	152	220	205
7	212	165	958	1,198	1,149	2,249	961	273	225	138	214	246
8	199	160	720	1,238	1,331	2,229	901	272	221	144	209	254
9	191	162	568	1,230	1,427	2,255	823	264	196	137	204	252
10	174	161	545	1,271	1,392	2,305	766	259	188	139	217	210
11	172	160	504	1,199	1,253	2,356	733	258	183	138	230	200
12	163	165	489	1,083	1,129	2,432	699	266	203	126	224	199
13	176	169	473	991	1,066	2,347	677	281	202	116	214	207
14	172	175	462	959	1,047	2,240	625	278	206	111	202	206
15	175	162	443	973	1,073	2,083	560	276	208	119	198	200
16	161	157	409	979	1,169	1,954	514	265	191	125	202	192
17	170	165	400	961	1,251	1,836	490	261	190	127	203	201
18	164	173	421	935	1,282	1,679	481	250	170	131	476	216
19	175	175	494	910	1,223	1,494	466	243	173	143	349	228
20	165	168	544	900	1,160	1,310	422	225	153	140	308	209
21	168	160	558	869	1,126	1,230	412	204	151	128	265	193
22	152	165	516	846	1,142	1,164	388	185	154	116	277	189
23	150	167	491	844	1,264	1,137	382	178	171	109	265	195
24	150	171	514	859	1,476	1,090	359	186	182	111	248	205
25	153	165	580	891	1,662	1,049	355	176	168	129	244	198
26	156	159	619	896	1,959	990	366	163	165	155	228	202
27	154	159	614	919	1,853	928	374	151	160	347	231	205
28	158	211	595	923	1,761	869	351	153	173	235	209	224
29	159	-	616	939	1,716	836	344	158	176	220	206	255
30	164	-	648	1,019	1,709	782	339	163	171	206	199	273
31	160	-	735	-	1,611	-	367	167	-	188	-	236
TOTAL	5,511	4,646	23,868	29,288	40,214	50,630	19,292	7,489	5,566	4,718	7,028	6,588
MAXIMUM DAY	258	211	5,025	1,271	1,959	2,432	1,115	353	225	347	476	273
MINIMUM DAY	150	156	397	766	943	782	339	151	151	109	191	187
MEAN	178	166	770	976	1,297	1,688	622	242	186	152	234	213
TOTAL AC-FT.	10,931	9,215	47,941	58,092	79,763	100,423	38,265	14,854	11,040	9,358	13,940	13,067
WHOLE YEAR:-	TOTAL,	204,898	MAX.,	5,025	MIN.,	109	MEAN,	561	TOTAL AC-FT.,	406,289		

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

Year: 1991

**DISCHARGE IN CUBIC FEET PER SECOND**

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	142	140	356	626	946	1,463	726	302	147	145	190	168
2	140	138	311	595	929	1,614	867	306	156	124	185	193
3	165	145	288	624	812	2,085	1,000	302	156	122	180	192
4	240	146	4,646	723	748	2,436	1,000	299	153	119	180	191
5	230	149	3,192	877	770	2,472	1,058	276	166	116	183	191
6	185	152	959	994	842	2,543	985	233	184	115	187	188
7	164	150	631	1,113	1,015	2,374	888	228	201	115	195	185
8	153	145	508	1,058	1,277	2,416	799	222	220	115	197	193
9	149	150	457	995	1,456	2,421	748	215	222	115	196	196
10	147	147	400	1,021	1,280	2,521	691	205	205	116	208	192
11	147	146	399	950	1,213	2,682	637	198	183	115	214	187
12	147	146	382	812	998	2,807	613	201	172	114	208	187
13	148	141	374	750	911	2,627	574	213	171	115	198	181
14	150	142	348	766	959	2,456	526	215	167	115	194	179
15	150	147	343	818	946	2,311	510	215	161	115	187	178
16	149	154	308	814	1,045	2,139	474	212	149	115	179	178
17	146	156	322	786	1,900	1,885	446	207	143	115	196	181
18	148	151	329	751	1,283	1,703	405	189	136	125	370	187
19	146	142	404	748	1,125	1,492	375	177	133	125	242	194
20	146	143	391	731	1,051	1,417	366	173	130	125	234	176
21	147	143	377	701	1,066	1,298	346	169	129	125	237	166
22	139	144	354	686	1,065	1,209	335	159	129	126	242	182
23	134	143	371	689	1,146	1,141	316	157	131	139	230	184
24	142	142	370	730	1,478	1,113	294	156	131	135	220	186
25	141	142	430	753	1,865	1,045	291	152	127	136	210	179
26	139	142	430	729	2,121	1,018	290	149	132	172	209	178
27	139	144	426	723	2,064	918	306	145	135	386	207	178
28	138	192	428	738	1,825	803	287	142	135	222	204	193
29	136	-	477	760	1,789	740	274	140	132	205	188	199
30	135	-	537	861	1,759	697	279	137	131	201	189	209
31	141	-	601	-	1,728	-	293	135	-	195	-	194
<b>TOTAL</b>	<b>4,723</b>	<b>4,122</b>	<b>20,149</b>	<b>23,922</b>	<b>38,812</b>	<b>53,846</b>	<b>16,999</b>	<b>6,229</b>	<b>4,667</b>	<b>4,423</b>	<b>6,259</b>	<b>5,765</b>
<b>MAXIMUM DAY</b>	<b>240</b>	<b>192</b>	<b>4,646</b>	<b>1,113</b>	<b>2,121</b>	<b>2,807</b>	<b>1,058</b>	<b>306</b>	<b>222</b>	<b>386</b>	<b>370</b>	<b>209</b>
<b>MINIMUM DAY</b>	<b>134</b>	<b>138</b>	<b>288</b>	<b>595</b>	<b>748</b>	<b>697</b>	<b>274</b>	<b>135</b>	<b>127</b>	<b>114</b>	<b>179</b>	<b>166</b>
<b>MEAN</b>	<b>152</b>	<b>147</b>	<b>650</b>	<b>797</b>	<b>1,252</b>	<b>1,795</b>	<b>548</b>	<b>201</b>	<b>156</b>	<b>143</b>	<b>209</b>	<b>186</b>
<b>TOTAL AC.FT.</b>	<b>9,368</b>	<b>8,176</b>	<b>39,965</b>	<b>47,449</b>	<b>76,982</b>	<b>106,802</b>	<b>33,717</b>	<b>12,955</b>	<b>9,257</b>	<b>8,773</b>	<b>12,415</b>	<b>11,435</b>
<b>WHOLE YEAR:-</b>	<b>TOTAL,</b>	<b>189,916</b>	<b>MAX.,</b>	<b>4,646</b>	<b>MIN.,</b>	<b>114</b>	<b>MEAN,</b>	<b>520</b>	<b>TOTAL AC.FT.,</b>	<b>376,694</b>		

Year: 1991

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	171	171	298	612	485	658	1,108	1,133	216	180	209	204
2	166	159	405	589	535	648	1,112	1,157	232	181	206	229
3	174	164	302	585	532	650	1,108	1,141	235	204	188	259
4	187	165	406	599	492	681	1,119	1,104	264	209	184	254
5	209	165	527	582	484	720	1,098	1,092	260	197	184	257
6	255	161	433	491	462	787	1,115	1,057	232	165	207	263
7	263	168	455	473	457	814	1,125	1,084	234	172	204	271
8	225	158	437	426	447	848	1,150	1,116	207	169	212	274
9	196	158	429	529	449	913	1,167	1,113	197	180	235	242
10	192	172	435	490	496	991	1,130	1,091	226	170	235	230
11	171	168	437	474	512	1,075	1,094	1,094	215	155	234	252
12	174	161	440	469	513	1,234	1,034	1,145	189	138	229	298
13	176	166	453	465	502	1,285	952	1,150	226	148	219	285
14	173	156	450	465	447	1,266	931	1,142	214	201	224	323
15	169	158	447	458	421	1,212	958	1,097	192	204	220	309
16	169	160	441	456	417	1,280	965	978	195	211	196	302
17	153	168	439	457	433	1,351	1,024	797	185	198	213	286
18	174	183	420	449	455	1,364	1,012	727	172	184	347	230
19	140	171	472	459	452	1,332	921	693	177	174	360	197
20	150	159	486	455	441	1,259	778	596	190	176	219	187
21	150	156	479	461	445	1,236	803	407	239	177	227	182
22	149	159	442	468	455	1,186	897	371	249	180	234	211
23	143	161	421	498	465	1,161	898	358	250	189	230	198
24	137	162	462	525	494	1,160	913	400	205	174	220	176
25	143	159	483	457	507	1,147	1,016	388	209	159	205	184
26	144	153	503	440	496	1,130	1,106	381	195	151	208	165
27	157	167	492	447	519	1,121	1,112	376	191	170	200	169
28	154	186	498	439	618	1,112	1,079	326	172	222	244	191
29	161	-	489	433	627	1,063	1,094	296	164	241	238	210
30	168	-	551	438	693	1,077	1,149	271	165	247	215	227
31	165	-	591	-	646	-	1,124	218	-	198	-	192
TOTAL	5,358	4,594	14,023	14,589	15,397	31,761	32,092	24,299	6,297	5,724	6,746	7,257
MAXIMUM INSTAN.	276	244	1,176	745	807	1,466	1,182	1,201	282	295	526	335
MINIMUM INSTAN.	111	136	218	181	379	642	436	204	149	127	147	143
MEAN	173	164	452	486	497	1,059	1,035	784	210	185	225	234
TOTAL AC.-FT.	10,627	9,112	27,814	28,937	30,539	62,997	63,654	48,196	12,490	11,353	13,381	14,394
WHOLE YEAR:-	TOTAL,	168,137	MAX.,	1,466	MIN.,	111	MEAN,	461	TOTAL AC.-FT.,	333,494		

Year: 1991

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	0	30	79	343	396	0	0	0	0
2	0	0	0	0	33	80	291	413	0	0	0	0
3	0	0	0	0	32	96	264	428	0	0	0	0
4	0	0	0	52	32	116	289	441	0	0	0	0
5	0	0	0	69	30	110	285	443	0	0	0	0
6	0	0	0	55	30	105	287	438	0	0	0	0
7	0	0	0	53	29	100	273	442	0	0	0	0
8	0	0	0	48	28	90	246	462	0	0	0	0
9	0	0	0	72	29	103	257	450	0	0	0	0
10	0	0	0	59	32	87	279	445	0	0	0	0
11	0	0	0	57	33	105	277	440	0	0	0	0
12	0	0	0	47	31	203	276	426	0	0	0	0
13	0	0	0	40	30	257	284	440	0	0	0	0
14	0	0	0	48	29	270	246	440	0	0	0	0
15	0	0	0	48	48	282	212	429	0	0	0	0
16	0	0	0	53	70	338	187	374	0	0	0	0
17	0	0	0	51	72	410	180	233	0	0	0	0
18	0	0	0	43	85	424	205	157	0	0	0	0
19	0	0	0	31	82	455	187	157	0	0	0	0
20	0	0	0	33	68	437	175	92	0	0	0	0
21	0	0	0	34	66	470	192	0	0	0	0	0
22	0	0	0	31	67	497	217	0	0	0	0	0
23	0	0	0	31	70	504	238	0	0	0	0	0
24	0	0	0	46	76	501	226	0	0	0	0	0
25	0	0	0	56	78	485	307	0	0	0	0	0
26	0	0	0	50	83	444	392	0	0	0	0	0
27	0	0	0	50	78	432	393	0	0	0	0	0
28	0	0	0	51	82	428	384	0	0	0	0	0
29	0	-	-	49	88	413	375	0	0	0	0	0
30	0	-	-	36	89	408	386	0	0	0	0	0
31	0	-	-	-	79	-	385	0	-	0	-	0
TOTAL	0	0	0	1,293	1,709	8,729	8,538	7,546	0	0	0	0
MAXIMUM DAY	0	0	0	72	89	504	393	462	0	0	0	0
MINIMUM DAY	0	0	0	0	28	79	175	0	0	0	0	0
MEAN	0	0	0	43	55	291	275	243	0	0	0	0
TOTAL AC.FT.	0	0	0	2,565	3,390	17,314	16,935	14,967	0	0	0	0
WHOLE YEAR:-	TOTAL,	27,815	MAX.,	504	MIN.,	0	MEAN,	76	TOTAL AC.FT.,	55,171		

Year: 1991

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	58	0	56	55	52	48	49	59	59	58
2	0	0	58	0	57	55	52	50	49	61	59	58
3	0	0	58	0	57	55	52	52	55	61	55	58
4	0	0	59	0	56	54	52	51	63	61	58	58
5	0	0	25	34	56	51	51	51	63	61	58	58
6	0	0	0	53	56	52	51	51	55	60	58	58
7	0	0	0	53	56	54	51	50	56	60	59	58
8	0	0	0	50	56	53	49	45	62	60	59	58
9	0	0	0	50	56	53	50	45	62	60	59	58
10	0	0	0	55	56	53	51	45	62	60	59	57
11	0	0	0	58	56	49	51	45	61	60	59	57
12	0	0	0	56	56	50	51	45	60	60	59	57
13	0	0	0	57	56	53	51	47	61	59	59	57
14	0	0	0	54	56	52	52	51	63	59	59	57
15	0	13	0	55	56	52	52	51	62	53	58	57
16	0	54	0	58	56	53	52	51	62	55	58	57
17	0	52	0	58	56	53	52	51	61	59	58	57
18	0	51	0	58	56	53	52	50	61	59	58	57
19	0	51	0	57	56	53	52	50	62	55	58	57
20	0	51	0	57	56	54	52	50	61	55	58	57
21	0	56	0	53	56	54	52	50	60	55	58	49
22	0	59	0	53	56	53	52	50	48	55	58	51
23	0	59	0	56	56	53	52	50	50	55	58	57
24	0	58	0	56	56	53	52	49	55	55	57	57
25	0	58	0	57	56	53	52	49	56	56	58	57
26	0	57	0	57	56	53	47	49	56	58	58	56
27	0	57	0	57	56	53	49	49	56	59	58	27
28	0	57	0	56	55	53	52	49	56	59	58	0
29	0	-	0	56	55	52	52	49	56	59	58	0
30	0	-	0	55	55	52	52	49	56	59	58	0
31	0	-	0	-	55	-	52	49	-	59	-	0
TOTAL	0	733	258	1,419	1,734	1,586	1,592	1,521	1,739	1,806	1,746	1,503
MAXIMUM DAY	0	59	59	58	57	55	52	52	63	61	59	58
MINIMUM DAY	0	0	0	0	55	49	47	45	48	53	55	0
MEAN	0	26	8	47	56	53	51	49	58	58	58	48
TOTAL AC.FT.	0	1,454	512	2,814	3,439	3,146	3,157	3,017	3,449	3,583	3,462	2,980
WHOLE YEAR:-	TOTAL,	15,637	MAX.,	63	MIN.,	0	MEAN,	43	TOTAL AC.FT.,	31,013		

**2800 Acre Well Water Diverted to Kern Delta WD**  
**(Pursuant to City of Bakersfield/KDWD Letter Agreement Dated 4-25-91)**      Year: 1991

**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	15	0	0	0	0	0
11	0	0	0	0	0	5	15	0	0	0	0	0
12	0	0	0	0	0	5	15	0	0	0	0	0
13	0	0	0	0	0	10	15	0	0	0	0	0
14	0	0	0	0	0	15	15	0	0	0	0	0
15	0	0	0	0	0	15	15	0	0	0	0	0
16	0	0	0	0	0	15	15	0	0	0	0	0
17	0	0	0	0	0	15	15	15	0	0	0	0
18	0	0	0	0	0	15	15	15	0	0	0	0
19	0	0	0	0	0	15	15	15	0	0	0	0
20	0	0	0	0	0	15	15	15	0	0	0	0
21	0	0	0	0	0	15	15	15	0	0	0	0
22	0	0	0	0	0	15	15	14	0	0	0	0
23	0	0	0	0	0	15	15	10	0	0	0	0
24	0	0	0	0	0	15	15	0	0	0	0	0
25	0	0	0	0	0	15	15	0	0	0	0	0
26	0	0	0	0	0	0	15	0	0	0	0	0
27	0	0	0	0	0	0	15	0	0	0	0	0
28	0	0	0	0	0	0	15	0	0	0	0	0
29	0	0	0	0	0	0	15	0	0	0	0	0
30	0	0	0	0	0	0	15	0	0	0	0	0
31	0	0	0	0	0	0	5	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>320</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MAXIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MINIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MEAN</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>10</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL AC.FT.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>397</b>	<b>635</b>	<b>195</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>WHOLE YEAR:-</b>	<b>TOTAL,</b>	<b>619</b>	<b>MAX.,</b>	<b>15</b>	<b>MIN.,</b>	<b>0</b>	<b>MEAN,</b>	<b>2</b>	<b>TOTAL AC.FT.,</b>	<b>1,227</b>	<b>0</b>	<b>0</b>

City of Bakersfield 2800 Acre Well Water Diverted to County of Kern  
 (Pursuant to City/County Letter Agreements dated April 25 and August 27, 1991) Year: 1991

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	49	47	0	0
2	0	0	0	0	0	0	0	0	49	48	0	0
3	0	0	0	0	0	0	0	0	50	48	0	0
4	0	0	0	0	0	0	0	0	49	48	0	0
5	0	0	0	0	0	0	0	0	50	48	0	0
6	0	0	0	0	0	0	0	0	42	48	0	0
7	0	0	0	0	0	0	0	0	43	47	0	0
8	0	0	0	0	0	0	0	0	49	47	0	0
9	0	0	0	0	0	0	0	0	49	47	0	0
10	0	0	0	0	0	0	0	0	49	48	0	0
11	0	0	0	0	0	0	0	0	48	47	0	0
12	0	0	0	0	0	0	0	0	47	47	0	0
13	0	0	0	0	0	0	0	0	48	47	0	0
14	0	0	0	0	0	0	0	0	50	47	0	0
15	0	0	0	0	0	0	0	0	49	41	0	0
16	0	0	0	0	0	0	0	0	49	43	0	0
17	0	0	0	0	0	0	0	0	48	0	0	0
18	0	0	0	0	0	0	0	0	48	0	0	0
19	0	0	0	0	0	0	0	0	49	0	0	0
20	0	0	0	0	0	0	0	0	48	0	0	0
21	0	0	0	0	0	0	0	0	47	0	0	0
22	0	0	0	0	0	0	0	0	35	0	0	0
23	0	0	0	0	0	0	0	0	37	0	0	0
24	0	0	0	0	0	0	0	6	42	0	0	0
25	0	0	0	0	0	0	0	49	43	0	0	0
26	0	0	0	0	0	0	0	49	43	0	0	0
27	0	0	0	0	0	0	0	49	43	0	0	0
28	0	0	0	0	0	0	0	49	43	0	0	0
29	0	-	0	0	0	0	0	49	43	0	0	0
30	0	-	0	0	0	0	0	49	43	0	0	0
31	0	-	0	-	0	-	0	49	-	0	-	0
TOTAL	0	0	0	0	0	0	0	349	1,382	748	0	0
MAXIMUM DAY	0	0	0	0	0	0	0	49	50	48	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	35	0	0	0
MEAN	0	0	0	0	0	0	0	11	46	24	0	0
TOTAL AC.FT.	0	0	0	0	0	0	0	693	2,740	1,485	0	0
WHOLE YEAR--	TOTAL,	2,479	MAX.,	50	MIN.,	0	MEAN,	7	TOTAL AC.FT.,	4,918		

Year: 1991

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	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	25
8	0	0	0	0	0	0	0	0	0	0	0	21
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	46
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	25
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	1
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	0	0	92
WHOLE YEAR:-	TOTAL,	46	MAX.,	25	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	92		

Quantities in acre-feet

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

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Buena Vista W.S.D. Entitlement	0	0	9,929	12,801	19,509	26,666	6,303	93	0	0	0	0	75,301
Hacienda W.D. Entitlement	0	0	0	0	0	0	0	0	0	0	0	0	0
K.C.L. Entitlement @ 2nd Point	0	0	230	613	934	1,271	306	6	0	0	0	0	3,360
Kern Island (1-st)	10,255	8,604	18,337	17,851	18,446	17,851	18,446	13,966	10,385	8,610	12,882	12,391	168,024
Eastside	0	0	0	0	0	0	0	0	0	0	0	0	0
Kern River Conduit	0	0	17,260	17,220	18,950	20,285	9,806	113	0	0	0	0	83,634
Castro	0	0	6	67	105	105	20	0	0	8	18	0	329
KCC & W Co.	0	0	12	179	298	327	56	0	0	22	52	0	946
South Fork	0	0	8	125	212	234	44	0	0	16	36	0	675
Buena Vista (1-st)	0	0	71	992	1,617	1,744	316	0	0	26	176	0	4,942
James (1-st)	0	0	108	1,478	2,418	2,612	468	0	0	0	121	0	7,205
Anderson (1-st)	0	0	18	246	403	432	76	0	0	0	0	0	1,175
Stine	0	0	137	1,845	3,033	3,261	584	0	0	0	0	0	8,860
Meacham	0	0	28	365	603	659	113	0	0	0	0	0	1,768
Farmers	0	0	135	1,785	3,033	3,235	555	0	0	0	0	0	1,743
Plunket	0	0	36	395	805	839	127	0	0	0	0	0	2,202
Joyce	0	0	34	313	797	825	119	0	0	0	0	0	2,088
Johnson	0	0	26	236	763	819	85	0	0	0	0	0	1,929
Pioneer	0	0	82	569	2,196	2,571	165	0	0	0	0	0	5,583
Beardsley	0	0	38	236	793	1,103	0	0	0	0	0	0	2,170
Lerdo (1-st)	0	0	6	30	117	186	0	0	0	0	0	0	339
(1-st) (NKWSD)	0	0	26	69	472	712	0	0	0	0	0	0	1,279
Lerdo (2-nd)	0	0	4	4	60	103	0	0	0	0	0	0	171
Anderson	0	0	2	2	52	77	0	0	0	0	0	0	133
James & Dixon	0	0	16	16	264	456	0	0	0	0	0	0	752
Wilson	0	0	20	0	258	512	0	0	0	0	0	0	790
KCC & W Co.	0	0	46	0	595	1,182	0	0	0	0	0	0	1,823
McCaffrey	0	0	10	0	472	2,226	0	0	0	0	0	0	2,708
McCord:	0	0	40	0	1,882	8,886	0	0	0	0	0	0	10,808
Lerdo 30%	0	0	0	0	0	115	0	0	0	0	0	0	115
Beardsley 70%	0	0	0	0	0	468	0	0	0	0	0	0	468
Central 20%	0	0	0	0	0	6	0	0	0	0	0	0	6
NKWSD 80%	0	0	0	0	0	0	0	0	0	0	0	0	0
KCC & W Co. 20%	0	0	0	0	0	0	0	0	0	0	0	0	0
NKWSD 80%	0	0	0	0	0	0	0	0	0	0	0	0	0
Buena Vista (2-nd)	0	0	0	0	0	0	0	0	0	0	0	0	0
James (2-nd)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pioneer (2-nd)	0	0	0	0	0	0	0	0	0	0	0	0	0
Beardsley (3-nd)	0	0	0	0	0	0	0	0	0	0	0	0	0
Kern Island (2-nd)	0	0	0	0	0	0	0	0	0	0	0	0	0
Computed Loss	676	611	676	655	676	655	676	676	655	676	655	676	7,963
Total 1st Point Group Entitlement	10,931	9,215	37,412	45,291	60,254	73,757	31,962	14,761	11,040	9,358	13,940	13,067	330,988

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

Year: 1991

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>FIRST POINT REGULATED FLOW</b>	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
BEARDSLEY CANAL	841	732	7,285	6,988	8,049	11,240	16,163	9,761	5,266	5,252	5,082	1,587	78,246
CALLOWAY CANAL	0	0	1,884	2,882	2,854	1,611	2,236	2,477	0	0	0	913	14,857
KERN ISLAND CANAL	8,384	7,769	9,317	9,701	11,139	20,041	18,296	16,548	6,569	3,646	2,793	5,901	120,104
EASTSIDE CANAL	0	0	748	1,202	2,267	2,840	3,064	1,579	0	0	0	0	11,700
STINE CANAL	0	0	0	155	0	3,467	3,043	0	0	0	0	0	6,665
TRUXTUN LAKES	10	0	0	0	0	0	0	0	0	339	385	199	933
ARVIN-EDISON TURNOUT	0	0	0	0	0	0	0	0	0	0	0	0	0
BUENA VISTA CANAL	0	0	2,005	789	518	3,689	1,113	769	0	619	1,535	2,206	13,243
JAMES CANAL	0	0	0	0	0	0	0	0	0	0	0	0	0
ROSEDALE CHANNEL	0	0	3,594	2,275	0	0	0	0	0	0	1,940	1,267	9,076
PIONEER CANAL	0	0	0	0	0	0	0	0	0	0	0	0	0
2800 ACRE SPREADING FACILITY	0	0	0	0	0	0	0	0	0	0	0	0	0
CARRIER CANAL LOSS	716	0	706	747	835	911	1,120	657	0	821	672	357	7,542
RIVER LOSS & SPREADING	676	611	2,275	1,633	1,487	1,884	1,684	1,438	655	676	974	1,964	15,957
<b>FIRST POINT GROUP TOTAL FLOW</b>	10,627	9,112	27,814	26,372	27,149	45,683	46,719	33,229	12,490	11,353	13,381	14,394	278,323
<b>SECOND POINT TOTAL FLOW</b>	0	0	0	2,565	3,390	17,314	16,935	14,967	0	0	0	0	55,171

**UTILIZATION OF STORAGE - ISABELLA RESERVOIR  
KERN RIVER FIRST POINT GROUP**

Year: 1991

*End of Month Unit Storage*

*Quantities in acre-feet*

STORAGE UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern Island	1,095	1,184	1,361	6,038	11,474	5,468	3,461	627	2,500	2,500	2,473	2,498	40,679
Buena Vista	0	0	44	496	1,406	1,265	785	0	717	1,065	1,484	1,500	8,762
Stine	0	0	77	1,087	3,114	2,954	994	163	14	14	14	14	8,445
Farmers	0	0	77	1,037	2,938	3,951	1,886	250	181	50	48	38	10,456
<b>KERN DELTA WD TOTAL</b>	<b>1,095</b>	<b>1,184</b>	<b>1,559</b>	<b>8,658</b>	<b>18,932</b>	<b>13,638</b>	<b>7,126</b>	<b>1,040</b>	<b>3,412</b>	<b>3,629</b>	<b>4,019</b>	<b>4,050</b>	<b>68,942</b>
City of Bakersfield	477	402	11,803	19,755	30,589	37,556	27,475	12,703	7,982	4,982	3,862	2,070	159,656
Kern River Canal & Irr. Co.	0	0	52	159	585	561	0	0	0	0	0	0	1,357
South Fork	0	0	4	44	151	312	197	80	349	600	600	600	2,937
<b>CITY OF BAKERSFIELD TOTAL</b>	<b>477</b>	<b>402</b>	<b>11,859</b>	<b>19,958</b>	<b>31,325</b>	<b>38,429</b>	<b>27,672</b>	<b>12,783</b>	<b>8,331</b>	<b>5,582</b>	<b>4,462</b>	<b>2,670</b>	<b>163,950</b>
<b>NORTH KERN WSD</b>	<b>6,344</b>	<b>6,058</b>	<b>6,379</b>	<b>10,024</b>	<b>22,009</b>	<b>46,816</b>	<b>47,425</b>	<b>48,609</b>	<b>46,682</b>	<b>45,213</b>	<b>44,897</b>	<b>44,154</b>	<b>374,610</b>
<b>TOTAL 1ST POINT STORAGE</b>	<b>7,916</b>	<b>7,644</b>	<b>19,797</b>	<b>38,640</b>	<b>72,266</b>	<b>98,883</b>	<b>82,223</b>	<b>62,432</b>	<b>58,425</b>	<b>54,424</b>	<b>53,378</b>	<b>50,874</b>	<b>606,902</b>

KERN DELTA WATER DISTRICT

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

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	+ 10,255	8,604	18,680	22,473	26,129	26,097	19,901	13,966	10,385	8,636	13,058	12,391	190,575
Release	+ or - (474)	0	(5,576)	(2,513)	(6)	0	0	0	(1,050)	(3,075)	(7,908)	(4,030)	(24,632)
Ent'l + or - Releases	= 9,781	8,604	13,104	19,960	26,123	26,097	19,901	13,966	9,335	5,561	5,150	8,361	165,943
Into Isabella Storage	- 710	246	411	7,276	10,863	3,306	478	157	2,681	924	501	468	28,021
From Isabella Storage	+ 339	105	0	0	139	8,006	6,585	6,079	208	588	0	347	22,396
From City of Bakersfield	+ 532	694	364	0	0	397	635	195	0	0	0	0	2,817
To City of Bakersfield	- 532	694	364	0	0	0	0	0	0	0	0	0	1,590
Storage Transfer/Exch.	+ or - 0	0	0	12	0	(1,655)	0	0	0	0	0	0	(1,643)
Carrier Canal Loss	- 494	0	215	0	0	0	0	0	0	664	321	133	1,827
To North Kern WSD	- 0	0	663	993	1,487	0	0	0	32	318	0	0	3,493
To Cawelo Water District	- 0	0	0	0	0	0	1,427	1,382	311	0	0	0	3,120
Diversed at Heads of Canals	= 8,916	8,463	11,815	11,703	13,912	29,539	25,216	18,701	6,519	4,243	4,328	8,107	151,462
From Cawelo Water District	+ 0	0	0	0	0	0	1,427	1,382	311	0	0	0	3,120
From North Kern WSD	+ 0	0	0	0	0	0	0	0	0	280	0	0	280
Kern Delta WD to Kern Island Canal	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
Total Utility Supply	= 8,916	8,463	11,815	11,703	13,912	29,539	26,643	20,083	6,830	4,523	4,328	8,107	154,862
Utility Deliveries	7,002	5,874	7,349	7,042	8,742	22,052	19,453	14,871	3,832	1,867	2,371	6,333	106,788
Contract Deliveries	169	126	798	573	683	865	782	614	441	275	0	134	5,460
Total Irrigation Use	- 7,171	6,000	8,147	7,615	9,425	22,917	20,235	15,485	4,273	2,142	2,371	6,467	112,248
Canal Conveyance Losses	= 1,745	2,463	3,668	4,088	4,487	6,622	6,408	4,598	2,557	2,381	1,957	1,640	42,614
Irrigation Delivery Percentage	80%	71%	69%	65%	68%	78%	76%	77%	63%	47%	55%	80%	72%
Reservoir Evaporation Loss	32	52	36	177	450	594	405	164	101	119	111	90	2,331
End of Month Reservoir Storage	1,095	1,184	1,559	8,658	18,932	13,638	7,126	1,040	3,412	3,629	4,019	4,050	

Year: 1991

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	134	151	228	30	168	304	335	368	85	88	23	57
2	134	138	249	36	229	302	321	366	90	91	21	149
3	138	145	208	57	251	303	308	338	90	116	19	168
4	143	155	253	83	237	293	298	294	114	123	32	163
5	145	154	252	96	221	330	256	288	143	109	54	165
6	156	150	250	105	201	410	279	268	127	80	52	165
7	153	157	251	114	201	425	308	294	115	71	55	162
8	149	148	260	133	206	418	319	316	98	65	86	162
9	155	147	294	156	213	432	351	320	86	71	103	158
10	164	161	268	165	229	439	362	317	98	69	68	164
11	160	158	271	179	236	428	335	318	100	70	65	180
12	159	150	266	190	217	451	262	339	103	36	59	180
13	159	155	270	181	181	439	202	326	162	38	60	176
14	149	146	258	178	129	395	221	329	142	61	59	176
15	155	147	236	189	117	361	258	345	121	55	45	174
16	158	149	215	210	97	355	276	367	112	44	46	167
17	142	158	155	248	98	347	319	346	93	44	53	137
18	163	172	104	272	76	342	324	352	93	35	52	62
19	129	160	76	281	74	329	305	356	106	31	44	22
20	140	149	95	270	100	303	223	307	107	44	47	24
21	139	145	78	257	109	278	231	224	121	56	48	24
22	138	148	47	255	128	252	287	193	134	62	37	21
23	132	151	36	250	138	248	277	173	141	76	34	19
24	126	151	34	220	160	252	300	157	123	71	17	13
25	133	148	35	130	155	261	335	153	124	55	19	15
26	133	143	32	127	149	251	328	164	114	31	19	15
27	146	156	32	112	173	256	314	169	110	26	32	12
28	135	175	34	104	241	292	275	161	90	27	56	10
29	139	-	38	120	266	305	287	159	84	30	54	10
30	146	-	27	143	315	303	360	139	86	36	49	10
31	143	-	29	-	301	-	368	97	-	27	-	15
TOTAL	4,495	4,267	4,881	4,891	5,616	10,104	9,224	8,343	3,312	1,838	1,408	2,975
MAXIMUM DAY	164	175	294	281	315	451	368	368	162	123	103	180
MINIMUM DAY	126	138	27	30	74	248	202	97	84	26	17	10
MEAN	145	152	157	163	181	337	298	269	110	59	47	96
TOTAL AC.FT.	8,916	8,463	9,681	9,701	11,139	20,041	18,296	16,548	6,569	3,646	2,793	5,901
WHOLE YEAR:-	TOTAL,	61,354	MAX.,	451	MIN.,	10	MEAN,	168	TOTAL AC.FT.,	121,694		

Year: 1991

Kern Delta Water District / Cawelo Water District  
Water Exchange Delivery

DISCHARGE IN CUBIC FEET PER SECOND

Via Arvin-Edison Canal / Kern Island Canal Siphon Installation

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	30	37	0	0	0
2	0	0	0	0	0	0	0	31	37	0	0	0
3	0	0	0	0	0	0	0	36	41	0	0	0
4	0	0	0	0	0	0	0	36	42	0	0	0
5	0	0	0	0	0	0	0	37	0	0	0	0
6	0	0	0	0	0	0	0	35	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	37	0	0	0	0	0
13	0	0	0	0	0	0	36	0	0	0	0	0
14	0	0	0	0	0	0	37	0	0	0	0	0
15	0	0	0	0	0	0	37	0	0	0	0	0
16	0	0	0	0	0	0	37	0	0	0	0	0
17	0	0	0	0	0	0	37	0	0	0	0	0
18	0	0	0	0	0	0	38	0	0	0	0	0
19	0	0	0	0	0	0	37	0	0	0	0	0
20	0	0	0	0	0	0	36	0	0	0	0	0
21	0	0	0	0	0	0	37	0	0	0	0	0
22	0	0	0	0	0	0	38	52	0	0	0	0
23	0	0	0	0	0	0	35	52	0	0	0	0
24	0	0	0	0	0	0	33	52	0	0	0	0
25	0	0	0	0	0	0	33	51	0	0	0	0
26	0	0	0	0	0	0	35	50	0	0	0	0
27	0	0	0	0	0	0	37	49	0	0	0	0
28	0	0	0	0	0	0	35	48	0	0	0	0
29	0	-	0	0	0	0	34	50	0	0	0	0
30	0	-	0	0	0	0	34	52	0	0	0	0
31	0	-	0	-	0	-	37	36	-	0	-	0
TOTAL	0	0	0	0	0	0	720	697	157	0	0	0
MAXIMUM DAY	0	0	0	0	0	0	38	52	42	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	23	22	5	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	1,427	1,382	311	0	0	0
WHOLE YEAR:-	TOTAL,	1,574	MAX.,	52	MIN.,	0	MEAN,	4	TOTAL AC.FT.,	3,120		

Kern Delta Water District / North Kern Water Storage District												Year: 1991		
Water Exchange Delivery														
Via Arvin-Edison Canal / Kern Island Canal Siphon Installation														
DISCHARGE IN CUBIC FEET PER SECOND	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	0	0
2	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
4	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
6	0	0	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	0	0
8	0	0	0	0	0	0	0	0	0	22	0	0	0	0
9	0	0	0	0	0	0	0	0	0	25	0	0	0	0
10	0	0	0	0	0	0	0	0	0	23	0	0	0	0
11	0	0	0	0	0	0	0	0	0	25	0	0	0	0
12	0	0	0	0	0	0	0	0	0	23	0	0	0	0
13	0	0	0	0	0	0	0	0	0	23	0	0	0	0
14	0	0	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	0	0
16	0	0	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	0	0
18	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
20	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
22	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
24	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
26	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
28	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
30	0	-	0	0	0	0	0	0	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	141	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	25	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	5	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	280	0	0	0	0
WHOLE YEAR:-	TOTAL,	141	MAX.,	25	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	280				

Quantities in acre-feet

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

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	+ 10,255	8,604	18,337	17,851	18,446	17,851	18,446	13,966	10,385	8,610	12,882	12,391	168,024
Release	- 968	0	8,186	2,565	6	0	0	0	1,807	4,750	8,552	5,833	32,667
Ent'l + or - Releases	= 9,287	8,604	10,151	15,286	18,440	17,851	18,446	13,966	8,578	3,860	4,330	6,558	135,357
Into Storage	- 710	246	209	4,804	5,871	169	450	157	1,956	85	42	83	14,782
From Storage	+ 339	105	0	0	139	5,897	2,286	2,918	0	0	0	0	11,684
From City of Bakersfield	+ 532	694	364	0	0	397	635	195	0	0	0	0	2,817
To City of Bakersfield	- 532	694	364	0	0	0	0	0	0	0	0	0	1,590
Carrier Canal Loss	- 0	0	0	0	0	0	0	0	0	0	307	24	331
Transfer In Storage	+ or - 0	0	0	12	0	(1,218)	0	0	0	0	0	0	(1,206)
Eastside Canal Ent'l	- 0	0	746	1,202	2,267	2,802	2,909	1,535	0	0	0	0	11,461
To Cawelo Water District	- 0	0	0	0	0	0	1,427	1,382	311	0	0	0	3,120
To North Kern WSD	- 0	0	0	0	0	0	0	0	0	280	0	0	280
Diverted at Head	= 8,916	8,463	9,196	9,292	10,441	19,956	16,581	14,005	6,311	3,495	3,981	6,451	117,088
From Cawelo Water District	+ 0	0	0	0	0	0	1,427	1,382	311	0	0	0	3,120
From North Kern WSD	+ 0	0	0	0	0	0	0	0	0	280	0	0	280
From Kern Delta WD	+ 0	0	0	0	0	0	0	0	0	0	0	0	0
Total Utility Supply	= 8,916	8,463	9,196	9,292	10,441	19,956	18,008	15,387	6,622	3,775	3,981	6,451	120,488
Utility Deliveries	7,002	5,874	5,805	5,917	6,805	15,926	13,543	11,677	3,781	1,560	2,153	4,981	85,024
Contract Deliveries	169	126	798	567	552	795	747	601	441	275	0	134	5,205
Total Deliveries	- 7,171	6,000	6,603	6,484	7,357	16,721	14,290	12,278	4,222	1,835	2,153	5,115	90,229
Conveyance Losses	= 1,745	2,463	2,593	2,808	3,084	3,235	3,718	3,109	2,400	1,940	1,828	1,336	30,259
Delivery Percentage	80%	71%	72%	70%	70%	84%	79%	80%	64%	49%	54%	79%	75%

Into Reservoir Storage	710	246	209	4,804	5,871	169	450	157	1,956	85	42	83	14,782
Reservoir Evaporation Loss	32	52	32	127	296	278	171	73	83	85	69	58	1,356
From Reservoir Storage	339	105	0	0	139	5,897	2,286	2,918	0	0	0	0	11,684
End of Month Reservoir Storage	1,095	1,184	1,361	6,038	11,474	5,468	3,461	627	2,500	2,500	2,473	2,498	

State Exchange Diverted	0	0	411	67	0	174	484	289	22	0	0	0	1,447
I.D. #4 Water Diverted	0	0	0	0	0	0	0	0	0	0	0	0	0
State Exchange Delivered	0	0	411	67	0	174	484	289	22	0	0	0	1,447
I.D. #4 Water Delivered	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Year: 1991

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	10,255	8,604	18,337	17,851	18,446	17,851	18,446	13,966	10,385	8,610	12,882	12,391	168,024
Maximum Percentage	55.59%	51.64%	99.53%	100.00%	100.00%	100.00%	100.00%	75.71%	58.18%	46.68%	72.16%	67.17%	

**CONTRACT ENTITLEMENT:**

Maximum	269	242	269	260	269	260	269	269	260	269	260	--	2,896
Actual	150	125	268	260	269	260	269	204	151	126	188	--	2,270
Sum to Date	150	275	543	803	1,072	1,332	1,601	1,805	1,956	2,082	2,270	2,270	

**CONTRACT DIVERTED:**

For Month	10	0	453	286	373	535	470	244	0	0	0	0	2,371
To Date	10	10	463	749	1,122	1,657	2,127	2,371	2,371	2,371	2,371	2,371	

**UNUSED ENTITLEMENT:**

For Month	140	125	(185)	(26)	(104)	(275)	(201)	(40)	151	126	188	0	(101)
Sum to Date	140	265	80	54	(50)	(325)	(526)	(566)	(415)	(289)	(101)	(101)	

KERN ISLAND CANAL  
ENTITLEMENT AND DIVERSION OF CONTRACT WATER  
BLOOMFIELD CONTRACT

Year: 1991

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	10,255	8,604	18,337	17,851	18,446	17,851	18,446	13,966	10,385	8,610	12,882	12,391	168,024
Maximum Percentage	55.59%	51.64%	99.53%	100.00%	100.00%	100.00%	100.00%	75.71%	58.18%	46.68%	72.16%	67.17%	

**CONTRACT ENTITLEMENT:**

Maximum	336	303	336	325	336	325	336	336	325	336	325	336	3,619
Actual	187	156	334	325	336	325	336	254	189	157	235	--	2,834
Sum to Date	187	343	677	1,002	1,338	1,663	1,999	2,253	2,442	2,599	2,834	2,834	

**CONTRACT DIVERTED:**

For Month	159	126	345	281	179	260	277	357	441	275	0	134	2,834
To Date	159	285	630	911	1,090	1,350	1,627	1,984	2,425	2,700	2,700	2,834	

**UNUSED ENTITLEMENT:**

For Month	28	30	(11)	44	157	65	59	(103)	(252)	(118)	235	(134)	0
Sum to Date	28	58	47	91	248	313	372	269	17	(101)	134	0	

DISCHARGE IN CUBIC FEET PER SECOND

Total Flow via the Eastside Canal Headgate

Year: 1891

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	40	43	48	48	0	0	0	0
2	0	0	0	0	38	42	51	50	0	0	0	0
3	0	0	0	2	32	44	55	49	0	0	0	0
4	0	0	0	9	26	46	50	46	0	0	0	0
5	0	0	0	12	27	47	51	45	0	0	0	0
6	0	0	0	18	31	42	54	48	0	0	0	0
7	0	0	0	16	31	44	51	54	0	0	0	0
8	0	0	0	13	30	40	51	55	0	0	0	0
9	0	0	0	19	32	40	41	58	0	0	0	0
10	0	0	0	19	32	47	45	62	0	0	0	0
11	0	0	0	20	32	51	49	61	0	0	0	0
12	0	0	0	19	35	53	50	61	0	0	0	0
13	0	0	0	21	44	57	47	63	0	0	0	0
14	0	0	18	26	41	57	45	65	0	0	0	0
15	0	0	32	23	38	55	49	31	0	0	0	0
16	0	0	26	24	41	50	54	0	0	0	0	0
17	0	0	24	28	40	51	62	0	0	0	0	0
18	0	0	17	27	37	51	57	0	0	0	0	0
19	0	0	15	18	35	50	54	0	0	0	0	0
20	0	0	23	15	36	50	48	0	0	0	0	0
21	0	0	30	21	38	52	43	0	0	0	0	0
22	0	0	28	20	41	56	49	0	0	0	0	0
23	0	0	26	25	39	44	51	0	0	0	0	0
24	0	0	25	30	40	47	48	0	0	0	0	0
25	0	0	25	23	44	52	47	0	0	0	0	0
26	0	0	4	26	42	50	47	0	0	0	0	0
27	0	0	14	31	38	46	47	0	0	0	0	0
28	0	0	22	32	39	45	49	0	0	0	0	0
29	0	-	20	32	39	39	52	0	0	0	0	0
30	0	-	17	37	42	41	51	0	0	0	0	0
31	0	-	11	-	43	-	49	0	-	-	-	0
TOTAL	0	0	377	606	1,143	1,432	1,545	796	0	0	0	0
MAXIMUM DAY	0	0	32	37	44	57	62	65	0	0	0	0
MINIMUM DAY	0	0	0	0	26	39	41	0	0	0	0	0
MEAN	0	0	12	20	37	48	50	26	0	0	0	0
TOTAL AC.FT.	0	0	748	1,202	2,267	2,840	3,064	1,579	0	0	0	0
WHOLE YEAR:-	TOTAL,	5,899	MAX.,	65	MIN.,	0	MEAN,	16	TOTAL AC.FT.,	11,700		

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

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	0	0	746	1,202	2,267	2,802	2,909	1,535	0	0	0	0	11,461
Total River Diverted	0	0	746	1,202	2,267	2,802	2,909	1,535	0	0	0	0	11,461
State Exchange Diverted	0	0	2	0	0	38	155	44	0	0	0	0	239
Other Diverted	0	0	0	0	0	0	0	0	0	0	0	0	0
Total State/Other Div.	0	0	2	0	0	38	155	44	0	0	0	0	239
<b>Eastside Canal at Head</b>	<b>0</b>	<b>0</b>	<b>748</b>	<b>1,202</b>	<b>2,267</b>	<b>2,840</b>	<b>3,064</b>	<b>1,579</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11,700</b>
Utility Deliveries	0	0	434	665	1,520	2,100	2,331	1,323	0	0	0	0	8,373
Contract Deliveries	0	0	0	6	131	70	35	13	0	0	0	0	255
Total Utility Deliveries	0	0	434	671	1,651	2,170	2,366	1,336	0	0	0	0	8,628
State Exchange Delivered	0	0	2	0	0	38	155	44	0	0	0	0	239
Other Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total State/Other Del.	0	0	2	0	0	38	155	44	0	0	0	0	239
Total Deliveries	0	0	436	671	1,651	2,208	2,521	1,380	0	0	0	0	8,867
Canal Loss (Utility)	0	0	312	531	616	632	543	199	0	0	0	0	2,833
Canal Loss (State/Other)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Canal Loss	0	0	312	531	616	632	543	199	0	0	0	0	2,833
Delivery Percentage	0%	0%	58%	56%	73%	78%	82%	87%	0%	0%	0%	0%	76%

Year: 1991

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	0	47	10	0	19	0	0	0	0	31
2	0	0	0	26	10	0	71	0	0	0	0	33
3	0	0	0	27	9	0	70	0	0	0	0	30
4	0	0	0	30	0	0	72	0	0	0	0	34
5	0	0	0	25	0	0	71	0	0	0	0	25
6	0	0	0	13	0	0	69	0	0	0	33	28
7	0	0	0	12	0	0	66	0	0	0	42	31
8	0	0	0	12	0	0	67	0	0	0	33	19
9	0	0	0	12	0	57	56	0	0	0	30	0
10	0	0	0	12	0	105	0	0	0	0	32	0
11	0	0	0	11	0	110	0	0	0	0	33	0
12	0	0	0	9	13	128	0	51	0	0	28	0
13	0	0	0	0	12	140	0	56	0	0	30	0
14	0	0	0	0	13	134	0	67	0	0	36	0
15	0	0	0	12	13	107	0	64	0	0	31	0
16	0	0	0	10	13	113	0	58	0	25	31	0
17	0	0	0	11	13	116	0	47	0	38	29	32
18	0	0	32	10	12	122	0	45	0	33	32	46
19	0	0	54	10	12	112	0	0	0	27	31	69
20	0	0	59	10	12	116	0	0	0	29	32	70
21	0	0	80	10	12	101	0	0	0	29	32	88
22	0	0	80	10	12	79	0	0	0	28	36	83
23	0	0	80	10	12	70	0	0	0	26	38	78
24	0	0	80	10	12	62	0	0	0	34	52	78
25	0	0	80	10	12	49	0	0	0	37	52	80
26	0	0	80	10	12	48	0	0	0	6	39	75
27	0	0	80	10	12	49	0	0	0	0	0	10
28	0	0	80	10	13	42	0	0	0	0	0	24
29	0	-	76	10	13	0	0	0	0	0	10	26
30	0	-	74	9	9	0	0	0	0	0	32	60
31	0	-	76	-	0	-	0	0	-	0	-	62
TOTAL	0	0	1,011	398	261	1,860	561	388	0	312	774	1,112
MAXIMUM DAY	0	0	80	47	13	140	72	67	0	38	52	88
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	33	13	8	62	18	13	0	10	26	36
TOTAL AC.FT.	0	0	2,005	789	518	3,689	1,113	769	0	619	1,535	2,206
WHOLE YEAR:-	TOTAL,	6,677	MAX.,	140	MIN.,	0	MEAN,	18	TOTAL AC.FT.,	13,243		

**KERN DELTA WATER DISTRICT  
BUENA VISTA CANAL SERVICE AREA**

Year: 1991

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	0	0	71	992	1,617	1,750	316	0	0	26	176	0	4,948
Release	494	0	2,612	224	0	0	0	0	757	1,675	644	1,803	8,209
Ent'l + or - Releases	494	0	2,683	1,216	1,617	1,750	316	0	757	1,701	820	1,803	13,157
Into Storage	0	0	44	462	940	623	12	0	725	839	459	385	4,489
From Storage	0	0	0	0	0	706	450	769	0	459	0	339	2,723
To North Kern WSD	0	0	607	30	159	0	0	0	32	38	0	0	866
Transfer in Storage	0	0	0	0	0	(42)	0	0	0	0	0	0	(42)
Carrier Canal Loss	494	0	215	0	0	0	0	0	0	664	14	109	1,496
Diverted at Head of Canal	0	0	1,817	724	518	1,791	754	769	0	619	347	1,648	8,987
Utility Deliveries	0	0	1,073	322	160	1,347	495	371	0	232	218	1,344	5,562
Contract Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Deliveries	0	0	1,073	322	160	1,347	495	371	0	232	218	1,344	5,562
Canal Conveyance Losses	0	0	744	402	358	444	259	398	0	387	129	304	3,425
Irrigation Delivery Percentage	0%	0%	59%	44%	31%	75%	66%	48%	0%	37%	63%	82%	62%

Into Reservoir Storage	0	0	44	462	940	623	12	0	725	839	459	385	4,489
Reservoir Evaporation Loss	0	0	0	10	30	58	42	16	8	32	40	30	266
From Reservoir Storage	0	0	0	0	0	706	450	769	0	459	0	339	2,723
End of Month Reservoir Storage	0	0	44	496	1,406	1,265	785	0	717	1,065	1,484	1,500	

State Exchange Diverted	0	0	0	0	0	1,105	137	0	0	0	0	0	1,242
State Water Div. via Maples Canal	0	0	0	0	0	0	0	0	0	0	0	0	0
I.D. #4 Water Diverted	0	0	0	0	0	0	0	0	0	0	0	0	0
State Exch. Delivered	0	0	0	0	0	922	137	0	0	0	0	0	1,059
State Water Del. via Maples Canal	0	0	0	0	0	0	0	0	0	0	0	0	0
I.D. #4 Water Delivered	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Year: 1991

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Buena Vista Canal at Head	0	0	2,005	789	518	3,689	1,113	769	0	619	1,535	2,206	13,243
Buena Vista Canal from Maples Canal	0	0	0	0	0	0	385	0	0	0	0	0	385
<b>TOTAL BUENA VISTA CANAL SUPPLY</b>	<b>0</b>	<b>0</b>	<b>2,005</b>	<b>789</b>	<b>518</b>	<b>3,689</b>	<b>1,498</b>	<b>769</b>	<b>0</b>	<b>619</b>	<b>1,535</b>	<b>2,206</b>	<b>13,628</b>

**Deliveries: Head to Section 17**

Buena Vista Utility	0	0	1,073	241	160	988	30	371	0	232	0	95	3,190
Buena Vista State Exchange	0	0	0	0	0	603	11	0	0	0	0	0	614
Stine Utility	0	0	0	0	0	115	26	0	0	0	0	0	141
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
<b>Sub-Total</b>	<b>0</b>	<b>0</b>	<b>1,073</b>	<b>241</b>	<b>160</b>	<b>1,706</b>	<b>67</b>	<b>371</b>	<b>0</b>	<b>232</b>	<b>0</b>	<b>95</b>	<b>3,945</b>

**Deliveries: At or Below Section 17**

Buena Vista Utility	0	0	0	81	0	359	465	0	0	0	218	1,249	2,372
Buena Vista State Exchange	0	0	0	0	0	319	126	0	0	0	0	0	445
Stine Utility	0	0	0	0	0	179	119	0	0	0	0	0	298
Kern Island Utility	0	0	149	75	0	163	436	0	0	0	825	383	2,031
Kern Island State Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Sub-Total</b>	<b>0</b>	<b>0</b>	<b>149</b>	<b>156</b>	<b>0</b>	<b>1,020</b>	<b>1,146</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,043</b>	<b>1,632</b>	<b>5,146</b>

<b>TOTAL DELIVERED</b>	<b>0</b>	<b>0</b>	<b>1,222</b>	<b>397</b>	<b>160</b>	<b>2,726</b>	<b>1,213</b>	<b>371</b>	<b>0</b>	<b>232</b>	<b>1,043</b>	<b>1,727</b>	<b>9,091</b>
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Canal Conveyance Losses	0	0	783	392	358	963	285	398	0	387	492	479	4,152
Irrigation Delivery Percentage	0%	0%	61%	50%	31%	74%	81%	48%	0%	37%	68%	78%	67%

**DISTRIBUTION:**

Buena Vista Utility	0	0	1,817	724	518	1,791	754	769	0	619	347	1,648	8,987
Buena Vista State Exchange	0	0	0	0	0	1,105	137	0	0	0	0	0	1,242
Stine Utility	0	0	0	0	0	521	179	0	0	0	0	0	700
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
Kern Island Utility	0	0	188	65	0	272	428	0	0	0	1,188	558	2,699
Kern Island State Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>2,005</b>	<b>789</b>	<b>518</b>	<b>3,689</b>	<b>1,498</b>	<b>769</b>	<b>0</b>	<b>619</b>	<b>1,535</b>	<b>2,206</b>	<b>13,628</b>

Year: 1991

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	0	0	0	101	0	0	0	0	0
2	0	0	0	13	0	0	103	0	0	0	0	0
3	0	0	0	30	0	0	104	0	0	0	0	0
4	0	0	0	23	0	0	107	0	0	0	0	0
5	0	0	0	12	0	0	104	0	0	0	0	0
6	0	0	0	0	0	0	98	0	0	0	0	0
7	0	0	0	0	0	0	88	0	0	0	0	0
8	0	0	0	0	0	0	86	0	0	0	0	0
9	0	0	0	0	0	0	88	0	0	0	0	0
10	0	0	0	0	0	13	88	0	0	0	0	0
11	0	0	0	0	0	72	88	0	0	0	0	0
12	0	0	0	0	0	84	89	0	0	0	0	0
13	0	0	0	0	0	81	87	0	0	0	0	0
14	0	0	0	0	0	89	83	0	0	0	0	0
15	0	0	0	0	0	92	74	0	0	0	0	0
16	0	0	0	0	0	95	58	0	0	0	0	0
17	0	0	0	0	0	96	56	0	0	0	0	0
18	0	0	0	0	0	96	32	0	0	0	0	0
19	0	0	0	0	0	86	0	0	0	0	0	0
20	0	0	0	0	0	83	0	0	0	0	0	0
21	0	0	0	0	0	86	0	0	0	0	0	0
22	0	0	0	0	0	73	0	0	0	0	0	0
23	0	0	0	0	0	59	0	0	0	0	0	0
24	0	0	0	0	0	70	0	0	0	0	0	0
25	0	0	0	0	0	84	0	0	0	0	0	0
26	0	0	0	0	0	95	0	0	0	0	0	0
27	0	0	0	0	0	101	0	0	0	0	0	0
28	0	0	0	0	0	100	0	0	0	0	0	0
29	0	-	0	0	0	95	0	0	0	0	0	0
30	0	-	0	0	0	98	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	78	0	1,748	1,534	0	0	0	0	0
MAXIMUM DAY	0	0	0	30	0	101	107	0	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	3	0	58	49	0	0	0	0	0
TOTAL AC.FT.	0	0	0	155	0	3,467	3,043	0	0	0	0	0
WHOLE YEAR-- TOTAL,	3,360	MAX.,	107	MIN.,	0	MEAN,	9	TOTAL AC.FT.,	6,665			

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

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	0	0	137	1,845	3,033	3,261	584	0	0	0	0	0	8,860
Release	0	0	(2)	24	0	0	0	0	0	0	0	0	22
Ent'l + or - Releases	0	0	135	1,869	3,033	3,261	584	0	0	0	0	0	8,882
Into Storage	0	0	79	1,030	2,090	1,120	0	0	0	0	0	0	4,319
From Storage	0	0	0	0	0	1,151	1,893	801	147	0	0	0	3,992
To North Kern WSD	0	0	56	539	868	0	0	0	0	0	0	0	1,463
Transfer In Storage	0	0	0	0	0	(208)	0	0	0	0	0	0	(208)
Carrier Canal Loss	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted at Head	0	0	0	300	75	3,084	2,477	801	147	0	0	0	6,884
Utility Deliveries	0	0	0	35	32	1,324	1,313	439	35	0	0	0	3,178
Contract Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Deliveries	0	0	0	35	32	1,324	1,313	439	35	0	0	0	3,178
Conveyance Losses	0	0	0	265	43	1,760	1,164	362	112	0	0	0	3,706
Delivery Percentage	0%	0%	0%	12%	43%	43%	53%	55%	24%	0%	0%	0%	46%

Into Reservoir Storage	0	0	79	1,030	2,090	1,120	0	0	0	0	0	0	4,319
Reservoir Evaporation Loss	0	0	2	20	63	129	67	30	2	0	0	0	313
From Reservoir Storage	0	0	0	0	0	1,151	1,893	801	147	0	0	0	3,992
End of Month Reservoir Storage	0	0	77	1,087	3,114	2,954	994	163	14	14	14	14	

State Exchange Diverted	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
State Exchange Delivered	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Delivered	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Year: 1991

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	0	0	135	1,785	3,033	3,235	555	0	0	0	0	0	8,743
Release	0	0	0	(196)	0	0	0	0	0	0	0	0	(196)
Ent'l + or - Releases	0	0	135	1,589	3,033	3,235	555	0	0	0	0	0	8,547
Into Storage	0	0	79	980	1,962	1,394	16	0	0	0	0	0	4,431
From Storage	0	0	0	0	0	252	1,956	1,591	61	129	0	8	3,997
To North Kern WSD	0	0	0	424	460	0	0	0	0	0	0	0	884
Transfer in Storage	0	0	0	0	0	(187)	0	0	0	0	0	0	(187)
Carrier Canal Loss	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted at Head	0	0	56	185	611	1,906	2,495	1,591	61	129	0	8	7,042
Utility Deliveries	0	0	37	103	225	1,355	1,771	1,061	16	75	0	8	4,651
Contract Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Deliveries	0	0	37	103	225	1,355	1,771	1,061	16	75	0	8	4,651
Conveyance Losses	0	0	19	82	386	551	724	530	45	54	0	0	2,391
Delivery Percentage	0%	0%	66%	56%	37%	71%	71%	67%	26%	58%	0%	100%	66%

Into Reservoir Storage	0	0	79	980	1,962	1,394	16	0	0	0	0	0	4,431
Reservoir Evaporation Loss	0	0	2	20	61	129	125	45	8	2	2	2	396
From Reservoir Storage	0	0	0	0	0	252	1,956	1,591	61	129	0	8	3,997
End of Month Reservoir Storage	0	0	77	1,037	2,938	3,951	1,886	250	181	50	48	38	

State Exchange Diverted	0	0	206	0	0	0	0	0	0	0	0	0	206
Other Diversions	0	0	0	0	0	0	0	0	0	0	0	0	0
State Exchange Delivered	0	0	97	0	0	0	0	0	0	0	0	0	97
Other Delivered	0	0	0	0	0	0	0	0	0	0	0	0	0

Year: 1991

Kern Delta Water District Kern River Diverted  
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	7	0	0	0	0	0	0
4	0	0	0	0	0	21	0	0	0	0	0	0
5	0	0	0	0	0	22	0	0	0	0	0	0
6	0	0	0	0	0	24	0	0	0	0	0	0
7	0	0	0	0	0	24	0	0	0	0	0	0
8	0	0	0	0	0	24	0	0	0	0	0	0
9	0	0	0	0	0	23	0	0	0	0	0	0
10	0	0	0	0	0	23	0	0	0	0	0	0
11	0	0	0	0	0	18	0	0	0	0	0	0
12	0	0	0	0	0	17	0	0	0	0	0	0
13	0	0	0	0	0	28	0	0	0	0	0	0
14	0	0	0	0	0	7	0	0	0	0	0	0
15	0	0	0	0	0	6	0	0	0	0	0	0
16	0	0	0	0	0	6	0	0	0	0	0	0
17	0	0	0	0	0	0	0	15	0	0	0	0
18	0	0	0	0	0	0	0	15	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	250	0	30	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	28	0	15	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	8	0	1	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	495	0	60	0	0	0	0
WHOLE YEAR:-	TOTAL,	280	MAX.,	28	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	555		

Year: 1991

**KERN DELTA WATER DISTRICT**  
**State Aqueduct Exchange Diversion and Storage Recapitulation**

Quantities in acre-feet

	Kern Island	Eastside	Eastside via K.I.	Buena Vista	Stine	Farmers	Resv. Loss	Other	Total	Storage
										Balance
1990										0
Carry Over	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0
January	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	1990 PAYBACK =										
	1991										
Contract	219	2	192	0	0	206	0	0	0	619	3,134
March	0	0	67	0	0	0	0	0	0	67	2,515
April	0	0	0	0	0	0	0	0	0	0	2,448
May	50	38	124	1,105	0	0	0	0	0	1,317	2,448
June	228	155	256	137	0	0	0	0	0	776	1,131
July	111	44	178	0	0	0	0	0	0	333	355
August	0	0	22	0	0	0	0	0	0	22	22
September	0	0	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>608</b>	<b>239</b>	<b>839</b>	<b>1,242</b>	<b>0</b>	<b>206</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,134</b>	<b>3,134</b>

1991											0
Carry Over	0	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>										

CITY OF BAKERSFIELD

**KERN RIVER CHANNEL OPERATIONS  
CITY OF BAKERSFIELD**

Year: 1991

Quantities in acre-feet

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
+ Kern River at First Point of Measurement	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
- Computed Loss	676	611	676	655	676	655	676	676	655	676	655	676	7,963
- Beardsley Canal at Head	841	732	7,285	6,988	8,049	11,240	16,163	9,761	5,266	5,252	5,082	1,587	78,246
- Carrier Canal at Head	9,110	7,769	19,575	21,294	21,814	32,652	33,324	27,271	6,569	5,425	7,644	10,065	202,512
= Rocky Point Weir	0	0	278	0	0	18,450	13,491	10,488	0	0	0	2,066	44,773
+ Carrier Waste Gate	0	0	0	0	0	0	1,180	851	0	0	0	0	2,031
+ Farmers-Stine-Anderson: to River	0	0	2,547	3,598	3,665	587	0	895	0	0	0	0	11,292
- Farmers-Stine-Anderson: from River	0	0	0	0	0	16,197	11,427	8,995	0	0	0	0	36,619
- Calloway Canal at Head	0	0	1,884	2,882	2,854	1,611	2,236	2,477	0	0	0	913	14,857
- River Loss: Rocky Pt. to Cally. Weir	0	0	941	716	811	1,229	1,008	736	0	0	0	1,153	6,594
= Calloway River Weir	0	0	0	0	0	0	0	26	0	0	0	0	26
+ CVC T.O. #4 to River	0	0	98	0	0	0	0	18	0	0	0	0	116
+ CVC T.O. #3 to River	0	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	92	92
- River Canal from River	0	0	0	0	0	0	0	0	0	0	0	0	0
- River Loss: Cally. Weir to River Canal Weir	0	0	98	0	0	0	0	44	0	0	0	92	234
= River Canal Weir	0	0	0	0	0	0	0	0	0	0	0	0	0
+ Pioneer Turnout	0	0	4,262	2,537	0	0	0	0	0	0	2,259	1,402	10,460
+ CVC T.O. #2 to River	0	0	0	0	0	0	0	0	0	0	0	0	0
- Rosedale Channel at Head	0	0	3,594	2,275	0	0	0	0	0	0	1,940	1,267	9,076
- Pioneer Canal at Head	0	0	0	0	0	0	0	0	0	0	0	0	0
- River Loss: River Canal to Stockdale Hwy.	0	0	668	262	0	0	0	0	0	0	319	135	1,384
= Flow at Stockdale Highway	0	0	0	0	0	0	0	0	0	0	0	0	0
- River Loss: Sid. Hwy. to Berrenda Mesa T.O.	0	0	0	0	0	0	0	0	0	0	0	0	0
- Berrenda Mesa Turnout from River	0	0	0	0	0	0	0	0	0	0	0	0	0
+ CVC T.O. #1 to River	0	0	31	0	0	0	0	0	0	0	0	0	31
- Operational Spill	0	0	31	0	0	0	0	0	0	0	0	0	31
+ River Canal T.O. to 2800 Acres	0	0	0	0	0	0	0	0	0	0	0	0	0
- 2800 Acre Recharge Facility	0	0	0	0	0	0	0	0	0	0	0	0	0
= River Channel Below 2800 Acres	0	0	0	0	0	0	0	0	0	0	0	0	0

**CARRIER CANAL OPERATIONS  
CITY OF BAKERSFIELD**

Quantities in acre-feet

Year: 1991

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
+ Carrier Canal at Head	9,110	7,769	19,575	21,294	21,814	32,652	33,324	27,271	6,569	5,425	7,644	10,065	202,512
- Carrier Waste Gate	0	0	0	0	0	0	1,180	851	0	0	0	0	2,031
+ Oilfield Discharge (Texaco Inc.)	687	632	324	0	0	0	0	0	0	0	0	285	1,928
= Carrier Reclamation Weir	9,797	8,401	19,899	21,294	21,814	32,652	32,144	26,420	6,569	5,425	7,644	10,350	202,409
+ Oilfield Discharge (Arco Oil)	68	62	40	0	0	0	0	0	0	0	0	32	202
+ Storm Drain Inflow/Canal Drainage	0	0	51	0	0	0	0	0	0	0	0	0	51
- Eastside Canal at Head	0	0	748	1,202	2,267	2,840	3,064	1,579	0	0	0	0	11,700
- Kern Island Canal at Head	8,916	8,463	9,681	9,701	11,139	20,041	18,296	16,548	6,569	3,646	2,793	5,901	121,694
= Levee No. 1	949	0	9,561	10,391	8,408	9,771	10,784	8,293	0	1,779	4,851	4,481	69,268
- Farmers-Stine-Anderson: to River	0	0	2,547	3,598	3,665	587	0	895	0	0	0	0	11,292
+ Farmers-Stine-Anderson: from River	0	0	0	0	0	16,197	11,427	8,995	0	0	0	0	36,619
= Carrier Canal at Oak Street	949	0	7,014	6,793	4,743	25,381	22,211	16,393	0	1,779	4,851	4,481	94,595
- Stine Canal at Head	0	0	0	155	0	3,467	3,043	0	0	0	0	0	6,665
- Truxtun Lakes	46	0	0	0	0	0	0	0	0	339	385	385	1,155
- Arvin-Edison Turnout	0	0	0	0	0	0	0	0	0	0	0	0	0
- Total Carrier Canal Loss	903	0	747	747	835	911	1,120	657	0	821	672	488	7,901
+ River Canal from River	0	0	0	0	0	0	0	0	0	0	0	0	0
= River Canal at Stockdale Highway	0	0	6,267	5,891	3,908	21,003	18,048	15,736	0	619	3,794	3,608	78,874
- Buena Vista Canal at Head	0	0	2,005	789	518	3,689	1,113	769	0	619	1,535	2,206	13,243
- Pioneer Turnout	0	0	4,262	2,537	0	0	0	0	0	0	2,259	1,402	10,460
- James Canal at Head	0	0	0	0	0	0	0	0	0	0	0	0	0
= River Canal at Alternate Second Point	0	0	0	2,565	3,390	17,314	16,935	14,967	0	0	0	0	55,171
+ 2800 Acre Well Water Production	0	1,454	512	2,814	3,439	3,146	3,157	3,017	3,449	3,583	3,462	2,980	31,013
+ KCWA Well Water Production via River Canal	0	0	0	0	0	63	233	529	774	1,802	2,271	1,956	7,628
- 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	892	635	255	0	0	0	0	1,782
= Second Point Group Flow via River Canal	0	1,454	512	5,379	6,829	19,631	19,690	18,258	4,223	5,385	5,733	4,936	92,030

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

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
River Entitlement	0	0	17,294	17,472	19,937	23,238	9,882	113	0	30	70	0	88,036
Release	446	0	1,157	456	99	0	0	0	753	1,200	1,120	1,127	6,358
<b>ENTITLEMENT + OR - RELEASE</b>	<b>446</b>	<b>0</b>	<b>18,451</b>	<b>17,928</b>	<b>20,036</b>	<b>23,238</b>	<b>9,882</b>	<b>113</b>	<b>753</b>	<b>1,230</b>	<b>1,190</b>	<b>1,127</b>	<b>94,394</b>
NKWSO to City	0	0	2,939	937	0	0	0	0	0	0	2,563	2,324	8,763
From Reservoir Storage	87	58	105	0	4,583	10,807	13,969	0	4,301	2,760	987	1,715	39,372
Into Reservoir Storage	0	0	11,728	8,515	11,663	12,676	2,008	0	0	0	0	0	46,590
Other	532	694	364	12	2,090	1,486	740	1,540	0	0	0	55	7,513
<b>TOTAL SUPPLY</b>	<b>1,065</b>	<b>752</b>	<b>10,131</b>	<b>10,362</b>	<b>10,463</b>	<b>16,631</b>	<b>19,421</b>	<b>15,622</b>	<b>5,054</b>	<b>3,990</b>	<b>4,740</b>	<b>5,221</b>	<b>103,452</b>

Lake Ming	16	16	44	60	77	105	127	121	91	65	42	26	790
Kern Valley Golf Course	4	6	0	18	27	31	33	33	25	18	5	3	203
North Kern WSD	718	125	1,081	2,507	332	7,201	6,623	4,411	75	0	0	706	23,779
Cawelo WD	0	0	1,727	1,544	5,500	5,851	7,283	5,630	2,190	0	570	83	30,378
Kern-Tulare WD	0	0	1,559	1,944	2,913	1,580	2,046	2,690	1,513	2,657	1,058	2,040	20,000
Rag Gulch WD	0	0	232	291	437	237	307	404	227	398	160	307	3,000
Rosedale RIBWSD (Direct)	0	0	3,594	2,275	0	0	0	0	0	0	1,940	1,267	9,076
Rosedale RIBWSD (via I.D. #4)	0	0	0	0	0	0	0	0	0	0	0	527	527
James-Pioneer ID	0	0	0	0	0	0	0	0	0	0	0	0	0
Rosedale Ranch ID	0	0	0	0	0	0	0	0	0	0	0	0	0
Kern River Canal & Irrigating Co.	95	607	753	715	341	0	1,445	1,387	931	853	352	0	7,479
Truxtun Lakes (Direct)	10	0	0	0	0	0	0	0	0	0	0	0	10
Truxtun Lakes (via I.D. #4)	0	0	0	0	0	0	0	0	0	0	0	0	0
2800 Acre Banking	0	0	0	0	0	0	0	0	0	0	0	0	0
River and Carrier Canal Loss	222	(2)	1,141	1,008	836	1,626	1,557	946	2	(1)	613	262	8,210
<b>TOTAL DIVERTED</b>	<b>1,065</b>	<b>752</b>	<b>10,131</b>	<b>10,362</b>	<b>10,463</b>	<b>16,631</b>	<b>19,421</b>	<b>15,622</b>	<b>5,054</b>	<b>3,990</b>	<b>4,740</b>	<b>5,221</b>	<b>103,452</b>

Into Reservoir Storage	0	0	11,728	8,515	11,663	12,676	2,008	0	0	0	0	0	46,590
Reservoir Evaporation Loss	20	17	222	563	829	1,126	1,282	803	420	240	133	77	5,732
From Reservoir Storage	87	58	105	0	0	4,583	10,807	13,969	4,301	2,760	987	1,715	39,372
<b>End of Month Reservoir Storage</b>	<b>477</b>	<b>402</b>	<b>11,803</b>	<b>19,755</b>	<b>30,589</b>	<b>37,556</b>	<b>27,475</b>	<b>12,703</b>	<b>7,982</b>	<b>4,982</b>	<b>3,862</b>	<b>2,070</b>	

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

Quantities in  
acre-feet

<b>NORTH KERN WATER STORAGE DISTRICT</b>						
Year	Basic Contract Amount		Cumulative Contract Delivery		Basic Contract Balance	
	Amount	Delivered	Contract Amount	Contract Delivery	Contract Amount	Contract Balance
1977	20,000	20,000	20,000	20,000	0	0
1978	20,000	20,000	40,000	40,000	0	0
1979	20,000	20,000	60,000	60,000	0	0
1980	20,000	20,000	80,000	80,000	0	0
1981	20,000	20,000	100,000	100,000	0	0
1982	20,000	20,000	120,000	120,000	0	0
1983	20,000	20,000	140,000	140,000	0	0
1984	20,000	20,000	160,000	160,000	0	0
1985	20,000	20,000	180,000	180,000	0	0
1986	20,000	20,000	200,000	200,000	0	0
1987	20,000	20,000	220,000	220,000	0	0
1988	20,000	20,000	240,000	240,000	0	0
1989	20,000	20,000	260,000	260,000	0	0
1990	20,000	20,000	280,000	280,000	0	0
1991	20,000	20,000	300,000	300,000	0	0

<b>CAMELO WATER DISTRICT</b>						
Year	Basic Contract Amount		Cumulative Contract Delivery		Basic Contract Balance	
	Amount	Delivered	Contract Amount	Contract Delivery	Contract Amount	Contract Balance
1977	27,000	5,024	27,000	5,024	(21,976)	(21,976)
1978	27,000	35,404	54,000	40,428	(13,572)	(13,572)
1979	27,000	36,780	81,000	77,208	(3,792)	(3,792)
1980	27,000	30,792	108,000	108,000	0	0
1981	27,000	27,000	135,000	135,000	0	0
1982	27,000	27,000	162,000	162,000	0	0
1983	27,000	27,000	189,000	189,000	0	0
1984	27,000	27,000	216,000	216,000	0	0
1985	27,000	27,000	243,000	243,000	0	0
1986	27,000	27,000	270,000	270,000	0	0
1987	27,000	27,000	297,000	297,000	0	0
1988	27,000	12,821	324,000	309,821	(14,179)	(14,179)
1989	27,000	22,460	351,000	332,281	(18,719)	(18,719)
1990	27,000	17,723	378,000	350,004	(27,996)	(27,996)
1991	27,000	29,316	405,000	379,320	(25,680)	(25,680)

<b>KERN-TULARE WATER DISTRICT</b>						
Year	Basic Contract Amount		Cumulative Contract Delivery		Basic Contract Balance	
	Amount	Delivered	Contract Amount	Contract Delivery	Contract Amount	Contract Balance
1977	20,000	4,673	20,000	4,673	(15,327)	(15,327)
1978	20,000	23,690	40,000	28,363	(11,637)	(11,637)
1979	20,000	24,122	60,000	52,485	(7,515)	(7,515)
1980	20,000	23,403	80,000	75,888	(4,112)	(4,112)
1981	20,000	23,700	100,000	99,588	(412)	(412)
1982	20,000	20,412	120,000	120,000	0	0
1983	20,000	20,000	140,000	140,000	0	0
1984	20,000	20,000	160,000	160,000	0	0
1985	20,000	20,000	180,000	180,000	0	0
1986	20,000	20,000	200,000	200,000	0	0
1987	20,000	20,000	220,000	220,000	0	0
1988	20,000	11,763	240,000	231,763	(8,237)	(8,237)
1989	20,000	16,635	260,000	248,398	(11,602)	(11,602)
1990	20,000	0	280,000	248,398	(31,602)	(31,602)
1991	20,000	20,000	300,000	268,398	(31,602)	(31,602)

<b>RAG GULCH WATER DISTRICT</b>						
Year	Basic Contract Amount		Cumulative Contract Delivery		Basic Contract Balance	
	Amount	Delivered	Contract Amount	Contract Delivery	Contract Amount	Contract Balance
1977	3,000	449	3,000	449	(2,551)	(2,551)
1978	3,000	3,550	6,000	3,999	(2,001)	(2,001)
1979	3,000	3,550	9,000	7,549	(1,451)	(1,451)
1980	3,000	3,550	12,000	11,099	(901)	(901)
1981	3,000	3,550	15,000	14,649	(351)	(351)
1982	3,000	3,351	18,000	18,000	0	0
1983	3,000	3,000	21,000	21,000	0	0
1984	3,000	3,000	24,000	24,000	0	0
1985	3,000	3,000	27,000	27,000	0	0
1986	3,000	3,000	30,000	30,000	0	0
1987	3,000	3,000	33,000	33,000	0	0
1988	3,000	1,764	36,000	34,764	(1,236)	(1,236)
1989	3,000	2,495	39,000	37,259	(1,741)	(1,741)
1990	3,000	0	42,000	37,259	(4,741)	(4,741)
1991	3,000	3,000	45,000	40,259	(4,741)	(4,741)

**CITY OF BAKERSFIELD**  
Deliveries to Long Term Contractors

Basic Contract

Year: 1991

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	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0
March	1,081	1,081	1,727	1,727	1,559	1,559	232	232	4,599	4,599
April	2,507	3,588	1,544	3,271	1,944	3,503	291	523	6,286	10,885
May	332	3,920	5,500	8,771	2,913	6,416	437	960	9,182	20,067
June	5,827	9,747	4,476	13,247	1,580	7,996	237	1,197	12,120	32,187
July	6,253	16,000	8,353	21,600	2,046	10,042	307	1,504	16,959	49,146
August	4,000	20,000	5,064	26,664	2,690	12,732	404	1,908	12,158	61,304
September	0	20,000	2,652	29,316	1,513	14,245	227	2,135	4,392	65,696
October	0	20,000	0	29,316	2,657	16,902	398	2,533	3,055	68,751
November	0	20,000	0	29,316	1,058	17,960	160	2,693	1,218	69,969
December	0	20,000	0	29,316	2,040	20,000	307	3,000	2,347	72,316
<b>Year Total</b>	<b>20,000</b>		<b>29,316</b>		<b>20,000</b>		<b>3,000</b>		<b>72,316</b>	

Note: 1) Includes water delivered as per terms of City of Bakersfield/Cawelo Water District letter agreement dated July 31, 1991.

2) Includes water delivered as per terms of City of Bakersfield/Cawelo Water District letter agreement dated July 5, 1991.

**City of Bakersfield Diverted to North Kern WSD**  
**(Basic Contract)**  
**(Does not include deliveries into Isabella Reservoir storage)**  
**Year: 1991**

**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	54	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	77	0	0	0	0	0	0	0	0	0
5	0	0	108	0	7	0	0	0	0	0	0	0
6	0	0	0	0	2	0	0	0	0	0	0	0
7	0	0	37	10	0	0	0	0	0	0	0	0
8	0	0	31	62	0	0	0	0	0	0	0	0
9	0	0	24	104	0	0	0	0	0	0	0	0
10	0	0	31	72	0	0	0	0	0	0	0	0
11	0	0	35	80	0	0	0	0	0	0	0	0
12	0	0	48	74	0	0	0	0	0	0	0	0
13	0	0	48	85	28	0	0	0	0	0	0	0
14	0	0	52	96	14	0	0	0	0	0	0	0
15	0	0	0	93	51	0	0	0	0	0	0	0
16	0	0	0	79	38	0	0	0	0	0	0	0
17	0	0	0	31	27	0	0	0	0	0	0	0
18	0	0	0	33	0	0	0	0	0	0	0	0
19	0	0	0	34	0	0	0	0	0	0	0	0
20	0	0	0	46	0	0	0	0	0	0	0	0
21	0	0	0	59	0	0	0	0	0	0	0	0
22	0	0	0	70	0	0	0	0	0	0	0	0
23	0	0	0	46	0	0	0	0	0	0	0	0
24	0	0	0	64	0	0	0	0	0	0	0	0
25	0	0	0	29	0	0	0	0	0	0	0	0
26	0	0	0	20	0	0	0	0	0	0	0	0
27	0	0	0	18	0	0	0	0	0	0	0	0
28	0	0	0	28	0	0	0	0	0	0	0	0
29	0	-	0	31	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
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>545</b>	<b>1,264</b>	<b>167</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MAXIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>108</b>	<b>104</b>	<b>51</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MINIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MEAN</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>42</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL AC.FT.</b>	<b>0</b>	<b>0</b>	<b>1,081</b>	<b>2,507</b>	<b>332</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>WHOLE YEAR:-</b>	<b>TOTAL,</b>	<b>1,976</b>	<b>MAX.,</b>	<b>108</b>	<b>MIN.,</b>	<b>0</b>	<b>MEAN,</b>	<b>5</b>	<b>TOTAL AC.FT.,</b>	<b>3,920</b>	<b>0</b>	<b>0</b>

DISCHARGE IN CUBIC FEET PER SECOND

City of Bakersfield Diverted to North Kern WSD  
(2800 Acre Well Water Purchase)

Year: 1991

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	33	5	14	0	0	0	0
2	0	0	0	0	0	29	6	16	0	0	0	0
3	0	0	0	0	0	30	5	16	0	0	0	0
4	0	0	0	0	0	55	6	15	0	0	0	0
5	0	0	0	0	0	61	6	16	0	0	0	0
6	0	0	0	0	0	70	5	15	0	0	0	0
7	0	0	0	0	0	45	6	15	0	0	0	0
8	0	0	0	0	0	32	5	13	0	0	0	0
9	0	0	0	0	0	40	6	12	0	0	0	0
10	0	0	0	0	0	54	0	13	0	0	0	0
11	0	0	0	0	0	61	0	12	0	0	0	0
12	0	0	0	0	0	79	0	12	0	0	0	0
13	0	0	0	0	0	65	0	12	0	0	0	0
14	0	0	0	0	0	11	0	2	0	0	0	0
15	0	0	0	0	0	0	1	0	0	0	0	0
16	0	0	0	0	0	0	8	4	0	0	0	0
17	0	0	0	0	0	0	8	0	0	0	0	0
18	0	0	0	0	0	0	9	0	0	0	0	0
19	0	0	0	0	0	0	8	0	0	0	0	0
20	0	0	0	0	0	0	8	0	0	0	0	0
21	0	0	0	0	0	0	8	3	0	0	0	0
22	0	0	0	0	0	0	9	13	0	0	0	0
23	0	0	0	0	0	0	8	4	0	0	0	0
24	0	0	0	0	0	0	9	0	0	0	0	0
25	0	0	0	0	0	0	8	0	0	0	0	0
26	0	0	0	0	0	6	7	0	0	0	0	0
27	0	0	0	0	0	6	7	0	0	0	0	0
28	0	0	0	0	0	6	8	0	0	0	0	0
29	0	-	0	0	0	5	8	0	0	0	0	0
30	0	-	0	0	0	5	9	0	0	0	0	0
31	0	-	0	-	0	-	13	0	-	0	-	0
TOTAL	0	0	0	0	0	693	186	207	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	79	13	16	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	23	6	7	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	1,374	370	411	0	0	0	0
WHOLE YEAR:-	TOTAL,	1,086	MAX.,	79	MIN.,	0	MEAN,	3	TOTAL AC.FT.,	2,155		

**CAMELO WATER DISTRICT OPERATIONS**

Quantities in acre-feet

Year: 1991

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
+ Camelo WD via Pump Station "B"	159	0	2,243	1,833	5,709	5,974	8,665	7,654	4,468	2,957	1,460	761	41,883
Lerdo Delivery Gate No. 8-0-2	0	0	0	0	0	0	52	44	54	40	4	0	194
Lerdo Delivery Gate No. 8-0-10	0	0	0	0	0	0	0	0	0	0	0	0	0
Lerdo Delivery Gate No. 8-0-22	0	0	65	101	187	272	397	184	165	0	12	0	1,383
Lerdo Delivery Gate No. 8-0-25	0	0	0	0	0	0	0	0	0	12	45	0	57
Lerdo Delivery Gate No. 8-0-288	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	67	46	75	79	95	63	63	20	0	0	508
Lerdo Delivery Gate No. 8-0-292	0	0	20	6	24	28	48	18	10	4	0	0	158
+ Total Lerdo Gate Deliveries	0	0	152	153	286	379	592	309	292	76	61	0	2,300
Beardsley Canal Loss	8	0	50	58	61	60	61	61	60	61	60	34	574
Lerdo Loss	16	0	26	21	63	67	97	82	50	58	16	8	504
+ Total Loss	24	0	76	79	124	127	158	143	110	119	76	42	1,078
= Total Diverted for Camelo WD	183	0	2,471	2,065	6,119	6,480	9,415	8,106	4,870	3,152	1,597	803	45,261

**Camelo Water District Source of Supply:**

+ City of Bakersfield Basic Contract	0	0	1,727	1,544	5,500	4,476	6,913	4,650	2,190	0	0	0	27,000
+ City of Bakersfield Miscellaneous	0	0	0	0	0	0	0	0	0	0	570	83	653
+ City of Bakersfield 2800 Acre Well Water Purchase	0	0	0	0	0	1,375	370	980	0	0	0	0	2,725
+ City of Bakersfield Oilfield Discharge	0	0	97	521	619	629	640	642	561	543	502	220	4,974
+ Kern Island Canal Exchange (Basic Contract)	0	0	0	0	0	0	1,427	406	0	0	0	0	1,833
+ Kern Island Canal Exchange (A-Edison Exch.)	0	0	0	0	0	0	0	976	311	0	0	0	1,287
+ ID #4/A-Edison WSD Exch. (K-TWD/RGWD)	0	0	0	0	0	0	0	347	1,740	2,559	520	500	5,666
+ ID #4/Bartell Well Water Exchange (for Rexroth)	0	0	0	0	0	0	0	50	0	0	0	0	50
+ Kern River Canal & Irrigating Company	0	0	0	0	0	0	65	55	68	50	5	0	243
+ Buena Vista WSD Exchange	0	0	647	0	0	0	0	0	0	0	0	0	647
+ North Kern WSD Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
+ via CVC Conduit "A"	183	0	0	0	0	0	0	0	0	0	0	0	183
- North Kern WSD Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
= Total Camelo Water District Supply	183	0	2,471	2,065	6,119	6,480	9,415	8,106	4,870	3,152	1,597	803	45,261

Year: 1991

Cawelo Water District Total from Beardesley-Lerdo Canal System

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	41	0	29	0	92	97	101	146	114	79	36	18
2	0	0	71	17	93	97	121	146	114	79	36	17
3	0	0	71	17	73	97	119	150	115	78	36	17
4	0	0	16	17	73	59	116	150	116	77	36	17
5	0	0	78	27	73	55	137	149	81	79	35	17
6	0	0	75	21	72	53	139	150	79	77	37	17
7	0	0	74	20	70	93	140	140	93	77	35	18
8	0	0	77	17	76	93	153	140	91	77	37	17
9	0	0	75	17	76	97	154	141	94	80	35	17
10	0	0	76	17	85	98	153	141	93	77	33	33
11	0	0	65	17	123	98	154	140	77	58	36	34
12	0	0	33	18	116	99	173	146	75	57	33	33
13	0	0	68	17	115	119	192	141	54	58	33	17
14	0	0	37	17	123	151	159	144	61	59	34	33
15	0	0	51	17	82	151	160	146	61	60	33	34
16	0	0	66	17	82	148	161	107	62	59	33	33
17	0	0	66	40	84	150	175	98	67	58	17	33
18	0	0	65	40	120	137	175	106	47	57	18	0
19	0	0	50	39	117	135	176	104	49	39	17	0
20	0	0	17	18	117	118	160	102	62	38	17	0
21	0	0	17	17	115	119	160	104	99	39	24	0
22	17	0	0	17	99	120	160	92	97	38	17	0
23	17	0	0	53	102	122	144	106	97	38	17	0
24	17	0	0	64	104	121	141	145	81	19	18	0
25	0	0	17	80	104	118	142	148	82	20	17	0
26	0	0	17	79	106	119	143	153	78	20	17	0
27	0	0	17	78	106	111	144	152	78	17	17	0
28	0	0	18	76	131	91	181	149	80	17	17	0
29	0	-	0	75	130	100	183	118	80	17	17	0
30	0	-	0	92	129	101	182	117	78	20	17	0
31	0	-	0	-	97	-	149	116	-	21	-	0
TOTAL	92	0	1,246	1,041	3,085	3,267	4,747	4,087	2,455	1,589	805	405
MAXIMUM DAY	41	0	78	92	131	151	192	153	116	80	37	34
MINIMUM DAY	0	0	0	0	70	53	101	92	47	17	17	0
MEAN	3	0	40	35	100	109	153	132	82	51	27	13
TOTAL AC.FT.	183	0	2,471	2,065	6,119	6,480	9,415	8,106	4,870	3,152	1,597	803
WHOLE YEAR:-	TOTAL,	22,819	MAX.,	192	MIN.,	0	MEAN,	63	TOTAL AC.FT.,	45,261		

DISCHARGE IN CUBIC FEET PER SECOND

City of Bakersfield Diverted to Cawelo Water District  
(Basic Contract)

Year: 1991

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	29	0	80	0	84	91	38	0	0	0
2	0	0	38	10	83	0	106	90	38	0	0	0
3	0	0	70	10	64	0	104	87	36	0	0	0
4	0	0	16	10	64	0	99	86	34	0	0	0
5	0	0	44	19	64	0	117	83	38	0	0	0
6	0	0	44	14	62	0	120	85	36	0	0	0
7	0	0	44	10	59	0	121	113	45	0	0	0
8	0	0	44	7	65	0	134	117	45	0	0	0
9	0	0	44	5	65	0	137	117	44	0	0	0
10	0	0	44	5	74	81	142	116	44	0	0	0
11	0	0	44	7	112	84	141	115	36	0	0	0
12	0	0	33	9	105	84	123	121	37	0	0	0
13	0	0	44	9	104	107	141	114	26	0	0	0
14	0	0	37	8	114	140	111	104	30	0	0	0
15	0	0	44	8	73	138	112	104	29	0	0	0
16	0	0	45	9	73	136	105	50	30	0	0	0
17	0	0	44	31	74	140	119	49	31	0	0	0
18	0	0	44	34	109	127	119	60	20	0	0	0
19	0	0	44	30	106	126	119	56	21	0	0	0
20	0	0	13	9	107	108	105	57	29	0	0	0
21	0	0	13	8	106	107	102	59	50	0	0	0
22	0	0	0	8	90	108	102	7	49	0	0	0
23	0	0	0	44	94	111	89	38	49	0	0	0
24	0	0	0	56	96	110	90	83	40	0	0	0
25	0	0	12	71	94	108	90	83	40	0	0	0
26	0	0	12	69	95	104	91	67	37	0	0	0
27	0	0	12	68	95	96	90	56	37	0	0	0
28	0	0	13	65	120	76	127	60	39	0	0	0
29	0	-	0	64	119	83	129	28	38	0	0	0
30	0	-	0	81	119	83	128	18	38	0	0	0
31	0	-	0	-	88	-	88	30	-	0	-	0
TOTAL	0	0	871	778	2,773	2,257	3,485	2,344	1,104	0	0	0
MAXIMUM DAY	0	0	70	81	120	140	142	121	50	0	0	0
MINIMUM DAY	0	0	0	0	59	0	84	7	20	0	0	0
MEAN	0	0	28	26	89	75	112	76	37	0	0	0
TOTAL AC.FT.	0	0	1,727	1,544	5,500	4,476	6,913	4,650	2,190	0	0	0
WHOLE YEAR:-	TOTAL,	13,612	MAX.,	142	MIN.,	0	MEAN,	37	TOTAL AC.FT.,	27,000		

City of Bakersfield Diverted to Cawelo Water District  
(Pursuant to City of Bakersfield/CWD Letter Agreement Dated 7-31-91) Year: 1991  
(Basic Contract)

DISCHARGE IN CUBIC FEET PER SECOND	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	30	0	0	0	0
2	0	0	0	0	0	0	0	32	0	0	0	0
3	0	0	0	0	0	0	0	36	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	37	0	0	0	0
6	0	0	0	0	0	0	0	37	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	37	0	0	0	0	0
13	0	0	0	0	0	0	37	0	0	0	0	0
14	0	0	0	0	0	0	37	0	0	0	0	0
15	0	0	0	0	0	0	37	0	0	0	0	0
16	0	0	0	0	0	0	38	0	0	0	0	0
17	0	0	0	0	0	0	37	0	0	0	0	0
18	0	0	0	0	0	0	38	0	0	0	0	0
19	0	0	0	0	0	0	37	0	0	0	0	0
20	0	0	0	0	0	0	37	0	0	0	0	0
21	0	0	0	0	0	0	37	0	0	0	0	0
22	0	0	0	0	0	0	38	0	0	0	0	0
23	0	0	0	0	0	0	36	0	0	0	0	0
24	0	0	0	0	0	0	33	0	0	0	0	0
25	0	0	0	0	0	0	33	0	0	0	0	0
26	0	0	0	0	0	0	36	0	0	0	0	0
27	0	0	0	0	0	0	37	0	0	0	0	0
28	0	0	0	0	0	0	35	0	0	0	0	0
29	0	-	0	0	0	0	34	0	0	0	0	0
30	0	-	0	0	0	0	35	0	0	0	0	0
31	0	-	0	-	0	-	37	0	-	0	-	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>726</b>	<b>209</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MAXIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MINIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MEAN</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL AC.FT.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,440</b>	<b>414</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>WHOLE YEAR--</b>	<b>TOTAL,</b>	<b>835</b>	<b>MAX.,</b>	<b>38</b>	<b>MIN.,</b>	<b>0</b>	<b>MEAN,</b>	<b>3</b>	<b>TOTAL AC.FT.,</b>	<b>1,854</b>	<b>0</b>	<b>0</b>

City of Bakersfield Diverted to Cawelo Water District  
(Miscellaneous)

Year: 1991

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	9	9
2	0	0	0	0	0	0	0	0	0	0	9	0
3	0	0	0	0	0	0	0	0	0	0	9	0
4	0	0	0	0	0	0	0	0	0	0	9	0
5	0	0	0	0	0	0	0	0	0	0	7	0
6	0	0	0	0	0	0	0	0	0	0	10	0
7	0	0	0	0	0	0	0	0	0	0	15	0
8	0	0	0	0	0	0	0	0	0	0	7	0
9	0	0	0	0	0	0	0	0	0	0	7	0
10	0	0	0	0	0	0	0	0	0	0	14	0
11	0	0	0	0	0	0	0	0	0	0	5	0
12	0	0	0	0	0	0	0	0	0	0	6	0
13	0	0	0	0	0	0	0	0	0	0	11	0
14	0	0	0	0	0	0	0	0	0	0	14	0
15	0	0	0	0	0	0	0	0	0	0	13	0
16	0	0	0	0	0	0	0	0	0	0	14	7
17	0	0	0	0	0	0	0	0	0	0	7	26
18	0	0	0	0	0	0	0	0	0	0	8	0
19	0	0	0	0	0	0	0	0	0	0	9	0
20	0	0	0	0	0	0	0	0	0	0	10	0
21	0	0	0	0	0	0	0	0	0	0	16	0
22	0	0	0	0	0	0	0	0	0	0	8	0
23	0	0	0	0	0	0	0	0	0	0	7	0
24	0	0	0	0	0	0	0	0	0	0	11	0
25	0	0	0	0	0	0	0	0	0	0	9	0
26	0	0	0	0	0	0	0	0	0	0	9	0
27	0	0	0	0	0	0	0	0	0	0	9	0
28	0	0	0	0	0	0	0	0	0	0	8	0
29	0	-	0	0	0	0	0	0	0	0	8	0
30	0	-	0	0	0	0	0	0	0	0	10	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	0	0	0	0	0	288	42
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	0	16	26
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	5	0
MEAN	0	0	0	0	0	0	0	0	0	0	10	1
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	0	570	83
WHOLE YEAR:-	TOTAL,	330	MAX.,	26	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	653		

DISCHARGE IN CUBIC FEET PER SECOND

City of Bakersfield Diverted to Cawelo Water District  
(2800 Acre Well Water Purchase)

Year: 1991

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	87	6	15	0	0	0	0
2	0	0	0	0	0	87	5	15	0	0	0	0
3	0	0	0	0	0	86	6	16	0	0	0	0
4	0	0	0	0	0	48	6	16	0	0	0	0
5	0	0	0	0	0	48	5	15	0	0	0	0
6	0	0	0	0	0	43	6	16	0	0	0	0
7	0	0	0	0	0	82	5	15	0	0	0	0
8	0	0	0	0	0	83	6	12	0	0	0	0
9	0	0	0	0	0	87	5	13	0	0	0	0
10	0	0	0	0	0	6	0	12	0	0	0	0
11	0	0	0	0	0	3	0	13	0	0	0	0
12	0	0	0	0	0	3	0	13	0	0	0	0
13	0	0	0	0	0	1	0	15	0	0	0	0
14	0	0	0	0	0	0	0	30	0	0	0	0
15	0	0	0	0	0	0	0	31	0	0	0	0
16	0	0	0	0	0	0	8	47	0	0	0	0
17	0	0	0	0	0	0	9	36	0	0	0	0
18	0	0	0	0	0	0	8	35	0	0	0	0
19	0	0	0	0	0	0	9	35	0	0	0	0
20	0	0	0	0	0	0	8	35	0	0	0	0
21	0	0	0	0	0	0	9	32	0	0	0	0
22	0	0	0	0	0	0	8	23	0	0	0	0
23	0	0	0	0	0	0	9	4	0	0	0	0
24	0	0	0	0	0	0	8	0	0	0	0	0
25	0	0	0	0	0	0	9	0	0	0	0	0
26	0	0	0	0	0	6	6	0	0	0	0	0
27	0	0	0	0	0	5	7	0	0	0	0	0
28	0	0	0	0	0	6	9	0	0	0	0	0
29	0	-	0	0	0	6	8	0	0	0	0	0
30	0	-	0	0	0	6	8	0	0	0	0	0
31	0	-	0	-	0	-	14	0	-	0	-	0
TOTAL	0	0	0	0	0	693	187	494	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	87	14	47	0	0	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	23	6	16	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	1,375	370	980	0	0	0	0
WHOLE YEAR:-	TOTAL,	1,374	MAX.,	87	MIN.,	0	MEAN,	4	TOTAL AC.FT.,	2,725		

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

DISCHARGE IN CUBIC FEET PER SECOND

Year: 1991

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	12	10	11	10	9	9	8	9
2	0	0	0	7	10	10	10	10	9	9	10	3
3	0	0	0	7	9	11	9	10	9	10	10	3
4	0	0	0	7	9	11	11	11	9	11	9	5
5	0	0	0	8	9	7	12	12	11	12	8	5
6	0	0	0	7	10	10	11	13	11	11	9	5
7	0	0	0	10	11	11	11	11	10	9	6	5
8	0	0	0	10	11	10	11	10	10	9	7	6
9	0	0	0	12	11	10	9	10	11	9	7	10
10	0	0	0	12	11	11	9	10	12	9	10	8
11	0	0	0	10	11	11	10	12	9	9	9	8
12	0	0	0	9	11	12	11	11	8	9	9	8
13	0	0	0	8	11	11	12	10	8	9	9	5
14	0	0	0	9	9	11	11	10	8	9	9	9
15	0	0	0	9	9	13	11	9	9	10	8	8
16	0	0	5	8	9	12	10	10	9	9	8	7
17	0	0	4	9	10	10	9	10	9	10	10	7
18	0	0	5	6	11	10	9	11	9	9	10	0
19	0	0	4	9	11	9	11	11	9	8	8	0
20	0	0	4	9	10	10	11	10	10	8	7	0
21	0	0	4	9	9	12	12	10	9	8	7	0
22	0	0	0	9	9	12	12	10	9	8	9	0
23	0	0	0	9	8	11	11	10	9	7	10	0
24	0	0	0	8	8	11	10	10	10	4	7	0
25	0	0	5	9	10	10	10	12	9	4	8	0
26	0	0	5	10	11	9	11	11	9	12	8	0
27	0	0	5	10	11	10	10	10	9	10	8	0
28	0	0	5	11	11	9	10	9	9	6	9	0
29	0	-	0	11	11	11	10	9	11	9	9	0
30	0	-	0	11	10	12	9	11	10	10	7	0
31	0	-	0	-	9	-	9	11	-	8	-	0
TOTAL	0	0	49	263	312	317	323	324	283	274	253	111
MAXIMUM DAY	0	0	5	12	12	13	12	13	12	12	10	10
MINIMUM DAY	0	0	0	0	8	7	9	9	8	4	6	0
MEAN	0	0	2	9	10	11	10	10	9	9	8	4
TOTAL AC.FT.	0	0	97	521	619	629	640	642	561	543	502	220
WHOLE YEAR:-	TOTAL,	2,509	MAX.,	13	MIN.,	0	MEAN,	7	TOTAL AC.FT.,	4,974		



Year: 1991

Improvement District No. 4 Kern River Exchange Water  
 Diverted to Cawelo Water District

DISCHARGE IN CUBIC FEET PER SECOND

(Pursuant to terms of ID4/CMD Exchange Agreement Dated 11-6-91)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	30	70	19	0
2	0	0	0	0	0	0	0	0	30	70	17	14
3	0	0	0	0	0	0	0	0	29	64	17	14
4	0	0	0	0	0	0	0	0	28	64	18	12
5	0	0	0	0	0	0	0	0	30	64	20	12
6	0	0	0	0	0	0	0	0	29	66	18	12
7	0	0	0	0	0	0	0	0	36	68	14	13
8	0	0	0	0	0	0	0	0	36	68	23	11
9	0	0	0	0	0	0	0	0	35	71	21	7
10	0	0	0	0	0	0	0	0	35	68	9	25
11	0	0	0	0	0	0	0	0	29	49	20	26
12	0	0	0	0	0	0	0	0	30	48	18	25
13	0	0	0	0	0	0	0	0	20	49	13	12
14	0	0	0	0	0	0	0	0	23	48	11	24
15	0	0	0	0	0	0	0	0	23	47	12	26
16	0	0	0	0	0	0	0	0	23	48	11	19
17	0	0	0	0	0	0	0	0	24	48	0	0
18	0	0	0	0	0	0	0	0	16	48	0	0
19	0	0	0	0	0	0	0	0	16	31	0	0
20	0	0	0	0	0	0	0	0	23	30	0	0
21	0	0	0	0	0	0	0	0	40	31	1	0
22	0	0	0	0	0	0	0	0	39	30	0	0
23	0	0	0	0	0	0	0	0	39	31	0	0
24	0	0	0	0	0	0	0	0	31	12	0	0
25	0	0	0	0	0	0	0	0	31	14	0	0
26	0	0	0	0	0	0	0	0	29	4	0	0
27	0	0	0	0	0	0	0	37	30	7	0	0
28	0	0	0	0	0	0	0	32	32	11	0	0
29	0	-	0	0	0	0	0	31	31	8	0	0
30	0	-	0	0	0	0	0	36	30	10	0	0
31	0	-	0	-	0	-	0	39	-	13	-	0
TOTAL	0	0	0	0	0	0	0	175	877	1,290	262	252
MAXIMUM DAY	0	0	0	0	0	0	0	39	40	71	23	26
MINIMUM DAY	0	0	0	0	0	0	0	0	16	4	0	0
MEAN	0	0	0	0	0	0	0	6	29	42	9	8
TOTAL AC.FT.	0	0	0	0	0	0	0	347	1,740	2,559	520	500
WHOLE YEAR:-	TOTAL,	2,856	MAX.,	71	MIN.,	0	MEAN,	8	TOTAL AC.FT.,	5,666		

Year: 1991

Total Diverted via  
Cross Valley Canal Conduit "A"

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	41	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	16	0	0	0	0	0	0	0	0	0	0
16	0	16	0	0	0	0	0	0	0	0	0	0
17	0	16	0	0	0	0	0	0	0	0	0	0
18	0	16	0	0	0	0	0	0	0	0	0	0
19	0	16	0	0	0	0	0	0	0	0	0	0
20	0	16	0	0	0	0	0	0	0	0	0	0
21	0	19	0	0	0	0	0	0	0	0	0	0
22	17	19	0	0	0	0	0	0	0	0	0	0
23	17	18	0	0	0	0	0	0	0	0	0	0
24	17	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	92	152	0	0	0	0	0	0	0	0	0	0
MAXIMUM DAY	41	19	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	3	5	0	0	0	0	0	0	0	0	0	0
TOTAL AC.FT.	183	302	0	0	0	0	0	0	0	0	0	0
WHOLE YEAR:--	TOTAL,	244	MAX.,	41	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	485		

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

Quantities in acre-feet

Year: 1991

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
+ Total Basic Contract Diverted	0	0	1,791	2,235	3,350	1,817	2,353	3,094	1,740	3,055	1,218	2,947	23,000
- Kern-Tulare Water District	0	0	1,559	1,944	2,913	1,580	2,046	2,690	1,513	2,657	1,058	2,040	20,000
= Rag Gulch Water District	0	0	232	291	437	237	307	404	227	398	160	307	3,000
+ 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
<b>= Total Diverted</b>	<b>0</b>	<b>0</b>	<b>1,791</b>	<b>2,235</b>	<b>3,350</b>	<b>1,817</b>	<b>2,353</b>	<b>3,094</b>	<b>1,740</b>	<b>3,055</b>	<b>1,218</b>	<b>2,947</b>	<b>23,000</b>

+ via Calloway Canal	0	0	1,043	1,764	2,600	1,362	1,868	2,259	0	0	0	633	11,529
+ River Transportation Loss/Spreading	0	0	528	471	750	455	485	438	0	0	0	906	4,033
+ Carrier Canal Recharge	0	0	0	0	0	0	0	0	0	496	442	296	1,234
+ To North Kern Water Storage District	0	0	0	0	0	0	0	0	0	0	256	12	268
+ via Cawelo Water District	0	0	0	0	0	0	0	397	1,740	2,559	520	500	5,716
= Total Diverted to I.D. #4	0	0	1,571	2,235	3,350	1,817	2,353	3,094	1,740	3,055	1,218	2,347	22,780
- Kern-Tulare Water District	0	0	1,367	1,944	2,913	1,580	2,046	2,690	1,513	2,657	1,058	2,040	19,808
= Rag Gulch Water District	0	0	204	291	437	237	307	404	227	398	160	307	2,972

+ 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	220	0	0	0	0	0	0	0	0	0	220
- Kern-Tulare Water District	0	0	192	0	0	0	0	0	0	0	0	0	192
= Rag Gulch Water District	0	0	28	0	0	0	0	0	0	0	0	0	28

Year: 1991

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

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	35	65	30	29	51	26	61	16	8
2	0	0	0	35	67	30	29	50	26	61	15	22
3	0	0	0	35	75	23	34	50	25	56	15	20
4	0	0	0	35	75	44	37	48	25	56	16	18
5	0	0	0	35	76	33	37	42	26	56	17	15
6	0	0	0	35	68	29	32	41	25	57	27	15
7	0	0	0	35	58	29	30	37	31	59	37	16
8	0	0	0	35	50	24	30	29	31	59	43	18
9	0	0	0	35	48	25	28	31	31	62	43	11
10	0	0	0	43	45	26	27	31	31	59	36	29
11	0	0	0	34	40	27	27	30	25	43	35	36
12	0	0	0	35	43	24	29	46	26	42	38	73
13	0	0	0	29	40	27	30	44	17	43	29	67
14	0	0	0	24	41	30	29	44	20	42	26	98
15	0	0	44	22	37	31	30	43	20	41	17	92
16	0	0	50	31	43	25	29	44	20	42	18	83
17	0	0	60	29	45	23	17	44	21	42	8	50
18	0	0	62	17	54	24	18	43	14	52	8	47
19	0	0	90	28	57	23	18	43	14	45	8	40
20	0	0	64	35	30	26	19	54	20	40	7	34
21	0	0	52	37	33	28	19	57	35	42	9	38
22	0	0	48	32	35	24	30	47	34	41	8	41
23	0	0	46	35	40	22	33	43	34	43	8	40
24	0	0	6	36	39	21	40	65	27	26	8	40
25	0	0	0	26	47	24	52	57	27	27	7	35
26	0	0	3	27	43	24	52	60	25	16	7	41
27	0	0	8	35	35	27	49	62	26	23	7	1
28	0	0	47	31	35	24	49	28	28	28	7	0
29	0	-	50	33	24	25	50	27	27	25	7	0
30	0	-	46	46	48	24	49	31	26	24	7	0
31	0	-	13	-	33	-	49	34	-	27	-	0
TOTAL	0	0	689	980	1,469	796	1,031	1,356	763	1,340	534	1,028
MAXIMUM DAY	0	0	90	46	76	44	52	65	35	62	43	98
MINIMUM DAY	0	0	0	17	24	21	17	27	14	16	7	0
MEAN	0	0	22	33	47	27	33	44	25	43	18	33
TOTAL AC.FT.	0	0	1,967	1,944	2,913	1,580	2,046	2,690	1,513	2,657	1,058	2,040
WHOLE YEAR:-	TOTAL,	9,986	MAX.,	98	MIN.,	0	MEAN,	27	TOTAL AC.FT.,	19,808		

DISCHARGE IN CUBIC FEET PER SECOND

City of Bakersfield Diverted for Kern-Tulare WD  
(via North Kern WSD 17 Ditch to Friant-Kern Canal)

(Basic Contract)

Year: 1991

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	10	0	0	0	0	0	0	0	0	0
6	0	0	13	0	0	0	0	0	0	0	0	0
7	0	0	12	0	0	0	0	0	0	0	0	0
8	0	0	13	0	0	0	0	0	0	0	0	0
9	0	0	11	0	0	0	0	0	0	0	0	0
10	0	0	14	0	0	0	0	0	0	0	0	0
11	0	0	12	0	0	0	0	0	0	0	0	0
12	0	0	12	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	97	0	0	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	14	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	3	0	0	0	0	0	0	0	0	0
TOTAL AC.FT.	0	0	192	0	0	0	0	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	97	MAX.,	14	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	192		

Year: 1991

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

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	5	10	5	4	8	4	9	3	1
2	0	0	0	5	10	5	4	6	4	9	2	4
3	0	0	0	5	11	4	5	6	4	8	2	3
4	0	0	0	5	11	5	5	7	3	8	2	3
5	0	0	0	5	11	5	5	6	4	8	3	3
6	0	0	0	5	11	4	5	6	4	9	4	2
7	0	0	0	5	9	4	4	6	5	9	6	2
8	0	0	0	5	7	4	4	4	5	9	7	2
9	0	0	0	5	7	4	4	5	4	9	7	2
10	0	0	0	8	7	4	4	5	4	9	5	4
11	0	0	0	5	6	4	4	5	4	6	6	6
12	0	0	0	5	6	4	4	7	4	6	5	11
13	0	0	0	5	6	4	4	7	3	6	5	11
14	0	0	0	4	6	4	4	7	3	6	3	14
15	0	0	7	3	5	4	4	7	3	6	3	13
16	0	0	7	5	7	4	4	7	3	6	2	12
17	0	0	9	5	7	4	3	7	3	6	1	8
18	0	0	9	2	8	4	3	6	2	7	1	8
19	0	0	13	4	8	4	3	6	2	7	1	6
20	0	0	10	5	5	4	3	8	3	7	2	5
21	0	0	8	5	5	4	3	8	5	7	1	6
22	0	0	7	5	5	3	4	7	5	7	1	6
23	0	0	7	5	6	3	5	7	5	7	1	6
24	0	0	1	5	6	3	6	10	4	4	1	6
25	0	0	0	4	7	3	10	9	4	4	1	5
26	0	0	0	4	7	4	9	9	4	3	1	6
27	0	0	1	5	5	4	7	10	4	3	1	0
28	0	0	7	5	5	4	7	4	4	4	1	0
29	0	-	8	5	4	4	7	4	4	3	1	0
30	0	-	7	8	7	4	7	5	4	4	1	0
31	0	-	2	-	5	-	10	5	-	4	-	0
TOTAL	0	0	103	147	220	120	155	204	114	200	80	155
MAXIMUM DAY	0	0	13	8	11	5	10	10	5	9	7	14
MINIMUM DAY	0	0	0	2	4	3	3	4	2	3	1	0
MEAN	0	0	3	5	7	4	5	7	4	6	3	5
TOTAL AC.FT.	0	0	204	291	437	237	307	404	227	398	160	307
WHOLE YEAR:-	TOTAL,	1,498	MAX.,	14	MIN.,	0	MEAN,	4	TOTAL AC.FT.,	2,972		

**City of Bakersfield Diverted for Rag Gulch WD**  
**(via North Kern WSD 17 Ditch to Friant-Kern Canal)**  
**(Basic Contract)**  
**Year: 1991**

DISCHARGE IN CUBIC FEET PER SECOND		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DATE													
1	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
3	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
5	0	0	1	0	0	0	0	0	0	0	0	0	0
6	0	0	2	0	0	0	0	0	0	0	0	0	0
7	0	0	2	0	0	0	0	0	0	0	0	0	0
8	0	0	2	0	0	0	0	0	0	0	0	0	0
9	0	0	2	0	0	0	0	0	0	0	0	0	0
10	0	0	2	0	0	0	0	0	0	0	0	0	0
11	0	0	1	0	0	0	0	0	0	0	0	0	0
12	0	0	2	0	0	0	0	0	0	0	0	0	0
13	0	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	0
15	0	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	0
17	0	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	0
19	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
21	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
23	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
25	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
27	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
29	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
31	0	-	0	0	-	0	-	0	0	-	0	-	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MAXIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MINIMUM DAY</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MEAN</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL AC.FT.</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>WHOLE YEAR:-</b>	<b>TOTAL,</b>	<b>14</b>	<b>MAX.,</b>	<b>2</b>	<b>MIN.,</b>	<b>0</b>	<b>MEAN,</b>	<b>0</b>	<b>0</b>	<b>TOTAL AC.FT.,</b>	<b>28</b>	<b>0</b>	<b>0</b>

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

Year: 1991

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	213	0	0	0	0	0	0	0	42
2	0	0	0	202	0	0	0	0	0	0	0	0
3	0	0	0	199	0	0	0	0	0	0	0	0
4	0	0	0	183	0	0	0	0	0	0	0	0
5	0	0	0	155	0	0	0	0	0	0	0	0
6	0	0	0	101	0	0	0	0	0	0	0	0
7	0	0	0	75	0	0	0	0	0	0	0	0
8	0	0	0	19	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	123	10
19	0	0	0	0	0	0	0	0	0	0	157	26
20	0	0	0	0	0	0	0	0	0	0	57	40
21	0	0	0	0	0	0	0	0	0	0	43	9
22	0	0	0	0	0	0	0	0	0	0	58	42
23	0	0	0	0	0	0	0	0	0	0	54	33
24	0	0	0	0	0	0	0	0	0	0	61	19
25	0	0	0	0	0	0	0	0	0	0	48	28
26	0	0	0	0	0	0	0	0	0	0	63	16
27	0	0	0	0	0	0	0	0	0	0	76	81
28	0	0	0	0	0	0	0	0	0	0	97	82
29	0	-	0	0	0	0	0	0	0	0	88	82
30	0	-	0	0	0	0	0	0	0	0	53	81
31	0	-	0	-	0	-	0	0	-	0	-	48
TOTAL	0	0	1,812	1,147	0	0	0	0	0	0	978	639
MAXIMUM DAY	0	0	207	213	0	0	0	0	0	0	157	82
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	58	38	0	0	0	0	0	0	33	21
TOTAL AC.FT.	0	0	3,594	2,275	0	0	0	0	0	0	1,940	1,267
WHOLE YEAR--	TOTAL,	4,576	MAX.,	213	MIN.,	0	MEAN,	13	TOTAL AC.FT.,	9,076		

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

Year: 1991

Quantities in acre-feet

1	2	3	4	5		6		7		8	9	10
				(c)		(d)		(e)		(f)		
Friant-Kern Inflow	Friant-Kern Delivered	River Canal Transportation Charge on Column 2	Total Kern River Delivered	Basic Contract		Miscellaneous		Mandatory Release Delivered	Other			
				No Charge (1st 4000)	acre-feet Sold at \$1.00	acre-feet Sold at \$6.00	acre-feet Sold at \$21.00					
January	0	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0	0
March	0	0	3,594	3,594	0	0	0	0	0	0	0	0
April	0	0	2,275	406	1,869	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0	0
August	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
October	0	0	0	0	0	0	0	0	0	0	0	0
November	0	0	1,940	0	1,940	0	0	0	0	0	0	0
December	0	0	1,267	0	1,267	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>9,076</b>	<b>4,000</b>	<b>5,076</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

3,763	=	Current Escalator	=	3,763
\$0.00	=	Totals	=	\$19,100.99
				(per 1961 Agreement)

18,345	0	1990
3,669	0	1989
	0	1988
	0	1987
		Preceding Four Years
18,345	0	Five Year Totals
3,669	0	Five Year Averages
		Current Escalator
		Current Price per acre-foot
		Five Year Average Sales

- 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.

**STATUS OF CONTRACT**  


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per terms of  
**ROSEDALE RIO BRAVO WATER STORAGE DISTRICT**  


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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)	

- (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**

Year: 1991

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

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
City Entitlement + or - Release	446	0	18,451	17,928	20,036	23,238	9,882	113	753	1,230	1,190	1,127	94,394
Lake Ming	16	16	44	60	77	105	127	121	91	65	42	26	790
North Kern Water Storage District	0	0	1,081	2,507	332	5,827	6,253	4,000	0	0	0	0	20,000
Cawelo Water District	0	0	1,727	1,544	5,500	4,476	8,353	5,064	2,190	0	0	0	28,854
Kern-Tulare Water District	0	0	1,559	1,944	2,913	1,580	2,046	2,690	1,513	2,657	1,058	2,040	20,000
Rag Gulch Water District	0	0	232	291	437	237	307	404	227	398	160	307	3,000
Rosedale Rio Bravo WSD	0	0	3,594	2,275	0	0	0	0	0	0	1,940	1,267	9,076
Kern River Canal & Irrigating Co.	95	607	753	715	341	0	1,445	1,387	931	853	352	0	7,479
First Point Passing Second Point	0	0	0	0	0	0	0	0	0	0	0	0	0
Isabella Reservoir Loss	20	17	222	563	829	1,126	1,282	803	420	240	133	77	5,732
River Transportation Loss	222	(2)	1,141	1,008	836	1,626	1,557	946	2	(1)	613	262	8,210
<b>Total Basic Commitments</b>	<b>353</b>	<b>638</b>	<b>10,353</b>	<b>10,907</b>	<b>11,265</b>	<b>14,977</b>	<b>21,370</b>	<b>15,415</b>	<b>5,374</b>	<b>4,212</b>	<b>4,298</b>	<b>3,979</b>	<b>103,141</b>

Total City Miscellaneous Water.....	0
Rosedale Rio Bravo WSD 1/3 Share.....	0

Misc. Water Delivered to RRBWSD	0	0	0	0	0	0	0	0	0	0	0	0	0
Del. under Art. 11, Sec. 2.1 (i)(7)	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Misc. Delivered to RRBWSD</b>	<b>0</b>												

Over (Under) City Miscellaneous Water Obligation.....	0
Prior Year Miscellaneous Water Delivery Balance.....	(14,874)
<b>Cumulative Miscellaneous Water Delivery Balance.....</b>	<b>(14,874)</b>

**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)	(B)	(C)	(D)	(E)
	TOTAL CITY MISCELLANEOUS WATER	RRBWS 1/3 SHARE OF MISC.	MISC. WATER DELIVERED TO RRBWS (1)	OVER (UNDER) 1/3 SHARE	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)

**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**

Year: 1991

Quantities in acre-feet

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	0	0	94	236	1,388	2,285	0	0	0	0	0	0	3,993
Release	0	0	0	0	0	0	0	0	0	0	0	0	0
ENTITLEMENT + OR - RELEASE	=	0	94	236	1,388	2,285	0	0	0	0	0	0	3,993
Oilfield Discharge	+	0	53	14	0	0	0	0	0	0	0	0	67
Other	+ or -	95	607	753	341	0	1,445	1,387	931	853	352	0	7,479
Into Isabella Storage	-	0	0	54	436	242	0	0	0	0	0	0	843
From Isabella Storage	+	0	0	0	0	242	559	0	0	0	0	0	801
To NKWSD in Isabella Storage	-	0	0	0	0	0	0	0	13	10	2	0	25
DIVERTED AT HEAD	=	95	607	836	1,293	2,285	2,004	1,387	918	843	350	0	11,472
Irrigation Deliveries	-	87	504	652	765	1,442	1,790	1,176	773	737	290	0	8,892
NKWSD at Seventh Standard Ln.	-	0	0	26	417	686	13	11	0	0	0	0	1,224
Cawelo WD at Pump Station "B"	-	0	0	0	0	0	13	11	14	10	1	0	49
Spreading Deliveries	-	0	0	34	0	0	0	0	0	0	0	0	46
Canal Loss	=	8	103	124	111	157	188	189	131	96	59	0	1,261
Irrigation Delivery Percentage		92%	83%	81%	91%	93%	90%	86%	84%	87%	83%	0%	88%

Into Isabella Storage	0	0	54	111	436	242	0	0	0	0	0	0	843
Isabella Evaporation Loss	0	0	2	4	10	24	2	0	0	0	0	0	42
From Isabella Storage	0	0	0	0	0	242	559	0	0	0	0	0	801
Transfer in Storage	0	0	0	0	0	0	0	0	0	0	0	0	0
End of Month Isabella Storage	0	0	52	159	585	561	0	0	0	0	0	0	0

SOUTH FORK DIVERSION RIGHT SUMMARY

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River Entitlement	0	0	8	125	212	234	44	0	0	16	36	0	675
Release	0	0	(4)	(8)	(93)	0	0	0	297	257	(36)	0	413
Entitlement + or - Release	0	0	4	117	119	234	44	0	297	273	0	0	1,088
Into Isabella Storage	0	0	4	40	107	171	4	0	297	251	0	0	874
From Isabella Storage	0	0	0	0	0	10	119	117	28	0	0	0	274
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Deliveries	0	0	0	77	12	73	159	117	28	22	0	0	488
Old South Fork	0	0	0	0	0	0	0	0	0	0	0	0	0
Panama Ranch	0	0	0	77	12	73	159	117	28	22	0	0	488

Into Isabella Storage	0	0	4	40	107	171	4	0	297	251	0	0	874
From Isabella Storage	0	0	0	0	0	10	119	117	28	0	0	0	274
Transfer in Storage	0	0	0	0	0	0	0	0	0	0	0	0	0
End of Month Isabella Storage	0	0	4	44	151	312	197	80	349	600	600	600	600

**CITY OF BAKERSFIELD  
 RECAPITULATION OF WATER SPREADING BY SOURCE  
 2,800 ACRE RECHARGE FACILITY**

Quantities in acre-feet

Calendar Year	BANKING				OVERDRAFT CORRECTION				Grand Total		
	Kern River	Friant-Kern	State Water Project	Other	Totals	Kern River	Friant-Kern	State Water Project		Other	Totals
1977	0	0	0	0	0	0	0	0	0	0	0
1978	134,971	0	0	0	134,971	0	0	0	0	0	134,971
1979	4,505	9,913	0	0	14,418	6,089	888	52,099	0	59,076	73,494
1980	113,379	0	8,029	0	121,408	0	0	0	0	0	121,408
1981	2,603	0	49,377	0	51,980	0	0	7,141	0	7,141	59,121
1982	50,242	18,057	8,345	0	76,644	2,649	6,835	12,748	0	22,232	98,876
1983	110,970	2,239	171	0	113,380	0	0	0	0	0	113,380
1984	14,449	1,609	0	0	16,058	0	0	0	0	0	16,058
1985	331	71	15,055	0	15,457	0	0	0	0	0	15,457
1986	93,311	36,792	22,766	262	153,131	0	0	0	0	0	153,131
1987	77	0	7,379	32	7,488	0	0	0	0	0	7,488
1988	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0
<b>TOTALS</b>	<b>524,838</b>	<b>68,681</b>	<b>111,122</b>	<b>294</b>	<b>704,935</b>	<b>8,738</b>	<b>7,723</b>	<b>71,988</b>	<b>0</b>	<b>88,449</b>	<b>793,384</b>

**CITY OF BAKERSFIELD**  
**RECAPITULATION OF WATER SPREADING BY ENTITY**  
**2,800 ACRE RECHARGE FACILITY**  
(Does not reflect water extracted or sold)

Quantities in acre-feet

**BANKING ENTITIES**

Calendar Year	City of Bakersfield	Oicese W.D.	Buena Vista W.S.D.	K.C.W.A.	Total Banking	Overdraft Correction	Grand Total
1977	0	0	0	0	0	0	0
1978	104,587	24,328	6,056	0	134,971	0	134,971
1979	4,505	0	9,913	0	14,418	59,076	73,494
1980	68,804	52,604	0	0	121,408	0	121,408
1981	2,603	4,465	0	44,912	51,980	7,141	59,121
1982	37,913	14,266	24,465	0	76,644	22,232	98,876
1983	113,380	0	0	0	113,380	0	113,380
1984	16,058	0	0	0	16,058	0	16,058
1985	402	0	0	15,055	15,457	0	15,457
1986	64,168	56,197	10,000	22,766	153,131	0	153,131
1987	109	0	0	7,379	7,488	0	7,488
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0
<b>TOTALS</b>	<b>412,529</b>	<b>151,860</b>	<b>50,434</b>	<b>90,112</b>	<b>704,935</b>	<b>88,449</b>	<b>793,384</b>

City of Bakersfield  
 2800 Acre Well Water Production  
 (Kern River Banked Supply --- Conveyed via Kern River Canal)

Year: 1991

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	34	33	11	29	49	47	0	0
2	0	0	0	0	35	34	11	31	49	48	0	0
3	0	0	0	0	35	33	11	32	50	48	0	0
4	0	0	0	0	34	33	12	31	49	48	0	0
5	0	0	0	0	34	31	11	31	50	48	0	0
6	0	0	0	0	34	32	11	31	42	48	0	0
7	0	0	0	0	34	33	11	30	43	47	0	0
8	0	0	0	0	34	11	11	25	49	47	0	0
9	0	0	0	0	34	11	11	25	49	47	0	0
10	0	0	0	0	34	11	15	25	49	48	0	0
11	0	0	0	0	34	11	15	25	48	47	0	0
12	0	0	0	0	34	11	15	25	47	47	0	0
13	0	0	0	0	34	11	15	27	48	47	0	0
14	0	0	0	0	34	15	15	32	50	47	0	0
15	0	0	0	0	34	15	16	31	49	41	0	0
16	0	0	0	0	34	15	31	51	49	43	0	0
17	0	0	0	0	34	15	32	51	48	0	0	0
18	0	0	0	0	34	15	32	50	48	0	0	0
19	0	0	0	0	34	15	32	50	49	0	0	0
20	0	0	0	0	34	15	31	50	48	0	0	0
21	0	0	0	0	34	15	32	50	47	0	0	0
22	0	0	0	0	34	15	32	50	35	0	0	0
23	0	0	0	0	34	15	32	50	37	0	0	0
24	0	0	0	0	34	15	32	49	42	0	0	0
25	0	0	0	0	34	15	32	49	43	0	0	0
26	0	0	0	0	34	12	28	49	43	0	0	0
27	0	0	0	0	34	11	29	49	43	0	0	0
28	0	0	0	0	34	12	32	49	43	0	0	0
29	0	-	-	0	33	11	31	49	43	0	0	0
30	0	-	-	0	34	11	32	49	43	0	0	0
31	0	-	-	0	33	-	32	49	-	0	-	0
TOTAL	0	0	0	0	1,054	532	693	1,224	1,382	748	0	0
MAXIMUM DAY	0	0	0	0	35	34	32	51	50	48	0	0
MINIMUM DAY	0	0	0	0	33	11	11	25	35	0	0	0
MEAN	0	0	0	0	34	18	22	39	46	24	0	0
TOTAL AC.FT.	0	0	0	0	2,090	1,056	1,375	2,428	2,740	1,485	0	0
WHOLE YEAR:-	TOTAL,	5,633	MAX.,	51	MIN.,	0	MEAN,	15	TOTAL AC.FT.,	11,174		

City of Bakersfield  
 2800 Acre Well Water Production  
 (Kern River Banked Supply --- Conveyed via Cross Valley Canal)

Year: 1991

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	30	0	0	0	0
2	0	0	0	0	0	0	0	32	0	0	0	0
3	0	0	0	0	0	0	0	36	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	37	0	0	0	0
6	0	0	0	0	0	0	0	37	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	37	0	0	0	0	0
13	0	0	0	0	0	0	37	0	0	0	0	0
14	0	0	0	0	0	0	37	0	0	0	0	0
15	0	0	0	0	0	0	37	0	0	0	0	0
16	0	0	0	0	0	0	38	0	0	0	0	0
17	0	0	0	0	0	0	37	0	0	0	0	0
18	0	0	0	0	0	0	38	0	0	0	0	0
19	0	0	0	0	0	0	37	0	0	0	0	0
20	0	0	0	0	0	0	37	0	0	0	0	0
21	0	0	0	0	0	0	37	0	0	0	0	0
22	0	0	0	0	0	0	38	0	0	0	0	0
23	0	0	0	0	0	0	36	0	0	0	0	0
24	0	0	0	0	0	0	33	0	0	0	0	0
25	0	0	0	0	0	0	33	0	0	0	0	0
26	0	0	0	0	0	0	36	0	0	0	0	0
27	0	0	0	0	0	0	37	0	0	0	0	0
28	0	0	0	0	0	0	35	0	0	0	0	0
29	0	-	0	0	0	0	34	0	0	0	0	0
30	0	-	0	0	0	0	35	0	0	0	0	0
31	0	-	0	-	0	-	37	0	-	0	-	0
TOTAL	0	0	0	0	0	0	726	209	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	0	38	37	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	23	7	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	1,440	414	0	0	0	0
WHOLE YEAR--	TOTAL,	935	MAX.,	38	MIN.,	0	MEAN,	3	TOTAL AC.FT.,	1,854		

Year: 1991

Ocse Water District  
 2800 Acre Well Water Production  
 (Kern River Banked Supply --- 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	20	0	0	0	0	0
2	0	0	0	0	0	0	21	0	0	0	0	0
3	0	0	0	0	0	0	20	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	20	0	0	0	0	0
6	0	0	0	0	0	0	20	0	0	0	0	0
7	0	0	0	0	0	0	20	0	0	0	0	0
8	0	0	0	0	0	21	19	0	0	0	0	0
9	0	0	0	0	0	21	20	0	0	0	0	0
10	0	0	0	0	0	21	16	0	0	0	0	0
11	0	0	0	0	0	19	16	0	0	0	0	0
12	0	0	0	0	0	19	16	0	0	0	0	0
13	0	0	0	0	0	21	16	0	0	0	0	0
14	0	0	0	0	0	16	16	0	0	0	0	0
15	0	0	0	0	0	16	16	0	0	0	0	0
16	0	0	0	0	0	17	0	0	0	0	0	0
17	0	0	0	0	0	17	0	0	0	0	0	0
18	0	0	0	0	0	17	0	0	0	0	0	0
19	0	0	0	0	0	17	0	0	0	0	0	0
20	0	0	0	0	0	18	0	0	0	0	0	0
21	0	0	0	0	0	18	0	0	0	0	0	0
22	0	0	0	0	0	17	0	0	0	0	0	0
23	0	0	0	0	0	17	0	0	0	0	0	0
24	0	0	0	0	0	17	0	0	0	0	0	0
25	0	0	0	0	0	17	0	0	0	0	0	0
26	0	0	0	0	0	21	0	0	0	0	0	0
27	0	0	0	0	0	21	0	0	0	0	0	0
28	0	0	0	0	0	21	0	0	0	0	0	0
29	0	-	0	0	0	20	0	0	0	0	0	0
30	0	-	0	0	0	21	0	0	0	0	0	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	430	276	0	0	0	0	0
MAXIMUM DAY	0	0	0	0	0	21	21	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	9	0	0	0	0	0
TOTAL AC.FT.	0	0	0	0	0	853	547	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	706	MAX.,	21	MIN.,	0	MEAN,	2	TOTAL AC.FT.,	1,400		

Year: 1991

Buena Vista Water Storage District  
 2800 Acre Well Water Production  
 (Kern River Banked Supply --- 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	22	22	21	19	0	0	0	0
2	0	0	0	0	22	21	20	19	0	0	0	0
3	0	0	0	0	22	22	21	20	0	0	0	0
4	0	0	0	0	22	21	20	20	0	0	0	0
5	0	0	0	0	22	20	20	20	0	0	0	0
6	0	0	0	0	22	20	20	20	0	0	0	0
7	0	0	0	0	22	21	20	20	0	0	0	0
8	0	0	0	0	22	21	19	20	0	0	0	0
9	0	0	0	0	22	21	19	20	0	0	0	0
10	0	0	0	0	22	21	20	20	0	0	0	0
11	0	0	0	0	22	19	20	20	0	0	0	0
12	0	0	0	0	22	20	20	20	0	0	0	0
13	0	0	0	0	22	21	20	20	0	0	0	0
14	0	0	0	0	22	21	21	19	0	0	0	0
15	0	0	0	0	22	21	20	20	0	0	0	0
16	0	0	0	0	22	21	21	0	0	0	0	0
17	0	0	0	0	22	21	20	0	0	0	0	0
18	0	0	0	0	22	21	20	0	0	0	0	0
19	0	0	0	0	22	21	20	0	0	0	0	0
20	0	0	0	0	22	21	21	0	0	0	0	0
21	0	0	0	0	22	21	20	0	0	0	0	0
22	0	0	0	0	22	21	20	0	0	0	0	0
23	0	0	0	0	22	21	20	0	0	0	0	0
24	0	0	0	0	22	21	20	0	0	0	0	0
25	0	0	0	0	22	21	20	0	0	0	0	0
26	0	0	0	0	22	20	19	0	0	0	0	0
27	0	0	0	0	22	21	20	0	0	0	0	0
28	0	0	0	0	21	20	20	0	0	0	0	0
29	0	-	0	0	22	21	21	0	0	0	0	0
30	0	-	0	0	21	20	20	0	0	0	0	0
31	0	-	0	-	22	-	20	0	-	-	-	0
TOTAL	0	0	0	0	680	624	623	297	0	0	0	0
MAXIMUM DAY	0	0	0	0	22	22	21	20	0	0	0	0
MINIMUM DAY	0	0	0	0	21	19	19	0	0	0	0	0
MEAN	0	0	0	0	22	21	20	10	0	0	0	0
TOTAL AC.-FT.	0	0	0	0	1,349	1,237	1,235	589	0	0	0	0
WHOLE YEAR:-	TOTAL,	2,224	MAX.,	22	MIN.,	0	MEAN,	6	TOTAL AC.-FT.,	4,410		

Year: 1991

Kern County Water Agency  
 2800 Acre Well Water Production  
 (State Water Project Banked Supply --- 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	58	0	0	0	0	0	0	12	59	58
2	0	0	58	0	0	0	0	0	0	13	59	58
3	0	0	58	0	0	0	0	0	5	13	55	58
4	0	0	59	0	0	0	0	0	14	13	58	58
5	0	0	25	34	0	0	0	0	13	13	58	58
6	0	0	0	53	0	0	0	0	13	12	58	58
7	0	0	0	53	0	0	0	0	13	13	59	58
8	0	0	0	50	0	0	0	0	13	13	59	58
9	0	0	0	50	0	0	0	0	13	13	59	58
10	0	0	0	55	0	0	0	0	13	12	59	57
11	0	0	0	58	0	0	0	0	13	13	59	57
12	0	0	0	56	0	0	0	0	13	13	59	57
13	0	0	0	57	0	0	0	0	13	12	59	57
14	0	0	0	54	0	0	0	0	13	12	59	57
15	0	13	0	55	0	0	0	0	13	12	58	57
16	0	54	0	58	0	0	0	0	13	12	58	57
17	0	52	0	58	0	0	0	0	13	59	58	57
18	0	51	0	58	0	0	0	0	13	59	58	57
19	0	51	0	57	0	0	0	0	13	55	58	57
20	0	51	0	57	0	0	0	0	13	55	58	57
21	0	56	0	53	0	0	0	0	13	55	58	49
22	0	59	0	53	0	0	0	0	13	55	58	51
23	0	59	0	56	0	0	0	0	13	55	58	57
24	0	58	0	56	0	0	0	0	13	55	57	57
25	0	58	0	57	0	0	0	0	13	56	58	57
26	0	57	0	57	0	0	0	0	13	58	58	56
27	0	57	0	57	0	0	0	0	13	59	58	27
28	0	57	0	56	0	0	0	0	13	59	58	0
29	0	-	0	56	0	0	0	0	13	59	58	0
30	0	-	0	55	0	0	0	0	13	59	58	0
31	0	-	0	-	0	-	0	0	-	59	-	0
TOTAL	0	733	258	1,419	0	0	0	0	357	1,058	1,746	1,503
MAXIMUM DAY	0	59	59	58	0	0	0	0	14	59	59	58
MINIMUM DAY	0	0	0	0	0	0	0	0	0	12	55	0
MEAN	0	26	8	47	0	0	0	0	12	34	58	48
TOTAL AC.FT.	0	1,454	512	2,814	0	0	0	0	709	2,098	3,462	2,980
WHOLE YEAR:-	TOTAL,	7,074	MAX.,	59	MIN.,	0	MEAN,	19	TOTAL AC.FT.,	14,029		

**DISCHARGE IN CUBIC FEET PER SECOND**

**Kern County Water Agency  
2800 Acre Well Water Production**

Year: 1991

(State Water Project Banked Supply -- Conveyed via Cross Valley Canal)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	29	17	27	28	22	24	0	45	44	42	20
2	0	29	3	30	28	22	21	0	45	44	43	20
3	0	30	0	30	27	22	21	0	45	44	43	20
4	0	30	15	30	26	25	23	0	45	44	43	19
5	0	29	29	29	25	27	23	0	45	44	27	20
6	0	30	29	28	26	27	22	0	45	44	2	20
7	0	30	29	26	27	27	23	30	45	44	0	20
8	0	30	29	25	27	27	25	36	45	44	6	20
9	0	29	29	27	27	27	26	41	45	43	10	20
10	0	30	30	29	27	26	26	47	44	43	10	20
11	0	30	29	29	28	24	26	47	44	43	10	20
12	0	29	29	29	28	25	0	47	44	43	30	19
13	0	29	29	29	27	26	0	47	44	43	43	20
14	19	29	29	29	27	27	0	47	45	43	43	20
15	29	29	29	28	27	27	0	47	45	43	43	20
16	30	29	29	28	27	27	0	46	45	43	43	20
17	30	29	29	24	28	27	0	46	44	43	43	20
18	30	29	29	25	28	27	0	46	44	43	30	20
19	30	29	29	27	28	27	0	46	44	43	20	20
20	30	29	12	27	28	27	0	46	44	43	20	19
21	30	29	2	27	28	26	0	46	44	43	20	19
22	30	29	1	27	27	26	0	46	44	43	20	19
23	26	29	29	27	25	26	0	46	44	43	20	20
24	27	29	23	27	23	27	0	45	44	43	20	20
25	30	29	0	27	24	27	0	45	44	43	20	19
26	30	29	0	26	26	27	0	45	44	44	20	19
27	30	28	19	26	28	27	0	45	44	44	20	9
28	29	29	22	26	25	27	0	45	44	43	20	0
29	30	-	24	26	23	27	0	45	44	42	20	0
30	30	-	17	27	22	27	0	45	44	42	20	0
31	30	-	19	-	22	-	0	45	-	42	-	0
<b>TOTAL</b>	520	818	639	822	817	783	260	1,117	1,332	1,340	751	522
<b>MAXIMUM DAY</b>	30	30	30	30	28	27	26	47	45	44	43	20
<b>MINIMUM DAY</b>	0	28	0	24	22	22	0	0	44	42	0	0
<b>MEAN</b>	17	29	21	27	26	26	8	36	44	43	25	17
<b>TOTAL AC.FT.</b>	1,031	1,623	1,268	1,630	1,621	1,553	518	2,216	2,643	2,658	1,490	1,036
<b>WHOLE YEAR:-</b>	<b>TOTAL,</b>	<b>9,721</b>	<b>MAX.,</b>	<b>47</b>	<b>MIN.,</b>	<b>0</b>	<b>MEAN,</b>	<b>27</b>	<b>TOTAL AC.FT.,</b>	<b>19,287</b>		

**CITY OF BAKERSFIELD**  
**RECAPITULATION OF BANKING, EXTRACTION AND STORAGE**  
**2,800 ACRE RECHARGE FACILITY**

UNIT: CITY OF BAKERSFIELD

Quantities in acre-feet

Calendar Year	BANKING				EXTRACTION				GROUNDWATER STORAGE (End of Year)				
	Kern	F-Kern	S.W.P.	Other Via	Kern	F-Kern	S.W.P.	Other Via	Kern	F-Kern	S.W.P.	Other	Total
1977	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	104,587	0	0	0	0	0	0	0	104,587	0	0	0	104,587
1979	4,505	0	0	0	0	0	0	0	109,092	0	0	0	109,092
1980	68,804	0	0	0	0	0	0	13,772	164,124	0	0	0	164,124
1981	2,603	0	0	0	0	0	0	100,837	65,890	0	0	0	65,890
1982	35,377	2,536	0	0	0	0	0	0	101,267	2,536	0	0	103,803
1983	110,970	2,239	171	0	0	0	0	0	212,237	4,775	171	0	217,183
1984	14,449	1,609	0	0	472	0	0	0	226,214	6,384	171	0	232,769
1985	331	71	0	0	1,615	0	0	0	224,930	6,455	171	0	231,556
1986	27,114	36,792	0	262	0	0	0	0	252,044	43,247	171	262	295,724
1987	77	0	0	32	656	0	0	0	251,465	43,247	171	294	295,177
1988	0	0	0	0	1,932	0	0	3,500	246,033	43,247	171	294	289,745
1989	0	0	0	0	2,565	0	0	0	243,468	43,247	171	0	286,886
1990	0	0	0	0	23,318	0	0	0	220,150	43,247	171	0	263,568
1991	0	0	0	0	13,028	0	0	44,131	182,991	23,247	171	0	206,409
<b>TOTALS</b>	<b>368,817</b>	<b>43,247</b>	<b>171</b>	<b>294</b>	<b>43,586</b>	<b>0</b>	<b>0</b>	<b>294</b>	<b>412,529</b>	<b>43,586</b>	<b>0</b>	<b>294</b>	<b>206,120</b>

**CITY OF BAKERSFIELD  
 RECAPITULATION OF BANKING, EXTRACTION AND STORAGE  
 2,800 ACRE RECHARGE FACILITY**

UNIT: OLCESE WATER DISTRICT

Quantities in acre-feet

Calendar Year	BANKING				EXTRACTION				GROUNDWATER STORAGE (End of Year)						
	Kern	F-Kern	S.W.P.	Other Via Transfer	Total	Kern	F-Kern	S.W.P.	Other Via Transfer	Total	Kern	F-Kern	S.W.P.	Other	Total
1977	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	24,328	0	0	0	24,328	0	0	0	0	0	24,328	0	0	0	24,328
1979	0	0	0	0	0	0	0	0	0	0	24,328	0	0	0	24,328
1980	44,575	0	8,029	0	52,604	0	0	0	0	0	68,903	0	8,029	0	76,932
1981	0	0	4,465	0	4,465	0	0	0	0	0	68,903	0	12,494	0	81,397
1982	9,432	0	4,834	0	14,266	0	0	0	0	0	78,335	0	17,328	0	95,663
1983	0	0	0	0	0	0	0	0	0	0	78,335	0	17,328	0	95,663
1984	0	0	0	0	0	0	0	0	0	0	78,335	0	17,328	0	95,663
1985	0	0	0	0	0	0	0	0	0	0	78,335	0	17,328	0	95,663
1986	56,197	0	0	0	56,197	0	0	0	0	0	134,532	0	17,328	0	151,860
1987	0	0	0	5,344	5,344	0	0	0	0	0	139,876	0	17,328	0	157,204
1988	0	0	0	3,214	3,214	0	0	0	0	0	143,090	0	17,328	0	160,418
1989	0	0	0	0	0	873	0	0	0	873	142,217	0	17,328	0	159,545
1990	0	0	0	0	0	1,400	0	0	98,005	99,405	42,812	0	17,328	0	60,140
1991	0	0	0	22,096	22,096	1,400	0	0	22,096	23,496	41,412	0	17,328	0	58,740
<b>TOTALS</b>	<b>134,532</b>	<b>0</b>	<b>17,328</b>	<b>0</b>	<b>182,514</b>	<b>3,673</b>	<b>0</b>	<b>0</b>	<b>120,101</b>	<b>123,774</b>					

**CITY OF BAKERSFIELD  
 RECAPITULATION OF BANKING, EXTRACTION AND STORAGE  
 2,800 ACRE RECHARGE FACILITY**

**UNIT: BUENA VISTA WATER STORAGE DISTRICT**

Quantities in acre-feet

Calendar Year	BANKING				EXTRACTION				GROUNDWATER STORAGE (End of Year)				
	Kern	F-Kern	S.W.P.	Other Via	Kern	F-Kern	S.W.P.	Other Via	Kern	F-Kern	S.W.P.	Other	Total
1977	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	6,056	0	0	0	0	0	0	0	6,056	0	0	0	6,056
1979	0	9,913	0	0	0	0	0	0	6,056	9,913	0	0	15,969
1980	0	0	0	0	0	0	0	0	6,056	9,913	0	0	15,969
1981	0	0	0	0	0	0	0	0	6,056	9,913	0	0	15,969
1982	5,433	15,521	3,511	0	0	0	0	0	11,489	25,434	3,511	0	40,434
1983	0	0	0	0	0	0	0	0	11,489	25,434	3,511	0	40,434
1984	0	0	0	0	0	0	0	0	11,489	25,434	3,511	0	40,434
1985	0	0	0	0	0	0	0	0	11,489	25,434	3,511	0	40,434
1986	10,000	0	0	0	0	0	0	0	21,489	25,434	3,511	0	50,434
1987	0	0	0	0	656	0	0	5,344	15,489	25,434	3,511	0	44,434
1988	0	0	0	0	1,786	0	0	3,214	10,489	25,434	3,511	0	39,434
1989	0	0	0	0	3,138	0	0	0	7,351	25,434	3,511	0	36,296
1990	0	0	0	0	2,242	0	0	0	5,109	25,434	3,511	0	34,054
1991	0	0	0	0	4,410	0	0	0	699	25,434	3,511	0	29,644
<b>TOTALS</b>	<b>21,489</b>	<b>25,434</b>	<b>3,511</b>	<b>0</b>	<b>12,232</b>	<b>0</b>	<b>0</b>	<b>8,558</b>	<b>50,434</b>	<b>20,790</b>	<b>0</b>	<b>0</b>	<b>20,790</b>

**CITY OF BAKERSFIELD  
RECAPITULATION OF BANKING, EXTRACTION AND STORAGE  
2,800 ACRE RECHARGE FACILITY**

UNIT: KERN COUNTY WATER AGENCY

Quantities in acre-feet

Calendar Year	BANKING				EXTRACTION				GROUNDWATER STORAGE (End of Year)						
	Kern	F-Kern	S.W.P.	Other Via Transfer	Total	Kern	F-Kern	S.W.P.	Other Via Transfer	Total	Kern	F-Kern	S.W.P.	Other Source	Total
1977	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	44,912	0	44,912	0	0	0	0	0	0	0	44,912	0	44,912
1982	0	0	0	0	0	0	0	0	0	0	0	0	44,912	0	44,912
1983	0	0	0	0	0	0	0	0	0	0	0	0	44,912	0	44,912
1984	0	0	0	0	0	0	0	0	0	0	0	0	44,912	0	44,912
1985	0	0	15,055	0	15,055	0	0	0	0	0	0	0	59,967	0	59,967
1986	0	0	22,766	0	22,766	0	0	0	0	0	0	0	82,733	0	82,733
1987	0	0	7,379	0	7,379	0	0	0	0	0	0	0	90,112	0	90,112
1988	0	0	0	3,500	3,500	0	0	0	0	0	3,500	0	90,112	0	93,612
1989	0	0	0	0	0	0	0	1,086	0	1,086	3,500	0	89,026	0	92,526
1990	0	0	0	98,005	98,005	0	0	0	0	0	101,505	0	89,026	0	190,531
1991	0	0	0	44,131	44,131	0	0	33,316	0	33,316	125,636	20,000	55,710	0	201,346
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>90,112</b>	<b>0</b>	<b>145,636</b>	<b>235,748</b>	<b>0</b>	<b>34,402</b>	<b>0</b>	<b>34,402</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34,402</b>

NORTH KERN WATER STORAGE DISTRICT

Quantities in acre-feet

Year: 1991

**NORTH KERN WATER STORAGE DISTRICT**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NKWSD River Entitlement	0	0	670	4,330	11,912	21,248	1,459	6	0	0	121	0	39,746
Release	28	0	4,423	2,065	0	0	0	0	0	1,618	6,824	2,903	17,861
<b>ENTITLEMENT + OR - RELEASE</b>	<b>28</b>	<b>0</b>	<b>5,093</b>	<b>6,395</b>	<b>11,912</b>	<b>21,248</b>	<b>1,459</b>	<b>6</b>	<b>0</b>	<b>1,618</b>	<b>6,945</b>	<b>2,903</b>	<b>57,607</b>
From KRC & Irr. Company	0	0	26	71	417	686	13	11	13	10	2	0	1,249
From City of Bakersfield	718	125	1,081	2,507	332	7,201	6,623	4,411	75	0	0	706	23,779
From Buena Vista WSD	0	0	484	125	0	0	0	0	0	0	0	0	609
From Kern Delta WD	0	0	663	993	1,487	0	0	0	32	318	0	0	3,493
From Isabella Reservoir Storage	0	0	0	0	0	145	3,921	502	0	267	289	220	5,344
To City of Bakersfield	0	0	2,939	937	0	0	0	0	0	0	2,563	2,324	8,763
To Cawelo Water District	0	0	0	0	0	0	0	0	0	0	0	0	0
To La Hacienda, Inc.	0	0	0	155	0	0	0	0	0	0	72	15	242
To Improvement District #4	0	0	0	395	0	0	0	0	0	0	0	0	395
Into Isabella Reservoir Storage	0	0	474	3,941	12,475	26,318	6,554	3,954	13	363	1,215	498	55,805
Transfer in Storage	0	0	0	12	0	828	0	0	0	0	0	0	840
Other	0	0	0	0	0	0	0	0	0	0	256	12	268
<b>TOTAL DIVERTED FROM RIVER</b>	<b>746</b>	<b>125</b>	<b>3,934</b>	<b>4,675</b>	<b>1,673</b>	<b>3,790</b>	<b>5,462</b>	<b>976</b>	<b>107</b>	<b>1,850</b>	<b>3,642</b>	<b>1,004</b>	<b>27,984</b>
Loss to Seventh Standard Line	135	67	81	66	62	60	61	61	68	61	72	79	873
Oilfield Discharge	0	0	263	746	829	839	857	859	768	753	712	351	6,977
Dole Well Production	0	17	0	0	147	143	178	178	34	0	0	0	697
Oilfield Mutual Well Production	0	0	0	0	0	0	0	174	87	0	0	0	261
Private Well Production	0	502	20	78	147	231	575	489	313	242	0	0	2,597
NKWSD Well Production	845	9,362	2,791	5,212	11,202	12,387	12,973	10,201	6,499	6,705	274	31	78,482
Poso Creek Natural Flow	0	0	0	0	0	0	0	0	0	0	0	0	0
Semi-Tropic WSD	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	302	0	0	0	0	0	0	0	0	0	0	302
<b>TOTAL DISTRICT SUPPLY</b>	<b>1,456</b>	<b>10,241</b>	<b>6,927</b>	<b>10,645</b>	<b>13,936</b>	<b>17,330</b>	<b>19,984</b>	<b>12,816</b>	<b>7,740</b>	<b>9,489</b>	<b>4,556</b>	<b>1,307</b>	<b>116,427</b>
Class 1 Irrigation Deliveries	961	8,881	4,436	8,221	12,024	15,351	17,337	10,622	5,204	7,191	1,617	619	92,464
Class 2 Irrigation Deliveries	0	0	0	0	0	0	0	0	0	0	196	172	368
Emergency Irrigation Deliveries	0	17	74	42	19	86	398	248	62	12	0	0	958
Shafter-Wasco Irrigation District	0	0	0	70	0	0	0	111	888	253	0	0	1,322
<b>TOTAL IRRIGATION USE</b>	<b>961</b>	<b>8,898</b>	<b>4,510</b>	<b>8,333</b>	<b>12,043</b>	<b>15,437</b>	<b>17,735</b>	<b>10,981</b>	<b>6,154</b>	<b>7,456</b>	<b>1,813</b>	<b>791</b>	<b>95,112</b>
District Spreading Ponds (Kern)	0	0	497	727	0	0	0	0	0	593	1,918	303	4,038
District Spreading Ponds (Other)	0	0	0	0	0	0	0	0	0	0	0	0	0
Poso Creek Spreading (Kern)	0	0	0	0	0	0	0	0	0	0	0	0	0
Poso Creek Spreading (Other)	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL DISTRICT SPREADING</b>	<b>0</b>	<b>0</b>	<b>497</b>	<b>727</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>593</b>	<b>1,918</b>	<b>303</b>	<b>4,038</b>
<b>TOTAL DISTRICT USE</b>	<b>961</b>	<b>8,898</b>	<b>5,007</b>	<b>9,060</b>	<b>12,043</b>	<b>15,437</b>	<b>17,735</b>	<b>10,981</b>	<b>6,154</b>	<b>8,049</b>	<b>3,731</b>	<b>1,094</b>	<b>99,150</b>
Total NKWSD Canal Loss	495	1,343	1,920	1,585	1,893	1,893	2,249	1,835	1,586	1,440	825	213	17,277
Into Reservoir Storage	0	0	474	3,941	12,475	26,318	6,554	3,954	13	363	1,215	498	55,805
Reservoir Evaporation Loss	220	286	153	296	490	1,366	2,024	2,268	1,940	1,565	1,242	1,021	12,871
From Reservoir Storage	0	0	0	0	0	145	3,921	502	0	267	289	220	5,344
Transfer in Storage	0	0	0	12	0	6,655	6,253	4,000	13	10	258	12	17,213
<b>END OF MONTH RESERVOIR STORAGE</b>	<b>6,344</b>	<b>6,058</b>	<b>6,379</b>	<b>10,024</b>	<b>22,009</b>	<b>46,816</b>	<b>47,425</b>	<b>48,609</b>	<b>46,682</b>	<b>45,213</b>	<b>44,897</b>	<b>44,154</b>	

Year: 1991

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

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	21	73	134	131	166	187	213	120	81	175	47
2	0	22	159	153	120	162	210	219	131	79	174	17
3	0	20	96	105	96	155	224	217	134	77	158	33
4	0	12	155	74	85	150	222	214	139	75	141	32
5	0	12	278	58	94	167	235	228	106	77	119	46
6	0	12	185	69	97	168	248	211	94	74	52	48
7	28	12	206	86	103	185	267	197	108	90	56	56
8	20	12	178	121	99	171	303	199	98	93	42	66
9	26	12	136	141	95	185	285	193	100	98	49	67
10	24	12	168	148	124	199	282	174	117	90	82	47
11	12	12	168	137	136	207	274	177	104	74	95	45
12	17	12	177	130	140	221	281	178	75	91	98	48
13	18	12	185	155	161	226	258	164	53	99	86	32
14	26	11	176	154	160	235	251	153	61	95	89	48
15	15	13	117	132	131	237	286	153	60	80	117	45
16	13	12	132	91	114	237	308	110	72	78	100	34
17	12	12	147	54	127	239	342	96	81	74	106	38
18	12	13	148	48	156	231	335	104	68	67	68	33
19	13	12	144	57	156	219	311	117	60	60	58	18
20	11	11	106	58	158	188	259	111	72	56	60	0
21	12	13	73	68	149	169	255	107	107	41	75	0
22	13	13	38	87	133	163	267	113	104	40	77	0
23	13	11	39	114	128	169	239	124	98	41	68	0
24	12	13	39	151	129	180	241	157	71	24	64	0
25	12	12	39	181	132	177	246	158	74	28	63	0
26	12	12	40	169	131	192	254	162	70	85	66	0
27	13	14	40	180	147	179	261	161	70	114	61	0
28	21	14	39	180	169	163	272	154	71	163	55	0
29	23	-	40	158	156	162	276	126	69	180	53	0
30	23	-	46	130	149	165	254	121	68	182	55	0
31	23	-	106	-	152	-	216	110	-	142	-	0
TOTAL	424	369	3,673	3,523	4,058	5,667	8,149	4,921	2,655	2,648	2,562	800
MAXIMUM DAY	28	22	278	181	169	239	342	228	139	182	175	67
MINIMUM DAY	0	11	38	48	85	150	187	96	53	24	42	0
MEAN	14	13	118	117	131	189	263	159	89	85	85	26
TOTAL AC.FT.	841	732	7,285	6,988	8,049	11,240	16,163	9,761	5,266	5,252	5,082	1,587
WHOLE YEAR:-	TOTAL,	39,449	MAX.,	342	MIN.,	0	MEAN,	108	TOTAL AC.FT.,	78,246		

DISCHARGE IN CUBIC FEET PER SECOND

Oilfield Discharge into Beardstley Canal (Total Flow)

Year: 1991

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	18	28	24	25	23	22	22	20	22
2	0	0	0	18	23	24	23	24	21	21	23	8
3	0	0	0	17	22	25	22	24	21	24	24	8
4	0	0	0	18	21	25	25	25	22	26	22	13
5	0	0	0	19	21	17	27	27	25	27	20	14
6	0	0	0	18	23	23	26	29	26	25	21	14
7	0	0	0	24	25	26	26	26	24	22	15	14
8	0	0	0	24	26	23	25	24	23	21	17	16
9	0	0	0	27	26	23	21	24	25	21	18	23
10	0	0	0	27	25	26	22	24	27	21	24	19
11	0	0	0	23	25	26	23	27	22	22	22	19
12	0	0	0	22	25	27	26	26	19	21	21	19
13	0	0	0	20	25	25	27	24	20	21	21	14
14	0	0	0	22	22	25	26	23	20	21	21	21
15	0	0	8	22	21	30	26	21	21	23	19	19
16	0	0	13	20	21	28	23	24	22	22	20	17
17	0	0	12	22	23	23	22	24	22	23	24	17
18	0	0	13	16	26	23	22	25	21	21	23	8
19	0	0	12	21	25	22	25	26	21	20	20	3
20	0	0	12	21	24	24	26	23	23	19	17	0
21	0	0	12	21	22	28	28	23	21	20	18	0
22	0	0	13	21	21	28	27	24	21	19	21	0
23	0	0	13	21	20	26	25	23	22	17	23	0
24	0	0	13	20	20	25	23	24	23	11	18	0
25	0	0	13	21	24	24	23	28	22	12	20	0
26	0	0	13	23	26	22	26	25	22	27	19	0
27	0	0	13	24	25	23	23	23	22	24	19	0
28	0	0	13	25	25	22	24	21	22	16	22	0
29	0	-	12	25	25	26	24	22	25	22	22	0
30	0	-	12	26	24	27	22	26	23	23	18	0
31	0	-	12	-	21	-	22	25	-	20	-	0
TOTAL	0	0	209	646	730	740	755	757	670	654	612	288
MAXIMUM DAY	0	0	13	27	28	30	28	29	27	27	24	23
MINIMUM DAY	0	0	0	16	20	17	21	21	19	11	15	0
MEAN	0	0	7	22	24	25	24	24	22	21	20	9
TOTAL AC.FT.	0	0	413	1,281	1,448	1,468	1,497	1,501	1,329	1,296	1,214	571
WHOLE YEAR--	TOTAL,	6,061	MAX.,	30	MIN.,	0	MEAN,	17	TOTAL AC.FT.,	12,018		

Year: 1991

Dole Well Water Production Diverted to North Kern WSD  
via Beardsley 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	2	2	3	3	3	0	0	0
2	0	0	0	0	3	2	3	3	3	0	0	0
3	0	0	0	0	3	3	3	3	3	0	0	0
4	0	0	0	0	2	2	3	3	3	0	0	0
5	0	0	0	0	2	2	3	3	3	0	0	0
6	0	0	0	0	3	3	3	3	2	0	0	0
7	0	0	0	0	2	2	3	3	0	0	0	0
8	0	0	0	0	2	2	3	3	0	0	0	0
9	0	0	0	0	3	3	3	3	0	0	0	0
10	0	0	0	0	2	2	2	3	0	0	0	0
11	0	0	0	0	2	2	3	2	0	0	0	0
12	0	0	0	0	3	3	3	3	0	0	0	0
13	0	0	0	0	2	2	3	3	0	0	0	0
14	0	0	0	0	2	2	3	3	0	0	0	0
15	0	0	0	0	3	3	3	3	0	0	0	0
16	0	0	0	0	2	2	3	3	0	0	0	0
17	0	0	0	0	2	2	3	3	0	0	0	0
18	0	0	0	0	3	3	3	3	0	0	0	0
19	0	0	0	0	2	2	3	3	0	0	0	0
20	0	0	0	0	2	2	2	3	0	0	0	0
21	0	0	0	0	3	3	3	3	0	0	0	0
22	0	3	0	0	2	2	3	2	0	0	0	0
23	0	3	0	0	2	3	3	3	0	0	0	0
24	0	3	0	0	3	3	3	3	0	0	0	0
25	0	0	0	0	2	2	3	3	0	0	0	0
26	0	0	0	0	2	2	3	3	0	0	0	0
27	0	0	0	0	3	3	3	3	0	0	0	0
28	0	0	0	0	2	3	3	3	0	0	0	0
29	0	-	0	0	2	3	3	3	0	0	0	0
30	0	-	0	0	3	2	2	3	0	0	0	0
31	0	-	0	-	3	-	3	2	-	0	-	0
TOTAL	0	9	0	0	74	72	90	90	17	0	0	0
MAXIMUM DAY	0	3	0	0	3	3	3	3	3	0	0	0
MINIMUM DAY	0	0	0	0	2	2	2	2	0	0	0	0
MEAN	0	0	0	0	2	2	3	3	1	0	0	0
TOTAL AC.FT.	0	17	0	0	147	143	178	178	34	0	0	0
WHOLE YEAR:-	TOTAL,	352	MAX.,	3	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	697		

Year: 1991

Chidale Mutual Well Water Production Diverted to North Kern WSD  
via Beardsley Canal

DISCHARGE IN CUBIC FEET PER SECOND

(Per terms of Chidale Mutual Water Co./NKWSD letter agreement dated 8-22-91)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	5	0	0	0
2	0	0	0	0	0	0	0	0	5	0	0	0
3	0	0	0	0	0	0	0	0	5	0	0	0
4	0	0	0	0	0	0	0	0	5	0	0	0
5	0	0	0	0	0	0	0	0	5	0	0	0
6	0	0	0	0	0	0	0	0	5	0	0	0
7	0	0	0	0	0	0	0	0	5	0	0	0
8	0	0	0	0	0	0	0	0	5	0	0	0
9	0	0	0	0	0	0	0	0	4	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	4	0	0	0	0
13	0	0	0	0	0	0	0	4	0	0	0	0
14	0	0	0	0	0	0	0	4	0	0	0	0
15	0	0	0	0	0	0	0	4	0	0	0	0
16	0	0	0	0	0	0	0	4	0	0	0	0
17	0	0	0	0	0	0	0	5	0	0	0	0
18	0	0	0	0	0	0	0	4	0	0	0	0
19	0	0	0	0	0	0	0	5	0	0	0	0
20	0	0	0	0	0	0	0	4	0	0	0	0
21	0	0	0	0	0	0	0	5	0	0	0	0
22	0	0	0	0	0	0	0	4	0	0	0	0
23	0	0	0	0	0	0	0	5	0	0	0	0
24	0	0	0	0	0	0	0	4	0	0	0	0
25	0	0	0	0	0	0	0	5	0	0	0	0
26	0	0	0	0	0	0	0	4	0	0	0	0
27	0	0	0	0	0	0	0	5	0	0	0	0
28	0	0	0	0	0	0	0	4	0	0	0	0
29	0	-	0	0	0	0	0	5	0	0	0	0
30	0	-	0	0	0	0	0	4	0	0	0	0
31	0	-	0	-	0	-	0	5	-	0	-	0
TOTAL	0	0	0	0	0	0	0	88	44	0	0	0
MAXIMUM DAY	0	0	0	0	0	0	0	5	5	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	3	1	0	0	0
TOTAL AC.FT.	0	0	0	0	0	0	0	174	87	0	0	0
WHOLE YEAR:-	TOTAL,	132	MAX.,	5	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	261		

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

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kern River	841	732	7,285	6,988	8,049	11,240	16,163	9,761	5,266	5,252	5,082	1,587	78,246
Oilfield Discharge	0	0	413	1,281	1,448	1,468	1,497	1,501	1,329	1,296	1,214	571	12,018
C.V.C. Conduit "A"	183	302	0	0	0	0	0	0	0	0	0	0	485
Dole Well Production	0	17	0	0	147	143	178	178	34	0	0	0	697
Oildale Mutual Well Water	0	0	0	0	0	0	0	174	87	0	0	0	261
<b>+ TOTAL BEARDSLEY CANAL SUPPLY</b>	<b>1,024</b>	<b>1,051</b>	<b>7,698</b>	<b>8,269</b>	<b>9,644</b>	<b>12,851</b>	<b>17,838</b>	<b>11,614</b>	<b>6,716</b>	<b>6,548</b>	<b>6,296</b>	<b>2,158</b>	<b>91,707</b>
KRC & Irr. Co. # 1 Lateral	0	0	34	12	0	0	0	0	0	0	0	0	46
KRC & Irr. Co. # 2 Lateral	0	0	0	0	13	7	24	17	6	0	0	0	67
KRC & Irr. Co. # 4 Lateral	0	56	339	64	133	514	757	599	225	107	37	0	2,831
KRC & Irr. Co. # 5 Lateral	0	163	292	333	275	646	718	491	551	257	0	0	3,726
KRC & Irr. Co. Bidart Boosters	87	330	93	316	394	369	363	153	16	368	260	0	2,749
KRC & Irr. Co. via 1-0-30	0	0	0	0	0	0	0	0	0	0	0	0	0
KRC & Irr. Co. via 1-0-80	0	2	0	2	1	3	3	0	0	0	0	0	11
Lined Section Loss	8	56	52	56	60	60	61	61	52	61	48	0	575
<b>- TOTAL KRC &amp; IRR. CO. DIVERTED</b>	<b>95</b>	<b>607</b>	<b>810</b>	<b>783</b>	<b>876</b>	<b>1,599</b>	<b>1,926</b>	<b>1,321</b>	<b>850</b>	<b>793</b>	<b>345</b>	<b>0</b>	<b>10,005</b>
Kern River Supply	95	607	757	769	876	1,599	1,926	1,321	850	793	345	0	9,938
Oilfield Discharge Supply	0	0	53	14	0	0	0	0	0	0	0	0	67
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"	159	0	2,243	1,833	5,709	5,974	8,665	7,654	4,468	2,957	1,460	761	41,883
Cawelo WD Lerdo Gate Deliveries	0	0	152	153	286	379	592	309	292	76	61	0	2,300
Lined Section Loss	8	0	50	58	61	60	61	61	60	61	60	34	574
Lerdo Canal Loss	16	0	26	21	63	67	97	82	50	58	16	8	504
<b>- TOTAL CAWELO WD DIVERTED</b>	<b>183</b>	<b>0</b>	<b>2,471</b>	<b>2,065</b>	<b>6,119</b>	<b>6,480</b>	<b>9,415</b>	<b>8,106</b>	<b>4,870</b>	<b>3,152</b>	<b>1,597</b>	<b>803</b>	<b>45,261</b>
Kern River Supply	0	0	2,374	1,544	5,500	5,851	8,775	7,464	4,309	2,609	1,095	583	40,104
Oilfield Discharge Supply	0	0	97	521	619	629	640	642	561	543	502	220	4,974
C.V.C. Conduit "A" Supply	183	0	0	0	0	0	0	0	0	0	0	0	183
Rosedale Ranch ID Diverted	0	0	0	0	0	0	0	0	0	0	0	0	0
Kern-Tulare WD/Rag Gulch WD Diverted	0	0	220	0	0	0	0	0	0	0	0	0	220
Lined Section Loss: NKWSD	135	67	81	66	62	60	61	61	68	61	72	79	873
<b>= NKWSD FROM LERDO CANAL</b>	<b>611</b>	<b>377</b>	<b>4,116</b>	<b>5,355</b>	<b>2,587</b>	<b>4,712</b>	<b>6,436</b>	<b>2,126</b>	<b>928</b>	<b>2,542</b>	<b>4,282</b>	<b>1,276</b>	<b>35,348</b>
Kern River Supply	746	125	3,934	4,675	1,673	3,790	5,462	976	107	1,850	3,642	1,004	27,984
Oilfield Discharge Supply	0	0	263	746	829	839	857	859	768	753	712	351	6,977
Dole Well Production	0	17	0	0	147	143	178	178	34	0	0	0	697
Oildale Mutual Well Water	0	0	0	0	0	0	0	174	87	0	0	0	261
C.V.C. Conduit "A" Supply	0	302	0	0	0	0	0	0	0	0	0	0	302

Year: 1991

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	40	10	58	143	146	159	178	199	133	90	183	66
2	0	10	143	168	134	156	196	211	132	89	185	22
3	0	10	81	117	110	159	197	205	133	90	170	38
4	0	1	141	87	95	146	200	205	135	90	151	42
5	0	5	250	74	108	144	221	228	101	92	124	57
6	0	5	162	82	113	155	250	210	99	89	62	59
7	25	3	182	105	114	171	272	189	110	100	65	67
8	17	3	154	131	113	156	307	191	107	103	45	79
9	23	0	121	160	115	169	282	185	110	108	53	87
10	21	0	146	163	146	185	279	169	130	106	98	63
11	9	0	144	149	158	192	268	173	106	91	103	61
12	14	0	154	141	163	212	282	178	84	104	104	64
13	15	0	150	165	183	216	266	172	64	91	97	43
14	23	0	141	166	179	225	257	164	71	82	102	66
15	12	14	100	143	152	243	281	163	71	71	128	61
16	10	14	124	101	132	242	298	190	73	70	113	48
17	9	14	138	66	140	226	334	118	78	69	123	52
18	9	14	139	56	170	223	329	125	69	67	84	38
19	10	14	142	65	168	210	303	125	59	49	73	18
20	8	14	112	49	149	187	258	120	73	47	72	0
21	9	17	82	58	140	175	257	126	109	49	88	0
22	27	20	44	74	122	181	261	123	107	47	93	0
23	27	19	45	105	126	191	236	130	108	46	86	0
24	26	3	45	142	127	200	234	168	91	24	77	0
25	9	0	49	171	134	195	236	178	93	30	80	0
26	9	0	50	161	127	205	251	184	89	103	82	0
27	10	0	50	173	149	193	255	175	89	130	77	0
28	8	0	49	183	172	164	265	166	90	171	74	0
29	9	-	46	170	159	163	261	142	91	193	72	0
30	9	-	52	144	160	170	238	141	88	198	70	0
31	8	-	112	-	153	-	209	135	-	151	-	0
TOTAL	396	190	3,406	3,712	4,357	5,613	7,961	5,128	2,893	2,840	2,934	1,031
MAXIMUM DAY	40	20	250	183	183	243	334	228	135	198	185	87
MINIMUM DAY	0	0	44	49	95	144	178	118	59	24	45	0
MEAN	13	7	110	124	141	187	257	165	96	92	98	33
TOTAL AC.FT.	786	377	6,757	7,362	8,645	11,132	15,790	10,171	5,738	5,633	5,819	2,045
WHOLE YEAR:-	TOTAL,	40,461	MAX.,	394	MIN.,	0	MEAN,	111	TOTAL AC.FT.,	80,255		

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

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Total Beardsley Canal Supply	+ 1,024	1,051	7,698	8,269	9,644	12,851	17,838	11,614	6,716	6,548	6,296	2,158	91,707
+ KRC & Irr. Co. Laterals	0	219	665	409	421	1,167	1,499	1,107	782	364	37	0	6,670
+ KRC & Irr. Co. Boosters	87	332	93	318	395	372	366	153	16	368	260	0	2,760
+ Lined Section Loss: KRC & Irr. Co.	8	56	52	56	60	60	61	61	52	61	48	0	575
= KRC & Irr. Co. from Beardsley	- 95	607	810	783	876	1,599	1,926	1,321	850	793	345	0	10,005
Rosedale Ranch ID via 1-1-0	-	0	0	0	0	0	0	0	0	0	0	0	0
NKWSID via 1-1-0 Lateral	-	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
Lined Section Loss: Cawelo WD	- 8	0	50	58	61	60	61	61	60	61	60	34	574
Lined Section Loss: NKWSID	- 135	67	81	66	62	60	61	61	68	61	72	79	873
Lerdo Canal Total Flow	= 786	377	6,757	7,362	8,645	11,132	15,790	10,171	5,738	5,633	5,819	2,045	80,255
KRC & Irr. Co. via 8-1-0	-	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
Rosedale Ranch ID via 8-1-0	-	0	0	0	0	0	0	0	0	0	0	0	0
K-TWD/RGWD via 8-17-0	-	0	220	0	0	0	0	0	0	0	0	0	220
+ Cawelo WD Delivered at Sta. "B"	159	0	2,243	1,833	5,709	5,974	8,665	7,654	4,468	2,957	1,460	761	41,883
+ Cawelo WD 8-0 Deliveries	0	0	152	153	286	379	592	309	292	76	61	0	2,300
+ Lerdo Loss: to Station "B"	16	0	23	18	57	60	86	76	45	56	15	8	460
+ Lerdo Loss: 8-0 Deliveries	0	0	3	3	6	7	11	6	5	2	1	0	44
= Cawelo WD Total from Lerdo	- 175	0	2,421	2,007	6,058	6,420	9,354	8,045	4,810	3,091	1,537	769	44,687

North Kern WSD from Lerdo	= 611	377	4,116	5,355	2,587	4,712	6,436	2,126	928	2,542	4,282	1,276	35,348
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Year: 1991

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	0	0	92	71	28	30	52	0	0	0	0
2	0	0	0	98	70	31	29	50	0	0	0	0
3	0	0	0	97	71	32	34	50	0	0	0	0
4	0	0	0	97	70	33	36	50	0	0	0	0
5	0	0	0	87	70	29	36	44	0	0	0	0
6	0	0	0	78	70	28	32	43	0	0	0	0
7	0	0	0	77	66	27	28	60	0	0	0	0
8	0	0	0	69	59	26	28	45	0	0	0	0
9	0	0	0	60	46	26	28	50	0	0	0	0
10	0	0	0	49	36	28	28	46	0	0	0	0
11	0	0	0	44	43	28	28	46	0	0	0	0
12	0	0	0	30	47	26	28	45	0	0	0	0
13	0	0	0	29	43	29	28	41	0	0	0	0
14	0	0	0	36	48	31	27	41	0	0	0	0
15	0	0	0	27	52	32	28	44	0	0	0	0
16	0	0	0	34	52	26	29	45	0	0	0	28
17	0	0	37	23	45	25	27	45	0	0	0	30
18	0	0	64	24	51	25	29	43	0	0	0	32
19	0	0	68	32	62	25	29	45	0	0	0	30
20	0	0	89	33	36	27	30	47	0	0	0	30
21	0	0	78	31	31	30	32	45	0	0	0	23
22	0	0	54	29	37	24	42	50	0	0	0	30
23	0	0	56	30	31	22	48	46	0	0	0	33
24	0	0	53	33	31	22	52	47	0	0	0	29
25	0	0	25	29	32	24	54	47	0	0	0	27
26	0	0	10	37	26	25	54	44	0	0	0	27
27	0	0	59	35	26	26	50	38	0	0	0	25
28	0	0	94	36	28	26	50	0	0	0	0	27
29	0	-	101	39	30	26	50	0	0	0	0	30
30	0	-	81	38	31	25	50	0	0	0	0	30
31	0	-	81	-	28	-	53	0	-	0	-	29
TOTAL	0	0	950	1,453	1,439	812	1,127	1,249	0	0	0	460
MAXIMUM DAY	0	0	101	98	71	33	54	60	0	0	0	33
MINIMUM DAY	0	0	0	23	26	22	27	0	0	0	0	0
MEAN	0	0	31	48	46	27	36	40	0	0	0	15
TOTAL AC.FT.	0	0	1,884	2,882	2,854	1,611	2,236	2,477	0	0	0	913
WHOLE YEAR:-	TOTAL,	7,490	MAX.,	101	MIN.,	0	MEAN,	21	TOTAL AC.FT.,	14,857		

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

Quantities in acre-feet

Year: 1991

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>FLOW AT HEADWORKS</b>	+	0	1,884	2,882	2,854	1,611	2,236	2,477	0	0	0	913	14,857
KCWA Armco Turnout	-	0	1,664	2,644	2,613	1,415	1,963	2,220	0	0	0	804	13,323
KCWA Armco Turnout (Reverse Flow)	+	0	0	0	0	0	0	0	0	0	0	0	0
Seepage Loss	-	0	206	238	241	196	273	233	0	0	0	109	1,496
<b>FLOW AT MEASURING STATION</b>	=	0	14	0	0	0	0	24	0	0	0	0	38
CVC Turnout to Calloway	+	0	23	0	0	0	0	0	0	0	0	0	23
Seepage Loss	-	0	37	0	0	0	0	24	0	0	0	0	61
<b>FLOW AT STANDARD WEIR</b>	=	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
Friant-Kern Inflow	+	0	0	0	0	0	0	0	0	0	0	0	0
KRC & Irr. Co. Calloway Del.	-	0	0	0	0	0	0	0	0	0	0	0	0
KRC & Irr. Co. 1-1-0 Inflow	+	0	0	0	0	0	0	0	0	0	0	0	0
Seepage Loss	-	0	0	0	0	0	0	0	0	0	0	0	0
<b>FLOW AT LABORDE WEIR</b>	=	0	0	0	0	0	0	0	0	0	0	0	0
KRC & Irr. Co. Calloway Del.	-	0	0	0	0	0	0	0	0	0	0	0	0
Rosedale Ranch ID at Headworks	-	0	0	0	0	0	0	0	0	0	0	0	0
Seepage Loss	-	0	0	0	0	0	0	0	0	0	0	0	0
NKWSD 8-1-0 Inflow	+	0	0	0	0	0	0	0	0	0	0	0	0
<b>FLOW AT SEVENTH STANDARD LINE</b>	=	0	0	0	0	0	0	0	0	0	0	0	0
for Rosedale Ranch ID	-	0	0	0	0	0	0	0	0	0	0	0	0
for North Kern WSD	=	0	0	0	0	0	0	0	0	0	0	0	0
<b>KERN COUNTY WATER AGENCY / I.D. #4:</b>													
Operating Loss	+	0	316	363	358	315	283	241	0	0	0	109	1,985
Turnout #4 to River	+	0	96	0	0	0	0	0	0	0	0	0	96
Reverse Flow at Pump Plant #7	+	0	1,287	1,121	1,142	0	0	0	0	0	0	0	3,550
ID #4 Treatment Plant	+	0	169	1,398	1,354	1,296	1,953	2,212	0	0	0	804	9,186
Spreading Below Measuring Sta.	+	0	14	0	0	0	0	24	0	0	0	0	38
<b>TOTAL DIVERTED</b>	=	0	1,884	2,882	2,854	1,611	2,236	2,477	0	0	0	913	14,857
<b>KERN RIVER CANAL &amp; IRRIGATING CO.:</b>													
Calloway Irrigation Deliveries	+	0	0	0	0	0	0	0	0	0	0	0	0
Delivery Loss/ Spreading	+	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL DIVERTED</b>	=	0	0	0	0	0	0	0	0	0	0	0	0
<b>ROSEDALE RANCH ID:</b>													
Flow at Headworks	+	0	0	0	0	0	0	0	0	0	0	0	0
Flow at Seventh Standard Line	+	0	0	0	0	0	0	0	0	0	0	0	0
Assigned Loss	+	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL DIVERTED</b>	=	0	0	0	0	0	0	0	0	0	0	0	0
<b>NORTH KERN WATER STORAGE DISTRICT:</b>													
Flow at Seventh Standard Line	+	0	0	0	0	0	0	0	0	0	0	0	0
Total Loss	+	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL DIVERTED</b>	=	0	0	0	0	0	0	0	0	0	0	0	0

North Kern Water Storage District  
Class 1 Irrigation Deliveries

Year: 1991

DISCHARGE IN CUBIC FEET PER SECOND

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	74	175	5	185	271	273	266	99	115	30	8
2	0	69	196	14	183	248	267	283	120	128	29	11
3	0	74	172	21	181	253	257	257	97	130	33	28
4	0	81	168	19	171	270	283	249	89	136	39	23
5	0	97	160	22	151	282	320	252	110	125	39	18
6	0	100	128	34	183	273	309	235	105	108	42	18
7	11	123	137	36	179	281	303	214	90	150	27	23
8	12	118	135	49	205	269	327	218	86	143	32	14
9	12	120	127	95	205	237	307	216	107	155	25	12
10	12	116	119	113	225	268	296	182	93	155	27	12
11	12	145	133	121	221	257	302	182	73	154	22	3
12	11	154	94	122	215	277	294	212	100	144	22	6
13	12	163	92	133	231	268	298	190	85	137	25	9
14	18	182	94	137	219	297	279	179	84	155	28	8
15	20	184	89	166	215	264	325	160	67	149	21	8
16	16	196	60	155	204	248	328	145	79	163	25	8
17	12	188	60	208	176	281	317	107	78	147	25	10
18	14	202	40	203	188	271	296	100	84	153	23	21
19	10	207	4	212	162	246	287	119	77	135	30	27
20	7	205	4	220	179	244	269	135	72	105	24	10
21	22	221	4	196	164	234	250	132	71	115	23	13
22	20	227	4	234	175	217	285	133	63	118	26	10
23	20	210	4	233	173	215	287	139	72	98	19	7
24	20	210	4	253	156	251	270	114	76	84	24	0
25	17	223	4	225	154	261	268	99	76	89	22	0
26	9	199	4	206	158	272	282	130	74	52	34	0
27	9	198	4	201	185	267	239	132	103	47	21	5
28	37	191	4	170	218	255	226	157	91	52	24	0
29	30	-	4	159	252	234	230	154	91	60	28	0
30	52	-	9	183	274	228	223	151	112	58	26	0
31	69	-	4	-	275	-	243	113	-	66	-	0
TOTAL	484	4,477	2,236	4,145	6,062	7,739	8,740	5,355	2,624	3,626	815	312
MAXIMUM DAY	69	227	196	253	275	297	328	283	120	163	42	28
MINIMUM DAY	0	69	4	5	151	215	223	99	63	47	19	0
MEAN	16	160	72	138	196	258	282	173	87	117	27	10
TOTAL AC.FT.	961	8,881	4,436	8,221	12,024	15,951	17,337	10,622	5,204	7,191	1,617	619
WHOLE YEAR:-	TOTAL,	46,615	MAX.,	328	MIN.,	0	MEAN,	128	TOTAL AC.FT.,	92,464		

North Kern Water Storage District  
Class 2 Irrigation Deliveries

Year: 1991

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	3
3	0	0	0	0	0	0	0	0	0	0	0	2
4	0	0	0	0	0	0	0	0	0	0	0	6
5	0	0	0	0	0	0	0	0	0	0	0	10
6	0	0	0	0	0	0	0	0	0	0	0	10
7	0	0	0	0	0	0	0	0	0	0	0	10
8	0	0	0	0	0	0	0	0	0	0	0	8
9	0	0	0	0	0	0	0	0	0	0	0	8
10	0	0	0	0	0	0	0	0	0	0	0	8
11	0	0	0	0	0	0	0	0	0	0	0	7
12	0	0	0	0	0	0	0	0	0	0	0	7
13	0	0	0	0	0	0	0	0	0	0	0	8
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	12	0
19	0	0	0	0	0	0	0	0	0	0	11	0
20	0	0	0	0	0	0	0	0	0	0	11	0
21	0	0	0	0	0	0	0	0	0	0	11	0
22	0	0	0	0	0	0	0	0	0	0	11	0
23	0	0	0	0	0	0	0	0	0	0	6	0
24	0	0	0	0	0	0	0	0	0	0	6	0
25	0	0	0	0	0	0	0	0	0	0	6	0
26	0	0	0	0	0	0	0	0	0	0	6	0
27	0	0	0	0	0	0	0	0	0	0	6	0
28	0	0	0	0	0	0	0	0	0	0	5	0
29	0	-	0	0	0	0	0	0	0	0	4	0
30	0	-	0	0	0	0	0	0	0	0	4	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	0	0	0	0	0	0	0	0	0	99	87
MAXIMUM DAY	0	0	0	0	0	0	0	0	0	0	12	10
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	3	3
TOTAL AC.FT.	0	0	0	0	0	0	0	0	0	0	196	172
WHOLE YEAR-- TOTAL,	186	186	MAX.,	12	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	368		

DISCHARGE IN CUBIC FEET PER SECOND

North Kern Water Storage District  
Emergency Irrigation Deliveries

Year: 1991

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	1	4	3	2	2	0	0	0
2	0	0	5	0	3	3	3	2	2	0	0	0
3	0	0	5	0	3	4	3	2	2	0	0	0
4	0	0	6	0	1	3	2	2	4	0	0	0
5	0	0	3	0	2	3	7	4	2	0	0	0
6	0	0	3	0	0	2	7	4	1	0	0	0
7	0	0	0	0	0	1	7	4	0	0	0	0
8	0	0	0	0	0	1	9	4	0	0	0	0
9	0	0	0	0	0	3	9	4	0	0	0	0
10	0	0	0	0	0	3	9	4	0	0	0	0
11	0	0	3	3	0	1	9	4	0	0	0	0
12	0	0	3	2	0	2	9	4	0	0	0	0
13	0	0	3	2	0	2	9	4	0	0	0	0
14	0	0	3	3	0	3	9	4	0	0	0	0
15	0	5	3	2	0	2	10	4	0	0	0	0
16	0	4	0	3	0	1	11	4	0	0	0	0
17	0	0	0	0	0	2	11	4	0	0	0	0
18	0	0	0	0	0	2	10	4	0	0	0	0
19	0	0	0	0	0	0	5	6	0	0	0	0
20	0	0	0	0	0	0	5	6	0	0	0	0
21	0	0	0	0	0	0	4	6	2	0	0	0
22	0	0	0	0	0	0	3	6	2	0	0	0
23	0	0	0	0	0	0	3	6	2	0	0	0
24	0	0	0	0	0	0	4	6	2	2	0	0
25	0	0	0	0	0	0	8	5	2	2	0	0
26	0	0	0	0	0	0	8	6	2	2	0	0
27	0	0	0	0	0	0	8	2	2	0	0	0
28	0	0	0	0	0	0	4	3	2	0	0	0
29	0	-	0	3	0	2	4	3	2	0	0	0
30	0	-	0	3	0	0	4	3	0	0	0	0
31	0	-	0	-	0	-	4	3	-	0	-	0
TOTAL	0	9	37	21	10	44	201	125	31	6	6	0
MAXIMUM DAY	0	5	6	3	3	4	11	6	4	2	2	0
MINIMUM DAY	0	0	0	0	0	0	2	2	0	0	0	0
MEAN	0	0	1	1	0	1	6	4	1	0	0	0
TOTAL AC.FT.	0	17	74	42	19	86	398	248	62	12	12	0
WHOLE YEAR--	TOTAL,	484	MAX.,	11	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	958		

DISCHARGE IN CUBIC FEET PER SECOND

North Kern Water Storage District  
Shafter-Wasco Irrigation District Exchange Deliveries

Year: 1991

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	0	0	0	0	0	7	20	0	0
2	0	0	0	0	0	0	0	0	7	21	0	0
3	0	0	0	0	0	0	0	0	13	22	0	0
4	0	0	0	0	0	0	0	0	12	23	0	0
5	0	0	0	0	0	0	0	0	24	21	0	0
6	0	0	0	0	0	0	0	0	22	20	0	0
7	0	0	0	0	0	0	0	0	12	0	0	0
8	0	0	0	0	0	0	0	0	11	0	0	0
9	0	0	0	0	0	0	0	0	11	0	0	0
10	0	0	0	0	0	0	0	0	12	0	0	0
11	0	0	0	0	0	0	0	0	11	0	0	0
12	0	0	0	0	0	0	0	0	9	0	0	0
13	0	0	0	0	0	0	0	0	9	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	12	0	0	0	0	0	0	0	0
16	0	0	0	12	0	0	0	0	16	0	0	0
17	0	0	0	11	0	0	0	0	19	0	0	0
18	0	0	0	0	0	0	0	0	18	0	0	0
19	0	0	0	0	0	0	0	0	19	0	0	0
20	0	0	0	0	0	0	0	0	19	0	0	0
21	0	0	0	0	0	0	0	0	14	0	0	0
22	0	0	0	0	0	0	0	0	13	0	0	0
23	0	0	0	0	0	0	0	0	20	0	0	0
24	0	0	0	0	0	0	0	0	20	0	0	0
25	0	0	0	0	0	0	0	0	22	0	0	0
26	0	0	0	0	0	0	0	12	21	0	0	0
27	0	0	0	0	0	0	0	10	23	0	0	0
28	0	0	0	0	0	0	0	9	20	0	0	0
29	0	-	0	0	0	0	0	10	21	0	0	0
30	0	-	0	0	0	0	0	7	23	0	0	0
31	0	-	0	-	0	-	0	8	-	0	-	0
TOTAL	0	0	0	35	0	0	0	56	448	127	0	0
MAXIMUM DAY	0	0	0	12	0	0	0	12	24	23	0	0
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	1	0	0	0	2	15	4	0	0
TOTAL AC.FT.	0	0	0	70	0	0	0	111	888	253	0	0
WHOLE YEAR-	TOTAL,	666	MAX.,	24	MIN.,	0	MEAN,	2	TOTAL AC.FT.,	1,322		

Year: 1991

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	0
MAX.,	0	0	0	0	0	0	0	0	0	0	0	0
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.,	0	0	0	0	0	0	0	0	0	0	0	0

Year: 1991

Total Flow via the Rosedale Ranch I.D. 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	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	MAX.,	0	MIN.,	0	MEAN,	0	TOTAL AC.FT.,	0	0	0

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

Quantities in acre-feet

Year: 1991

	CAWEL0 WD		KERN-TULARE WD		SHAFTER-WASCO ID		IMPROVEMENT DISTRICT NO. 4		PARAMOUNT FARMING COMPANY		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
January	0	0	0	0	0	0	2,737	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	302	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	70	0	0	0	0	0	0	0	0	0	0	484
April	0	0	0	0	0	0	395	0	0	0	0	0	155	0	0	125
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	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
August	0	0	0	0	111	0	0	174	0	0	0	0	0	0	0	0
September	0	0	0	0	888	0	0	87	2,035	0	0	0	0	0	0	0
October	0	0	0	0	253	0	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	256	0	0	0	0	0	0	72	0	0	0
December	0	0	0	0	0	12	0	0	0	0	0	0	15	0	0	0
Yearly Status	0	0	0	0	1,322	850	395	261	2,035	0	0	0	242	0	0	609
Overall Status	175		0		1,085		2,871		0		3,497		34,382		4,649	

**NKWS/IMPROVEMENT DISTRICT #4 EXCHANGE SUMMARY**

Block	Date of Agreement	NKWS		Balance
		ID #4	ID #4	
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)
To Date Totals		49,446	46,575	2,871

North Kern WSD Exchange Water Delivered to Improvement District No. 4  
 (Per terms of NKWSD/IDA Letter Agreement Dated May 13, 1991)

Year: 1991

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	13	0	0	0	0	0	0	0	0
5	0	0	0	56	0	0	0	0	0	0	0	0
6	0	0	0	39	0	0	0	0	0	0	0	0
7	0	0	0	30	0	0	0	0	0	0	0	0
8	0	0	0	14	0	0	0	0	0	0	0	0
9	0	0	0	47	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	199	0	0	0	0	0	0	0	0
MAXIMUM DAY	0	0	0	56	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	7	0	0	0	0	0	0	0	0
TOTAL AC.FT.	0	0	0	395	0	0	0	0	0	0	0	0
WHOLE YEAR:-	TOTAL,	199	MAX.,	56	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	395		

DISCHARGE IN CUBIC FEET PER SECOND

Shafter-Wasco ID Exchange Payback Delivered to North Kern WSD

Year: 1991

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	6
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	12	0	0
8	0	0	0	0	0	0	0	0	0	16	0	0
9	0	0	0	0	0	0	0	0	0	18	0	0
10	0	0	0	0	0	0	0	0	0	19	0	0
11	0	0	0	0	0	0	0	0	0	22	0	0
12	0	0	0	0	0	0	0	0	0	18	0	0
13	0	0	0	0	0	0	0	0	0	23	0	0
14	0	0	0	0	0	0	0	0	0	13	0	0
15	0	16	0	0	0	0	0	0	0	0	0	0
16	0	16	0	0	0	0	0	0	0	0	0	0
17	0	16	0	0	0	0	0	0	0	0	9	0
18	0	16	0	0	0	0	0	0	0	0	9	0
19	0	16	0	0	0	0	0	0	0	0	9	0
20	0	16	0	0	0	0	0	0	0	0	9	0
21	0	19	0	0	0	0	0	0	0	0	9	0
22	0	19	0	0	0	0	0	0	0	0	9	0
23	0	18	0	0	0	0	0	0	0	0	9	0
24	0	0	0	0	0	0	0	0	0	0	9	0
25	0	0	0	0	0	0	0	0	0	0	8	0
26	0	0	0	0	0	0	0	0	0	0	8	0
27	0	0	0	0	0	0	0	0	0	0	8	0
28	0	0	0	0	0	0	0	0	0	0	8	0
29	0	-	0	0	0	0	0	0	0	0	8	0
30	0	-	0	0	0	0	0	0	0	0	8	0
31	0	-	0	-	0	-	0	0	-	0	-	0
TOTAL	0	152	0	0	0	0	0	0	0	141	129	6
MAXIMUM DAY	0	19	0	0	0	0	0	0	0	23	9	6
MINIMUM DAY	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	5	0	0	0	0	0	0	0	5	4	0
TOTAL AC.FT.	0	302	0	0	0	0	0	0	0	280	256	12
WHOLE YEAR:-	TOTAL,	428	MAX.,	23	MIN.,	0	MEAN,	1	TOTAL AC.FT.,	850		

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

Quantities in acre-feet

1989	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NKWSD to CITY	76	0	19	666	1,270	0	0	0	195	443	1,735	1,444	5,848
CITY to NKWSD	0	0	1,341	190	36	0	1,801	0	0	419	80	10	3,877
Other Purchase Rate	0	0	0	0	0	0	0	0	0	0	0	0	0
CITY Debit to NKWSD	30,968	30,968	29,646	30,122	31,356	31,356	29,555	29,555	29,750	29,774	31,429	32,863	

1990

NKWSD to CITY	1,552	0	0	0	0	0	0	0	0	0	0	0	1,552
CITY to NKWSD	288	0	89	0	0	0	0	0	0	0	268	71	716
Other Purchase Rate	0	0	0	0	0	0	0	0	0	0	0	0	0
CITY Debit to NKWSD	34,127	34,127	34,038	34,038	34,038	34,038	34,038	34,038	34,038	34,038	33,770	33,699	

1991

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	

COST ALLOCATION AND WATERMASTER SUMMARIES

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

Year: 1991

Quantities in acre-feet

	1987					1991					Five Year Total	Allocation Percentage
	1987	1988	1989	1990	1991	1987	1988	1989	1990	1991		
<b>TOTAL CARRIER CANAL FLOW (1)</b>	<b>68,984</b>	<b>44,972</b>	<b>46,492</b>	<b>11,375</b>	<b>94,595</b>						<b>266,418</b>	<b>100.00%</b>
Stine Canal Total Diverted (2)	11,463	7,553	10,913	0	6,665						36,594	13.74%
Buena Vista Canal Total Diverted (2)	26,648	18,551	21,844	11,350	15,625						94,018	35.29%
<b>KERN DELTA WATER DISTRICT TOTAL DIVERTED FROM CARRIER CANAL</b>	<b>38,111</b>	<b>26,104</b>	<b>32,757</b>	<b>11,350</b>	<b>22,290</b>						<b>130,612</b>	<b>49.03%</b>
<b>KERN RIVER CONDUIT (City of Bakersfield)</b>	<b>30,873</b>	<b>18,868</b>	<b>13,735</b>	<b>25</b>	<b>72,305</b>						<b>135,806</b>	<b>50.97%</b>

Notes: (1) Sum of Carrier canal flow at Oak St. 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**

1991

**CALLOWAY CANAL USED**

**Preceding Ten Years**

Year	Diverted from River				
	NKWSD	CITY	Subtotal	ID4	TOTAL
1982	108,213	21,457	129,670	37,494	167,164
1983	132,111	21,645	153,756	31,708	185,464
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
<b>Total</b>	<b>372,695</b>	<b>81,520</b>	<b>454,215</b>	<b>266,706</b>	<b>720,921</b>
<b>Percent</b>	<b>82.05%</b>	<b>17.95%</b>	<b>100.00%</b>		

**Quantities in acre-feet**

**BEARDSLEY CANAL USED**

**Preceding Five Years**

Year	Diverted via Beardsley Canal	
	NKWSD	CITY
1987	125,018	16,041
1988	87,281	12,416
1989	70,197	16,892
1990	57,127	15,470
1991	34,997	16,446
<b>Total</b>	<b>374,620</b>	<b>77,265</b>
<b>Percent</b>	<b>82.90%</b>	<b>17.10%</b>

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

Year: 1991

Quantities in acre-feet

Canal	1987					1988					1989					1990					1991					Five Year Total	Percentage
	1987					1988					1989					1990					1991						
Kern Island	130,693	123,466	145,657	114,497	115,718	130,693	123,466	145,657	114,497	115,718	130,693	123,466	145,657	114,497	115,718	130,693	123,466	145,657	114,497	115,718	630,031	43.39%					
Eastside	17,226	15,455	17,285	12,012	11,700	17,226	15,455	17,285	12,012	11,700	17,226	15,455	17,285	12,012	11,700	17,226	15,455	17,285	12,012	11,700	73,678	5.07%					
Buena Vista	16,602	11,571	13,805	2,354	10,229	16,602	11,571	13,805	2,354	10,229	16,602	11,571	13,805	2,354	10,229	16,602	11,571	13,805	2,354	10,229	54,561	3.76%					
Stine	11,532	7,349	10,892	0	6,884	11,532	7,349	10,892	0	6,884	11,532	7,349	10,892	0	6,884	11,532	7,349	10,892	0	6,884	36,657	2.52%					
Farmers	8,619	4,606	7,171	34	7,248	8,619	4,606	7,171	34	7,248	8,619	4,606	7,171	34	7,248	8,619	4,606	7,171	34	7,248	27,678	1.91%					
<b>Subtotal Kern Delta WD</b>	<b>184,672</b>	<b>162,447</b>	<b>194,810</b>	<b>128,897</b>	<b>151,779</b>	<b>184,672</b>	<b>162,447</b>	<b>194,810</b>	<b>128,897</b>	<b>151,779</b>	<b>184,672</b>	<b>162,447</b>	<b>194,810</b>	<b>128,897</b>	<b>151,779</b>	<b>184,672</b>	<b>162,447</b>	<b>194,810</b>	<b>128,897</b>	<b>151,779</b>	<b>822,605</b>	<b>56.65%</b>					
City of Bakersfield	38,704	21,018	32,390	16,829	50,090	38,704	21,018	32,390	16,829	50,090	38,704	21,018	32,390	16,829	50,090	38,704	21,018	32,390	16,829	50,090	159,031	10.95%					
K.R.C. & I. Co. (Beardsley)	11,699	8,145	12,780	11,166	10,181	11,699	8,145	12,780	11,166	10,181	11,699	8,145	12,780	11,166	10,181	11,699	8,145	12,780	11,166	10,181	53,971	3.72%					
Central - I.D. #4 (Calloway)	26,870	26,406	17,669	3,317	14,857	26,870	26,406	17,669	3,317	14,857	26,870	26,406	17,669	3,317	14,857	26,870	26,406	17,669	3,317	14,857	89,119	6.14%					
James	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%					
Pioneer	6	0	0	0	0	6	0	0	0	0	6	0	0	0	0	6	0	0	0	0	6	0.00%					
<b>Subtotal City of Bakersfield</b>	<b>77,279</b>	<b>55,569</b>	<b>62,839</b>	<b>31,312</b>	<b>75,128</b>	<b>77,279</b>	<b>55,569</b>	<b>62,839</b>	<b>31,312</b>	<b>75,128</b>	<b>77,279</b>	<b>55,569</b>	<b>62,839</b>	<b>31,312</b>	<b>75,128</b>	<b>77,279</b>	<b>55,569</b>	<b>62,839</b>	<b>31,312</b>	<b>75,128</b>	<b>302,127</b>	<b>20.81%</b>					
<b>North Kern WSD</b>	<b>121,237</b>	<b>75,710</b>	<b>59,688</b>	<b>42,733</b>	<b>27,984</b>	<b>121,237</b>	<b>75,710</b>	<b>59,688</b>	<b>42,733</b>	<b>27,984</b>	<b>121,237</b>	<b>75,710</b>	<b>59,688</b>	<b>42,733</b>	<b>27,984</b>	<b>121,237</b>	<b>75,710</b>	<b>59,688</b>	<b>42,733</b>	<b>27,984</b>	<b>327,352</b>	<b>22.54%</b>					
<b>Total First Point Group</b>	<b>383,188</b>	<b>293,726</b>	<b>317,337</b>	<b>202,942</b>	<b>254,891</b>	<b>383,188</b>	<b>293,726</b>	<b>317,337</b>	<b>202,942</b>	<b>254,891</b>	<b>383,188</b>	<b>293,726</b>	<b>317,337</b>	<b>202,942</b>	<b>254,891</b>	<b>383,188</b>	<b>293,726</b>	<b>317,337</b>	<b>202,942</b>	<b>254,891</b>	<b>1,452,084</b>	<b>100.00%</b>					
South Fork	1,056	760	1,133	672	488	1,056	760	1,133	672	488	1,056	760	1,133	672	488	1,056	760	1,133	672	488							
First Point passing 2nd Point	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
River Loss and Spreading	27,310	33,493	23,234	15,887	23,499	27,310	33,493	23,234	15,887	23,499	27,310	33,493	23,234	15,887	23,499	27,310	33,493	23,234	15,887	23,499	23,499						
Flow Above First Point	924	867	934	904	1,092	924	867	934	904	1,092	924	867	934	904	1,092	924	867	934	904	1,092	1,092						
<b>Total 1st Point Group Diverted</b>	<b>412,478</b>	<b>328,846</b>	<b>342,638</b>	<b>220,405</b>	<b>279,970</b>	<b>412,478</b>	<b>328,846</b>	<b>342,638</b>	<b>220,405</b>	<b>279,970</b>	<b>412,478</b>	<b>328,846</b>	<b>342,638</b>	<b>220,405</b>	<b>279,970</b>	<b>412,478</b>	<b>328,846</b>	<b>342,638</b>	<b>220,405</b>	<b>279,970</b>							

- Note:

ALL FIGURES REFLECT  
GROSS DIVERSIONS...



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

Quantities in acre-feet  
except where noted...

Year: 1991

	Total Storage In Reservoir	Total Water Surface Area (Acres)	Area Attributable to Rec. Pool (Acres)	County of Kern		
				Total Reservoir Loss	Ming Lake Net Inflow	Recreation Pool Loss
End of Previous Year	46,014	2,397	1,300			
January	45,871	2,392	1,300	409	16	222
February	45,347	2,371	1,305	547	16	300
March	64,218	3,060	1,135	635	44	252
April	91,929	3,956	975	1,587	60	468
May	138,535	5,238	800	2,674	77	520
June	171,378	6,012	705	4,568	105	557
July	140,695	5,292	790	5,171	127	657
August	103,009	4,284	920	4,026	121	756
September	98,330	4,147	945	2,951	91	657
October	93,801	4,013	970	2,315	65	543
November	92,404	3,970	975	1,789	42	440
December	89,654	3,887	985	1,434	26	363
<b>ISABELLA RESERVOIR RECREATION POOL:</b>				<b>TOTALS</b>	<b>790</b>	<b>5,735</b>

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 (Monthly, To Date & Current Year)

Year: 1991

Quantities in acre-feet

	CALENDAR				YEAR			
	FIRST REGULATED	POINT NATURAL		NKWSD	ENTITLEMENT		HWD	
		To Date			BWSD			
JANUARY	10,627	10,931	10,931	10,931	0	0	0	
To Date	10,627	10,931	10,931	10,931	0	0	0	
FEBRUARY	9,112	9,215	20,146	9,215	0	0	0	
	19,739	20,146	20,146	20,146	0	0	0	
MARCH	27,814	47,341	37,412	37,412	9,929	0	0	
	47,553	67,487	57,558	57,558	9,929	0	0	
APRIL	28,937	58,092	45,291	45,291	12,801	0	0	
	76,490	125,579	102,849	102,849	22,730	0	0	
MAY	30,539	79,763	60,254	60,254	19,509	0	0	
	107,029	205,342	163,103	163,103	42,239	0	0	
JUNE	62,997	100,423	73,757	73,757	26,666	0	0	
	170,026	305,765	236,860	236,860	68,905	0	0	
JULY	63,654	38,265	31,962	31,962	6,303	0	0	
	233,680	344,030	268,822	268,822	75,208	0	0	
AUGUST	48,196	14,854	14,761	14,761	93	0	0	
	281,876	358,884	283,583	283,583	75,301	0	0	
SEPTEMBER	12,490	11,040	11,040	11,040	0	0	0	
	294,366	369,924	294,623	294,623	75,301	0	0	
OCTOBER	11,353	9,358	9,358	9,358	0	0	0	
	305,719	379,282	303,981	303,981	75,301	0	0	
NOVEMBER	13,381	13,940	13,940	13,940	0	0	0	
	319,100	393,222	317,921	317,921	75,301	0	0	
DECEMBER	14,394	13,067	13,067	13,067	0	0	0	
Year	333,494	406,289	330,988	330,988	75,301	0	0	

1894 to 1991 Mean April-July Runoff = 467,220 acre-feet (100% of Average)  
1991 April-July Runoff = 276,543 acre-feet ( 59% of Average)

	WATER				YEAR			
	FIRST REGULATED	POINT NATURAL		NKWSD	ENTITLEMENT		HWD	
		To Date			BWSD			
OCTOBER	8,979	8,834	8,834	8,834	0	0	0	
To Date	8,979	8,834	8,834	8,834	0	0	0	
NOVEMBER	8,037	8,340	8,340	8,340	0	0	0	
	17,016	17,174	17,174	17,174	0	0	0	
DECEMBER	8,925	9,148	9,148	9,148	0	0	0	
	25,941	26,322	26,322	26,322	0	0	0	
JANUARY	10,627	10,931	10,931	10,931	0	0	0	
	36,568	37,253	37,253	37,253	0	0	0	
FEBRUARY	9,112	9,215	9,215	9,215	0	0	0	
	45,680	46,468	46,468	46,468	0	0	0	
MARCH	27,814	47,341	37,412	37,412	9,929	0	0	
	73,494	93,809	83,880	83,880	9,929	0	0	
APRIL	28,937	58,092	45,291	45,291	12,801	0	0	
	102,431	151,901	129,171	129,171	22,730	0	0	
MAY	30,539	79,763	60,254	60,254	19,509	0	0	
	132,970	231,664	189,425	189,425	42,239	0	0	
JUNE	62,997	100,423	73,757	73,757	26,666	0	0	
	195,967	332,087	263,182	263,182	68,905	0	0	
JULY	63,654	38,265	31,962	31,962	6,303	0	0	
	259,621	370,352	295,144	295,144	75,208	0	0	
AUGUST	48,196	14,854	14,761	14,761	93	0	0	
	307,817	385,206	309,905	309,905	75,301	0	0	
SEPTEMBER	12,490	11,040	11,040	11,040	0	0	0	
Year	320,307	396,246	320,945	320,945	75,301	0	0	

1894 to 1991 Mean March-October Runoff = 598,799 acre-feet (100% of Average)  
1991 March-October Runoff = 359,136 acre-feet ( 60% of Average)





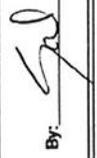
REPORT OF THE KERN RIVER WATERMASTER

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DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	CHANGE IN STORAGE		COMPUTED NATURAL FLOW	MEAN TOTAL	STORAGE IRRIGATION	STORAGE Recreation Pool + Dead Storage	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRONT - KERN INFLOW	DAY	
		ACRE-Feet	S.F.D.	ACRE-Feet	S.F.D.				+1ST POINT FLOW	+FLOW ABOVE 1ST POINT									
Previous Day	2530.04	46,014	23,189	7	174	0	157	157	7,981	23,189	0	0	0	0	4	0	0	0	1
1	2530.03	45,990	23,187	5	171	1	165	164	7,988	23,186	0	0	0	0	3	0	0	0	2
2	2530.02	45,966	23,175	7	166	0	161	187	7,982	23,200	0	0	0	0	4	0	0	0	3
3	2530.07	46,086	23,235	1	174	1	236	228	8,034	23,252	1	0	0	0	1	0	0	0	4
4	2530.15	46,279	23,332	4	187	0	288	258	8,101	23,319	0	0	0	0	2	0	0	0	5
5	2530.18	46,351	23,369	4	209	0	250	254	8,142	23,360	0	0	0	0	2	0	0	0	6
6	2530.15	46,279	23,332	4	255	1	223	227	8,109	23,327	0	0	0	0	2	0	0	0	7
7	2530.10	46,158	23,271	5	263	1	208	212	8,052	23,270	0	0	0	0	2	0	0	0	8
8	2530.08	46,110	23,247	4	225	0	205	199	8,022	23,240	0	0	0	0	2	0	0	0	9
9	2530.07	46,086	23,235	1	196	0	185	191	8,016	23,234	0	0	0	0	1	0	0	0	10
10	2530.08	46,062	23,223	3	192	1	184	174	7,984	23,212	0	0	0	0	2	0	0	0	11
11	2530.04	46,014	23,189	5	171	0	152	172	7,990	23,208	0	0	0	0	3	0	0	0	12
12	2530.04	46,014	23,189	6	174	0	180	163	7,973	23,191	0	0	0	0	3	0	0	0	13
13	2530.02	45,966	23,175	6	178	0	158	178	7,967	23,185	0	0	0	0	3	0	0	0	14
14	2530.03	45,990	23,187	6	173	0	191	172	7,980	23,178	0	0	0	0	3	0	0	0	15
15	2530.02	45,966	23,175	9	169	1	167	175	7,956	23,174	0	0	0	0	5	0	0	0	16
16	2530.01	45,942	23,162	11	169	0	167	161	7,937	23,155	0	0	0	0	6	0	0	0	17
17	2530.00	45,919	23,151	7	153	0	149	170	7,947	23,165	0	0	0	0	4	0	0	0	18
18	2530.01	45,942	23,162	10	174	0	195	164	7,927	23,145	0	0	0	0	5	0	0	0	19
19	2530.01	45,942	23,162	7	140	0	147	175	7,955	23,173	0	0	0	0	4	0	0	0	20
20	2530.03	45,990	23,187	8	150	1	184	165	7,961	23,179	0	0	0	0	4	0	0	0	21
21	2530.03	45,990	23,187	12	150	0	162	168	7,967	23,185	0	0	0	0	7	0	0	0	22
22	2530.03	45,990	23,187	8	149	1	158	152	7,961	23,179	0	0	0	0	4	0	0	0	23
23	2530.02	45,966	23,175	6	143	0	137	150	7,962	23,160	0	0	0	0	3	0	0	0	24
24	2530.03	45,990	23,187	7	137	0	156	150	7,968	23,188	0	0	0	0	4	0	0	0	25
25	2530.03	45,990	23,187	12	143	2	157	153	7,964	23,182	0	0	0	0	7	0	0	0	26
26	2530.02	45,966	23,175	11	144	2	145	156	7,963	23,181	0	0	0	0	6	0	0	0	27
27	2530.02	45,966	23,175	7	157	1	165	154	7,952	23,170	0	0	0	0	4	0	0	0	28
28	2530.01	45,942	23,162	8	154	1	150	158	7,947	23,165	0	0	0	0	4	0	0	0	29
29	2530.00	45,919	23,151	8	161	2	160	153	7,935	23,153	0	0	0	0	4	0	0	0	30
30	2529.99	45,895	23,139	8	168	2	168	164	7,921	23,139	0	0	0	0	4	0	0	0	31
31	2529.98	45,871	23,127	6	165	1	160	160	7,909	23,127	0	0	0	0	3	0	0	0	31
TOTAL SECOND FOOT DAYS				208	5,358	19	5,511	10,931	5,511	23,127	7,909	0	0	0	112	0	0	0	0
TOTAL ACRE-Feet				409	10,627	38	10,931	10,931	45,871	15,667	0	0	0	0	222	0	0	0	0

By:  Date: FEBRUARY 11, 1991

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NORTH KERN WATER STORAGE DISTRICT										BUENA VISTA WATER STORAGE DISTRICT										HACIENDA WATER DISTRICT									
FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT									
KERN VALLEY					HACIENDA INC.					HACIENDA INC.					HACIENDA INC.					HACIENDA INC.									
ENT'L AT 1ST POINT	FLOW AT 1ST POINT	LAKE MING COURSE	VALLEY GOLF	RESERVOIR LOSS STORAGE	ENT'L AT 1ST POINT	VIA CWD	VIA KWD	VIA AT 1ST POINT	AT 2ND POINT	OLCESE WELLEXCH.	CARMEL WATER	2800 ACRE WELLEXCH.	CARMEL WATER	HACIENDA WATER	INC. WATER	OLCESE WELLEXCH.	CARMEL WATER	2800 ACRE WELLEXCH.	CARMEL WATER	RESERVOIR LOSS STORAGE	ENTITLEMENT Contributed by: NK'WSD	BV'WSD	OLCESE WELLEXCH.	HACIENDA WATER	INC. WATER	RESERVOIR LOSS STORAGE	DAY		
157	174	0	0	5	3,985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,891	0	0	0	0	0	0	105	
164	171	1	0	3	3,974	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,889	0	0	0	0	0	0	105	
2	167	166	0	5	3,980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,887	0	0	0	0	0	0	105	
3	228	174	1	1	4,042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,887	0	0	0	0	0	0	105	
4	258	167	0	3	4,110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3,896	0	0	0	0	0	0	105	
5	254	209	0	3	4,152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3,885	0	0	0	0	0	0	105	
6	227	255	1	3	4,120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3,884	0	0	0	0	0	0	105	
7	212	263	0	3	4,065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,882	0	0	0	0	0	0	105	
8	199	225	0	3	4,036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3,881	0	0	0	0	0	0	105	
9	191	196	0	1	4,030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,881	0	0	0	0	0	0	105	
10	174	192	1	2	4,009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3,880	0	0	0	0	0	0	105	
11	172	171	0	3	4,007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,878	0	0	0	0	0	0	105	
12	163	174	0	4	3,962	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,876	0	0	0	0	0	0	105	
13	176	176	0	4	3,986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,874	0	0	0	0	0	0	105	
14	172	173	0	4	3,983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,872	0	0	0	0	0	0	105	
15	175	169	1	6	3,982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3,869	0	0	0	0	0	0	105	
16	161	169	0	7	3,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3,865	0	0	0	0	0	0	105	
17	170	153	0	5	3,979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,863	0	0	0	0	0	0	105	
18	164	174	0	6	3,963	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3,859	0	0	0	0	0	0	105	
19	175	140	0	5	3,963	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,857	0	0	0	0	0	0	105	
20	165	150	1	5	4,002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3,854	0	0	0	0	0	0	105	
21	168	150	0	8	4,012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3,850	0	0	0	0	0	0	105	
22	152	149	0	1	4,009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3,847	0	0	0	0	0	0	105	
23	150	143	0	4	4,012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,845	0	0	0	0	0	0	105	
24	150	137	0	5	4,020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,843	0	0	0	0	0	0	105	
25	153	143	1	8	4,021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3,838	0	0	0	0	0	0	105	
26	156	144	0	7	4,028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3,832	0	0	0	0	0	0	105	
27	154	157	0	5	4,018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,829	0	0	0	0	0	0	105	
28	158	154	0	6	4,017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3,825	0	0	0	0	0	0	105	
29	159	161	0	5	4,010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3,820	0	0	0	0	0	0	105	
30	164	168	1	5	4,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3,816	0	0	0	0	0	0	105	
31	160	165	0	4	3,991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,813	0	0	0	0	0	0	105	
S.F.D.	5,511	5,358	8	2	137	3,991	0	0	0	0	0	0	0	0	0	0	0	0	0	69	3,813	0	0	0	0	0	0	105 S.F.D.	
AC.FT.	10,931	10,927	18	4	272	7,916	0	0	0	0	0	0	0	0	0	0	0	0	18	137	7,563	0	0	0	0	0	0	208 AC.FT.	
TOTAL ACRE-FOOT STORAGE DAYS										TOTAL ACRE-FOOT STORAGE DAYS										TOTAL ACRE-FOOT STORAGE DAYS									
246,982										237,368										6,458									

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WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH	DAYS	PAGE NO.	TITLE OF COLUMN	COMMENT
January				None

Date: February 1, 1991

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
	U. Tyndall	516	11,450	27.7	1-26	12.3	16%	2.0	7%	DWR
Bighorn Plateau		250	11,350	22.4	1-27	3.0	13%	0.4	2%	DWR
Cottonwood Pass		251	11,050	14.1	2-01	2.3	13%	0.3	2%	DWR
Siberian Pass		252	10,900	18.8	1-29	3.6	22%	0.8	4%	DWR
Crabtree Meadow		253	10,700	19.3	1-28	5.6	14%	0.8	4%	DWR
	Crabtree	253	10,700	18.8						
Guyot Flat		254	10,650	20.4	1-28	7.0	14%	1.0	5%	DWR
Tyndall Creek		255	10,650	18.8	1-28	2.7	15%	0.4	2%	DWR
Sandy Meadow		275	10,650	16.7	1-27	6.7	16%	1.1	6%	DWR
	Chagoopa	514	10,300	21.8						
Big Whitney Mea.		257	9,750	17.0	1-29	6.8	18%	1.2	7%	DWR
Rock Creek		258	9,600	17.6	1-28	9.0	13%	1.2	7%	DWR
	Pascoe	569	9,130	24.9	1-28	25.5	25%	6.3	25%	CMRD
		258	9,000	26.5	1-28	24.5	25%	6.2	23%	CMRD
Round Meadow		830	8,980	15.6	1-30	0.0	0%	0.0	0%	DWR
	Tunnel Guard	518	8,950	30.3						
	Wet Meadow	259	8,700	12.3	1-30	4.6	13%	0.6	5%	DWR
Ramshaw Meadow		260	8,500	14.6	1-30	4.6	13%	0.6	4%	DWR
L. Whitney Mea.		262	8,400	20.7	1-29	14.2	23%	3.2	15%	CMRD
Casa Vieja Mea.		262	8,400	20.7	1-29	13.0	23%	3.0	14%	CMRD
	Casa Vieja	264	8,350	20.9						
Quinn Ranger Sta.		261	8,300	15.0	1-28	12.6	22%	2.8	19%	CMRD
Bonita Meadows		265	7,650	9.9	1-29	4.8	21%	1.0	10%	CMRD
Beach Meadows		265	7,650	11.0	1-29	0.0	0%	0.0	0%	CMRD

CALIFORNIA COOPERATIVE SNOW SURVEYS FORECAST as of FEBRUARY 1, 1991 for KERN RIVER INFLOW TO ISABELLA RESERVOIR...

April-July = 120,000 acre-feet (24% of Average) \*\*\* Water Year = 210,000 acre-feet (28% of Average)

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

April-July = 80,000 ac-ft. to 450,000 ac-ft. \*\*\* Water Year = 165,000 ac-ft. to 700,000 ac-ft.

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 = 15,219 S.F.D. (30,184 ACFT) TOTAL	STORAGE IRRIGATION	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRONT- KERN INFLOW			
		ACRE- FEET	S.F.D.				+1ST POINT FLOW ABOVE	FIRST POINT									
Previous Day	2529.98	45,871	23,127	6	165	1	160		160	23,127	7,909	3	0	0			
1	2529.97	45,847	23,115	9	171	1	169		160	23,106	7,868	5	0	0			
2	2529.95	45,799	23,090	6	159	1	141		160	23,100	7,862	3	0	0			
3	2529.95	45,799	23,090	6	164	1	171		166	23,085	7,867	3	0	0			
4	2529.93	45,752	23,067	11	165	2	155		164	23,071	7,853	6	0	0			
5	2529.92	45,728	23,055	12	165	1	168		164	23,057	7,839	7	0	0			
6	2529.92	45,728	23,055	9	161	2	172		168	23,053	7,835	5	0	0			
7	2529.91	45,704	23,042	10	168	1	168		165	23,039	7,821	5	0	0			
8	2529.90	45,680	23,030	9	158	2	157		160	23,030	7,812	5	0	0			
9	2529.89	45,656	23,018	9	158	1	156		162	23,024	7,806	5	0	0			
10	2529.88	45,632	23,006	11	172	2	173		161	23,000	7,782	6	0	0			
11	2529.86	45,585	22,982	9	168	2	155		160	22,981	7,763	5	0	0			
12	2529.84	45,537	22,958	13	161	2	152		165	22,970	7,752	7	0	0			
13	2529.85	45,561	22,970	9	166	1	168		169	22,963	7,745	5	0	0			
14	2529.85	45,561	22,970	8	156	2	168		175	22,972	7,754	4	0	0			
15	2529.85	45,561	22,970	12	158	1	171		162	22,963	7,745	7	0	0			
16	2529.83	45,513	22,946	11	160	1	148		157	22,948	7,730	6	0	0			
17	2529.81	45,465	22,922	7	168	2	153		165	22,936	7,718	4	0	0			
18	2529.81	45,465	22,922	10	163	1	164		173	22,915	7,697	5	0	0			
19	2529.80	45,442	22,910	11	171	2	172		175	22,906	7,688	6	0	0			
20	2529.79	45,418	22,898	11	159	2	160		168	22,902	7,684	6	0	0			
21	2529.79	45,418	22,898	14	166	1	171		160	22,891	7,673	8	0	0			
22	2529.77	45,370	22,874	13	159	2	150		165	22,882	7,664	7	0	0			
23	2529.77	45,370	22,874	11	161	2	174		167	22,875	7,657	6	0	0			
24	2529.77	45,370	22,874	14	162	1	177		171	22,869	7,651	8	0	0			
25	2529.76	45,347	22,862	15	159	1	163		165	22,859	7,641	8	0	0			
26	2529.75	45,324	22,851	11	153	2	155		159	22,852	7,634	6	0	0			
27	2529.74	45,300	22,839	4	167	1	160		159	22,839	7,621	2	0	0			
28	2529.76	45,347	22,862	1	166	1	211		211	22,862	7,644	1	0	0			
TOTAL SECOND FOOT DAYS													4,648	151	0	0	
TOTAL ACRE-FEET													9,215	45,347	15,163	300	0

By:  Date: MARCH 12, 1991



REPORT OF THE KERN RIVER WATERMASTER

FEBRUARY 1991

PAGE 5 of 5

WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH

February

DAY(S)

PAGE NO.

TITLE OF COLUMN

COMMENT

None

SNOW SURVEY DATA FOR KERN RIVER BASIN

Date: March 2, 1991

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	22.4	1-27	3.0	13%	0.4	2%	DWR
				2-25	2.9	34%	1.0	4%	DWR
Cottonwood Pass	251	11,050	14.1	2-02	2.3	13%	0.3	2%	DWR
				2-23	1.1	27%	0.3	2%	DWR
Siberian Pass	252	10,900	18.8	1-29	3.8	22%	0.8	4%	DWR
				2-23	0.8	50%	0.4	2%	DWR
Crabtree Meadow	253	10,700	19.3	1-28	5.6	14%	0.8	4%	DWR
				2-25	1.3	15%	0.2	1%	DWR
Guyot Flat	254	10,650	20.4	1-28	7.0	14%	1.0	5%	DWR
				2-24	5.5	22%	1.2	6%	DWR
Tyndall Creek	255	10,650	18.8	1-28	2.7	15%	0.4	2%	DWR
				2-26	0.2	50%	0.1	1%	DWR
Sandy Meadow	275	10,650	18.7	1-27	6.7	16%	1.1	6%	DWR
				2-25	2.0	20%	0.4	2%	DWR
Big Whitney Mea.	257	9,750	17.0	1-29	6.8	18%	1.2	7%	DWR
				3-02	29.3	11%	3.2	19%	DWR
Rock Creek	256	9,600	17.6	1-28	9.0	13%	1.2	7%	DWR
				2-24	4.7	21%	1.0	6%	DWR
Round Meadow	258	9,000	26.5	1-29	24.5	25%	6.2	23%	CMRD
				2-25	18.0	31%	5.6	21%	CMRD
Ramshaw Meadow	259	8,700	12.3	1-30	4.6	13%	0.6	5%	DWR
L. Whitney Mea.	260	8,500	14.6	1-30	4.6	13%	0.6	4%	DWR
Casa Vieja Mea.	262	8,400	20.7	1-29	14.2	23%	3.2	15%	CMRD
				2-26	6.8	25%	1.7	8%	CMRD
Quinn Ranger Sta.	264	8,350	20.9	2-26	3.1	35%	1.1	5%	SKNP
Bonita Meadows	261	8,300	15.0	1-26	12.6	22%	2.8	19%	CMRD
				2-25	3.1	35%	1.1	7%	CMRD
Beach Meadows	265	7,650	8.9	1-29	4.8	21%	1.0	10%	CMRD

CALIFORNIA COOPERATIVE SNOW SURVEYS FORECAST as of MARCH 1, 1991 for KERN RIVER INFLOW TO ISABELLA RESERVOIR...

April-July = 85,000 acre-feet (17% of Average) \*\*\* Water Year = 165,000 acre-feet (22% of Average)

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

April-July = 65,000 ac.ft. to 320,000 ac.ft. \*\*\* Water Year = 135,000 ac.ft. to 500,000 ac.ft.

REPORT OF THE KERN RIVER WATERMASTER

MARCH 1991

Quantities in S.F.D. except where noted

PAGE 1 of 5

DAY	ELEVATION (FEET)	ISABELLA RESERVOIR		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	FRIO BRAVO WELL	FRIO BRAVO WELL	CHANGE IN STORAGE±LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL IRRIGATION	STORAGE Recreation Pool + Dead Storage - 15,218 S.F.D. (30,184 ACFT)	KERN RECREATION POOL LOSS	COUNTY RECREATION AT 2ND PT.	FRONT-KERN INFLOW
		MIDNIGHT	S.F.D.					+1ST POINT	-1ST POINT						
Previous Day	2529.76	45,347	22,862	186	1	0	0	211	211	211	22,862	7,844	1	0	0
1	2529.91	45,704	23,042	298	1	0	0	480	480	490	23,052	7,834	1	0	0
2	2529.99	45,895	23,139	405	1	0	0	510	510	444	23,083	7,865	4	0	0
3	2530.02	45,968	23,175	302	0	0	0	397	341	397	23,175	7,957	2	0	0
4	2531.42	49,411	24,911	406	1	0	0	2,145	2,145	2,145	24,911	9,683	1	0	0
5	2534.73	58,307	29,398	527	1	0	0	5,025	5,025	5,025	29,398	14,178	5	0	0
6	2535.42	60,299	30,401	433	1	0	0	1,451	1,451	1,451	30,401	15,183	5	0	0
7	2535.75	61,270	30,890	455	1	0	0	958	958	958	30,890	15,672	5	0	0
8	2535.93	61,803	31,159	437	1	0	0	720	720	720	31,159	15,941	5	0	0
9	2536.03	62,101	31,309	429	1	0	0	585	585	585	31,282	16,064	6	0	0
10	2536.07	62,221	31,370	435	1	0	0	514	514	545	31,374	16,158	7	0	0
11	2536.12	62,370	31,445	437	1	0	0	527	527	504	31,428	16,208	5	0	0
12	2536.13	62,400	31,480	440	1	0	0	470	470	489	31,480	16,242	5	0	0
13	2536.14	62,430	31,475	453	1	0	0	471	471	473	31,477	16,259	1	0	0
14	2536.15	62,460	31,490	450	1	0	0	478	478	462	31,478	16,258	5	0	0
15	2536.14	62,430	31,475	447	1	0	0	438	443	443	31,466	16,248	2	0	0
16	2536.11	62,341	31,430	441	1	0	0	412	412	409	31,418	16,200	6	0	0
17	2536.08	62,191	31,355	439	1	0	0	377	377	400	31,366	16,148	5	0	0
18	2536.05	62,161	31,340	420	1	0	0	411	411	421	31,361	16,143	2	0	0
19	2536.05	62,161	31,340	472	1	2	2	474	474	494	31,381	16,163	1	0	0
20	2536.12	62,370	31,445	486	1	1	1	594	594	544	31,438	16,218	1	0	0
21	2536.17	62,521	31,521	479	2	0	0	564	564	558	31,506	16,288	3	0	0
22	2536.21	62,641	31,582	442	1	0	0	517	517	518	31,568	16,348	5	0	0
23	2536.23	62,701	31,612	421	2	0	0	467	467	491	31,620	16,402	5	0	0
24	2536.24	62,731	31,627	462	1	0	0	489	489	514	31,660	16,442	4	0	0
25	2536.30	62,911	31,718	483	2	0	0	588	588	580	31,745	16,527	4	0	0
26	2536.40	63,214	31,870	503	1	0	0	665	665	619	31,851	16,633	3	0	0
27	2536.47	63,428	31,977	492	2	0	0	605	605	614	31,967	16,749	2	0	0
28	2536.51	63,547	32,038	498	1	0	0	573	573	595	32,050	16,832	5	0	0
29	2536.58	63,760	32,146	489	2	8	8	607	607	618	32,167	16,949	6	0	0
30	2536.65	63,973	32,253	551	1	7	7	669	669	648	32,253	17,035	6	0	0
31	2536.73	64,218	32,377	591	2	8	8	735	735	735	32,377	17,159	10	0	0
TOTAL SECOND FOOT DAYS				320	36	26	26	23,888	23,888	23,888	32,377	17,159	127	0	0
TOTAL ACRE-FEET				635	71	52	52	47,341	47,341	47,341	64,218	34,034	252	0	0

By: *Gal*

Date: APRIL 12, 1991

REPORT OF THE KERN RIVER WATERMASTER

MARCH 1991

Quantities in S.F.D. except where noted

NORTH KERN WATER STORAGE DISTRICT										BUENA VISTA WATER STORAGE DISTRICT										HACIENDA WATER DISTRICT																																							
FLOW ABOVE FIRST POINT KERN VALLEY					ENT'L AT 2ND					FLOW VIA					FLOW ABOVE FIRST POINT OLCESE WD					ENTITLEMENT Contributed by:					FLOW ABOVE FIRST POINT OLCESE HACIENDA																																		
DAY	AT 1ST POINT	FLOW AT 1ST POINT	LAKE MING	GOLF COURSE	RESERVOIR LOSS STORAGE	AT 2ND POINT	CMD	VIA CWD	VIA KWD	VIA DWD	FOR I.D.#	FOR KCWA	AT 2ND POINT	WELL EXCH.	2800 ACRE	RESERVOIR LOSS STORAGE	NKWS	BWSD	OLCESE WD	INC.	RESERVOIR LOSS STORAGE	DAY																																					
Previous Day	211	186	0	0	1	3,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																				
1	430	298	1	0	1	3,983	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105																																				
2	398	372	0	0	5	4,004	46	33	0	0	0	0	0	0	0	2	3,758	0	0	0	0	0	105																																				
3	366	301	0	0	2	4,067	31	1	0	0	0	0	0	0	0	1	3,785	0	0	0	0	0	105																																				
4	1,549	372	1	0	1	5,242	596	0	0	34	0	0	0	0	0	1	4,346	0	0	0	0	0	105																																				
5	3,160	455	0	0	8	7,939	1,865	34	0	38	0	0	0	1	4	6,134	0	0	0	0	0	0	105																																				
6	1,085	390	1	0	8	8,625	366	31	0	12	0	0	0	0	0	4	6,453	0	0	0	0	0	105																																				
7	749	406	0	0	8	8,960	209	30	0	19	0	0	0	1	5	6,607	0	0	0	0	0	0	105																																				
8	586	393	1	0	8	9,144	134	33	0	11	0	0	0	0	0	5	6,692	0	0	0	0	0	105																																				
9	483	389	0	0	10	9,228	85	31	0	9	0	0	0	1	5	6,731	0	0	0	0	0	0	105																																				
10	467	392	1	0	11	9,291	78	32	0	11	0	0	0	0	0	6	6,760	0	0	0	0	0	105																																				
11	439	384	0	0	9	9,327	65	21	0	22	0	0	0	1	5	6,776	0	0	0	0	0	0	105																																				
12	429	395	1	0	9	9,351	60	0	0	45	0	0	0	0	0	5	6,786	0	0	0	0	0	105																																				
13	418	405	0	0	1	9,363	55	24	4	20	0	0	0	1	1	6,791	0	0	0	0	0	0	105																																				
14	410	402	1	0	8	9,362	52	0	35	13	0	0	0	0	4	6,791	0	0	0	0	0	0	105																																				
15	388	401	0	0	3	9,358	45	4	37	5	0	0	0	1	2	6,787	0	0	0	0	0	0	105																																				
16	374	396	1	0	10	9,323	35	16	29	0	0	0	0	0	0	5	6,772	0	0	0	0	0	105																																				
17	368	395	0	0	8	9,288	32	18	22	4	0	0	0	1	4	6,755	0	0	0	0	0	0	105																																				
18	383	382	1	0	3	9,285	38	16	12	1	9	0	0	0	2	6,753	0	0	0	0	0	0	105																																				
19	432	416	1	0	2	9,298	62	2	33	0	19	0	0	0	1	6,760	0	0	0	0	0	0	105																																				
20	466	427	1	0	2	9,335	78	0	25	0	0	34	0	0	1	6,778	0	0	0	0	0	0	105																																				
21	476	422	1	0	5	9,383	82	0	43	0	0	14	0	1	2	6,800	0	0	0	0	0	0	105																																				
22	447	397	1	0	8	9,424	89	0	38	0	0	7	0	0	5	6,819	0	0	0	0	0	0	105																																				
23	430	389	1	0	9	9,461	61	0	6	0	0	32	0	1	5	6,838	0	0	0	0	0	0	105																																				
24	446	410	1	0	7	9,489	68	0	3	0	0	49	0	0	4	6,848	0	0	0	0	0	0	105																																				
25	491	425	1	0	7	9,547	89	0	3	0	5	50	0	1	3	6,875	0	0	0	0	0	0	105																																				
26	518	438	1	0	6	9,620	101	0	4	0	0	61	0	0	3	6,908	0	0	0	0	0	0	105																																				
27	514	431	1	0	3	9,689	100	0	3	0	0	58	0	1	1	6,945	0	0	0	0	0	0	105																																				
28	501	435	1	0	8	9,756	94	0	4	0	0	59	0	0	5	6,971	0	0	0	0	0	0	105																																				
29	515	432	1	0	10	9,836	101	0	4	0	0	53	0	1	6	7,008	0	0	0	0	0	0	105																																				
30	537	473	1	0	11	9,895	111	0	4	0	0	74	0	0	6	7,035	0	0	0	0	0	0	105																																				
31	597	501	1	0	17	9,981	136	0	3	0	0	87	0	1	9	7,073	0	0	0	0	0	0	105																																				
S.F.D.	18,362	12,530	22	0	208	9,881	5,006	328	312	244	33	578	0	14	112	7,073	0	0	0	0	0	0	0	105																																			
AC.F.T.	37,412	24,852	44	0	413	19,797	9,929	647	619	484	65	1,147	0	27	222	14,029	0	0	0	0	0	0	0	208																																			
TOTAL ACRE-FOOT STORAGE DAYS										535,283										TOTAL ACRE-FOOT STORAGE DAYS										384,457										TOTAL ACRE-FOOT STORAGE DAYS										6,458									

WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
March	4	2	BWSD FLOW - FOR NKWSD	Delivered as per terms of BUENA VISTA WATER STORAGE DISTRICT/North Kern Water Storage District letter agreement dated March 4, 1991.
March	18	2	BWSD FLOW - FOR I.D. #4	Delivered as per terms of BUENA VISTA WATER STORAGE DISTRICT/Improvement District No. 4 letter agreement dated April 1, 1991.
March	20	2	BWSD FLOW - FOR KCWA	Delivered as per terms of BUENA VISTA WATER STORAGE DISTRICT/Kern County Water Agency letter agreement dated March 25, 1991.

MARCH 1991 - THE SIERRA WINTER

"MILLER-HAGGIN" SNOW SENSOR INSTALLATIONS  
KERN RIVER BASIN

Water Content in Inches

Date	Upper Tyndall Creek	Crabtree Meadow	Chagoopa Plateau	Pascoe	Wet Meadow	Tunnel Guard	Casa Vieja Meadow	Beach Meadow
February 28, 1991	0.2	0.2	2.0	6.1	2.1	0.4	2.6	0.2
March 31, 1991	15.9	13.1	20.9	27.2	23.3	13.2	19.0	9.0

IS WINTER COMING LATER TO THE SOUTHERN SIERRA ???  
TWENTY YEARS OF ISABELLA WINTER PRECIPITATION

Water Year	December	January	February	March	Total	March % of Dec-Mar Total
90-91	0.74	0.99	1.17	6.43	9.33	68.9%
89-90	0.00	1.33	1.00	0.67	3.00	22.3%
88-89	3.15	0.29	2.24	2.28	7.96	28.6%
87-88	1.36	1.80	0.40	0.24	3.80	6.3%
86-87	0.27	2.65	2.03	1.88	6.83	27.5%
85-86	1.43	2.94	3.58	3.58	11.53	31.0%
84-85	1.93	0.68	1.16	1.71	5.48	31.2%
83-84	3.56	0.00	1.13	0.27	4.96	5.4%
82-83	3.78	4.31	4.36	5.96	18.41	32.4%
81-82	1.16	4.04	1.15	4.27	10.62	40.2%
80-81	0.63	2.65	1.49	3.05	7.82	39.0%
79-80	0.34	7.71	4.32	1.85	14.22	13.0%
78-79	0.74	3.24	3.22	2.54	9.74	26.1%
77-78	5.02	4.51	6.98	3.46	19.95	17.3%
76-77	0.62	1.50	1.04	0.75	3.91	19.2%
75-76	0.07	0.02	1.25	1.81	2.95	54.6%
74-75	2.41	0.65	1.82	2.77	7.65	36.2%
73-74	1.25	2.75	0.09	2.00	6.09	32.8%
72-73	2.48	3.96	2.57	2.65	11.66	22.7%
71-72	3.04	0.00	0.39	0.00	3.43	0.0%
Historical Average	1.69	2.36	1.90	1.65	7.80	
% of Dec-Mar Total	24.2%	30.3%	24.4%	21.1%	100.0%	

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DAY	ELEVATION (FEET)	ISABELLA RESERVOIR		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	FRO BRAVO WELLS	CHANGE IN STORAGE ± LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN Recreation Pool + Dead Storage - 15,218 S.F.D. (30,184 ACFT) TOTAL IRRIGATION	STORAGE	COUNTY RECREATION POOL LOSS AT 2ND PT.	FRIANT-KERN INFLOW	
		ACRE-FEET	S.F.D.				LOSS	±1ST POINT +FLOW ABOVE 1ST POINT - FRO BRAVO WELLS						
Previous Day	2536.73	64,218	32,377	581	2	8	735	32,377	735	17,159	10	0	0	
1	2536.83	64,524	32,531	612	3	8	770	32,528	770	17,310	4	0	0	
2	2536.93	64,832	32,686	589	3	0	763	32,688	766	17,468	6	0	0	
3	2537.03	65,140	32,841	595	4	0	762	32,873	794	17,655	7	0	0	
4	2537.18	65,605	33,078	589	3	0	858	33,151	901	17,833	8	52	0	
5	2537.48	66,543	33,549	582	4	0	1,085	33,573	1,034	18,355	9	69	0	
6	2537.88	67,807	34,186	481	3	0	1,158	34,243	1,191	18,025	9	55	0	
7	2538.39	69,445	35,012	473	4	0	1,331	34,938	1,198	19,718	10	53	0	
8	2538.79	70,749	35,869	426	3	0	1,105	35,728	1,238	20,508	6	48	0	
9	2539.22	72,171	36,386	28	4	0	1,278	36,395	1,230	21,177	7	72	0	
10	2539.69	73,748	37,181	490	3	8	1,306	37,155	1,271	21,937	8	59	0	
11	2540.12	75,212	37,918	474	3	8	1,230	37,862	1,199	22,844	7	57	0	
12	2540.45	76,350	38,493	469	3	8	1,061	38,458	1,083	23,240	7	47	0	
13	2540.72	77,291	38,968	465	2	8	960	38,964	991	23,746	8	40	0	
14	2540.98	78,204	39,428	465	3	7	951	39,432	959	24,214	9	48	0	
15	2541.25	79,161	39,910	458	3	8	965	39,922	973	24,704	9	48	0	
16	2541.54	80,197	40,433	456	3	7	1,002	40,422	979	25,204	8	53	0	
17	2541.81	81,170	40,923	457	2	8	971	40,902	961	25,684	9	51	0	
18	2542.85	82,043	41,363	449	3	7	910	41,367	935	26,149	7	43	0	
19	2542.29	82,922	41,807	459	3	8	923	41,798	910	26,580	7	31	0	
20	2542.62	83,771	42,235	455	4	7	897	42,229	900	27,011	5	33	0	
21	2542.73	84,552	42,628	461	3	7	879	42,612	869	27,394	8	34	0	
22	2542.91	85,225	42,968	468	3	8	830	42,968	846	27,750	7	31	0	
23	2543.07	85,927	43,271	488	3	8	828	43,287	844	28,069	9	31	0	
24	2543.24	86,470	43,595	525	3	7	875	43,596	859	28,377	8	46	0	
25	2543.45	87,288	43,888	457	3	7	874	44,015	891	28,797	5	56	0	
26	2543.69	88,186	44,460	440	2	8	928	44,447	896	29,229	8	50	0	
27	2543.90	88,995	44,868	447	3	7	888	44,868	919	29,668	9	50	0	
28	2544.14	89,927	45,338	439	3	7	942	45,337	923	30,119	9	51	0	
29	2544.38	90,865	45,811	433	3	7	838	45,811	839	30,583	9	49	0	
30	2544.65	91,929	46,348	436	4	7	1,019	46,348	1,019	31,130	12	36	0	
TOTAL SECOND FOOT DAYS				800	14,589	93	185	29,288	29,288	29,288	31,130	236	1,263	0
TOTAL ACRE- FEET				1,587	28,937	184	327	58,092	58,092	58,092	61,745	468	2,565	0

By: *[Signature]*

Date: *May 8, 1991*

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NORTH KERN WATER STORAGE DISTRICT										BUENA VISTA WATER STORAGE DISTRICT										HACIENDA WATER DISTRICT																			
FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT					FLOW ABOVE FIRST POINT																			
ENT'L AT 1ST POINT		FLOW AT 1ST POINT		LAKE MING		KERN VALLEY GOLF COURSE		RESERVOIR LOSS STORAGE		ENT'L AT 2ND POINT		VIA GWD		VIA KWD		VIA NKWSD		FOR KWA		AT 2ND POINT		OLCESE ACRES		WELL EXCH.		RESERVOIR LOSS STORAGE		ENTITLEMENT Contributed by:		OLCESE ACRES		RESERVOIR LOSS STORAGE							
DAY	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT	POINT						
Previous Day	597	501	516	497	495	504	510	433	416	375	454	427	414	418	425	417	410	403	408	408	428	422	427	437	467	479	401	380	397	388	384	402	22,834	12,948	25,882				
1	620	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2	618	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
3	637	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	710	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	801	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6	908	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
7	912	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8	940	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	934	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	962	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	913	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	834	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	771	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	749	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	759	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	763	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	751	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	733	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	718	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	709	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	688	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	672	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	671	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	681	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	703	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	706	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	722	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	725	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	736	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	790	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S.F.D.	22,834	30	6	9	524	19,481	6,454	0	34	63	251	1,263	48	276	11,544	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AC.FT.	45,291	25,882	60	12	18	1,040	39,640	12,801	0	67	126	498	2,565	94	547	22,897	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL ACRE-FOOT STORAGE DAYS										TOTAL ACRE-FOOT STORAGE DAYS										TOTAL ACRE-FOOT STORAGE DAYS																			
886,101										886,337										6,248																			

WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

COMMENT

TITLE OF COLUMN

PAGE NO.

MONTH DAY(S)

Reflects transfer of 36 acre-feet (18 s.i.d.) from BUENA VISTA WATER STORAGE DISTRICT to NORTH KERN WATER STORAGE DISTRICT of stored water assigned to Ocese Water District pursuant to Paragraph 6 of BWSD/Ocese WD Agreement dated March 18, 1981 as compensation for additional evaporation of Kern River water resulting from Rio Bravo Power Plant operations as per terms of Section 5 of May 14, 1986 Memorandum of Understanding between Ocese Water District and Kern River Interests. (Total of 48 acre-feet of additional evaporation due to Rio Bravo Power Plant operations for the period of November 11, 1987 through April 30, 1991; shared 75% NKWSD and 25% BWSD).

BWSD - RESERVOIR STORAGE  
NKWSD - RESERVOIR STORAGE

2

April 30

KERN RIVER BASIN -- HISTORICAL SNOW COURSE DATA  
APRIL 1ST WATER CONTENT IN INCHES

YEAR	BIGHORN PLATEAU	COTTONWOOD PASS	SIBERIAN PASS	CRABTREE MEADOW	GUYOT FLAT	SANDY MEADOWS	TYNDALL CREEK	BIG WHITNEY MEADOW	ROCK CREEK	ROUND MEADOW	RAMSHAW MEADOWS	LITTLE WHITNEY MEADOW	CASA VIEJA MEADOWS	QUINN RANGER STATION	BONITA MEADOWS	BEACH MEADOWS	BASIN WIDE AVERAGE	A-J RUNOFF IN PERCENT OF AVERAGE
1948		3.8	6.6					4.9		18.5	4.4	5.2	10.6	14.6	10.5	6.8	8.6	51%
1949	13.2	5.8	9.1	12.8	12.0	12.8	12.7	11.6	9.8	28.7	9.4	10.8	15.0	20.1	15.0	10.5	13.1	44%
1950	21.0	10.9	18.5	17.8	18.8	18.3	16.8	16.1	16.9	30.2	10.5	12.1	19.7	17.6	13.5	7.1	16.6	63%
1951		8.3	12.5	9.7	11.8	11.5	10.5	9.7	7.5	4.3	0.0	0.0	0.0	1.6	0.0	0.0	6.5	55%
1952	43.2	32.2	35.0	35.3	37.7	35.6	34.2	35.3	35.3	53.9	30.9	33.2	44.9	49.1	32.5	25.2	37.1	237%
1953	16.8	9.4	14.1	12.7	14.2	12.9	12.3	12.3	12.1	18.4	6.3	9.2	11.7	17.4	8.2	5.3	12.1	70%
1954	22.0	11.8	18.0	16.8	18.0	16.8	18.7	18.3	29.2	12.2	12.2	17.0	23.5	21.3	15.4	10.1	17.8	75%
1955	14.7	8.1	11.6	13.4	15.3	13.1	13.4	10.7	12.3	14.9	7.0	8.0	11.3	13.5	6.5	3.3	11.1	48%
1956	33.3	12.6	26.7	26.7	27.9	25.1	24.3	21.7	23.0	22.3	9.0	13.5	15.1	12.8	8.9	0.0	18.9	111%
1957	14.3	11.7	14.1	11.8	12.6	10.5	11.2	11.5	10.0	14.7	6.8	7.1	10.9	14.4	6.3	0.0	10.5	62%
1958	25.9	20.5	25.0	23.5	25.3	24.5	24.0	22.7	23.7	39.2	17.0	21.2	30.9		26.6	21.6	24.8	176%
1959	10.3	5.7	9.7	9.0	9.7	7.3	9.2	8.4	6.7	6.0	5.6	6.8	8.4	5.7	1.8	0.0	7.0	28%
1960	11.8	4.7	9.4	9.4	10.9	7.9	9.5	9.4	6.5	20.2	2.0	2.5	9.1	11.9	6.9	2.7	8.4	36%
1961	6.0	3.8	6.0	7.1	7.8	4.5	4.3	6.3	4.8	12.8	0.0	0.0	6.0	1.6	2.1	4.6	18%	
1962	37.4	27.0	31.8	33.7	35.5	32.6	31.4	30.7	30.6	40.5			32.1	35.3	27.6	21.3	32.0	109%
1963	19.7	17.5	16.1	17.1	18.4	17.1	17.2	17.0	13.5	12.6			11.0	5.6	5.7	1.0	13.5	101%
1964	5.1	1.5	3.9	6.1	6.1	5.4	4.8	4.3	5.8	15.1			8.1	10.8	5.2	2.7	6.1	39%
1965	25.8	13.1	16.4	20.1	18.0	19.8	17.8	13.7	15.0	25.2	8.6	11.4	17.0	16.5	10.3	7.0	16.0	97%
1966	15.7	7.1	14.0	12.9	15.3	11.9	13.2	11.6	10.9	18.5	5.3	6.9	14.2	10.6	10.9	4.7	11.5	46%
1967	37.1	25.2	32.9	32.2	35.8	30.6	30.0	30.3	30.4	19.4	13.5	20.3	27.8		14.5	3.0	25.5	195%
1968	14.1	8.9	12.6	14.0	14.0	11.8	11.6	12.6	11.1	17.5	7.6	6.2	12.9	9.7	8.6	4.1	11.0	53%
1969	55.3	41.1	48.4	48.5	50.6	46.3	48.6	45.0	45.8	69.8	38.1	46.1	61.4	59.8	50.2	36.8	49.5	370%
1970	17.0	9.1	12.6	16.4	14.7	14.6	14.6	11.4	12.5	16.7	4.5	7.2	13.4	12.7	6.1	4.1	11.8	68%
1971	15.7	5.7	12.6	11.7	13.2	11.9	13.1	10.8	11.1	21.2	3.3	5.5	14.0	15.9	9.4	3.4	11.2	52%
1972	7.6	2.5	6.6	6.3	7.6	5.2	3.4	5.4	4.1	4.8	0.0	0.0	3.4	2.2	0.0	0.0	3.7	27%
1973	33.6	24.4	30.0	31.7	33.7	31.3	31.8	27.2	30.4	42.7	24.1	28.2	31.7	40.8	28.1	23.3	30.8	153%
1974	25.4	13.2	20.6	20.5	22.6	19.0	20.4	19.1	18.1	29.8	14.3	14.8	21.2	22.0	10.1	10.3	16.5	113%
1975	18.9	9.7	15.0	16.9	17.6	16.2	15.1	15.9	16.1	26.8	11.6	14.0	20.7	22.3	6.7	2.2	4.8	82%
1976	5.9	4.4	5.8	3.3	5.4	3.3	3.3	4.7	5.5	11.9	0.9	0.0	7.2	6.3	0.0	0.0	3.7	20%
1977	5.0	3.5	4.0	4.7	4.8	3.2	3.5	4.9	3.1	10.8	2.1	0.0		2.0	3.6	0.0	3.7	20%
1978	43.1	40.1	40.1	39.7	41.7	40.1	40.6	39.6	46.8	68.8	31.9	37.6	41.1	43.7	32.2	23.6	38.7	231%
1979	19.9	13.2	17.5	18.2	17.5	17.7	18.8	17.3	14.2	25.3	12.2	14.2	30.0	36.7	18.7	16.2	16.9	89%
1980	40.9	29.4	34.4	34.3	35.1	34.5	35.7	29.5	33.5	25.0	21.6	27.4	14.6	15.7	12.3	7.5	30.2	210%
1981	15.3	11.8	13.0	14.0	14.8	14.1	15.8	10.9	12.8	17.4	8.8	9.6	29.2		23.0	11.6	23.0	53%
1982	32.4	17.4	24.6	23.2	24.3	24.1	26.3	20.3	23.7	63.4	15.2	19.0	48.1		42.2	30.6	168%	168%
1983	48.9	34.9	45.0	45.3	49.2	46.9	43.7	38.6	44.7	83.4	33.2	37.6	48.1	52.1	42.2	30.6	44.0	327%
1984	21.9	9.7	15.4	20.1	17.6	18.1	17.0	12.9	13.8	15.7	2.1	2.6	11.9	9.4	2.1	0.0	11.9	85%
1985	18.6	17.2	20.5	17.2	20.8	16.3	15.5	19.0	18.9	26.2	14.6	15.0	25.5	19.1	17.7	10.8	18.3	90%
1986	45.1	34.1	39.3	29.9	30.6	37.3	35.1	34.8	36.5	44.2	22.8	25.4	35.0	29.8	21.3	11.6	32.6	187%
1987	11.3	7.6	8.9	9.3	11.5	9.2	11.0	7.8	8.1	15.8	6.3	8.3	9.8	17.3	9.0	1.3	9.5	45%
1988	9.6	5.3	7.8	8.8	8.9	8.9	9.0	4.0	6.3	7.2	0.0	0.0	2.7	2.4	0.4	0.0	5.1	34%
1989	15.3	10.2	13.3	12.3	15.7	13.3	11.0	14.4	14.1	21.7	7.3	11.5	17.2	12.9	14.6	5.2	13.1	50%
1990	7.6	1.9	6.1	6.6	7.2	4.9	7.9	6.2	4.0	9.9	0.9	2.2			1.8	0.0	4.8	24%
1991	19.7	14.1	17.5	14.1	18.9	17.1	17.2	15.1	17.0	24.7	11.6	14.8	14.0	21.0	15.0	7.0	16.2	
	55.3	41.1	48.4	48.5	50.6	46.9	48.6	45.0	45.8	69.8	38.1	46.1	61.4	58.8	50.2	36.8	49.5	
MINIMUM	5.0	1.5	3.9	3.3	4.8	3.2	3.4	4.0	3.1	4.3	0.0	0.0	0.0	1.6	0.0	0.0	3.7	
AVERAGE	21.8	13.9	18.2	18.5	19.9	18.2	18.3	16.5	17.2	24.3	10.8	13.0	19.3	18.5	13.6	8.3	16.8	100%

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CHANGE IN STORAGE±LOSS

DAY	ELEVATION (FEET)	ISABELLA RESERVOIR		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	FLOW ABOVE BRAVO WELL	R10 BRAVO WELL	+1ST POINT		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL IRRIGATION	STORAGE Recreation Pool + Dead Storage - 15,218 S.F.D. (30,184 ACFT)	KERN COUNTY RECREATION POOL LOSS AT 2ND PT.	2ND POINT GROUP FLOW AT 2ND PT.	FRONT-KERN INFLOW
		ACRE-FEET	S.F.D.					LOSS	LOSS						
Previous Day	2544.65	91,929	46,348	47	438	4	7	1,019	1,019	1,019	46,348	31,130	12	36	0
1	2544.93	93,041	46,908	24	485	4	7	1,098	1,053	1,053	46,895	31,677	6	30	0
2	2545.16	93,962	47,373	28	535	4	6	1,026	1,035	1,035	47,369	32,151	7	33	0
3	2545.38	94,849	47,820	35	532	4	6	1,012	983	983	47,787	32,689	8	32	0
4	2545.57	95,619	48,208	35	482	3	7	911	962	962	48,216	32,898	8	32	0
5	2545.77	96,435	48,619	42	484	4	7	934	943	943	48,638	33,418	10	30	0
6	2546.00	97,380	49,098	47	482	4	6	884	1,017	1,017	49,148	33,928	11	30	0
7	2546.30	98,620	49,721	53	457	4	6	1,133	1,149	1,149	49,787	34,589	12	29	0
8	2546.70	100,283	50,564	42	447	4	6	1,330	1,331	1,331	50,631	35,413	9	28	0
9	2547.19	102,368	51,611	36	449	4	6	1,530	1,427	1,427	51,575	36,357	8	29	0
10	2547.61	104,170	52,519	19	488	4	6	1,421	1,382	1,382	52,454	37,238	4	32	0
11	2547.82	105,514	53,187	37	612	3	5	1,225	1,253	1,253	53,180	37,942	8	33	0
12	2548.17	106,607	53,748	50	613	4	6	1,112	1,129	1,129	53,728	38,510	10	31	0
13	2548.40	107,619	54,258	38	502	5	6	1,049	1,066	1,066	54,255	39,037	8	30	0
14	2548.65	108,727	54,817	33	447	4	6	1,037	1,047	1,047	54,824	39,606	7	29	0
15	2548.91	109,887	55,401	51	421	4	5	1,055	1,073	1,073	55,426	40,208	10	48	0
16	2549.20	111,192	56,059	54	417	4	6	1,127	1,169	1,169	56,128	40,808	11	70	0
17	2549.57	112,870	56,905	47	433	5	6	1,325	1,261	1,261	56,898	41,880	9	72	0
18	2549.92	114,475	57,715	38	455	5	6	1,302	1,282	1,282	57,688	42,470	7	85	0
19	2550.23	115,910	58,438	46	452	5	6	1,220	1,228	1,228	58,414	43,186	9	82	0
20	2550.51	117,215	59,096	48	441	5	5	1,147	1,160	1,160	59,085	43,867	9	68	0
21	2550.78	118,483	59,735	30	445	5	6	1,113	1,126	1,126	59,737	44,519	8	66	0
22	2551.04	119,714	60,358	42	455	4	4	1,118	1,142	1,142	60,382	45,184	8	67	0
23	2551.32	121,049	61,029	55	485	5	2	1,198	1,264	1,264	61,123	45,905	10	70	0
24	2551.70	122,877	61,951	59	494	5	2	1,478	1,478	1,478	62,043	46,825	10	78	0
25	2552.19	125,281	63,152	43	507	4	1	1,764	1,682	1,682	63,152	47,834	7	78	0
26	2552.75	128,024	64,545	68	498	4	2	1,959	1,959	1,959	64,545	49,327	11	83	0
27	2553.27	130,624	65,958	59	618	4	2	1,891	1,853	1,853	65,918	50,800	10	78	0
28	2553.70	132,803	68,955	59	618	5	4	1,781	1,777	1,777	66,901	51,683	9	82	0
29	2554.06	134,644	67,883	63	627	4	6	1,616	1,716	1,716	67,929	52,711	10	88	0
30	2554.46	138,711	68,925	22	663	4	6	1,755	1,709	1,709	69,925	53,707	3	89	0
31	2554.81	139,535	69,845	45	648	5	5	1,611	1,611	1,611	69,845	54,827	7	79	0
TOTAL SECOND FOOT DAYS				1,348	15,397	131	159	40,214	40,214	40,214	69,845	54,827	262	1,709	0
TOTAL ACRE-FEET				2,674	30,539	280	315	79,763	79,763	79,763	130,535	108,351	520	3,380	0

By: 

Date: JUNE 12, 1991



WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
May	15	2	BWSD - RESERVOIR STORAGE NKWSD - RESERVOIR STORAGE	Reflects transfer of 1,015 acre-feet (512 a.f.d.) from BUENA VISTA WATER STORAGE DISTRICT to NORTH KERN WATER STORAGE DISTRICT (City of Bakersfield) as per terms of BWSD/ City of Bakersfield Exchange Agreement dated April 17, 1991.
May	31	2	BWSD - RESERVOIR STORAGE NKWSD - RESERVOIR STORAGE	Reflects transfer of 1,075 acre-feet (542 a.f.d.) from BUENA VISTA WATER STORAGE DISTRICT to NORTH KERN WATER STORAGE DISTRICT (City of Bakersfield) as per terms of BWSD/ City of Bakersfield Exchange Agreement dated April 17, 1991.

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	2,589	1,563	833	438	192	109	10,129
1955	72	117	298	141	528	1,547	1,705	1,375	847	542	258	190	7,556
1956	407	788	1,444	1,787	3,330	5,498	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	3,088	1,588	1,107	700	27,379
1958	583	484	734	2,043	4,470	6,462	7,720	6,843	4,728	3,521	1,603	1,307	40,519
1959	1,021	811	2,148	2,880	3,711	4,983	4,439	3,503	2,283	1,728	1,087	684	28,258
1960	323	488	1,059	2,287	3,372	2,720	2,204	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	448	1,105	2,307	4,128	4,840	4,084	2,880	1,684	918	770	23,530
1963	694	930	1,523	1,577	3,503	5,534	6,202	6,698	4,136	2,289	1,172	962	37,218
1964	916	1,105	1,418	2,162	3,221	4,554	4,842	3,915	2,838	2,057	849	635	28,540
1965	595	857	1,053	1,368	3,251	4,757	5,986	5,997	4,189	3,098	1,103	658	32,280
1966	843	833	1,555	2,624	4,159	5,117	6,246	4,578	2,821	1,819	787	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	1,866	4,334	6,488	8,916	9,046	6,911	3,560	1,968	980	45,760
1970	885	1,289	1,935	2,583	4,954	6,051	6,959	6,376	4,597	3,010	1,623	619	40,891
1971	700	990	1,838	2,277	3,181	5,337	6,227	5,233	3,678	2,370	1,304	545	33,878
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	7,888	8,128	7,109	5,330	3,564	1,981	968	43,411
1974	825	1,347	1,876	3,023	6,119	9,055	9,630	8,904	7,073	3,308	1,864	1,188	53,936
1975	1,174	1,002	1,472	2,162	4,911	6,208	8,938	7,488	4,887	2,957	1,845	1,125	48,169
1976	1,468	1,281	1,952	2,537	4,552	5,228	4,580	3,281	2,108	1,609	984	702	30,250
1977	468	700	968	1,761	3,285	3,757	3,285	3,757	1,785	1,218	728	428	19,363
1978	343	621	1,597	2,698	5,891	9,253	10,969	9,945	6,020	5,116	2,049	998	55,497
1979	1,069	954	1,896	3,701	6,337	9,080	9,535	7,242	5,710	3,308	1,866	1,246	51,942
1980	1,047	1,375	2,229	3,715	4,943	6,844	10,374	10,171	6,637	2,582	2,446	1,565	57,335
1981	1,154	1,317	1,819	3,388	5,371	8,644	8,660	6,966	5,028	2,582	1,747	1,067	47,541
1982	827	1,083	1,333	3,172	6,563	8,180	10,967	9,418	5,732	4,088	1,789	1,053	54,183
1983	1,097	1,057	2,182	3,235	5,905	9,255	10,645	7,830	7,337	3,814	1,958	1,188	55,001
1984	1,624	1,547	2,545	3,584	7,055	8,327	7,914	7,142	6,085	3,842	1,942	1,103	52,220
1985	1,139	1,287	1,749	3,694	6,375	8,622	9,025	7,650	4,441	3,287	1,577	885	49,831
1986	1,119	1,150	2,323	4,740	7,438	10,088	10,933	10,276	6,361	2,908	2,329	1,206	61,827
1987	916	1,428	1,833	3,537	4,598	6,882	7,115	6,454	4,468	2,908	1,361	732	42,029
1988	823	1,178	1,962	2,132	3,148	4,967	3,318	2,499	2,499	1,777	865	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	867	649	1,148	1,755	2,705	3,713	3,983	2,872	2,035	1,609	787	480	22,423
1991	409	547	635	1,587	2,674	3,983	3,983	2,872	2,035	1,609	787	480	22,423
Average	764	896	1,482	2,321	4,057	5,987	6,739	5,668	3,937	2,513	1,304	792	36,460

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DAY	ELEVATION (FEET)	ISABELLA RESERVOIR		LOSS	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	RIO BRAVO WELL	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.	FRONT-KERN INFLOW
		MIDNIGHT	RESERVOIR STORAGE					+1ST POINT	+FLOW ABOVE 1ST POINT - RIO BRAVO WELL						
Previous Day	2554.81	136,535	69,845	45	648	5	5	1,611	1,611	1,611	69,845	54,827	7	79	0
1	2555.10	140,060	70,614	62	658	5	6	1,488	1,488	1,523	70,649	55,431	9	79	0
2	2555.43	141,808	71,495	83	648	5	5	1,592	1,592	1,679	71,617	56,369	9	80	0
3	2555.89	144,289	72,738	67	650	6	6	1,958	1,937	1,937	72,837	57,919	10	89	0
4	2556.44	147,248	74,238	75	681	5	2	2,261	2,261	2,146	74,224	59,008	11	95	0
5	2556.98	150,101	75,676	60	720	5	4	2,219	2,219	2,257	75,700	60,482	8	88	0
6	2557.47	152,934	77,104	76	787	5	6	2,260	2,260	2,244	77,082	61,864	10	81	0
7	2557.94	155,575	78,436	76	814	5	5	2,224	2,224	2,249	78,439	63,221	10	78	0
8	2558.40	158,189	79,754	67	848	5	6	2,232	2,232	2,229	79,754	64,536	9	66	0
9	2558.83	160,857	80,988	74	913	5	5	2,231	2,231	2,255	81,022	65,804	9	80	0
10	2559.25	163,093	82,228	84	991	6	6	2,303	2,303	2,305	82,252	67,034	10	64	0
11	2559.66	165,492	83,436	97	1,075	5	5	2,382	2,382	2,356	83,436	68,218	12	87	0
12	2560.03	167,676	84,537	98	1,234	5	6	2,432	2,432	2,432	84,537	69,319	12	186	0
13	2560.37	169,700	85,557	92	1,285	5	6	2,398	2,398	2,947	85,508	70,290	11	229	0
14	2560.67	171,498	86,484	76	1,266	6	5	2,250	2,250	2,240	86,405	71,187	9	263	0
15	2560.92	173,006	87,224	102	1,212	6	5	2,075	2,075	2,083	87,173	71,955	12	278	0
16	2561.10	174,097	87,774	92	1,280	5	5	1,922	1,922	1,954	87,755	72,537	11	332	0
17	2561.24	174,949	88,204	85	1,351	6	6	1,868	1,868	1,836	88,155	72,937	10	410	0
18	2561.33	175,497	88,480	81	1,364	5	5	1,721	1,721	1,679	88,389	73,171	9	424	0
19	2561.34	175,558	88,511	87	1,332	6	6	1,450	1,450	1,494	88,464	73,246	10	455	0
20	2561.33	175,497	88,480	83	1,259	5	5	1,311	1,311	1,310	88,432	73,214	9	437	0
21	2561.29	175,252	88,356	55	1,236	6	6	1,167	1,167	1,230	88,371	73,153	6	470	0
22	2561.26	175,069	88,264	116	1,188	6	5	1,211	1,211	1,164	88,232	73,014	13	497	0
23	2561.22	174,827	88,142	76	1,161	5	5	1,115	1,115	1,137	88,132	72,914	9	504	0
24	2561.17	174,522	87,988	79	1,160	6	6	1,085	1,085	1,090	87,983	72,765	9	501	0
25	2561.12	174,218	87,835	76	1,147	6	5	1,071	1,071	1,049	87,808	72,590	9	495	0
26	2561.05	173,793	87,621	74	1,130	5	5	990	990	990	87,594	72,376	9	444	0
27	2560.96	173,249	87,346	61	1,121	6	3	910	910	928	87,337	72,119	7	432	0
28	2560.87	172,704	87,072	46	1,112	6	6	864	864	869	87,048	71,830	5	428	0
29	2560.77	172,100	86,767	53	1,063	6	5	812	812	836	86,767	71,549	6	413	0
30	2560.65	171,378	86,403	68	1,077	6	5	782	782	782	86,403	71,185	6	408	0
TOTAL SECOND FOOT DAYS				2,303	31,761	164	156	50,630	50,630	50,630	86,403	71,185	281	8,479	0
TOTAL ACRE-FEET				4,568	62,997	324	310	100,423	100,423	100,423	171,378	141,194	557	16,819	0

By: *[Signature]* Date: July 9, 1991

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NORTH KERN WATER STORAGE DISTRICT

BUENA VISTA WATER STORAGE DISTRICT

HACIENDA WATER DISTRICT

Previous Day	FLOW ABOVE FIRST POINT				FLOW ABOVE FIRST POINT				FLOW ABOVE FIRST POINT				ENTITLEMENT				RESERVOIR				RESERVOIR														
	ENT'L AT 1ST POINT	FLOW AT 1ST POINT	LAKE MING	LAKE HACIENDA INC.	ENT'L AT 2ND POINT	FLOW VIA KWD	FOR CITY	AT 2ND POINT	OLCESE W/ WELL EXCH.	2800 ACRE	OLCESE W/ WELL EXCH.	LOSS STORAGE	RESERVOIR STORAGE	CONTRIBUTED BY: MKWSD	BYWSD	WD	INC.	LOSS STORAGE	RESERVOIR STORAGE	CONTRIBUTED BY: MKWSD	BYWSD	WD	INC.	LOSS STORAGE	RESERVOIR STORAGE	CONTRIBUTED BY: MKWSD	BYWSD	WD	INC.	LOSS STORAGE	RESERVOIR STORAGE	DAY			
1	1,184	567	2	0	417	0	0	79	2	15	18,088	0	0	0	0	0	0	0	18,088	0	0	0	0	0	0	0	0	0	0	0	0	105			
2	1,134	546	1	0	389	0	33	80	3	20	18,342	0	0	0	0	0	0	0	18,342	0	0	0	0	0	0	0	0	0	0	0	0	105			
3	1,240	534	2	0	438	0	34	80	3	20	18,644	0	0	0	0	0	0	0	18,644	0	0	0	0	0	0	0	0	0	0	0	0	105			
4	1,416	528	1	0	521	0	33	89	4	21	19,018	0	0	0	0	0	0	0	19,018	0	0	0	0	0	0	0	0	0	0	0	0	105			
5	1,549	553	2	0	587	0	33	95	3	24	19,480	0	0	0	0	0	0	0	19,480	0	0	0	0	0	0	0	0	0	0	0	0	105			
6	1,618	601	1	0	638	0	31	88	3	19	19,858	0	0	0	0	0	0	0	19,858	0	0	0	0	0	0	0	0	0	0	0	0	105			
7	1,810	674	2	0	634	0	32	81	3	24	20,452	0	0	0	0	0	0	0	20,452	0	0	0	0	0	0	0	0	0	0	0	0	105			
8	1,613	705	1	0	636	0	33	78	3	25	20,961	0	0	0	0	0	0	0	20,961	0	0	0	0	0	0	0	0	0	0	0	0	105			
9	1,601	771	2	0	628	0	11	68	3	21	21,478	0	0	0	0	0	0	0	21,478	0	0	0	0	0	0	0	0	0	0	0	0	105			
10	1,617	817	1	0	638	0	5	11	4	24	21,982	0	0	0	0	0	0	0	21,982	0	0	0	0	0	0	0	0	0	0	0	0	105			
11	1,648	911	2	0	657	0	5	11	64	3	27	22,538	0	0	0	0	0	0	22,538	0	0	0	0	0	0	0	0	0	0	0	0	105			
12	1,679	977	1	0	677	0	5	6	87	3	32	23,083	0	0	0	0	0	0	23,083	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
13	1,728	1,005	2	0	708	0	37	6	186	3	32	23,525	0	0	0	0	0	0	23,525	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
14	1,674	1,015	1	0	673	0	40	1	229	3	30	23,895	0	0	0	0	0	0	23,895	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
15	1,608	957	2	0	632	0	46	0	263	3	25	24,190	0	0	0	0	0	0	24,190	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
16	1,511	897	2	0	672	0	39	0	278	4	34	24,409	0	0	0	0	0	0	24,409	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
17	1,428	904	2	0	628	0	44	0	382	3	30	24,528	0	0	0	0	0	0	24,528	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
18	1,347	892	2	0	489	0	49	0	410	3	28	24,625	0	0	0	0	0	0	24,625	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
19	1,240	889	2	0	439	0	51	0	424	3	26	24,480	0	0	0	0	0	0	24,480	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
20	1,114	833	2	0	390	0	44	0	455	3	28	24,310	0	0	0	0	0	0	24,310	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
21	869	767	2	0	321	0	55	0	437	3	27	24,109	0	0	0	0	0	0	24,109	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
22	834	723	2	0	298	0	43	0	470	3	18	23,871	0	0	0	0	0	0	23,871	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
23	809	694	2	0	276	0	25	0	497	4	37	23,583	0	0	0	0	0	0	23,583	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
24	871	636	2	0	268	0	21	0	504	3	24	23,297	0	0	0	0	0	0	23,297	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
25	839	629	2	0	261	0	30	0	501	3	25	22,989	0	0	0	0	0	0	22,989	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
26	811	638	2	0	238	0	28	0	485	3	23	22,690	0	0	0	0	0	0	22,690	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
27	770	645	2	0	220	0	29	12	444	3	23	22,389	0	0	0	0	0	0	22,389	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
28	728	649	2	0	200	0	29	11	432	3	18	22,106	0	0	0	0	0	0	22,106	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
29	688	645	2	0	181	0	27	12	428	3	14	21,803	0	0	0	0	0	0	21,803	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
30	665	628	2	0	171	0	11	11	413	4	16	21,519	0	0	0	0	0	0	21,519	0	0	0	0	0	0	0	0	0	0	0	0	0	105		
S.F.D.	37,186	22,286	53	0	13,444	0	664	332	8,479	95	735	21,227	0	0	0	0	0	0	21,227	0	0	0	0	0	0	0	0	0	0	0	0	105			
AC.F.T.	73,767	44,202	105	0	26,666	0	1,317	659	16,819	188	1,458	42,103	0	0	0	0	0	0	42,103	0	0	0	0	0	0	0	0	0	0	0	0	208			
TOTAL ACRE-FOOT STORAGE DAYS																	1,327,638	TOTAL ACRE-FOOT STORAGE DAYS																	6,248

WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
June	1	2	BWMSD FLOW -- FOR CITY	Delivered as per terms of BUENA VISTA WATER STORAGE DISTRICT/ City of Bakersfield Exchange Agreement dated April 17, 1991.

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

Year	Maximum Annual Storage	Minimum Annual Storage	December 31 Carryover Storage	Annual Evaporation Loss
1954	85,380	0	7,908	10,129
1955	78,687	4,330	78,567	7,566
1956	283,033	79,823	130,313	33,616
1957	183,979	101,074	101,413	27,379
1958	455,162	100,947	198,112	40,519
1959	207,674	71,344	71,608	29,258
1960	119,253	29,119	29,119	16,883
1961	53,096	17,410	17,524	10,647
1962	173,676	17,448	82,849	23,530
1963	369,990	82,190	170,043	37,218
1964	203,628	84,497	118,303	28,540
1965	288,937	117,117	171,193	32,290
1966	337,369	81,941	313,258	42,855
1967	638,698	199,282	199,937	31,405
1968	261,193	119,349	124,480	45,760
1969	578,116	124,283	225,535	40,891
1970	927,771	158,517	172,038	33,878
1971	240,996	120,161	122,040	22,800
1972	126,754	50,030	55,589	43,411
1973	399,448	55,449	205,948	53,936
1974	475,861	201,710	223,930	46,169
1975	348,695	169,893	170,190	30,250
1976	171,617	67,668	67,701	19,368
1977	82,347	34,504	43,820	55,497
1978	491,451	44,060	244,904	61,942
1979	442,035	208,632	208,768	57,335
1980	585,361	208,224	229,813	47,541
1981	312,456	168,907	168,210	54,193
1982	560,063	168,984	261,558	65,001
1983	630,825	260,010	311,944	52,220
1984	407,745	244,755	244,979	49,931
1985	386,621	189,823	195,516	61,827
1986	562,134	195,579	244,085	42,029
1987	276,266	142,661	143,410	27,004
1988	158,189	72,838	73,545	33,497
1989	184,801	71,111	85,978	22,423
1990	97,420	45,885	46,014	36,476
Average			150,274	

REPORT OF THE KERN RIVER WATERMASTER

JULY 1991

Quantities in S.F.D. except where noted

PAGE 1 of 5

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	FLOW ABOVE BRAVO WELL	CHANGE IN STORAGE+LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL	STORAGE		KERN COUNTY RECREATION POOL LOSS	2ND POINT AT 2ND FT.	FRONT-KERN INFLOW
		MIDNIGHT	ACRE-FOOT	S.F.D.	LOSS				+1ST POINT	-RRO			Recreation Pool + Dead Storage	IRRIGATION			
Previous Day	2560.65	171,378	86,403	68	1,077	6	782	800	863	782	863	86,403	71,185	8	408	0	
1	2560.52	170,597	86,009	85	1,108	6	800	800	863	800	863	86,072	70,854	10	343	0	
2	2560.45	170,178	85,799	85	1,112	6	889	889	961	889	961	85,834	70,616	10	291	0	
3	2560.41	169,839	85,678	106	1,108	6	1,094	1,094	1,072	1,094	1,072	85,691	70,473	13	284	0	
4	2560.38	169,760	85,587	102	1,119	6	1,132	1,132	1,115	1,132	1,115	85,583	70,385	12	289	0	
5	2560.35	169,580	85,497	108	1,098	6	1,119	1,119	1,085	1,119	1,085	85,459	70,241	13	285	0	
6	2560.29	169,222	85,316	68	1,115	6	1,003	1,003	1,041	1,003	1,041	85,316	70,088	8	287	0	
7	2560.22	168,808	85,108	85	1,125	5	1,001	1,001	961	1,001	961	85,066	69,848	10	273	0	
8	2560.11	168,151	84,776	57	1,150	6	879	879	901	879	901	84,758	69,540	7	246	0	
9	2559.96	167,262	84,328	101	1,167	6	822	822	823	822	823	84,311	69,093	12	257	0	
10	2559.81	166,374	83,890	86	1,130	6	789	789	788	789	788	83,860	68,642	10	279	0	
11	2559.66	165,492	83,436	57	1,094	6	708	708	733	708	733	83,441	68,223	7	277	0	
12	2559.52	164,669	83,021	102	1,034	6	722	722	699	722	699	83,003	67,785	13	276	0	
13	2559.39	163,909	82,637	88	982	6	688	688	677	688	677	82,628	67,410	12	284	0	
14	2559.26	163,149	82,254	92	931	5	641	641	625	641	625	82,229	67,011	11	246	0	
15	2559.10	162,219	81,785	75	858	6	586	586	560	586	560	81,754	66,536	9	212	0	
16	2558.90	161,061	81,202	88	965	6	472	472	514	472	514	81,213	66,995	11	187	0	
17	2558.69	159,851	80,592	89	1,024	6	505	505	490	505	490	80,588	66,370	11	180	0	
18	2558.48	158,646	79,984	87	1,012	6	493	493	481	493	481	79,988	64,750	11	205	0	
19	2558.29	157,560	79,437	70	921	6	446	446	466	446	466	79,441	64,223	9	187	0	
20	2558.15	156,765	79,036	79	778	6	458	458	422	458	422	79,004	63,786	10	175	0	
21	2557.97	155,745	78,521	73	803	6	363	363	412	363	412	78,538	63,320	10	182	0	
22	2557.77	154,616	77,952	84	897	7	415	415	388	415	388	77,942	62,724	11	217	0	
23	2557.56	153,437	77,356	78	888	6	385	385	382	385	382	77,345	62,127	10	238	0	
24	2557.32	152,097	76,682	106	913	6	348	348	359	348	359	76,682	61,464	14	228	0	
25	2557.05	150,598	75,927	82	1,016	6	347	347	355	347	355	75,935	60,717	11	307	0	
26	2556.76	148,969	75,120	70	1,106	7	373	373	366	373	366	75,121	59,903	10	392	0	
27	2556.46	147,357	74,283	90	1,112	6	377	377	374	377	374	74,291	59,073	13	383	0	
28	2556.17	145,781	73,498	86	1,079	6	372	372	351	372	351	73,475	58,257	12	384	0	
29	2555.85	144,054	72,627	78	1,094	6	304	304	344	304	344	72,644	57,428	11	375	0	
30	2555.53	142,340	71,763	69	1,149	6	356	356	339	356	339	71,763	56,545	10	386	0	
31	2555.22	140,695	70,934	70	1,124	6	367	367	367	367	367	70,934	55,716	10	385	0	
TOTAL SECOND FOOT DAYS				2,607	32,092	186	19,292	19,292	19,292	19,292	19,292	70,934	55,716	331	8,538	0	
TOTAL ACRE-FOOT				5,171	63,654	370	38,265	38,265	38,265	38,265	38,265	140,695	110,511	657	16,935	0	

By:  Date: August 9, 1991



JULY 1991

REPORT OF THE KERN RIVER WATERMASTER

WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

COMMENT

TITLE OF COLUMN

Delivered as per terms of HACIENDA WATER DISTRICT Improvement District No. 4 letter agreement dated August 2, 1991.

HACIENDA WD FLOW - FOR ID#4

PAGE NO.

2

MONTH DAY(S)

July 17

KERN RIVER NATURAL FLOW  
FIRST POINT OF MEASUREMENT  
APRIL - JULY  
1894 TO DATE

ACRE - FEET

In order of Magnitude

YEAR	APR	MAY	JUN	JUL	TOTAL	% OF AVERAGE	YEAR	APR	MAY	JUN	JUL	TOTAL	% OF AVERAGE
1961	24,137	29,980	24,305	8,952	87,374	19%	1964	101,203	139,719	73,553	39,842	354,117	76%
1962	26,540	41,722	14,069	8,225	92,556	20%	1965	62,047	117,748	132,766	53,835	366,396	79%
1963	23,391	25,630	35,655	10,973	95,649	20%	1966	57,864	96,174	148,124	82,760	372,922	80%
1964	23,440	41,867	24,262	6,493	96,062	21%	1967	46,802	147,004	140,560	51,917	386,190	83%
1965	25,924	47,151	20,930	14,749	108,754	23%	1968	107,403	109,904	126,853	43,436	389,596	83%
1966	32,019	38,600	29,345	13,380	113,344	24%	1969	109,658	155,876	165,880	39,733	390,747	84%
1967	39,919	43,065	29,345	11,341	113,344	25%	1970	159,222	150,109	159,222	53,955	398,969	85%
1968	29,288	45,965	38,531	14,936	127,720	27%	1971	80,223	150,109	115,862	59,187	405,381	87%
1969	40,248	39,945	32,061	18,013	130,565	28%	1972	102,079	164,835	106,112	46,733	419,859	90%
1970	45,213	58,350	43,140	15,033	135,303	29%	1973	91,359	161,513	93,114	77,046	423,132	91%
1971	58,336	58,336	47,181	16,683	168,472	35%	1974	146,739	158,904	137,840	41,395	424,293	91%
1972	46,272	41,181	16,683	12,043	86,472	36%	1975	137,840	158,904	137,840	50,899	450,613	92%
1973	37,757	61,521	54,658	18,716	182,928	39%	1976	124,506	131,960	172,324	77,496	455,242	97%
1974	76,895	60,344	18,716	193,702	41%	1977	80,043	131,960	163,944	95,286	458,668	98%	
1975	76,895	76,895	196,868	42%	1978	69,412	196,485	157,253	105,364	476,579	102%		
1976	17,201	209,911	209,911	45%	1979	118,175	196,485	157,253	50,471	510,614	109%		
1977	24,918	211,722	211,722	45%	1980	147,463	135,884	157,253	74,874	521,717	112%		
1978	34,929	211,722	211,722	46%	1981	112,586	150,036	178,754	75,481	522,905	112%		
1979	30,946	219,532	219,532	47%	1982	97,553	159,853	168,876	99,529	525,641	113%		
1980	23,947	219,532	219,532	47%	1983	111,273	183,733	167,740	94,013	526,432	113%		
1981	31,014	224,785	224,785	48%	1984	114,113	183,733	167,740	69,580	535,166	115%		
1982	28,401	232,582	232,582	50%	1985	126,329	165,062	187,638	81,275	560,304	120%		
1983	21,378	234,430	234,430	50%	1986	157,290	219,404	137,028	67,902	581,624	124%		
1984	42,472	244,475	244,475	51%	1987	83,190	186,446	197,792	114,613	582,041	125%		
1985	31,331	239,980	239,980	51%	1988	131,246	205,509	169,002	91,593	597,350	129%		
1986	42,472	244,475	244,475	52%	1989	84,407	242,259	202,395	88,649	617,710	132%		
1987	30,690	248,319	248,319	53%	1990	173,393	281,639	137,393	61,837	654,282	140%		
1988	21,116	249,572	249,572	53%	1991	197,720	199,950	183,995	97,063	678,748	145%		
1989	33,170	251,812	251,812	54%	1992	144,934	210,676	201,064	128,338	665,012	147%		
1990	25,630	262,681	262,681	54%	1993	186,736	254,785	172,890	91,133	694,729	149%		
1991	41,851	260,894	260,894	56%	1994	130,113	254,785	155,650	88,011	697,182	149%		
1992	38,941	268,269	268,269	56%	1995	184,481	220,076	156,498	156,498	701,168	150%		
1993	38,285	275,543	275,543	59%	1996	130,892	288,652	230,390	93,834	723,768	155%		
1994	41,866	292,346	292,346	63%	1997	212,963	316,974	230,868	130,098	796,794	178%		
1995	43,061	299,506	299,506	64%	1998	183,505	352,050	225,395	91,097	852,047	182%		
1996	56,898	34,901	239,906	64%	1999	99,509	315,044	263,794	121,398	886,674	190%		
1997	58,437	31,313	313,113	67%	2000	99,509	315,044	263,794	243,802	924,005	206%		
1998	50,138	319,408	319,408	68%	2001	283,335	208,870	208,870	208,870	961,769	206%		
1999	69,657	329,570	329,570	71%	2002	363,157	354,825	309,860	208,715	991,025	219%		
2000	55,800	334,816	334,816	72%	2003	434,769	302,557	302,557	174,416	995,657	234%		
2001	81,844	342,997	342,997	75%	2004	362,617	362,617	394,086	194,870	1,319,375	291%		
2002	103,787	350,624	350,624	75%	2005	476,625	476,625	458,418	1,391,632	298%			
2003	127,733	42,046	352,126	75%	2006	481,749	481,749	391,700	288,866	1,545,100	331%		
2004	102,883	127,733	79,464	75%	2007	617,968	617,968	496,796	225,154	1,571,937	336%		
2005	102,883	127,733	79,464	75%	2008	481,749	617,968	571,846	399,841	1,747,874	374%		
2006	102,883	127,733	79,464	75%	2009	25,391	14,089	14,089	14,089	87,314	19%		
2007	102,883	127,733	79,464	75%	2010	99,556	159,969	139,842	71,853	467,220	103%		

Quantities in S.F.D. except where noted

AUGUST 1991

REPORT OF THE KERN RIVER WATERMASTER

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	BRAVO WELL	RO	CHANGE IN STORAGE+LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL	STORAGE RECREATION POOL + DEAD STORAGE - 15,218 S.F.D. (30,184 ACFT)	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRONT-KERN INFLOW
		ACRE-FEET	S.F.D.						LOSS	+1ST POINT						
Previous Day	2555.22	140,895	70,934	70	1,124	6	4	4	367	367	367	70,934	55,716	10	385	0
1	2554.89	138,965	70,057	94	1,133	6	3	3	353	353	353	70,057	54,839	14	398	0
2	2554.55	137,178	68,161	90	1,157	6	4	4	353	345	345	69,153	53,935	14	413	0
3	2554.21	135,417	66,273	75	1,141	6	4	4	330	336	336	68,271	53,053	12	428	0
4	2553.88	133,721	67,418	74	1,104	6	3	3	326	317	317	67,407	52,189	12	441	0
5	2553.54	131,989	68,544	73	1,092	7	4	4	294	301	301	66,540	51,322	12	443	0
6	2553.21	130,323	65,705	64	1,057	6	4	4	284	282	282	65,689	50,481	10	438	0
7	2552.86	128,570	64,821	64	1,084	7	4	4	267	273	273	64,821	49,603	11	442	0
8	2552.49	126,736	63,898	73	1,116	6	3	3	267	272	272	63,901	48,683	12	462	0
9	2552.12	124,918	62,980	83	1,113	6	4	4	262	264	264	62,967	47,749	14	450	0
10	2551.74	123,071	62,048	77	1,097	6	0	0	242	259	259	62,052	46,834	14	445	0
11	2551.37	121,288	61,149	53	1,094	6	0	0	254	258	258	61,157	45,839	9	440	0
12	2551.00	119,525	60,261	15	1,145	7	0	0	279	266	266	60,256	45,038	3	426	0
13	2550.60	117,637	59,309	62	1,150	6	0	0	266	281	281	59,319	44,101	11	440	0
14	2550.21	115,817	58,391	67	1,142	6	0	0	267	278	278	58,392	43,164	13	440	0
15	2549.83	114,061	57,506	54	1,097	6	0	0	272	276	276	57,501	42,283	10	429	0
16	2549.49	112,507	56,722	58	978	6	0	0	258	265	265	56,724	41,508	11	374	0
17	2549.23	111,327	56,127	56	797	6	0	0	264	261	261	56,126	40,908	11	218	0
18	2548.99	110,246	55,582	74	727	6	0	0	262	250	250	55,569	40,351	15	142	0
19	2548.75	109,173	55,041	65	693	6	0	0	223	243	243	55,048	39,830	13	157	0
20	2548.56	108,327	54,615	67	588	7	0	0	244	225	225	54,603	39,385	14	92	0
21	2548.44	107,798	54,347	62	407	6	0	0	207	204	204	54,332	38,114	13	0	0
22	2548.31	107,222	54,058	73	371	7	0	0	162	185	185	54,066	36,948	15	0	0
23	2548.20	106,739	53,814	67	358	6	0	0	187	163	163	53,813	36,595	14	0	0
24	2548.07	106,189	53,527	66	400	6	0	0	185	186	186	53,527	36,309	14	0	0
25	2547.94	105,601	53,241	78	388	6	0	0	186	178	178	53,231	36,013	16	0	0
26	2547.80	104,992	52,933	78	381	6	0	0	167	163	163	52,928	37,711	16	0	0
27	2547.67	104,428	52,650	47	378	7	0	0	147	151	151	52,650	37,432	10	0	0
28	2547.56	103,954	52,410	56	326	6	0	0	148	163	163	52,415	37,197	12	0	0
29	2547.47	103,567	52,215	58	298	6	0	0	163	158	158	52,215	36,997	12	0	0
30	2547.39	103,223	52,042	59	271	6	0	0	163	163	163	52,042	36,824	13	0	0
31	2547.34	103,009	51,834	50	218	7	0	0	167	167	167	51,834	36,718	11	0	0
TOTAL SECOND FOOT DAYS				2,030	24,269	183	33	33	7,489	7,489	7,489	51,834	36,718	381	7,516	0
TOTAL ACRE-FEET				4,026	48,196	352	65	65	14,854	14,854	14,854	103,009	72,825	756	14,907	0

By: *[Signature]* Date: SEPTEMBER 12, 1991



REPORT OF THE KERN RIVER WATERMASTER

AUGUST 1991

PAGE 5 of 5

WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH	DAYS	PAGE NO.	TITLE OF COLUMN	COMMENT
August	7	2	BWSD FLOW - FOR ID#4	Delivery of Carmel Right water as per terms of La Hacienda, Inc./Improvement District No. 4 letter agreement dated August 2, 1991 and Memorandum of Understanding between La Hacienda, Inc. and Improvement District No. 4 dated August 7, 1991.
August	24	2	BWSD - RESERVOIR STORAGE MKWSD - RESERVOIR STORAGE	Reflects transfer of 149 acre-feet (75 s.f.d.) from BUENA VISTA WATER STORAGE DISTRICT to NORTH KERN WATER STORAGE DISTRICT (City of Bakersfield) as per terms of BWSD/ City of Bakersfield Exchange Agreement dated April 17, 1991.

1991 APRIL-JULY UNIMPAIRED RUNOFF  
Central Valley Streams

April-July Flows  
In 1000 Acre-feet

Watershed	(1) 50 Year Average	Forecast as of				(2) 1991 Actual	% of Average
		Feb. 1	Mar. 1	Apr. 1	May 1		
Sacramento River above Bend Bridge	2,569	1,350	1,170	1,700	1,620	1,426	56%
Feather River at Oroville Reservoir	1,971	680	480	1,300	1,200	1,044	53%
Yuba River at Smartville	1,107	420	280	740	680	731	66%
American River at Folsom Reservoir	1,366	400	260	800	720	798	58%
Cosumnes River at Michigan Bar	140	30	12	70	65	68	49%
Mokelumne River at Pardoe Reservoir	480	180	115	320	270	282	57%
Stanislaus River at Melones Reservoir	753	280	180	470	410	408	54%
Tuolumne River at Don Pedro Reservoir	1,254	500	340	830	750	840	67%
Merced River at Exchequer Reservoir	654	230	155	410	370	448	68%
San Joaquin River at Millerton Lake	1,286	450	290	900	830	836	64%
Kings River at Pine Flat Reservoir	1,266	420	270	900	840	856	68%
Kaweah River at Terminus Reservoir	303	95	65	230	210	193	64%
Tule River at Success Reservoir	70	11	6	40	38	33	47%
<b>KERN RIVER AT ISABELLA RESERVOIR</b>	<b>492</b>	<b>120</b>	<b>65</b>	<b>320</b>	<b>280</b>	<b>273</b>	<b>55%</b>

(1) All 50-year averages are based on data for water years 1936-1985

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

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR STORAGE	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	RIO BRAVO WELL	CHANGE IN STORAGE+LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL IRRIGATION	STORAGE Recreation Pool + Dead Storage - 15,218 S.F.D. (90,184 ACFT)	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRONT-KERN INFLOW
		MIDNIGHT	ACRE-FOOT					+1ST POINT ABOVE 1ST POINT - RIO BRAVO WELL	+1ST POINT NATURAL FLOW						
Previous Day	2547.34	103,009	51,834	50	218	7	0	167	167	187	51,834	38,716	11	0	0
1	2547.28	102,794	51,825	63	216	5	0	175	175	175	51,825	36,607	14	0	0
2	2547.27	102,709	51,792	41	232	4	0	234	215	215	51,763	36,545	9	0	0
3	2547.21	102,453	51,653	66	235	5	0	177	195	195	51,652	36,434	14	0	0
4	2547.14	102,155	51,503	56	264	5	0	175	188	188	51,515	36,297	12	0	0
5	2547.09	101,942	51,398	53	260	5	0	211	188	188	51,395	36,177	12	0	0
6	2547.06	101,814	51,331	37	232	4	0	208	215	215	51,337	36,119	8	0	0
7	2547.03	101,686	51,267	51	234	5	0	228	225	225	51,272	36,054	11	0	0
8	2547.02	101,644	51,246	51	207	5	0	242	221	221	51,230	36,012	11	0	0
9	2546.99	101,518	51,182	58	187	4	0	195	196	196	51,167	35,949	13	0	0
10	2546.94	101,306	51,075	38	228	5	0	152	188	188	51,098	35,878	6	0	0
11	2546.92	101,221	51,032	29	215	5	0	216	183	183	51,020	35,802	9	0	0
12	2546.89	101,094	50,988	53	189	4	0	182	203	203	50,977	35,759	12	0	0
13	2546.85	100,925	50,883	64	228	5	0	210	202	202	50,884	35,688	14	0	0
14	2546.82	100,788	50,819	59	214	5	0	214	206	206	50,812	35,584	13	0	0
15	2546.80	100,713	50,776	38	182	5	0	193	208	208	50,784	35,566	9	0	0
16	2546.78	100,629	50,734	61	195	4	0	218	191	191	50,715	35,487	14	0	0
17	2546.74	100,461	50,649	57	185	5	0	182	190	190	50,658	35,440	13	0	0
18	2546.72	100,377	50,607	54	172	5	0	189	170	170	50,587	35,379	12	0	0
19	2546.69	100,251	50,543	42	177	4	0	159	173	173	50,547	35,329	9	0	0
20	2546.65	100,083	50,459	59	190	5	0	170	153	153	50,446	35,228	13	0	0
21	2546.57	99,747	50,289	55	239	5	0	129	161	161	50,298	35,090	12	0	0
22	2546.50	99,455	50,142	48	249	4	0	154	154	154	50,151	34,933	11	0	0
23	2546.44	99,204	50,015	51	250	5	0	179	171	171	50,016	34,788	11	0	0
24	2546.40	99,037	49,931	55	205	5	0	181	182	182	49,933	34,716	12	0	0
25	2546.37	98,912	49,868	35	209	5	0	188	168	168	49,852	34,634	8	0	0
26	2546.32	98,763	49,763	44	195	4	0	196	165	165	49,774	34,566	10	0	0
27	2546.29	98,578	49,700	38	191	4	0	170	160	160	49,701	34,483	9	0	0
28	2546.27	98,495	49,658	38	172	5	0	173	173	173	49,659	34,441	9	0	0
29	2546.25	98,413	49,617	50	164	4	0	177	178	178	49,617	34,389	11	0	0
30	2546.23	98,330	49,575	43	166	5	0	171	171	171	49,575	34,357	10	0	0
TOTAL SECOND FOOT DAYS				1,488	6,297	140	0	5,566	5,566	11,040	49,575	34,357	331	0	0
TOTAL ACRE-FOOT				2,951	12,480	277	0	11,040	11,040	11,040	98,330	68,148	657	0	0

By: *[Signature]* Date: October 10, 1991

REPORT OF THE KERN RIVER WATERMASTER

SEPTEMBER 1991

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				ENT'L AT 1ST POINT	RESERVOIR STORAGE	ENT'L AT 1ST POINT	FLOW		FLOW ABOVE FIRST POINT		ENTITLEMENT Contributed by		FLOW ABOVE FIRST POINT		RESERVOIR STORAGE	LOSS STORAGE		DAY	
	AT 1ST POINT	LAKE MING	LAKE HACIENDA INC.	VALLEY GOLF COURSE				VIA KAMD	AT 2ND POINT	OLCSE W/ 2800 ACRE WELL EXCH.	OLCSE WD	NKWS	BVMSD	WD	La INC.		WD	La INC.		OLCSE
167	218	2	0	1	42	31,478	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	210	1	0	1	63	31,386	0	6	0	0	3	10	5,221	0	0	0	0	0	0	0
215	227	2	0	0	34	31,338	0	5	0	0	2	7	5,207	0	0	0	0	0	0	0
195	235	2	0	0	65	31,241	0	0	0	0	3	11	5,193	0	0	0	0	0	0	0
188	264	1	0	1	47	31,116	0	0	0	0	3	9	5,161	0	0	0	0	0	0	0
198	280	2	0	0	44	31,008	0	0	0	0	3	9	5,169	0	0	0	0	0	0	0
215	282	2	0	0	31	30,958	0	0	0	0	2	6	5,161	0	0	0	0	0	0	0
225	234	1	0	1	43	30,904	0	0	0	0	3	8	5,150	0	0	0	0	0	0	0
221	207	2	0	0	43	30,873	0	0	0	0	3	8	5,139	0	0	0	0	0	0	0
196	197	1	0	1	48	30,822	0	0	0	0	2	10	5,127	0	0	0	0	0	0	0
188	228	2	0	0	23	30,759	0	0	0	0	3	5	5,119	0	0	0	0	0	0	0
183	215	1	0	1	32	30,683	0	0	0	0	3	7	5,109	0	0	0	0	0	0	0
203	189	2	0	0	44	30,661	0	0	0	0	2	9	5,098	0	0	0	0	0	0	0
202	228	1	0	1	53	30,582	0	0	0	0	3	11	5,094	0	0	0	0	0	0	0
206	214	2	0	0	49	30,523	0	0	0	0	3	10	5,071	0	0	0	0	0	0	0
208	192	1	0	1	32	30,505	0	0	0	0	3	7	5,061	0	0	0	0	0	0	0
191	195	2	0	0	51	30,448	0	0	0	0	2	10	5,049	0	0	0	0	0	0	0
190	185	1	0	1	47	30,404	0	0	0	0	3	10	5,038	0	0	0	0	0	0	0
170	172	2	0	0	45	30,355	0	0	0	0	3	9	5,024	0	0	0	0	0	0	0
173	177	1	0	1	35	30,314	0	0	0	0	2	7	5,015	0	0	0	0	0	0	0
153	180	2	0	0	49	30,228	0	0	0	0	3	10	5,002	0	0	0	0	0	0	0
151	239	1	0	1	46	30,090	0	0	0	0	3	9	4,980	0	0	0	0	0	0	0
154	249	2	0	0	40	29,953	0	0	0	0	2	8	4,960	0	0	0	0	0	0	0
171	250	1	0	1	43	29,829	0	0	0	0	3	8	4,969	0	0	0	0	0	0	0
182	205	2	0	0	46	29,758	0	0	0	0	3	9	4,957	0	0	0	0	0	0	0
168	209	1	0	1	29	29,696	0	0	0	0	3	6	4,948	0	0	0	0	0	0	0
185	195	2	0	0	37	29,617	0	0	0	0	2	7	4,939	0	0	0	0	0	0	0
180	191	1	0	0	32	29,553	0	0	0	0	3	6	4,930	0	0	0	0	0	0	0
173	172	2	0	0	32	29,520	0	0	0	0	3	6	4,921	0	0	0	0	0	0	0
176	164	1	0	1	42	29,488	0	0	0	0	2	8	4,911	0	0	0	0	0	0	0
171	165	2	0	0	38	29,456	0	0	0	0	3	7	4,901	0	0	0	0	0	0	0
S.F.D.	6,598	6,288	46	0	13	1,241	28,458	0	0	0	81	247	4,901	0	0	0	0	0	0	0
AC.F.T.	11,040	12,468	91	0	25	2,461	58,425	0	0	0	161	490	9,721	0	0	0	0	0	0	0

TOTAL ACRE-FOOT STORAGE DAYS 1,808,056      TOTAL ACRE-FOOT STORAGE DAYS 300,817      TOTAL ACRE-FOOT STORAGE DAYS 0

WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH            DAYS            PAGE NO.            TITLE OF COLUMN            COMMENT           

September

None

50-YEAR RELATIONSHIP OF SEPTEMBER RUNOFF TO FOLLOWING OCTOBER - DECEMBER RUNOFF

Runoff in acre-feet

Year	September Runoff	% of Normal	Oct-Dec Runoff	% of Normal	Correlative Value
1942	16,500	83%	53,518	72%	0.87
1943	17,857	90%	60,638	82%	0.91
1944	12,843	65%	56,908	77%	1.18
1945	21,548	109%	122,295	164%	1.50
1946	13,261	67%	65,291	115%	1.72
1947	9,140	46%	40,041	54%	1.17
1948	6,899	35%	29,714	40%	1.14
1949	6,541	33%	31,626	43%	1.30
1950	10,983	52%	184,915	249%	4.79
1951	7,793	39%	61,485	83%	2.13
1952	30,670	155%	65,348	112%	0.72
1953	12,730	64%	45,063	61%	0.95
1954	12,571	63%	45,516	61%	0.97
1955	8,840	50%	115,565	155%	3.10
1956	21,370	106%	57,007	77%	0.71
1957	12,111	61%	46,293	62%	1.02
1958	27,515	139%	59,675	80%	0.58
1959	9,852	50%	31,323	42%	0.84
1960	8,678	44%	37,296	50%	1.14
1961	8,483	43%	29,195	39%	0.91
1962	13,849	70%	38,987	52%	0.74
1963	26,863	146%	76,598	103%	0.71
1964	9,025	46%	71,008	96%	2.09
1965	22,036	111%	77,724	105%	0.95
1966	9,608	48%	340,134	457%	9.52
1967	55,255	279%	106,522	143%	0.51
1968	11,466	58%	50,166	67%	1.16
1969	49,936	252%	105,030	141%	0.56
1970	14,392	73%	63,634	86%	1.18
1971	11,371	57%	44,751	60%	1.05
1972	11,334	57%	46,542	63%	1.11
1973	23,030	116%	89,025	93%	0.80
1974	23,532	119%	65,460	88%	0.74
1975	17,133	86%	47,568	64%	0.74
1976	25,097	127%	44,668	60%	0.47
1977	7,815	39%	40,630	55%	1.41
1978	61,686	311%	84,921	114%	0.37
1979	19,563	99%	57,790	78%	0.79
1980	35,068	177%	81,669	110%	0.62
1981	13,222	67%	56,892	77%	1.15
1982	61,716	311%	181,271	244%	0.78
1983	66,503	346%	227,918	307%	0.89
1984	26,306	143%	100,943	136%	0.95
1985	17,024	86%	72,754	96%	1.14
1986	26,567	134%	77,129	104%	0.78
1987	10,660	54%	42,444	57%	1.06
1988	10,733	54%	35,753	48%	0.89
1989	10,213	52%	32,460	44%	0.85
1990	6,428	32%	26,322	35%	1.09
1991	11,040	56%			
Average	19,822		74,348		1.28

Quantities in S.F.D. except where noted

OCTOBER 1991

REPORT OF THE KERN RIVER WATERMASTER

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	FLOW ABOVE 1ST POINT	BRAVO WELL	RIO BRAVO WELL	CHANGE IN STORAGE+LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL IRRIGATION	STORAGE Recreation Pool + Dead Storage - 15,218 S.F.D. (30,184 ACFT)	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP FLOW AT 2ND PT.	FRONT-KERN INFLOW	
		MIDNIGHT	ACRE-FEET	S.F.D.	LOSS						+1ST POINT +FLOW ABOVE	1ST POINT - RIO BRAVO WELL							
Previous Day																			
1	2548.23	98,330	49,575	43	185	171	5	0	0	171	171	49,575	34,357	10	0	0	0	0	
2	2548.15	97,989	49,408	41	181	143	4	0	0	154	154	49,481	34,273	12	0	0	0	0	
3	2548.10	97,792	49,303	54	204	157	4	0	0	143	143	49,413	34,195	9	0	0	0	0	
4	2548.06	97,628	49,220	49	209	178	4	0	0	160	160	49,311	34,083	12	0	0	0	0	
5	2548.02	97,461	49,137	52	197	169	3	0	0	168	168	49,217	33,969	11	0	0	0	0	
6	2545.98	97,297	49,054	40	165	125	3	0	0	125	125	49,067	33,849	9	0	0	0	0	
7	2545.95	97,174	48,992	47	172	161	4	0	0	136	136	49,962	33,764	11	0	0	0	0	
8	2545.91	97,009	48,909	37	169	127	4	0	0	144	144	48,916	33,698	9	0	0	0	0	
9	2545.87	96,845	48,826	43	180	144	4	0	0	137	137	48,826	33,608	10	0	0	0	0	
10	2545.83	96,681	48,743	50	170	140	3	0	0	139	139	48,742	33,524	12	0	0	0	0	
11	2545.80	96,558	48,681	37	155	134	4	0	0	138	138	48,684	33,466	9	0	0	0	0	
12	2545.78	96,478	48,640	40	138	141	4	0	0	128	128	48,628	33,410	9	0	0	0	0	
13	2545.74	96,313	48,558	35	148	104	3	0	0	111	111	48,558	33,340	8	0	0	0	0	
14	2545.67	96,027	48,414	45	201	105	3	0	0	105	105	48,420	33,202	11	0	0	0	0	
15	2545.61	95,762	48,290	40	204	124	4	0	0	119	119	48,291	33,073	9	0	0	0	0	
16	2545.55	95,538	48,167	35	211	127	4	0	0	125	125	48,168	32,948	8	0	0	0	0	
17	2545.49	95,295	48,045	45	198	125	4	0	0	127	127	48,048	32,828	11	0	0	0	0	
18	2545.44	95,092	47,942	45	184	129	3	0	0	131	131	47,945	32,727	11	0	0	0	0	
19	2545.40	94,830	47,861	44	174	140	3	0	0	143	143	47,867	32,649	10	0	0	0	0	
20	2545.37	94,808	47,789	41	178	159	4	0	0	140	140	47,788	32,568	10	0	0	0	0	
21	2545.32	94,608	47,697	43	177	121	3	0	0	128	128	47,691	32,473	10	0	0	0	0	
22	2545.26	94,364	47,575	41	180	103	4	0	0	116	116	47,582	32,364	10	0	0	0	0	
23	2545.21	94,163	47,474	32	189	123	3	0	0	109	109	47,467	32,249	8	0	0	0	0	
24	2545.16	93,962	47,373	24	174	100	3	0	0	111	111	47,377	32,159	6	0	0	0	0	
25	2545.12	93,801	47,291	30	159	111	4	0	0	129	129	47,313	32,085	7	0	0	0	0	
26	2545.13	93,642	47,312	2	151	177	3	0	0	155	155	47,312	32,084	0	0	0	0	0	
27	2545.21	94,163	47,474	12	170	347	3	0	0	347	347	47,474	32,258	3	0	0	0	0	
28	2545.21	94,163	47,474	35	222	261	4	0	0	235	235	47,448	32,230	5	0	0	0	0	
29	2545.17	94,002	47,383	19	241	183	4	0	0	220	220	47,404	32,186	5	0	0	0	0	
30	2545.14	93,892	47,332	28	247	217	3	0	0	206	206	47,332	32,114	7	0	0	0	0	
31	2545.12	93,801	47,291	27	188	188	4	0	0	188	188	47,291	32,073	7	0	0	0	0	
TOTAL SECOND FOOT DAYS						1,167	5,724	111	0	0	4,718	4,718	93,801	63,817	274	0	0	0	
TOTAL ACRE-FEET						2,315	11,353	220	0	0	9,358	9,358	83,817	63,817	543	0	0	0	

By: *[Signature]* Date: NOVEMBER 12, 1991

REPORT OF THE KERN RIVER WATERMASTER

OCTOBER 1991

Quantities in S.F.D. except where noted

PAGE 2 of 5

NORTH KERN WATER STORAGE DISTRICT

BUENA VISTA WATER STORAGE DISTRICT

HACIENDA WATER DISTRICT

DAY	ENT'L AT 1ST POINT	FLOW AT 1ST POINT	KERN VALLEY			ENT'L AT 1ST POINT	FLOW			FLOW ABOVE FIRST POINT			ENTITLEMENT Contributed by:			FLOW ABOVE FIRST POINT																		
			LAKE MING	LAKE HACIENDA INC.	GOLF COURSE		RESERVOIR LOSS STORAGE	RESERVOIR AT 1ST POINT	VIA KAMD	AT 2ND POINT	OLCESE WD 2800 ACRE	WELL EXCH.	RESERVOIR LOSS STORAGE	OLCESE WD	RESERVOIR LOSS STORAGE	OLCESE WD	HACIENDA INC.	RESERVOIR LOSS STORAGE																
Previous Day	171	165	0	0	0	36	29,456	0	0	0	0	0	0	0	0	0	0	0	0															
1	154	180	1	0	1	45	29,383	0	0	0	0	2	9	4,690	0	0	0	0	0															
2	148	181	1	0	1	34	29,314	0	0	0	0	2	7	4,681	0	0	0	0	0															
3	160	204	2	0	0	45	29,223	0	0	0	0	2	9	4,670	0	0	0	0	0															
4	168	209	1	0	0	41	29,140	0	0	0	0	3	8	4,659	0	0	0	0	0															
5	168	197	1	0	0	43	29,057	0	0	0	0	2	9	4,648	0	0	0	0	0															
6	152	165	1	0	0	33	29,010	0	0	0	0	2	7	4,639	0	0	0	0	0															
7	138	172	2	0	0	39	28,935	0	0	0	0	2	6	4,629	0	0	0	0	0															
8	144	169	1	0	0	31	28,878	0	0	0	0	3	6	4,620	0	0	0	0	0															
9	137	180	1	0	1	36	28,797	0	0	0	0	2	7	4,611	0	0	0	0	0															
10	139	170	1	0	0	42	28,723	0	0	0	0	2	8	4,601	0	0	0	0	0															
11	138	155	1	0	1	31	28,673	0	0	0	0	2	6	4,793	0	0	0	0	0															
12	126	138	1	0	0	33	28,627	0	0	0	0	3	7	4,783	0	0	0	0	0															
13	116	148	1	0	0	29	28,565	0	0	0	0	2	6	4,775	0	0	0	0	0															
14	111	201	1	0	0	37	28,437	0	0	0	0	2	8	4,765	0	0	0	0	0															
15	119	204	1	0	1	33	28,317	0	0	0	0	2	7	4,756	0	0	0	0	0															
16	125	211	1	0	0	29	28,201	0	0	0	0	3	6	4,747	0	0	0	0	0															
17	127	188	1	0	1	37	28,091	0	0	0	0	2	8	4,737	0	0	0	0	0															
18	131	184	1	0	0	37	28,000	0	0	0	0	2	8	4,727	0	0	0	0	0															
19	143	174	1	0	0	37	27,931	0	0	0	0	2	7	4,718	0	0	0	0	0															
20	140	178	1	0	0	34	27,860	0	0	0	0	3	7	4,708	0	0	0	0	0															
21	128	177	1	0	0	36	27,774	0	0	0	0	2	7	4,699	0	0	0	0	0															
22	116	180	1	0	1	34	27,674	0	0	0	0	2	7	4,690	0	0	0	0	0															
23	109	189	1	0	0	27	27,568	0	0	0	0	2	5	4,683	0	0	0	0	0															
24	111	174	1	0	0	20	27,482	0	0	0	0	2	4	4,677	0	0	0	0	0															
25	129	159	1	0	0	25	27,428	0	0	0	0	3	5	4,669	0	0	0	0	0															
26	155	151	1	0	0	2	27,427	0	0	0	0	2	0	4,667	0	0	0	0	0															
27	347	170	1	0	0	10	27,563	0	0	0	0	2	2	4,663	0	0	0	0	0															
28	235	222	1	0	1	28	27,575	0	0	0	0	2	6	4,655	0	0	0	0	0															
29	220	241	1	0	0	16	27,537	0	0	0	0	3	3	4,649	0	0	0	0	0															
30	206	247	1	0	0	23	27,472	0	0	0	0	2	5	4,642	0	0	0	0	0															
31	188	198	1	0	1	22	27,438	0	0	0	0	2	5	4,635	0	0	0	0	0															
S.F.D.	4,718	5,724	33	0	9	970	27,438	0	0	0	0	68	197	4,635	0	0	0	0	0															
AC.F.T.	9,358	11,353	65	0	18	1,924	54,424	0	0	0	0	137	391	9,193	0	0	0	0	0															
TOTAL ACRE-FOOT STORAGE DAYS															1,737,770					292,137					TOTAL ACRE-FOOT STORAGE DAYS					0				



REPORT OF THE KERN RIVER WATERMASTER

CHANGE IN STORAGE+LOSS

DAY	ELEVATION (FEET)	ISABELLA		RESERVOIR STORAGE	FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	FLOW ABOVE BRAVO WELL	RO BRAVO WELL	1ST POINT ABOVE BRAVO WELL	COMPUTED NATURAL FLOW	MEAN TOTAL	STORAGE RECREATION POOL + Dead Storage - 15,218 S.F.D. (\$0,184 ACFT)	KERN COUNTY RECREATION POOL LOSS	2ND POINT GROUP AT 2ND PT.	FRONT-KERN INFLOW	DAY
		MIDNIGHT	ACRE-FOOT													
Previous Day	2545.12	83,801	47,291		188	4	0	0	188	188	47,291	32,073	7	0	0	0
1	2545.10	83,721	47,261	31	209	3	0	0	203	201	47,249	32,031	7	0	0	1
2	2545.08	83,641	47,211	28	208	2	0	0	198	197	47,210	31,992	7	0	0	2
3	2545.07	83,601	47,191	21	188	2	0	0	191	191	47,190	31,972	5	0	0	3
4	2545.05	83,521	47,150	39	184	3	0	0	185	184	47,158	31,940	9	0	0	4
5	2545.04	83,480	47,130	39	184	2	0	0	205	203	47,136	31,918	9	0	0	5
6	2545.03	83,440	47,109	32	207	2	0	0	220	220	47,115	31,897	8	0	0	6
7	2545.03	83,440	47,109	29	204	3	0	0	238	214	47,093	31,875	7	0	0	7
8	2545.00	83,321	47,049	32	212	2	0	0	186	209	47,056	31,838	8	0	0	8
9	2544.97	83,201	46,989	27	235	2	0	0	204	204	46,988	31,778	7	0	0	9
10	2544.95	83,121	46,949	24	235	2	0	0	221	217	46,952	31,734	6	0	0	10
11	2544.93	83,041	46,908	31	234	2	0	0	228	230	46,915	31,697	8	0	0	11
12	2544.92	83,002	46,889	31	229	3	0	0	244	224	46,876	31,658	8	0	0	12
13	2544.89	82,882	46,828	42	219	2	0	0	202	214	46,827	31,609	10	0	0	13
14	2544.86	82,762	46,768	29	224	3	0	0	198	202	46,773	31,555	7	0	0	14
15	2544.84	82,683	46,728	27	220	2	0	0	209	188	46,722	31,504	7	0	0	15
16	2544.82	82,603	46,687	32	198	2	0	0	189	202	46,694	31,476	8	0	0	16
17	2544.80	82,523	46,647	35	213	2	0	0	210	203	46,647	31,429	9	0	0	17
18	2544.85	82,722	46,747	26	347	3	0	0	478	476	46,747	31,529	6	0	0	18
19	2544.86	82,762	46,768	24	360	4	0	0	409	349	46,708	31,480	6	0	0	19
20	2544.84	82,683	46,728	48	219	3	0	0	230	308	46,748	31,528	12	0	0	20
21	2544.85	82,722	46,747	34	227	4	0	0	284	265	46,746	31,528	8	0	0	21
22	2544.86	82,762	46,768	23	234	4	0	0	282	277	46,762	31,544	6	0	0	22
23	2544.86	82,762	46,768	32	230	3	0	0	285	285	46,762	31,544	8	0	0	23
24	2544.86	82,762	46,768	24	220	3	0	0	247	248	46,763	31,545	6	0	0	24
25	2544.86	82,762	46,768	24	205	4	0	0	233	244	46,774	31,558	6	0	0	25
26	2544.87	82,802	46,788	21	208	3	0	0	252	228	46,770	31,552	5	0	0	26
27	2544.85	82,722	46,747	35	200	4	0	0	198	231	46,782	31,544	9	0	0	27
28	2544.83	82,643	46,708	35	244	3	0	0	243	209	46,689	31,471	9	0	0	28
29	2544.79	82,484	46,627	26	238	4	0	0	187	206	46,627	31,409	6	0	0	29
30	2544.77	82,404	46,587	21	215	3	0	0	199	189	46,587	31,369	5	0	0	30
TOTAL SECOND FOOT DAYS				802	6,746	84	0	0	7,028	7,028	46,537	31,369	222	0	0	0
TOTAL ACRE-FOOT				1,789	13,381	187	0	0	13,940	13,940	92,404	62,220	440	0	0	0

By:  Date: DECEMBER 17, 1991



WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH

November

DAY(S)

PAGE NO.

TITLE OF COLUMN

COMMENT

None

Precipitation at Selected Stations  
1991-92 Water Year

December 16, 1991

<u>Station</u>	<u>Elev.</u>	<u>Inches since October 1</u>	<u>Normal to Date</u>	<u>Percent of Normal</u>
Isabella Dam	2660 ft.	2.10	2.43	86%
Pascoe Sensor	9150 ft.	6.60	8.09	82%
Glennville Fire Station	3140 ft.	2.71	4.13	66%
Bakersfield Water Dept.	370 ft.	0.78	1.29	60%

REPORT OF THE KERN RIVER WATERMASTER

DECEMBER 1991

Quantities in S.F.D. except where noted

PAGE 1 of 5

DAY	ELEVATION (FEET)	ISABELLA RESERVOIR STORAGE		FIRST POINT REGULATED FLOW	FLOW ABOVE 1ST POINT	RIO BRAVO POWER CANAL DRAINAGE		CHANGE IN STORAGE: +LOSS		COMPUTED 1ST POINT NATURAL FLOW	MEAN TOTAL IRRIGATION	STORAGE Recreation Pool + Dead Storage - 15,218 S.F.D. (60,184 ACF)	KERN COUNTY RECREATION POOL LOSS		FRONT-KERN INFLOW
		ACRE-Feet	S.F.D.			LOSS	1ST POINT - RIO BRAVO DRAINAGE	+1ST POINT FLOW ABOVE 1ST POINT - RIO BRAVO DRAINAGE	POOL LOSS				AT 2ND PT.		
Previous Day	2544.77	92,404	48,587	21	3	0	0	189	48,587	189	31,369	0	5	0	0
1	2544.75	92,328	48,548	19	1	0	0	185	48,550	187	31,332	0	5	0	0
2	2544.72	92,206	46,487	19	0	0	0	187	46,493	191	31,275	0	5	0	0
3	2544.68	92,048	46,408	20	1	0	0	201	46,414	201	31,188	0	5	0	0
4	2544.85	91,929	46,348	22	0	0	0	218	46,342	204	31,124	0	5	0	0
5	2544.81	91,771	46,288	17	1	0	0	185	46,272	205	31,054	0	4	0	0
6	2544.58	91,573	46,168	40	1	0	0	204	46,173	205	30,955	0	10	0	0
7	2544.52	91,415	46,088	25	1	0	0	217	46,122	246	30,804	0	6	0	25
8	2544.52	91,415	46,088	43	0	0	0	317	46,059	254	30,641	0	11	0	21
9	2544.50	91,337	46,049	25	1	0	0	229	46,043	252	30,525	0	6	0	0
10	2544.48	91,258	46,009	21	0	0	0	211	46,002	210	30,784	0	5	0	0
11	2544.44	91,101	45,930	17	1	0	0	191	45,932	200	30,714	0	4	0	0
12	2544.38	90,885	45,811	17	0	0	0	186	45,816	189	30,598	0	4	0	0
13	2544.33	90,668	45,712	22	1	0	0	209	45,715	207	30,487	0	6	0	0
14	2544.27	90,434	45,594	30	0	18	0	217	45,596	206	30,368	0	8	0	0
15	2544.20	90,161	45,458	30	1	10	0	182	45,458	200	30,238	0	8	0	0
16	2544.13	89,888	45,319	27	0	0	0	182	45,319	182	30,101	0	7	0	0
17	2544.07	89,654	45,201	23	1	0	0	182	45,210	201	29,982	0	6	0	0
18	2544.05	89,576	45,161	27	1	0	0	218	45,168	216	29,950	0	7	0	0
19	2544.06	89,615	45,181	20	0	0	0	237	45,179	228	29,981	0	5	0	0
20	2544.07	89,654	45,201	21	1	0	0	229	45,179	209	29,981	0	5	0	0
21	2544.05	89,578	45,161	18	1	0	0	161	45,171	183	29,953	0	5	0	0
22	2544.03	89,499	45,122	17	1	0	0	180	45,131	189	29,913	0	4	0	0
23	2544.03	89,499	45,122	17	1	0	0	216	45,110	186	29,892	0	4	0	0
24	2544.02	89,480	45,103	20	1	0	0	178	45,118	205	29,900	0	5	0	0
25	2544.03	89,499	45,122	17	1	0	0	221	45,114	186	29,898	0	4	0	0
26	2544.03	89,499	45,122	30	1	0	0	186	45,120	202	29,902	0	6	0	0
27	2544.02	89,460	45,103	36	1	0	0	189	45,117	205	29,899	0	10	0	0
28	2544.03	89,499	45,122	18	1	0	0	229	45,131	224	29,913	0	5	0	0
29	2544.04	89,538	45,142	23	1	0	0	254	45,152	255	29,934	0	6	0	0
30	2544.06	89,615	45,181	17	0	0	0	283	45,181	273	29,983	0	4	0	0
31	2544.07	89,654	45,201	23	1	0	0	236	45,201	236	29,983	0	6	0	0
TOTAL SECOND FOOT DAYS				723	7,257	22	28	6,568	45,201	6,568	29,983	0	183	0	46
TOTAL ACRE-Feet				1,434	14,394	44	55	13,067	89,654	13,067	59,470	0	363	0	92

By:  Date: JANUARY 13, 1992

Revision of report dated January 9, 1992



WATERMASTER NOTES \*\*\* KERN RIVER BULLETIN

MONTH	DAY(S)	PAGE NO.	TITLE OF COLUMN	COMMENT
December	7	1	FRIANT-KERN INFLOW	Operational spill to Kern River channel as reported by Bureau of Reclamation.
December	14	1	RIO BRAVO POWER CANAL DRAINAGE	Discharge to Kern River from the Rio Bravo power canal as a result of power canal drainage pursuant to terms of City of Bakersfield/Kern Hydro Partners letter agreement dated December 10, 1991.

KERN RIVER BASIN SNOW SENSOR FORECAST MODEL

Readings of Water Content  
are in Inches.....

DATE: 09-Jan 1992

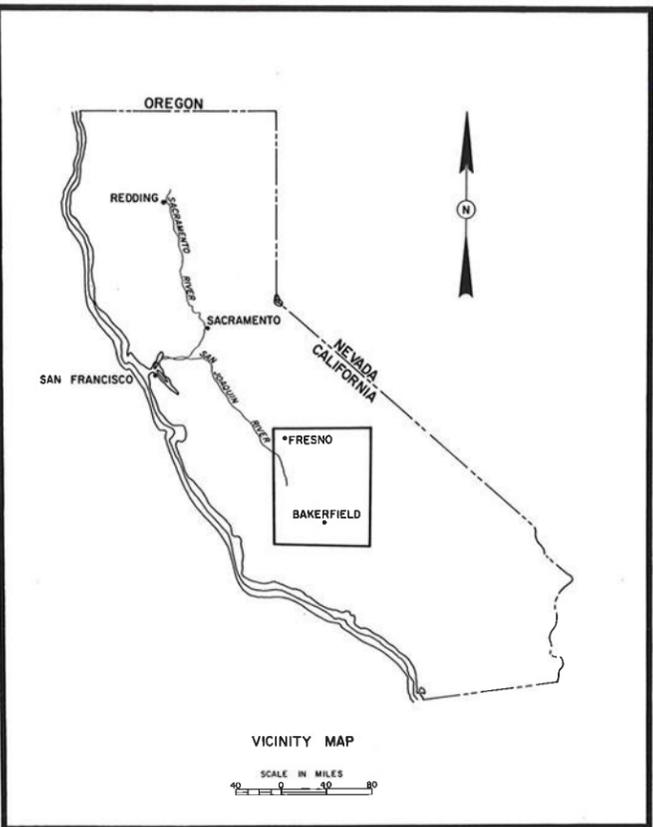
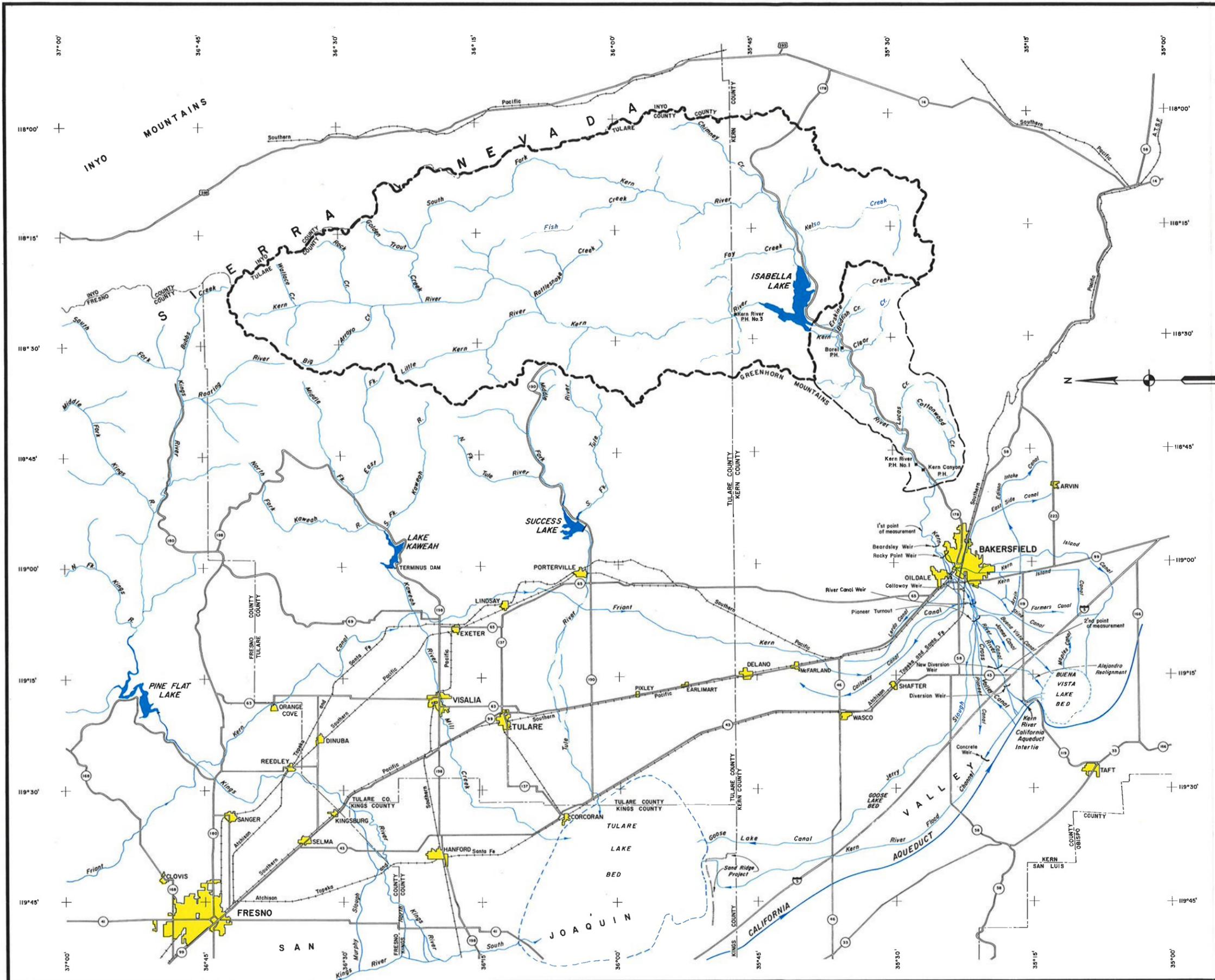
Previous Year April-July Runoff =  
59 % of Average

SNOW SENSOR SITE

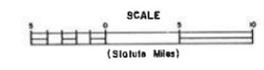
	Upper Tyndall Creek	Crabtree Meadow	Chagocopa Plateau	Pascoe	Wet Meadow	Tunnel Guard	Casa Vieja	Beach Meadow	Weighted Average
Elevation (feet)	11,450	10,700	10,300	9,150	8,950	8,950	8,400	7,650	—
Actual Water Content This Date	4.8	2.8	6.5	4.7	7.6	2.8	5.2	1.3	4.4
Normal Water Content This Date	12.5	9.0	9.9	11.3	13.7	7.1	10.7	5.6	10.1
% of Normal Water Content This Date	37%	31%	65%	42%	55%	37%	49%	23%	43%
April 1 Average Water Content	27.7	19.8	21.8	24.9	30.3	15.6	20.9	11.0	21.6
% of April 1 Average Water Content	17%	14%	30%	19%	25%	17%	25%	12%	20%

- 1) 3-Gage Precipitation Index For this Date = 21.24 inches
- 3-Gage Precipitation Index Normal For this Date = 23.59 inches
- 3-Gage Precipitation Index in % of Normal = 90%
- Percentage Into Snowpack Accumulation Season = 47%
- Estimated April-July Runoff Into Isabella Reservoir = 278,834 acre-feet
- 3) Estimated April-July Runoff in % of Average = 57%

- 1) 3-Gage precipitation Index = October 1 to date cumulative rainfall totals for Glennville, Pascoe & Isabella Dam
- 2) Assumes median snowpack accumulation subsequent to date of estimate
- 3) April-July average inflow to Isabella Reservoir = 492,000 acre-feet



- LEGEND**
- Drainage Boundary
  - U.S. Highway
  - State Highway
  - Interstate Highway
  - Railroad
  - Levee
  - Intermittent Stream
  - Perennial Stream
  - Canal
  - Reservoir or Lake
  - Authorized Reservoir



**ISABELLA LAKE  
KERN RIVER, CALIFORNIA**

**GENERAL MAP**

CORPS OF ENGINEERS SACRAMENTO, CALIFORNIA

Prepared: C.D.M. Date: NOVEMBER 1977  
 Drawn: T.K.B.

