APPENDIX A

WEEKLY OBSERVED EVAPORATION AND CALCULATED EVAPOTRANSPIRATION FOR SEVERAL CROPS SOUTHERN SAN JOAQUIN VALLEY 1977 – 1991

TABLE A-1

NORMAL YEAR WEEKLY EVAPORATION AND EVAPOTRANSPIRATION
FOR SEVERAL CROPS IN SOUTHERN SAN JOAQUIN VALLEY[1]
(inches)

Week Ending	Day of Year	Evaporation[2]	ETP[3]	PET[4]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Grain Sorghum[5]	Grain Sorghum[6]	Small Grains	Vineyard
								Clean Cultivation	With Cover Crop				
Jan 7	7	0.24	0.22	0.17	0.18		0.14		0.17			0.07	
14	14	0.27	0.25	0.19	0.21		0.16		0.19			0.10	
21	21	0.30	0.28	0.22	0.23		0.18		0.22			0.13	
28	28	0.36	0.33	0.26	0.27		0.22		0.26			0.19	
Feb 4	35	0.42	0.39	0.31	0.32		0.25		0.31			0.26	
11	42	0.48	0.44	0.36	0.36		0.28		0.36			0.34	
18	49	0.56	0.52	0.42	0.43		0.33		0.42			0.44	
25	56	0.64	0.59	0.48	0.49		0.37		0.48			0.54	
Mar 4	63	0.73	0.67	0.55	0.55		0.42		0.56			0.65	
11	70	0.82	0.75	0.62	0.62		0.47	0.34	0.64			0.77	
18	77	0.91	0.84	0.70	0.69		0.51	0.40	0.73			0.87	
25	84	1.02	0.94	0.79	0.78		0.57	0.47	0.83			1.00	
Apr 1	91	1.12	1.03	0.86	0.85		0.63	0.55	0.93			1.10	
8	98	1.22	1.12	0.94	0.93		0.68	0.62	1.02			1.18	
15	105	1.33	1.22	1.04	1.01		0.74	0.70	1.14			1.26	
22	112	1.44	1.32	1.12	1.09	0.13	0.81	0.81	1.25			1.35	0.14
29	119	1.55	1.43	1.21	1.18	0.16	0.87	0.90	1.30			1.43	0.17
May 6	126	1.65	1.54	1.30	1.27	0.22	0.94	1.00	1.50			1.45	0.22
13	133	1.79	1.65	1.40	1.36	0.29	1.00	1.13	1.63	0.20		1.40	0.32
20	140	1.90	1.75	1.48	1.44	0.38	1.06	1.24	1.75	0.25		1.27	0.61
27	147	2.00	1.84	1.56	1.52	0.48	1.10	1.34	1.86	0.28		1.08	0.80
Jun 3	154	2.09	1.92	1.63	1.59	0.69	1.13	1.42	1.94	0.33		0.86	0.96
10	161	2.18	2.01	1.70	1.66	1.00	1.16	1.50	2.05	0.39			1.09
17	168	2.25	2.07	1.76	1.71	1.33	1.17	1.60	2.12	0.56			1.22
24	175	2.30	2.12	1.79	1.75	1.63	1.20	1.68	2.16	0.74	0.23		1.31
Jul 1	182	2.32	2.13	1.81	1.76	1.90	1.21	1.72	2.18	1.39	0.25		1.39
8	189	2.32	2.13	1.81	1.76	2.18	1.21	1.74	2.18	1.97	0.32		1.46
15	196	2.30	2.12	1.79	1.75	2.25	1.20	1.72	2.18	2.07	0.39		1.50
22	203	2.25	2.07	1.76	1.71	2.25	1.17	1.69	2.14	2.02	0.56		1.48
29	210	2.20	2.02	1.72	1.67	2.20	1.14	1.65	2.07	1.98	0.95		1.45
Aug 5	217	2.11	1.94	1.65	1.60	2.11	1.10	1.58	1.98	1.86	1.67		1.39
12	224	2.02	1.86	1.58	1.54	2.02	1.05	1.52	1.90	1.74	1.82		1.33
19	231	1.92	1.77	1.50	1.46	1.90	1.00	1.44	1.79	1.61	1.75		1.27
26	238	1.83	1.68	1.43	1.39	1.78	0.95	1.37	1.68	1.46	1.67		1.21
Sep 2	245	1.74	1.60	1.36	1.32	1.60	0.90	1.30	1.58	1.32	1.57		1.15
9	252	1.64	1.51	1.28	1.25	1.39	0.85	1.21	1.48	1.16	1.44		1.08
16	259	1.53	1.41	1.19	1.16	1.16	0.80	1.10	1.36	0.99	1.32		0.98
23	266	1.41	1.30	1.09	1.07	0.92	0.73	0.99	1.24	0.80	1.14		0.86
30	273	1.29	1.19	0.99	0.98	0.71	0.68	0.86	1.11		0.94		0.68
Oct 7	280	1.17	1.08	0.90	0.89	0.53	0.64	0.76	0.98		0.75		0.57
14	287	1.05	0.97	0.80	0.80	0.38	0.59	0.65	0.87		0.56		0.44
21	294	0.93	0.86	0.70	0.71		0.52	0.55	0.74		0.37		0.33
28	301	0.82	0.75	0.62	0.62		0.46	0.46	0.66				0.25
Nov 4	308	0.71	0.65	0.53	0.54		0.40	0.37	0.55				0.14
11	315	0.60	0.55	0.44	0.46		0.34	0.28	0.46				0.12
8	322	0.50	0.46	0.36	0.38		0.28	0.22	0.37				0.10
25	329	0.41	0.38	0.30	0.31		0.23	0.16	0.30				0.08
Dec 2	336	0.32	0.29	0.23	0.24		0.18		0.23				
9	343	0.25	0.23	0.18	0.19		0.14		0.18				
16	350	0.21	0.19	0.15	0.16		0.12		0.15			0.04	
23	357	0.19	0.17	0.13	0.14		0.11		0.13			0.04	
30	364	0.22	0.20	0.15	0.17		0.13		0.15			0.05	
31[7]	365	0.03	0.03	0.02	0.02		0.02		0.02			0.01	
Total[8]		63.86	58.78	49.33	48.54	31.59	34.54	39.04	56.48	23.12	17.70	17.88	26.11

[1]Crop ET estimated by multiplying weekly evaporation (Ep) for normal year by crop coefficients (Kp).
[2]Evaporation from USWB Class "A" pans located in large irrigated pastures. Average of several locations and several years.
[3]Potential ET – alfalfa; ET of vigorously growing alfalfa at 100-percent ground cover and no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[4]Potential ET – grass; ET of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[5]Grain sorghum (milo) planted in early May.
[6]Grain sorghum (milo) planted in mid-June following winter-planted small grain.
[7]ET for one day.
[8]Growing season totals.

TABLE A-2

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1977
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Grain Sorghum		Vine-yard
								Clean Culti-vation	With Cover Crop	Planted May 1	Planted June 15	
Jan 6[4]	6	0.19	0.17	0.16	0.17		0.13		0.16			
13	13	0.16	0.15	0.11	0.12		0.10		0.11			
20	20	0.15	0.14	0.11	0.11		0.09		0.11			
27	27	0.17	0.16	0.13	0.13		0.10		0.13			
Feb 3	34	0.24	0.22	0.17	0.18		0.14		0.17			
10	41	0.52	0.48	0.38	0.40		0.31		0.39			
17	48	0.74	0.68	0.55	0.56		0.44		0.55			
24	55	0.70	0.64	0.52	0.53		0.40		0.52			
Mar 3	62	1.04	0.96	0.79	0.79		0.60		0.79			
10	69	0.92	0.85	0.70	0.70		0.53	0.38	0.72			
17	76	0.78	0.71	0.60	0.59		0.44	0.34	0.62			
24	83	0.91	0.83	0.70	0.69		0.51	0.42	0.73			
31	90	0.94	0.86	0.72	0.71		0.53	0.46	0.78			
Apr 7	97	1.46	1.35	1.13	1.11		0.82	0.75	1.23			
14	104	1.99	1.83	1.55	1.51		1.12	1.06	1.71			
21	111	2.02	1.86	1.57	1.53	0.18	1.13	1.13	1.76			0.20
28	118	1.70	1.57	1.33	1.30	0.17	0.95	0.99	1.52			0.19
May 5	125	1.29	1.19	1.01	0.98	0.17	0.72	0.77	1.16			0.17
12	132	1.11	1.02	0.87	0.85	0.18	0.62	0.70	1.01	0.12		0.20
19	139	1.46	1.35	1.14	1.11	0.29	0.82	0.95	1.35	0.19		0.47
26	146	2.03	1.86	1.58	1.54	0.49	1.11	1.36	1.89	0.28		0.81
June 2	153	2.18	2.00	1.70	1.65	0.72	1.18	1.48	2.02	0.35		1.00
9	160	2.34	2.16	1.83	1.78	1.08	1.24	1.62	2.20	0.42		1.17
16	167	1.99	1.83	1.55	1.51	1.17	1.03	1.41	1.87	0.59		1.07
23	174	2.05	1.89	1.60	1.56	1.46	1.07	1.46	1.93	0.66	0.21	1.17
30	181	2.04	1.88	1.59	1.55	1.68	1.06	1.49	1.92	1.23	0.22	1.23
Subtotal		31.15	28.67	24.09	23.66	7.59	17.19	16.77	27.35	3.84	0.43	7.68
Jul 7	188	2.02	1.86	1.58	1.53	1.90	1.06	1.51	1.90	1.81	0.26	1.25
14	195	1.93	1.78	1.51	1.65	2.13	1.13	1.63	2.14	1.95	0.37	1.41
21	202	2.00	1.84	1.56	1.52	2.00	1.04	1.49	1.89	1.79	0.86	1.31
28	209	1.86	1.71	1.45	1.42	1.87	0.96	1.39	1.75	1.65	1.46	1.23
Aug 4	216	1.77	1.63	1.38	1.35	1.76	0.92	1.32	1.67	1.52	1.60	1.17
11	223	1.62	1.49	1.26	1.23	1.63	0.83	1.21	1.52	1.36	1.48	1.06
18	230	1.32	1.21	1.03	1.01	1.32	0.69	0.98	1.24	1.05	1.21	0.86
25	237	1.98	1.82	1.54	1.50	1.92	1.03	1.47	1.80	1.50	1.78	1.30
Sep 1	244	1.91	1.76	1.49	1.44	1.75	0.99	1.44	1.74	1.37	1.68	1.24
8	251	1.63	1.50	1.27	1.25	1.39	0.86	1.21	1.46	1.05	1.41	1.08
15	258	1.48	1.36	1.15	1.12	1.12	0.78	1.06	1.31	0.85	1.18	0.94
22	265	1.31	1.20	1.01	0.98	0.85	0.67	0.92	1.14		0.96	0.80
29	272	1.12	1.03	0.86	0.86	0.62	0.59	0.73	0.97		0.73	0.59
Oct 6	279	1.12	1.03	0.86	0.86	0.51	0.62	0.73	0.94		0.60	0.54
13	286	1.18	1.09	0.90	0.92	0.42	0.66	0.73	0.99		0.49	0.50
20	293	0.78	0.72	0.59	0.60		0.44	0.46	0.62			0.28
27	300	0.77	0.71	0.58	0.58		0.44	0.44	0.62			0.23
Nov 3	307	0.55	0.51	0.41	0.41		0.30	0.29	0.42			0.12
10	314	0.50	0.46	0.37	0.38		0.27	0.23	0.38			0.11
17	321	0.38	0.35	0.28	0.28		0.21	0.15	0.28			0.07
24	328	0.48	0.44	0.35	0.36		0.28	0.20	0.35			0.09
Dec 1	335	0.24	0.22	0.17	0.20		0.15		0.20			
8	342	0.18	0.17	0.13	0.16		0.10		0.13			
15	349	0.22	0.20	0.16	0.18		0.13		0.16			
22	356	0.87	0.80	0.61	0.55		0.42		0.52			
29	363	0.41	0.38	0.29	0.32		0.24		0.28			
31[5]	365	0.06	0.05	0.04	0.05		0.04		0.05			
Total[6]		60.81	55.96	46.92	46.37	28.78	33.04	36.36	53.72	19.74	16.50	23.86

[1]Observed evaporation, Wasco 8SW agroclimatic station.
[2]Potential ET - alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover and no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET - grass. ET of large expanse of low-growing grass at 100-percent ground cover and no moisture stress (Penman grass reference crop).
[4]Six-day period.
[5]Two-day period.
[6]Growing season totals.

TABLE A-3

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1978
(inches)

Week Ending	Day of Year	Evaporation[1]	ETP[2]	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Grain Sorghum	Small Grains	Vineyard
								Clean Cultivation	With Cover Crop			
Jan 5[4]	5	0.10	0.09	0.07	0.07		0.05		0.06		0.02	
12	12	0.25	0.23	0.18	0.18		0.15		0.18		0.02	
19	19	0.35	0.32	0.25	0.27		0.19		0.23		0.09	
26	26	0.25	0.23	0.18	0.19		0.15		0.18		0.13	
Feb 2	33	0.13	0.12	0.10	0.10		0.09		0.10		0.09	
9	40	0.21	0.19	0.16	0.18		0.12		0.17		0.15	
16	47	0.24	0.22	0.18	0.18		0.14		0.18		0.18	
23	54	0.46	0.42	0.35	0.35		0.25		0.35		0.38	
Mar 2	61	0.39	0.36	0.30	0.29		0.23		0.29		0.36	
9	68	0.51	0.47	0.39	0.38		0.29	0.22	0.41		0.47	
16	75	0.57	0.52	0.44	0.45		0.33	0.25	0.46		0.55	
23	86	0.66	0.61	0.51	0.50		0.37	0.31	0.53		0.64	
30	89	0.61	0.56	0.47	0.45		0.34	0.29	0.51		0.61	
Apr 6	96	0.64	0.59	0.49	0.50		0.34	0.31	0.55		0.63	0.07
13	103	1.05	0.97	0.82	0.79		0.58	0.56	0.91		1.01	0.11
20	110	1.08	0.99	0.84	0.82		0.61	0.61	0.94		1.02	0.14
27	117	0.84	0.77	0.66	0.63	0.07	0.48	0.48	0.74		0.76	0.15
May 4	124	1.68	1.55	1.31	1.28	0.16	0.95	1.01	1.50		1.47	0.54
11	131	1.62	1.49	1.26	1.23	0.21	0.93	1.00	1.47		1.26	0.63
18	138	1.61	1.48	1.26	1.24	0.26	0.90	0.98	1.46		1.08	0.74
25	145	1.76	1.62	1.37	1.32	0.35	0.96	1.17	1.63		0.94	0.88
Jun 1	152	1.75	1.60	1.37	1.33	0.41	0.95	1.20	1.63		0.71	0.95
8	159	2.15	1.97	1.68	1.63	0.71	1.13	1.48	2.01			1.23
15	166	2.10	1.93	1.64	1.58	0.96	1.08	1.50	1.97			1.25
22	173	1.95	1.79	1.52	1.48	1.15	1.01	1.42	1.84			1.22
29	180	1.89	1.74	1.36	1.44	1.34	0.98	1.41	1.78			1.23
Jul 6	187	2.02	1.86	1.45	1.53	1.66	1.05	1.50	1.89	0.18		1.34
13	194	2.36	2.17	1.69	1.80	2.22	1.23	1.77	2.24	0.27		1.56
20	201	1.92	1.77	1.38	1.47	1.88	1.00	1.44	1.82	0.28		1.28
27	208	1.88	1.73	1.35	1.42	1.88	0.98	1.41	1.78	0.31		1.25
Aug 3	215	1.93	1.78	1.39	1.47	1.92	1.01	1.43	1.83	0.49		1.28
10	222	2.10	1.93	1.51	1.59	2.10	1.09	1.58	1.98	0.89		1.38
17	229	2.00	1.84	1.44	1.52	2.01	1.03	1.52	1.87	1.59		1.30
24	236	1.66	1.53	1.19	1.24	1.62	0.85	1.37	1.51	1.43		1.08
31	243	1.53	1.41	1.10	1.15	1.49	0.80	1.15	1.39	1.39		1.01
Sep 7	250	1.08	0.99	0.77	0.81	0.99	0.55	0.80	0.98	0.98		0.72
14	257	1.25	1.15	0.90	0.95	1.06	0.65	0.90	1.11	1.13		0.83
21	264	1.15	1.06	0.89	0.89	0.89	0.60	0.82	1.01	1.01		0.70
28	271	1.17	1.08	0.90	0.89	0.75	0.60	0.77	1.00	1.00		0.60
Oct 5	278	1.16	1.07	0.89	0.88	0.64	0.64	0.75	0.98	0.93		0.56
12	285	0.86	0.79	0.65	0.65	0.40	0.49	0.53	0.71	0.64		0.36
19	292	0.80	0.74	0.60	0.62	0.29	0.46	0.47	0.63	0.52		0.29
26	299	0.96	0.88	0.72	0.73		0.53	0.53	0.77	0.50		0.29
Nov 2	306	0.71	0.65	0.53	0.53		0.41	0.37	0.55	0.28		0.14
9	313	0.62	0.57	0.46	0.48		0.35	0.29	0.48			0.13
16	320	0.40	0.37	0.29	0.30		0.21	0.16	0.29			0.07
23	327	0.31	0.29	0.23	0.24		0.16	0.11	0.23			0.07
30	334	0.33	0.30	0.24	0.26		0.19		0.24			
Dec 7	341	0.37	0.34	0.26	0.25		0.19		0.24			
14	348	0.23	0.21	0.16	0.18		0.13		0.16			
21	355	0.18	0.17	0.13	0.14		0.09		0.12		0.06	
28	362	0.08	0.07	0.06	0.06		0.04		0.05		0.05	
31[5]	365	0.04	0.04	0.03	0.02		0.02		0.02		0.02	
Total[6]		53.95	49.62	40.37	40.93	27.42	28.95	33.87	47.96	13.82	12.70	25.38

[1]Observed evaporation, Wasco 8SW agroclimatic station.
[2]Potential ET - alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover and no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET - grass. ET of low-growing grass at 100-percent ground cover and with no moisture stress (Penman grass reference crop).
[4]Five-day period.
[5]Three-day period.
[6]Growing season totals.

TABLE A-4

WEEKLY OBSERVED EVAPORATION AND CALCULATED EVAPOTRANSPIRATION
FOR SEVERAL CROPS IN SOUTHERN SAN JOAQUIN VALLEY
1979
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard Clean Culti-vation	Deciduous Orchard With Cover Crop	Grain Sorghum	Small Grains	Vineyard
Jan 4[4]	4	0.17	0.16	0.12	0.10		0.08		0.10		0.04	
11	11	0.33	0.30	0.23	0.25		0.20		0.22		0.11	
18	18	0.39	0.36	0.28	0.30		0.24		0.29		0.16	
25	25	0.24	0.22	0.18	0.19		0.14		0.18		0.13	
Feb 1	32	0.43	0.40	0.32	0.32		0.29		0.32		0.28	
8	39	0.46	0.42	0.34	0.34		0.28		0.34		0.32	
15	46	0.43	0.40	0.32	0.33		0.25		0.33		0.34	
22	53	0.49	0.45	0.37	0.37		0.30		0.37		0.41	
Mar 1	60	0.63	0.58	0.48	0.48		0.37		0.48		0.58	
8	67	0.69	0.63	0.52	0.52		0.40		0.54		0.64	
15	74	0.76	0.70	0.59	0.57		0.43	0.30	0.61		0.72	
22	81	0.66	0.61	0.51	0.51		0.38	0.29	0.54		0.65	
29	88	1.02	0.94	0.79	0.77		0.58	0.49	0.83		0.99	
Apr 5	95	1.31	1.21	1.01	1.01		0.74	0.61	1.09		1.27	
12	102	1.41	1.30	1.10	1.07		0.79	0.75	1.22		1.35	
19	109	1.34	1.23	1.05	1.03	0.12	0.75	0.75	1.17		1.26	0.15
26	116	1.35	1.24	1.05	1.05	0.13	0.76	0.78	1.21		1.24	0.15
May 3	123	1.58	1.45	1.23	1.20	0.19	0.88	0.94	1.42		1.37	0.19
10	130	1.84	1.69	1.44	1.40	0.29	1.03	1.17	1.70	0.21	1.43	0.33
17	137	1.96	1.80	1.53	1.50	0.40	1.10	1.29	1.81	0.26	1.31	0.63
24	144	2.09	1.92	1.63	1.58	0.51	1.15	1.41	1.94	0.29	1.13	0.83
31	151	2.24	2.06	1.75	1.71	0.75	1.22	1.52	2.08	0.36	0.93	1.03
Jun 7	158	2.36	2.17	1.84	1.81	1.10	1.25	1.63	2.21	0.42		1.18
14	165	2.10	1.93	1.64	1.60	1.25	1.10	1.50	1.97	0.53		1.14
21	172	1.89	1.74	1.47	1.44	1.36	0.98	1.37	1.77	0.60		1.08
28	179	1.80	1.66	1.40	1.37	1.47	0.94	1.32	1.69	1.08		1.08
Jul 5	186	1.97	1.81	1.54	1.49	1.85	1.02	1.46	1.85	1.68		1.18
12	193	1.50	1.38	1.17	1.14	1.47	0.79	1.13	1.42	1.35		0.97
19	200	2.33	2.14	1.82	1.77	2.33	1.20	1.75	2.21	2.09		1.53
26	207	2.02	1.86	1.58	1.53	2.03	1.06	1.52	1.89	1.82		1.33
Aug 2	214	1.92	1.77	1.50	1.46	1.92	1.01	1.44	1.81	1.69		1.28
9	221	1.91	1.76	1.49	1.45	1.92	0.99	1.43	1.80	1.64		1.25
16	228	1.98	1.82	1.54	1.52	1.97	1.03	1.49	1.86	1.66		1.31
23	235	1.94	1.78	1.51	1.47	1.88	1.01	1.46	1.79	1.55		1.28
30	242	1.50	1.38	1.17	1.14	1.39	0.78	1.14	1.36	1.14		0.99
Sep 6	249	1.49	1.37	1.16	1.13	1.26	0.78	1.10	1.35	1.05		0.98
13	256	1.50	1.38	1.17	1.15	1.15	0.76	1.08	1.34	0.98		0.95
20	263	1.86	1.71	1.43	1.41	1.21	0.96	1.30	1.63	1.07		1.14
27	270	1.00	0.92	0.77	0.74	0.65	0.52	0.69	0.86	0.57		0.60
Oct 4	277	1.17	1.08	0.90	0.90	0.53	0.64	0.76	0.97			0.57
11	284	1.08	0.99	0.82	0.82	0.38	0.60	0.68	0.90			0.46
18	291	0.96	0.88	0.72	0.72		0.54	0.58	0.78			0.34
25	298	0.93	0.86	0.64	0.72		0.53	0.53	0.73			0.29
Nov 1	305	0.76	0.70	0.57	0.59		0.42	0.40	0.60			0.16
8	312	0.62	0.57	0.46	0.49		0.35	0.31	0.49			0.14
15	319	0.53	0.49	0.39	0.40		0.30	0.23	0.40			0.11
22	326	0.46	0.42	0.34	0.36		0.24	0.17	0.34			0.08
29	333	0.45	0.41	0.32	0.34		0.24		0.33			
Dec 6	340	0.42	0.39	0.30	0.32		0.23		0.30			
13	347	0.38	0.35	0.27	0.30		0.22		0.28		0.08	
20	354	0.49	0.45	0.34	0.37		0.28		0.35		0.09	
27	361	0.42	0.39	0.29	0.33		0.25		0.30		0.09	
31[4]	365	0.14	0.13	0.10	0.10		0.07		0.08		0.03	
Total[5]		61.70	56.76	47.50	46.98	29.51	33.45	36.77	54.45	22.04	16.79[6]	24.73

[1]Observed evaporation, Wasco 8SW agroclimatic station.
[2]Potential ET – alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover and no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET – grass; ET of low-growing grass at 100-percent ground cover and with no moisture stress (Penman grass reference crop).
[4]Four-day period.
[5]Growing season totals.
[6]Growing season ET includes 0.13 inch for December 1978 and excludes 0.29 inch in December 1979.

TABLE A-5

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1980
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Grain Sorghum	Small Grains	Vineyard
								Clean Culti-vation	With Cover Crop			
Jan 3[4]	3	0.05	0.05	0.04	0.03		0.01		0.02		0.01	
10	10	0.20	0.20	0.16	0.18		0.14		0.15		0.08	
17	17	0.24	0.22	0.17	0.19		0.14		0.17		0.11	
24	24	0.24	0.22	0.17	0.18		0.14		0.17		0.13	
31	31	0.22	0.20	0.16	0.16		0.13		0.16		0.13	
Feb 7	38	0.23	0.21	0.17	0.19		0.14		0.19		0.16	
14	45	0.46	0.42	0.35	0.35		0.26		0.35		0.35	
21	52	0.50	0.46	0.38	0.38		0.29		0.38		0.43	
28	59	0.56	0.52	0.43	0.42		0.33		0.42		0.51	
Mar 6	66	0.49	0.45	0.37	0.38		0.29	0.20	0.39		0.46	
13	73	0.56	0.52	0.43	0.42		0.31	0.24	0.44		0.54	
20	80	0.93	0.86	0.72	0.70		0.52	0.44	0.75		0.91	
27	87	0.85	0.78	0.65	0.65		0.48	0.39	0.71		0.84	0.09
Apr 3	94	1.13	1.04	0.87	0.87		0.63	0.58	0.95		1.09	0.12
10	101	1.19	1.09	0.93	0.90		0.66	0.64	1.02		1.14	0.15
17	108	1.56	1.44	1.22	1.19	0.15	0.88	0.88	1.35		1.47	0.29
24	115	1.25	1.15	0.98	0.93	0.13	0.70	0.72	1.12		1.15	0.40
May 1	122	1.07	0.98	0.83	0.82	0.13	0.60	0.63	0.97		0.93	0.42
8	129	1.48	1.36	1.15	1.14	0.24	0.83	0.92	1.34	0.16	1.15	0.67
15	136	2.35	1.24	1.05	1.02	0.27	0.76	0.89	1.25	0.17	0.90	0.67
22	143	2.27	2.09	1.77	1.73	0.54	1.24	1.52	2.10	0.31	1.22	1.22
29	150	1.72	1.58	1.34	1.21	0.56	0.93	1.16	1.59	0.28	0.71	0.98
Jun 5	157	2.07	1.90	1.61	1.57	0.69	1.10	1.42	1.95	0.37		1.24
12	164	1.98	1.82	1.54	1.47	0.91	1.00	1.37	1.83	0.47		1.21
19	171	2.00	1.84	1.56	1.52	1.17	1.03	1.45	1.87	0.63		1.31
26	178	1.93	1.78	1.51	1.47	1.36	1.00	1.43	1.81	1.15		1.28
Jul 3	185	1.73	1.59	1.35	1.32	1.40	0.90	1.31	1.62	1.46		1.14
10	192	2.01	1.85	1.57	1.52	1.90	1.05	1.51	1.91	1.83		1.33
17	199	2.07	1.90	1.61	1.56	2.04	1.08	1.55	1.97	1.85		1.37
24	206	2.21	2.03	1.72	1.55	2.04	1.04	1.52	1.91	1.83		1.33
31	213	2.02	1.86	1.58	1.43	1.89	0.98	1.42	1.77	1.67		1.24
Aug 7	220	2.02	1.86	1.58	1.50	1.98	1.04	1.49	1.85	1.71		1.32
14	227	2.07	1.90	1.61	1.58	2.07	1.07	1.55	1.92	1.74		1.36
21	234	1.64	1.51	1.28	1.26	1.63	0.84	1.23	1.50	1.33		1.04
28	241	1.74	1.60	1.36	1.26	1.61	0.87	1.25	1.51	1.26		1.01
Sep 4	248	1.51	1.39	1.18	1.16	1.46	0.78	1.12	1.37	1.16		0.78
11	255	1.54	1.42	1.20	1.17	1.30	0.79	1.11	1.37	1.00		0.77
18	262	1.51	1.39	1.16	1.14	1.14	0.78	1.06	1.34	0.86		0.63
25	269	1.43	1.32	1.10	1.13	0.96	0.79	1.00	1.27	0.85		0.53
Oct 2	276	1.30	1.20	1.00	0.98	0.72	0.72	0.85	1.10			0.39
9	283	1.49	1.37	1.13	1.13	0.67	0.84	0.93	1.25			0.30
16	290	1.21	1.11	0.91	0.96	0.45	0.71	0.75	1.01			0.25
23	297	0.94	0.86	0.71	0.71		0.53	0.53	0.75			0.19
30	304	0.82	0.75	0.62	0.63		0.46	0.43	0.65			0.16
Nov 6	311	0.81	0.75	0.60	0.64		0.44	0.37	0.64			0.16
13	318	0.64	0.59	0.47	0.48		0.36	0.28	0.47			
20	325	0.64	0.59	0.47	0.47		0.34	0.24	0.45			
27	332	0.60	0.55	0.43	0.45		0.33		0.44			
Dec 4	339	0.46	0.42	0.33	0.35		0.24		0.33			
11	346	0.25	0.23	0.18	0.19		0.14		0.17		0.07	
18	353	0.27	0.25	0.19	0.22		0.15		0.19		0.07	
25	360	0.22	0.20	0.15	0.16		0.11		0.14		0.04	
31[5]	366	0.11	0.10	0.08	0.07		0.07		0.07		0.02	
Total[6]		59.81	55.01	46.13	45.09	29.41	31.99	36.38	52.42	22.09	14.71[7]	25.35

[1]Observed evaporation, Wasco 8SW agroclimatic station.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]Three-day period.
[5]Six-day period.
[6]Growing season totals.
[7]Growing season ET includes 0.29 inch for December 1979 and excludes 0.20 inch in December 1980.

TABLE A-6

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1981
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Grain Sorghum	Small Grains	Vineyard
								Clean Culti-vation	With Cover Crop			
Jan 1[4]	1	0.05	0.05	0.04	0.02		0.02		0.02		0.01	
8	8	0.20	0.18	0.14	0.15		0.13		0.15		0.07	
15	15	0.36	0.33	0.26	0.28		0.22		0.27		0.16	
22	22	0.68	0.63	0.50	0.51		0.41		0.50		0.35	
29	29	0.49	0.45	0.36	0.39		0.30		0.35		0.30	
Feb 5	36	0.47	0.43	0.35	0.37		0.27		0.36		0.32	
12	43	0.28	0.26	0.21	0.21		0.18		0.21		0.22	
19	50	0.58	0.53	0.44	0.44		0.33		0.44		0.50	
26	57	0.82	0.75	0.62	0.62		0.48		0.62		0.74	
Mar 5	64	0.47	0.43	0.36	0.35		0.26		0.35		0.44	
12	71	0.82	0.75	0.63	0.62		0.46	0.33	0.66		0.78	
19	78	0.61	0.56	0.47	0.46		0.35	0.27	0.50		0.60	
26	85	0.81	0.75	0.62	0.61		0.45	0.38	0.66		0.79	0.08
Apr 2	92	0.90	0.83	0.69	0.68		0.51	0.45	0.76		0.87	0.11
9	99	1.30	1.20	1.01	0.99		0.74	0.67	1.12		1.26	0.17
16	106	1.47	1.35	1.15	1.12		0.82	0.77	1.28		1.39	0.26
23	113	0.95	0.88	0.74	0.72	0.09	0.53	0.53	0.84		0.88	0.31
30	120	1.85	1.70	1.44	1.40	0.19	1.04	1.08	1.66		1.60	0.75
May 7	127	2.05	1.89	1.60	1.55	0.27	1.15	1.24	1.87		1.60	0.94
14	134	2.19	2.01	1.71	1.66	0.34	1.23	1.36	2.00		1.46	1.09
21	141	1.57	1.44	1.22	1.60	0.42	1.16	1.37	1.95		1.13	1.13
28	148	1.64	1.51	1.28	1.23	0.39	0.87	1.07	1.49		0.66	0.94
Jun 4	155	2.37	2.18	1.85	1.81	0.80	1.25	1.62	2.22			1.41
11	162	2.57	2.36	2.01	1.96	1.19	1.34	1.77	2.42			1.61
18	169	2.58	2.37	2.01	1.95	1.53	1.34	1.82	2.43	0.24		1.68
25	176	2.67	2.46	2.08	2.03	1.90	1.40	1.95	2.52	0.29		1.77
Jul 2	183	2.49	2.29	1.94	1.88	2.05	1.30	1.84	2.33	0.35		1.64
9	190	2.40	2.21	1.87	1.83	2.26	1.26	1.80	2.28	0.41		1.57
16	197	2.32	2.13	1.81	1.76	2.27	1.21	1.74	2.20	0.59		1.54
23	204	2.35	2.16	1.83	1.79	2.36	1.22	1.75	2.21	1.00		1.56
30	211	2.41	2.22	1.88	1.83	2.42	1.26	1.82	2.25	1.91		1.60
Aug 6	218	2.00	1.84	1.56	1.52	2.01	1.04	1.50	1.87	1.80		1.31
13	225	2.24	2.06	1.75	1.71	2.25	1.18	1.68	2.08	2.04		1.47
20	232	2.06	1.90	1.61	1.56	2.04	1.07	1.55	1.90	1.87		1.32
27	239	1.88	1.73	1.47	1.42	1.83	0.98	1.41	1.69	1.69		1.15
Sep 3	246	2.40	2.21	1.87	1.83	2.22	1.26	1.81	2.15	2.10		1.28
10	253	2.06	1.90	1.61	1.57	1.76	1.06	1.53	1.83	1.78		1.02
17	260	2.02	1.86	1.56	1.55	1.55	1.04	1.46	1.78	1.64		0.85
24	267	1.97	1.81	1.52	1.14	0.97	0.79	1.06	1.29	1.10		0.54
Oct 1	274	1.22	1.12	0.93	0.92	0.69	0.69	0.82	1.03	0.77		0.36
8	281	1.20	1.10	0.90	0.92	0.55	0.67	0.78	0.99	0.64		0.24
15	288	1.08	0.99	0.81	0.82	0.40	0.61	0.68	0.87	0.43		0.21
22	295	1.14	1.05	0.85	0.85		0.64	0.66	0.92			0.23
29	302	0.90	0.83	0.67	0.65		0.49	0.49	0.67			0.18
Nov 5	309	0.90	0.83	0.67	0.68		0.52	0.46	0.68			
12	316	0.63	0.58	0.46	0.47		0.36	0.30	0.46			
19	323	0.62	0.57	0.45	0.46		0.34	0.24	0.46			
26	330	0.49	0.45	0.35	0.35		0.28		0.35			
Dec 3	337	0.30	0.28	0.21	0.23		0.17		0.23			
10	344	0.14	0.13	0.10	0.12		0.08		0.08		0.01	
17	351	0.37	0.34	0.26	0.28		0.21		0.26		0.08	
24	358	0.42	0.39	0.29	0.34		0.23		0.28		0.09	
31	365	0.22	0.20	0.15	0.18		0.15		0.18		0.07	
Total[5]		68.98	63.46	53.17	52.39	34.75	37.35	42.06	60.97	20.65	16.33[6]	30.32

[1]Observed evaporation at Bakersfield 10NW agroclimatic station.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]One-day period.
[5]Growing season total.
[6]Growing season ET includes 0.20 inch for December 1980 and excludes 0.25 inch in December 1981.

TABLE A-7

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1982
(inches)

Week Ending	Day of Year	Evaporation[1]	ETP[2]	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard: Clean Cultivation	Deciduous Orchard: With Cover Crop	Grain Sorghum	Small Grains	Vineyard
Jan 7	7	0.29	0.27	0.21	0.23		0.18		0.21		0.10	
14	14	0.30	0.28	0.21	0.23		0.17		0.22		0.11	
21	21	0.22	0.21	0.16	0.17		0.14		0.16		0.10	
28	28	0.33	0.30	0.24	0.24		0.22		0.23		0.16	
Feb 4	35	0.40	0.37	0.30	0.30		0.24		0.30		0.24	
11	42	0.52	0.48	0.39	0.40		0.30		0.40		0.37	
18	49	0.49	0.45	0.37	0.37		0.28		0.36		0.38	
25	56	0.64	0.59	0.48	0.49		0.37		0.48		0.53	
Mar 4	63	0.61	0.56	0.46	0.47		0.34		0.47		0.54	
11	70	0.64	0.59	0.49	0.48		0.35	0.27	0.50		0.60	
18	77	0.36	0.33	0.27	0.27		0.20	0.14	0.29		0.34	
25	84	0.73	0.67	0.56	0.55		0.41	0.34	0.58		0.71	
Apr 1	91	0.84	0.77	0.65	0.63		0.47	0.41	0.69		0.82	
8	98	0.81	0.75	0.63	0.62		0.44	0.42	0.68		0.79	0.08
15	105	0.72	0.66	0.56	0.55		0.41	0.38	0.62		0.68	0.10
22	112	1.67	1.54	1.30	1.20		0.88	0.88	1.35		1.48	0.21
29	119	1.75	1.61	1.36	1.33	0.22	0.98	1.02	1.55		1.60	0.32
May 6	126	1.90	1.74	1.48	1.43	0.23	1.07	1.14	1.71		1.64	0.60
13	133	1.75	1.61	1.37	1.32	0.25	0.99	1.10	1.60		1.38	0.70
20	140	1.93	1.78	1.50	1.47	0.35	1.08	1.25	1.76		1.28	0.88
27	147	2.40	2.21	1.87	1.82	0.61	1.32	1.61	2.23		1.30	1.19
Jul 3	154	1.92	1.76	1.49	1.45	0.66	1.04	1.29	1.78		0.78	1.04
10	161	1.85	1.70	1.44	1.41	0.83	0.98	1.27	1.74			1.06
17	168	2.11	1.94	1.65	1.60	1.22	1.10	1.50	1.98			1.27
24	175	1.96	1.80	1.53	1.49	1.37	1.02	1.43	1.84			1.24
Jul 1	182	1.71	1.57	1.33	1.31	1.40	0.88	1.26	1.60			1.11
8	189	2.11	1.94	1.65	1.59	1.88	1.11	1.58	1.99	0.21		1.40
15	196	2.23	2.05	1.74	1.69	2.16	1.16	1.67	2.12	0.24		1.47
22	203	2.12	1.95	1.65	1.62	2.09	1.10	1.59	2.02	0.30		1.40
29	210	2.38	2.19	1.86	1.81	2.38	1.24	1.79	2.23	0.40		1.57
Aug 5	217	2.20	2.03	1.72	1.67	2.19	1.15	1.67	2.07	0.56		1.45
12	224	2.12	1.95	1.65	1.61	2.11	1.11	1.60	1.99	0.91		1.39
19	231	2.02	1.86	1.58	1.54	2.03	1.05	1.51	1.87	1.60		1.34
26	238	2.00	1.84	1.56	1.51	1.99	1.04	1.50	1.84	1.81		1.32
Sep 2	245	1.60	1.47	1.24	1.21	1.52	0.83	1.20	1.45	1.45		1.02
9	252	1.53	1.41	1.19	1.16	1.36	0.78	1.13	1.38	1.38		0.92
16	259	1.68	1.54	1.29	1.27	1.36	0.87	1.21	1.49	1.52		0.88
23	266	1.41	1.29	1.08	1.06	1.01	0.73	0.98	1.24	1.24		0.69
30	273	0.92	0.84	0.71	0.70	0.56	0.48	0.62	0.79	0.79		0.39
Oct 7	280	1.15	1.06	0.87	0.87	0.61	0.63	0.76	0.97	0.94		0.41
14	287	1.36	1.25	1.02	1.04	0.58	0.76	0.84	1.13	0.87		0.28
21	294	0.89	0.82	0.67	0.68	0.31	0.50	0.53	0.72	0.47		0.18
28	301	0.70	0.64	0.53	0.54		0.39	0.39	0.57	0.27		0.14
Nov 4	308	0.46	0.42	0.34	0.35		0.25	0.24	0.36			0.08
11	315	0.39	0.36	0.28	0.31		0.21	0.21	0.31			
18	322	0.18	0.17	0.13	0.14		0.11	0.09	0.14			
25	329	0.25	0.23	0.18	0.20		0.15	0.10	0.19			
Dec 2	336	0.40	0.37	0.28	0.30		0.23		0.28			
9	343	0.23	0.21	0.16	0.18		0.12		0.16			
16	350	0.28	0.26	0.20	0.21		0.15		0.20			
23	357	0.29	0.27	0.20	0.21		0.17		0.10		0.04	
30	364	0.21	0.19	0.15	0.15		0.13		0.15		0.05	
31[4]	365	0.04	0.03	0.02	0.03		0.02		0.02		0.01	
Total[5]		60.00	55.18	46.25	45.48	31.28	32.33	36.92	53.20	14.96	16.18[6]	26.13

[1]Observed evaporation at Bakersfield 10NW agroclimatic station.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]ET for one day.
[5]Growing season total.
[6]Growing season ET includes 0.25 inch for December 1981 and excludes 0.10 inch in December 1982.

TABLE A-8

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1983
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa Hay	Cotton	Citrus	Deciduous Orchard		Grain Sorghum	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 6[4]	6	0.08	0.07	0.010	0.06	0.07		0.05		0.05		0.00	
13	13	0.06	0.06	0.008	0.04	0.04		0.04		0.04		0.00	
20	20	0.24	0.22	0.031	0.17	0.19		0.13		0.18		0.07	
27	27	0.47	0.43	0.062	0.33	0.35		0.28		0.35		0.17	
Feb 3	34	0.49	0.45	0.065	0.37	0.38		0.29		0.38		0.21	
10	41	0.35	0.33	0.047	0.27	0.28		0.21		0.27		0.17	
17	48	0.52	0.48	0.069	0.39	0.40		0.30		0.40		0.33	
24	55	0.50	0.46	0.066	0.38	0.38		0.29		0.38		0.35	
Mar 3	62	0.70	0.64	0.092	0.53	0.52		0.39		0.52		0.52	
10	69	0.63	0.58	0.082	0.48	0.46		0.35	0.25	0.50		0.53	
17	76	0.85	0.78	0.112	0.65	0.66		0.48	0.38	0.68		0.76	
24	83	0.60	0.55	0.079	0.46	0.45		0.34	0.27	0.49		0.55	
31	90	0.86	0.79	0.113	0.66	0.65		0.48	0.43	0.72		0.82	0.08
Apr 7	97	1.36	1.25	0.178	1.05	1.02		0.76	0.69	1.13		1.34	0.15
14	104	1.21	1.11	0.159	0.94	0.93		0.68	0.64	1.04		1.18	0.16
21	111	1.56	1.43	0.206	1.21	1.17		0.87	0.87	1.37		1.50	0.27
28	118	1.11	1.02	0.146	0.87	0.85	0.12	0.62	0.65	0.98		1.05	0.35
May 5	125	1.10	1.01	0.144	0.86	0.84	0.14	0.62	0.66	0.98		1.04	0.44
12	132	1.88	1.73	0.247	1.46	1.42	0.29	1.06	1.19	1.71		1.47	0.86
19	139	1.99	1.83	0.261	1.55	1.51	0.35	1.12	1.29	1.83		1.33	0.99
26	146	2.11	1.94	0.277	1.64	1.60	0.54	1.16	1.40	1.95		1.14	1.14
Jun 2	153	2.22	2.04	0.291	1.73	1.70	0.75	1.19	1.50	2.06		0.91	1.26
9	160	2.24	2.06	0.294	1.75	1.69	1.01	1.19	1.54	2.10			1.34
16	167	2.38	2.19	0.313	1.86	1.82	1.37	1.24	1.68	2.24			1.51
23	174	2.54	2.33	0.334	1.98	1.87	1.75	1.28	1.78	2.30			1.60
30	181	2.46	2.27	0.324	1.92	1.86	2.00	1.30	1.83	2.32	0.24		1.62
Jul 7	188	2.27	2.09	0.298	1.77	1.75	2.05	1.20	1.74	2.16	0.25		1.53
14	195	2.33	2.14	0.306	1.81	1.75	2.26	1.20	1.75	2.21	0.31		1.53
21	202	2.11	1.94	0.277	1.64	1.60	2.08	1.10	1.58	1.99	0.36		1.39
28	209	2.23	2.05	0.293	1.74	1.70	2.25	1.14	1.66	2.10	0.55		1.48
Aug 4	216	2.23	2.05	0.293	1.74	1.70	2.22	1.16	1.68	2.09	0.97		1.47
11	223	1.82	1.68	0.239	1.42	1.38	1.82	0.96	1.36	1.72	1.44		1.20
18	230	2.02	1.86	0.266	1.58	1.53	2.02	1.04	1.52	1.89	1.81		1.34
25	237	1.66	1.53	0.218	1.29	1.26	1.64	0.86	1.23	1.52	1.50		1.05
Sep 1	244	1.84	1.70	0.242	1.44	1.40	1.75	0.96	1.38	1.67	1.67		1.13
8	251	1.87	1.73	0.247	1.46	1.42	1.66	0.97	1.38	1.69	1.69		0.92
15	258	1.88	1.71	0.244	1.45	1.41	1.51	0.97	1.33	1.65	1.64		0.92
22	265	1.75	1.61	0.230	1.35	1.33	1.26	0.90	1.22	1.53	1.51		0.73
29	272	1.06	0.98	0.140	0.82	0.80	0.64	0.56	0.70	0.91	0.86		0.52
Oct 6	279	1.02	0.94	0.134	0.77	0.78	0.53	0.57	0.66	0.85	0.74		0.31
13	286	1.14	1.05	0.149	0.85	0.86	0.49	0.64	0.71	0.95	0.73		0.22
20	293	0.96	0.88	0.126	0.72	0.74	0.32	0.53	0.56	0.77	0.49		0.21
27	300	0.96	0.88	0.126	0.72	0.74		0.54	0.54	0.76	0.39		0.21
Nov 3	307	0.61	0.56	0.080	0.45	0.47		0.35	0.31	0.48			0.12
10	314	0.54	0.49	0.071	0.39	0.40		0.31	0.25	0.40			
17	321	0.52	0.47	0.068	0.38	0.39		0.30	0.23	0.38			
24	328	0.47	0.43	0.061	0.33	0.36		0.27	0.18	0.35			
Dec 1	335	0.38	0.35	0.050	0.27	0.28		0.22		0.27			
8	342	0.34	0.31	0.044	0.24	0.27		0.19		0.23		0.06	
15	349	0.29	0.27	0.038	0.20	0.22		0.15		0.20		0.06	
22	356	0.19	0.18	0.025	0.14	0.13		0.10		0.13		0.04	
29	363	0.26	0.24	0.034	0.19	0.20		0.15		0.20		0.06	
31[5]	365	0.03	0.03	0.014	0.02	0.03		0.02		0.02		0.01	
Total[6]		63.29	58.20		48.79	48.01	32.82	34.08	39.02	56.09	17.15	15.54[7]	28.12

[1] Observed evaporation at Bakersfield 10NW agroclimatic station. Located in Section 18D, T28S, R27E, MDB&M.
[2] Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3] Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4] Six-day period.
[5] Two-day period.
[6] Growing season total.
[7] Growing season ET includes 0.10 inch for December 1982 and excludes 0.23 in December 1983.

TABLE A-9

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1984
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa Hay	Cotton	Citrus	Deciduous Orchard		Grain Sorghum	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 5[4]	5	0.15	0.14	0.020	0.11	0.12		0.09		0.11		0.05	
12	12	0.16	0.14	0.021	0.11	0.13		0.10		0.10		0.11	
19	19	0.30	0.27	0.039	0.21	0.22		0.18		0.21		0.12	
26	26	0.32	0.30	0.042	0.23	0.24		0.20		0.24		0.17	
Feb 2	33	0.58	0.53	0.076	0.43	0.44		0.34		0.43		0.35	
9	40	0.60	0.55	0.079	0.45	0.47		0.35		0.44		0.43	
16	47	0.61	0.56	0.080	0.46	0.46		0.35		0.46		0.47	
23	54	0.70	0.64	0.091	0.52	0.52		0.39		0.52		0.59	
Mar 1	61	0.81	0.74	0.106	0.61	0.62		0.47		0.62		0.74	
8	68	1.04	0.96	0.137	0.79	0.79		0.57	0.44	0.82		0.97	
15	75	1.00	0.92	0.131	0.77	0.76		0.57	0.44	0.80		0.96	
22	82	0.97	0.89	0.127	0.75	0.74		0.55	0.43	0.78		0.95	
29	89	1.25	1.15	0.165	0.96	0.95		0.70	0.62	1.04		1.22	0.12
Apr 5	96	1.12	1.03	0.147	0.86	0.86	0.09	0.62	0.56	0.94		1.09	0.13
12	103	1.01	0.93	0.133	0.78	0.76	0.10	0.57	0.55	0.87		0.96	0.13
19	110	1.56	1.44	0.205	1.22	1.19	0.20	0.88	0.88	1.35		1.47	0.27
26	117	1.72	1.58	0.226	1.34	1.30	0.29	0.97	0.99	1.53		1.57	0.54
May 3	124	1.86	1.71	0.244	1.45	1.41	0.37	1.03	1.12	1.66		1.62	0.75
10	131	2.00	1.84	0.263	1.56	1.52	0.49	1.11	1.24	1.83		1.56	0.92
17	138	1.73	1.59	0.227	1.35	1.31	0.57	0.98	1.13	1.60		1.16	0.85
24	145	2.14	1.96	0.281	1.67	1.63	0.99	1.18	1.44	1.98		1.15	1.15
31	152	2.35	2.17	0.309	1.84	1.78	1.11	1.27	1.61	2.18		0.97	1.34
Jun 7	159	2.00	1.84	0.263	1.56	1.52	1.18	1.05	1.37	1.88			1.19
14	166	2.19	2.01	0.288	1.71	1.67	1.54	1.14	1.56	2.06			1.38
21	173	2.55[5]	1.98	0.283	1.68	1.64	1.76	1.13	1.56	2.02			1.39
28	180	2.40	2.21	0.315	1.87	1.82	2.16	1.24	1.78	2.26			1.59
Jul 5	187	2.49	2.29	0.327	1.94	1.89	2.42	1.29	1.88	2.35	0.24		1.63
12	194	2.58	2.37	0.339	2.01	1.96	2.59	1.33	1.94	2.45	0.28		1.70
19	201	2.77	2.55	0.364	2.16	2.10	2.76	1.44	2.08	2.64	0.39		1.83
26	208	1.97	1.81	0.258	1.53	1.50	1.97	1.02	1.47	1.85	0.34		1.30
Aug 2	215	2.37	2.18	0.311	1.85	1.79	2.21	1.21	1.76	2.23	0.58		1.56
9	222	2.13	1.96	0.279	1.66	1.61	2.08	1.11	1.59	2.00	0.92		1.41
16	229	2.04	1.88	0.269	1.60	1.49	1.84	1.03	1.47	1.83	1.56		1.31
23	236	2.22	2.04	0.291	1.73	1.69	1.95	1.16	1.67	2.03	2.00		1.49
30	243	2.07	1.90	0.272	1.61	1.57	1.65	1.07	1.56	1.87	1.87		1.25
Sep 6	250	1.99	1.83	0.262	1.53	1.52	1.38	1.03	1.47	1.79	1.82		1.06
13	257	1.89	1.74	0.248	1.45	1.44	1.09	0.98	1.36	1.69	1.69		0.92
20	264	1.84	1.69	0.241	1.41	1.39	0.88	0.95	1.29	1.62	1.62		0.77
27	271	1.87[5]	1.54	0.219	1.29	1.28	0.66	0.89	1.16	1.44	1.44		0.59
Oct 4	278	1.40	1.29	0.184	1.06	1.05	0.40	0.76	0.91	1.16	1.13		0.40
11	285	1.20	1.10	0.158	0.90	0.92		0.69	0.76	1.00	0.87		0.24
18	292	0.92	0.84	0.120	0.69	0.69		0.52	0.54	0.73	0.59		0.18
25	299	0.89	0.82	0.117	0.67	0.67		0.49	0.49	0.73	0.47		0.19
Nov 1	306	0.89	0.82	0.117	0.65	0.68		0.49	0.45	0.69			0.17
8	313	0.89	0.82	0.117	0.65	0.68		0.50	0.42	0.68			0.18
15	320	0.78	0.72	0.103	0.57	0.56		0.42	0.32	0.55			
22	327	0.34	0.31	0.045	0.23	0.24		0.19	0.14	0.22			
29	334	0.37	0.34	0.049	0.27	0.28		0.22		0.27			
Dec 6	341	0.36	0.33	0.047	0.25	0.27		0.20		0.27			
13	348	0.43	0.40	0.057	0.30	0.32		0.24		0.30		0.08	
20	355	0.32	0.29	0.042	0.22	0.25		0.16		0.22		0.07	
27	362	0.21	0.19	0.028	0.15	0.16		0.13		0.15		0.04	
31[6]	366	0.11	0.10	0.024	0.08	0.10		0.07		0.08		0.03	
Total[7]		70.46	64.23		53.75	52.97	34.73	37.62	42.45	61.57	17.81	18.91[8]	29.93

[1]Observed evaporation at Bakersfield 10NW agroclimatic station. Located in Section 18D, T28S, R27E, MDB&M.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]Five-day period.
[5]Reported evaporation (Ep) adjusted for ET calculation due to conditions resulting in elevated Ep.
[6]Four-day period.
[7]Growing season total.
[8]Growing season ET includes 0.23 inch for December 1983 and excludes 0.22 inch in December 1984.

TABLE A-10

WEEKLY OBSERVED EVAPORATION AND CALCULATED EVAPOTRANSPIRATION
FOR SEVERAL CROPS SOUTHERN SAN JOAQUIN VALLEY
1985
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Grain Sorghum	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 3[4]	3	0.11	0.10	0.034	0.08	0.08		0.06		0.07		0.03	
10	10	0.24	0.22	0.031	0.17	0.18		0.14		0.16		0.07	
17	17	0.24	0.22	0.032	0.17	0.20		0.15		0.18		0.10	
24	24	0.15	0.14	0.020	0.11	0.12		0.09		0.12		0.08	
31	31	0.22	0.20	0.028	0.16	0.15		0.14		0.15		0.13	
Feb 7	38	0.44	0.41	0.058	0.33	0.33		0.26		0.33		0.26	
14	45	0.52	0.48	0.068	0.39	0.39		0.31		0.39		0.38	
21	52	0.66	0.60	0.086	0.49	0.50		0.38		0.49		0.51	
28	59	1.00	0.92	0.131	0.76	0.77		0.57		0.77		0.84	
Mar 7	66	0.79	0.73	0.104	0.60	0.61		0.46		0.62		0.71	
14	73	0.88	0.81	0.116	0.68	0.66		0.49	0.36	0.72		0.84	
21	80	0.87	0.80	0.115	0.67	0.66		0.50	0.40	0.70		0.85	
28	87	1.08	0.99	0.142	0.83	0.83		0.61	0.50	0.90		1.07	
Apr 4	94	1.35	1.24	0.178	1.04	1.03		0.76	0.67	1.14		1.32	0.13
11	101	1.35	1.24	0.177	1.05	1.03		0.76	0.69	1.16		1.30	0.15
18	108	1.65	1.52	0.217	1.29	1.25	0.15	0.92	0.88	1.44		1.58	0.21
25	115	1.41	1.29	0.185	1.10	1.07	0.14	0.79	0.79	1.25		1.31	0.26
May 2	122	1.95	1.80	0.257	1.52	1.48	0.26	1.07	1.14	1.77		1.79	0.63
9	129	1.91	1.75	0.250	1.49	1.45	0.30	1.07	1.13	1.73		1.65	0.76
16	136	1.97	1.82	0.259	1.54	1.51	0.39	1.10	1.24	1.81		1.53	0.90
23	143	1.98	1.82	0.261	1.55	1.51	0.46	1.09	1.28	1.84		1.33	0.99
30	150	2.02	1.86	0.265	1.58	1.54	0.66	1.09	1.35	1.87		1.09	1.09
Jun 6	157	1.95	1.80	0.256	1.52	1.48	0.90	1.04	1.33	1.84		0.79	1.12
13	164	2.36	2.17	0.310	1.84	1.78	1.41	1.22	1.63	2.21			1.41
20	171	2.42	2.23	0.319	1.89	1.81	1.68	1.26	1.68	2.24			1.50
27	178	2.36	2.17	0.310	1.84	1.80	1.94	1.23	1.73	2.23	0.24		1.54
Jul 4	185	2.38	2.19	0.313	1.86	1.82	2.24	1.24	1.76	2.24	0.27		1.57
11	192	2.35	2.16	0.309	1.83	1.78	2.31	1.22	1.76	2.24	0.34		1.56
18	199	2.35[5]	2.16	0.309	1.83	1.78	2.36	1.22	1.76	2.23	0.39		1.55
25	206	2.20[5]	2.02	0.289	1.72	1.68	2.20	1.14	1.65	2.06	0.57		1.46
Aug 1	213	2.10[5]	1.93	0.276	1.64	1.60	2.10	1.10	1.58	1.97	0.90		1.39
8	220	2.20[5]	2.02	0.289	1.72	1.67	2.19	1.15	1.64	2.05	1.74		1.46
15	227	2.05[5]	1.89	0.269	1.60	1.54	2.02	1.07	1.54	1.91	1.85		1.35
22	234	1.99	1.83	0.261	1.55	1.51	1.93	1.03	1.50	1.83	1.80		1.32
29	241	2.07	1.91	0.272	1.61	1.57	1.89	1.06	1.56	1.88	1.88		1.33
Sep 5	248	1.91	1.76	0.251	1.49	1.46	1.61	0.99	1.42	1.71	1.76		1.17
12	255	1.54	1.42	0.203	1.20	1.17	1.17	0.80	1.15	1.37	1.36		0.82
19	262	1.48	1.36	0.194	1.14	1.14	0.96	0.78	1.07	1.29	1.28		0.72
26	269	1.70	1.56	0.223	1.31	1.30	0.94	0.91	1.19	1.46	1.39		0.70
Oct 3	276	1.25	1.15	0.164	0.96	0.96	0.51	0.69	0.85	1.04	0.91		0.44
10	283	1.49	1.37	0.196	1.13	1.13	0.53	0.84	0.98	1.24	0.95		0.45
17	290	1.26	1.16	0.166	0.95	0.95		0.71	0.78	1.01	0.66		0.25
24	297	0.80	0.73	0.105	0.60	0.60		0.44	0.48	0.64	0.31		0.17
31	304	0.69	0.63	0.090	0.52	0.52		0.39	0.39	0.54			0.14
Nov 7	311	0.72	0.66	0.094	0.53	0.54		0.39	0.38	0.54			0.14
14	318	0.67	0.62	0.089	0.49	0.50		0.37	0.32	0.49			
21	325	0.38	0.35	0.050	0.28	0.30		0.22	0.17	0.29			
28	332	0.25	0.23	0.033	0.18	0.19		0.14	0.10	0.19			
Dec 5	339	0.29	0.26	0.037	0.20	0.21		0.16		0.20			
12	346	0.25	0.23	0.033	0.18	0.19		0.14		0.17		0.04	
19	353	0.16	0.15	0.021	0.11	0.13		0.09		0.12		0.03	
26	360	0.05	0.05	0.007	0.04	0.07		0.01		0.01		0.00	
31[6]	365	0.08	0.08	0.015	0.06	0.08		0.04		0.07		0.02	
Total[7]		66.54[5]	61.21		51.42	50.61	33.25	35.90	40.83	58.92	18.60	19.78[8]	28.68

[1]Observed evaporation, Class "A" pan, irrigated pasture, Bakersfield 10NW.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]Three-day period.
[5]Observed evaporation (Ep) as adjusted to compensate for non-standard pasture conditions (see text).
[6]Five-day period.
[7]Growing season total.
[8]Growing season ET includes 0.22 inch for December 1984 and excludes 0.09 inch in December 1985.

TABLE A-11

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1986
(inches)

Week Ending	Day of Year	Evaporation[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Dry Beans	Small Grains	Vineyard
									Clean Cultivation	With Cover Crop			
Jan 2[4]	2	0.07	0.06	0.032	0.05	0.05		0.03		0.04		0.02	
9	9	0.34	0.31	0.045	0.24	0.26		0.20		0.24		0.10	
16	16	0.25	0.23	0.033	0.18	0.19		0.15		0.18		0.09	
23	23	0.33	0.31	0.044	0.24	0.25		0.20		0.24		0.14	
30	30	0.66	0.56	0.080	0.45	0.47		0.37		0.45		0.32	
Feb 6	37	0.40	0.37	0.052	0.29	0.27		0.21		0.27		0.22	
13	44	0.43	0.40	0.057	0.33	0.33		0.26		0.33		0.30	
20	51	0.60	0.55	0.078	0.43	0.44		0.34		0.43		0.45	
27	58	0.73	0.67	0.096	0.56	0.56		0.42		0.56		0.61	
Mar 6	65	0.68	0.62	0.089	0.51	0.51		0.39	0.28	0.53		0.60	
13	72	0.62	0.57	0.081	0.48	0.47		0.35	0.27	0.49		0.58	0.06
20	79	0.79	0.73	0.104	0.61	0.60		0.44	0.37	0.64		0.76	0.09
27	86	1.04	0.96	0.137	0.80	0.79		0.59	0.51	0.87		1.02	0.14
Apr 3	93	1.10	1.01	0.145	0.85	0.84		0.62	0.56	0.93		1.08	0.20
10	100	1.13	1.04	0.148	0.88	0.86		0.63	0.60	0.97		1.09	0.36
17	107	1.41	1.30	0.185	1.10	1.07	0.13	0.79	0.79	1.23		1.34	0.56
24	114	1.77	1.63	0.233	1.38	1.35	0.18	0.99	1.03	1.58		1.67	0.82
May 1	121	1.82	1.68	0.240	1.42	1.36	0.23	1.00	1.08	1.61		1.65	0.90
8	128	1.69	1.55	0.222	1.32	1.28	0.27	0.95	1.07	1.54		1.47	0.91
15	135	2.05	1.88	0.269	1.60	1.55	0.41	1.15	1.33	1.88	0.23	1.60	1.17
22	142	2.26	2.08	0.298	1.77	1.72	0.54	1.25	1.52	2.11	0.34	1.52	1.36
29	149	2.25	2.07	0.296	1.76	1.71	0.74	1.22	1.53	2.10	0.61	1.22	1.42
Jun 5	156	2.35	2.17	0.309	1.84	1.79	1.08	1.25	1.62	2.21	1.44		1.53
12	163	2.82	2.47	0.352	2.09	2.04	1.58	1.39	1.90	2.52	2.20		1.77
19	170	2.28	2.09	0.299	1.78	1.73	1.62	1.18	1.66	2.14	2.00		1.50
26	177	2.56	2.36	0.337	2.00	1.95	2.10	1.33	1.90	2.41	2.31		1.69
Jul 3	184	2.56	2.36	0.336	2.00	1.95	2.41	1.33	1.92	2.41	2.30		1.69
10	191	2.36	2.17	0.310	1.84	1.83	2.36	1.25	1.81	2.29	2.17		1.59
17	198	2.63	2.42	0.345	2.05	2.00	2.63	1.37	1.97	2.50	2.36		1.73
24	205	2.40	2.20	0.315	1.87	1.82	2.40	1.25	1.80	2.25	2.09		1.58
31	212	2.21	2.03	0.291	1.73	1.68	2.21	1.15	1.66	2.08	1.73		1.46
Aug 7	219	2.50	2.30	0.329	1.95	1.90	2.50	1.30	1.88	2.35	1.55		1.60
14	226	2.42	2.23	0.319	1.89	1.84	2.40	1.26	1.82	2.26	1.07		1.48
21	233	1.84	1.70	0.243	1.44	1.45	1.85	0.99	1.43	1.75	0.48		1.01
28	240	2.11	1.94	0.277	1.65	1.60	1.94	1.10	1.58	1.92			1.03
Sep 4	247	1.91	1.75	0.251	1.49	1.45	1.62	0.99	1.41	1.72			0.80
11	254	2.04	1.88	0.268	1.59	1.55	1.55	1.06	1.47	1.82			0.74
18	261	1.53	1.41	0.201	1.18	1.17	1.00	0.80	1.07	1.35			0.46
25	268	1.25	1.15	0.165	0.96	0.95	0.69	0.66	0.84	1.08			0.25
Oct 2	275	1.31	1.20	0.172	1.01	0.99	0.59	0.72	0.85	1.10			0.26
9	282	1.44	1.32	0.189	1.09	1.09	0.52	0.81	0.89	1.19			0.29
16	289	1.28	1.17	0.168	0.96	0.97		0.72	0.75	1.02			0.18
23	296	0.93	0.86	0.123	0.70	0.71		0.52	0.52	0.75			0.15
30	303	0.73	0.67	0.096	0.55	0.55		0.41	0.38	0.57			0.18
Nov 6	310	0.89	0.81	0.116	0.66	0.67		0.50	0.42	0.67			0.16
13	317	0.79	0.73	0.104	0.58	0.60		0.44	0.34	0.59			
20	324	0.46	0.42	0.060	0.34	0.35		0.26	0.18	0.34			
27	331	0.41	0.38	0.054	0.30	0.31		0.23		0.30			
Dec 4	338	0.45	0.41	0.058	0.32	0.34		0.25		0.32			
11	345	0.27	0.25	0.035	0.19	0.21		0.15		0.19		0.05	
18	352	0.31	0.29	0.041	0.22	0.24		0.18		0.22		0.06	
25	359	0.19	0.17	0.025	0.13	0.14		0.11		0.13		0.04	
31[5]	365	0.12	0.11	0.018	0.08	0.09		0.07		0.08		0.03	
Total[6]		69.77	64.00		53.73	52.89	35.55	37.58	43.01	61.75	22.88	17.94[7]	31.38

[1]Observed evaporation, Class "A" pan, irrigated pasture, Bakersfield 10NW.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]Two-day period.
[5]ET for six days.
[6]Growing season total.
[7]Growing season ET includes 0.09 inch for December 1985 and excludes 0.18 inch in December 1986.

TABLE A-12

WEEKLY OBSERVED EVAPORATION AND CALCULATED EVAPOTRANSPIRATION FOR SEVERAL CROPS SOUTHERN SAN JOAQUIN VALLEY – 1987
(inches)

Week Ending	Day of Year	Evapo-ration[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Dry Beans	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 1[4]	1	0.03	0.02	0.023	0.02	0.02		0.02		0.02		0.01	
8	8	0.36	0.33	0.047	0.26	0.29		0.23		0.27		0.11	
15	15	0.15	0.14	0.020	0.11	0.12		0.09		0.11		0.06	
22	22	0.39	0.36	0.051	0.28	0.30		0.24		0.28		0.17	
29	29	0.46	0.42	0.060	0.33	0.35		0.27		0.33		0.24	
Feb 5	36	0.37	0.35	0.050	0.28	0.29		0.23		0.28		0.23	
12	43	0.65	0.60	0.086	0.48	0.49		0.38		0.49		0.45	
19	50	0.56	0.51	0.073	0.42	0.42		0.33		0.42		0.44	
26	57	0.65	0.60	0.086	0.49	0.50		0.38		0.49		0.55	
Mar 5	64	1.15	1.06	0.151	0.88	0.88		0.67	0.38[5]	0.88		1.03	
12	71	0.80	0.74	0.106	0.61	0.61		0.46	0.35	0.62		0.75	
19	78	0.76	0.70	0.100	0.59	0.58		0.43	0.35	0.61		0.73	
26	85	0.76	0.70	0.100	0.58	0.58		0.42	0.37	0.61		0.74	
Apr 2	92	1.66	1.53	0.219	1.28	1.27		0.93	0.85	1.38		1.63	0.17
9	99	1.46	1.34	0.191	1.12	1.11		0.81	0.77	1.22		1.41	0.16
16	106	1.63	1.50	0.214	1.27	1.24	0.16	0.91	0.91	1.40		1.55	0.21
23	113	1.93	1.78	0.254	1.55	1.47	0.19	1.08	1.12	1.68		1.81	0.35
30	120	1.83	1.68	0.240	1.43	1.39	0.22	1.03	1.10	1.63		1.68	0.59
May 7	127	2.08	1.91	0.273	1.62	1.58	0.29	1.16	1.31	1.87	0.19[6]	1.81	0.83
14	134	2.50	2.30	0.329	1.95	1.90	0.40	1.40	1.62	2.27	0.37	1.95	1.15
21	141	1.87	1.72	0.246	1.46	1.42	0.39	1.04	1.25	1.72	0.50	1.25	0.93
28	148	1.99	1.83	0.261	1.55	1.51	0.56	1.10	1.35	1.85	1.21	1.08	1.08
Jun 4	155	2.24	2.06	0.294	1.75	1.71	0.83	1.21	1.55	2.09	1.91	0.92	1.28
11	162	2.05	1.89	0.269	1.60	1.56	0.98	1.08	1.45	1.93	1.80		1.23
18	169	2.41	2.22	0.317	1.88	1.83	1.42	1.25	1.76	2.27	2.17		1.52
25	176	2.43	2.24	0.320	1.90	1.85	1.70	1.26	1.80	2.29	2.19		1.58
Jul 2	183	2.44	2.24	0.320	1.88	1.86	2.00	1.27	1.83	2.29	2.20		1.61
9	190	2.33	2.14	0.306	1.81	1.77	2.12	1.21	1.75	2.19	2.09		1.53
16	197	2.45	2.26	0.323	1.91	1.87	2.38	1.28	1.84	2.33	2.13		1.62
23	204	1.96	1.80	0.257	1.53	1.49	1.96	1.02	1.47	1.86	1.53		1.29
30	211	2.09	1.92	0.274	1.63	1.59	2.09	1.09	1.57	1.96	1.30		1.38
Aug 6	218	2.40[7]	2.21	0.316	1.87	1.82	2.40	1.25	1.80	2.26	1.06		1.58
13	225	2.36[7]	2.17	0.310	1.84	1.79	2.36	1.23	1.77	2.22	0.59		1.56
20	232	2.10	1.93	0.276	1.64	1.60	2.06	1.09	1.58	1.96			1.39
27	239	1.99	1.83	0.261	1.56	1.52	1.89	1.04	1.50	1.83			1.28
Sep 3	246	1.96	1.80	0.257	1.53	1.49	1.72	1.02	1.47	1.78			1.20
10	253	1.87	1.72	0.246	1.46	1.42	1.48	0.97	1.39	1.69			0.99
17	260	1.53	1.41	0.201	1.20	1.17	1.06	0.80	1.10	1.37			0.75
24	267	1.66[7]	1.52	0.217	1.27	1.25	0.97	0.86	1.56	1.45			0.69
Oct 1	274	1.61	1.48	0.211	1.19	1.22	0.77	0.85	1.08	1.38			0.58
8	281	1.45[7]	1.33	0.190	1.13	1.10		0.80	0.94	1.22			0.44
15	288	1.28	1.18	0.169	0.97	0.97		0.72	0.79	1.06			0.26
22	295	1.00	0.92	0.131	0.75	0.76		0.56	0.59	0.80			0.20
29	302	0.83	0.77	0.110	0.63	0.63		0.47	0.47	0.67			0.17
Nov 5	309	0.48	0.44	0.063	0.36	0.36		0.27	0.25	0.37			0.10
12	316	0.43	0.40	0.057	0.32	0.33		0.24	0.20	0.33			0.09
19	323	0.42	0.39	0.056	0.31	0.32		0.24	0.18	0.31			0.08
26	330	0.50	0.46	0.066	0.36	0.38		0.28		0.36			
Dec 3	337	0.44	0.40	0.057	0.31	0.33		0.24		0.31			
10	344	0.45	0.41	0.059	0.32	0.34		0.25		0.32			
17	351	0.72	0.67	0.096	0.51	0.55		0.40		0.51		0.13	
24	358	0.25	0.23	0.033	0.18	0.19		0.14		0.18		0.05	
31	365	0.27	0.25	0.034	0.18	0.20		0.16		0.19		0.06	
Total[8]		70.44	64.81		54.34	53.59	32.40	38.16	43.42	62.21	21.24	20.78[9]	29.87

[1]Evaporation, Class "A" pan, irrigated pasture, Bakersfield 10NW.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]ET for one day.
[5]ET for five days.
[6]ET for six days.
[7]Observed evaporation (Ep) adjusted to compensate for non-standard pasture conditions.
[8]Growing season total.
[9]Growing season total includes 0.18 inch for December 1986 and excludes 0.24 inch in December 1987.

TABLE A-13

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1988
(inches)

Week Ending	Day of Year	Evaporation[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa (Hay)	Cotton	Citrus	Deciduous Orchard		Dry Beans	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 7	7	0.24	0.22	0.032	0.17	0.18		0.14		0.17		0.06	
14	14	0.24	0.22	0.032	0.18	0.18		0.15		0.17		0.07	
21	21	0.34	0.31	0.045	0.25	0.26		0.21		0.25		0.12	
28	28	0.48	0.44	0.063	0.35	0.36		0.29		0.35		0.21	
Feb 4	35	0.47	0.44	0.062	0.35	0.36		0.28		0.35		0.26	
11	42	0.60	0.55	0.079	0.45	0.46		0.35		0.45		0.37	
18	49	0.89	0.82	0.117	0.67	0.68		0.53		0.67		0.63	
25	56	0.84[4]	0.77	0.111	0.64	0.64		0.49		0.63		0.66	
Mar 3	63	0.75[4]	0.69	0.099	0.57	0.57		0.44		0.57		0.63	
10	70	0.90	0.83	0.119	0.69	0.69		0.52	0.37	0.71		0.80	
17	77	1.29[4]	1.19	0.170	1.00	0.98		0.72	0.57	1.04		1.22	
24	84	1.43	1.29	0.184	1.08	1.06		0.78	0.64	1.13		1.34	
31	91	1.41[4]	1.30	0.185	1.09	1.07		0.79	0.69	1.17		1.38	0.14
April 7	98	1.54	1.42	0.202	1.19	1.17		0.86	0.79	1.30		1.51	0.17
14	105	1.45	1.34	0.191	1.13	1.11	0.15	0.81	0.77	1.25		1.41	0.19
21	112	0.99	0.91	0.130	0.77	0.75	0.10	0.55	0.55	0.86		0.94	0.18
28	119	1.20	1.10	0.157	0.93	0.91	0.16	0.67	0.69	1.06		1.12	0.38
May 5	126	1.59[4]	1.46	0.209	1.24	1.21	0.22	0.89	0.95	1.43		1.46	0.64
12	133	1.70	1.56	0.223	1.32	1.29	0.29	0.95	1.07	1.55		1.48	0.78
19	140	1.92	1.77	0.252	1.50	1.46	0.31	1.08	1.25	1.77	0.21	1.04	0.96
26	147	2.29[4]	2.11	0.301	1.79	1.74	0.46	1.26	1.53	2.13	0.34	0.23	1.24
June 2	154	1.98[4]	1.82	0.260	1.54	1.50	0.59	1.07	1.34	1.84	0.53		1.13
9	161	2.06[4]	1.90	0.271	1.61	1.57	0.91	1.09	1.42	1.94	1.26		1.24
16	168	2.49	2.29	0.327	1.94	1.89	1.42	1.29	1.77	2.34	2.04		1.57
23	175	1.94	1.78	0.255	1.51	1.47	1.36	1.01	1.41	1.82	1.70		1.26
30	182	2.30	2.11	0.302	1.79	1.74	1.88	1.19	1.70	2.16	2.07		1.52
July 7	189	2.72	2.50	0.357	2.13	2.07	2.45	1.42	2.04	2.56	2.45		1.80
14	196	2.44	2.25	0.322	1.91	1.86	2.32	1.27	1.83	2.32	2.20		1.61
21	203	2.44	2.24	0.321	1.90	1.85	2.41	1.27	1.83	2.32	2.19		1.61
28	210	2.46[4]	2.26	0.323	1.92	1.87	2.46	1.28	1.85	2.31	2.14		1.62
Aug 4	217	2.20[4]	2.02	0.289	1.72	1.67	2.20	1.14	1.65	2.07	1.72		1.45
11	224	2.10[4]	1.93	0.276	1.64	1.60	2.10	1.09	1.58	1.98	1.30		1.39
18	231	1.90[4]	1.75	0.250	1.48	1.44	1.90	0.99	1.42	1.77	0.84		1.25
25	238	1.93[4]	1.77	0.254	1.50	1.47	1.89	1.00	1.45	1.77	0.48		1.23
Sep 1	245	2.04[4]	1.88	0.269	1.59	1.55	1.88	1.06	1.53	1.86			1.25
8	252	1.91[4]	1.76	0.251	1.49	1.45	1.62	0.99	1.41	1.72			1.01
15	259	1.69	1.55	0.221	1.31	1.28	1.30	0.88	1.21	1.50			0.83
22	266	1.50	1.38	0.197	1.16	1.14	1.01	0.78	1.05	1.32			0.63
29	273	1.35[4]	1.24	0.177	1.04	1.03	0.70	0.72	0.90	1.16			0.49
Oct 6	280	1.36[4]	1.25	0.179	1.05	1.04	0.54	0.75	0.89	1.14			0.41
13	287	1.13	1.04	0.148	0.86	0.86		0.63	0.70	0.94			0.23
20	294	1.11	1.02	0.146	0.83	0.84		0.62	0.65	0.89			0.22
27	301	1.00	0.92	0.131	0.75	0.76		0.56	0.56	0.80			0.20
Nov 3	308	0.68[4]	0.63	0.089	0.51	0.52		0.38	0.35	0.53			0.14
10	315	0.70	0.65	0.092	0.52	0.53		0.39	0.33	0.53			0.14
17	322	0.67	0.62	0.088	0.49	0.51		0.38	0.29	0.50			0.13
24	329	0.44	0.40	0.058	0.32	0.33		0.25	0.18	0.32			
Dec 1	336	0.22	0.20	0.029	0.16	0.17		0.12		0.16			
8	343	0.34	0.31	0.045	0.24	0.26		0.19		0.24			
15	350	0.39	0.36	0.052	0.28	0.30		0.22		0.28		0.07	
22	357	0.21	0.19	0.028	0.15	0.16		0.12		0.15		0.04	
29	364	0.24	0.22	0.031	0.17	0.18		0.14		0.17		0.05	
31[5]	366	0.07	0.06	0.031	0.05	0.05		0.04		0.05		0.02	
Total[6]		68.57	63.04		52.92	52.09	32.63	37.09	41.21	60.47	21.47	17.18[7]	29.04

[1]Observed evaporation, Class "A" pan, irrigated pasture, Bakersfield 10NW.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise alfalfa reference crop). Estimated as 0.92 x pan evaporation.
[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman grass reference crop).
[4]Evaporation adjusted to compensate for non-standard pasture conditions.
[5]ET for two days.
[6]Growing season total.
[7]Growing season ET includes 0.24 inch for December 1987 and excludes 0.18 inch in December 1988.

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1989
(inches)

Week Ending	Day of Year	Evaporation[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa Hay	Cotton	Citrus	Deciduous Orchard		Dry Beans	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 5[4]	5	0.08	0.07	0.014	0.05	0.06		0.05		0.05		0.03	
12	12	0.30	0.28	0.039	0.22	0.23		0.18		0.21		0.09	
19	19	0.29	0.26	0.038	0.21	0.22		0.17		0.21		0.10	
26	26	0.36	0.33	0.048	0.27	0.28		0.22		0.27		0.16	
Feb 2	33	0.57	0.52	0.074	0.42	0.43		0.34		0.42		0.29	
9	40	0.59	0.54	0.078	0.44	0.45		0.35		0.44		0.37	
16	47	0.42	0.38	0.055	0.31	0.32		0.25		0.31		0.29	
23	54	0.69	0.64	0.091	0.52	0.53		0.41		0.52		0.48	
Mar 2	61	0.74	0.68	0.098	0.57	0.57		0.43		0.57		0.62	
9	68	0.89	0.82	0.117	0.68	0.68		0.51	0.29[5]	0.69		0.79	
16	75	0.84	0.77	0.110	0.64	0.63		0.47	0.37	0.67		0.78	
23	82	1.05	0.97	0.138	0.81	0.80		0.59	0.48	0.85		1.01	
30	89	1.11	1.02	0.146	0.86	0.85		0.62	0.54	0.92		1.09	0.11
Apr 6	96	1.45	1.33	0.191	1.12	1.10		0.81	0.74	1.22		1.42	0.16
13	103	1.62	1.49	0.213	1.26	1.23	0.15	0.91	0.86	1.39		1.57	0.21
20	110	1.56	1.44	0.205	1.21	1.19	0.16	0.87	0.87	1.36		1.48	0.28
27	117	1.59	1.46	0.209	1.24	1.21	0.19	0.89	0.92	1.41		1.49	0.51
May 4	124	1.79	1.65	0.236	1.40	1.36	0.25	1.00	1.08	1.61		1.65	0.72
11	131	1.60	1.47	0.210	1.25	1.22	0.27	0.90	1.01	1.46		1.40	0.74
18	138	1.89	1.74	0.248	1.47	1.44	0.38	1.06	1.23	1.74	0.21	1.47	0.95
25	145	1.91	1.76	0.251	1.49	1.45	0.54	1.05	1.28	1.78	0.29	1.28	1.03
Jun 1	152	2.26	2.08	0.297	1.77	1.72	0.84	1.22	1.54	2.10	0.61	1.09	1.29
8	159	2.19	2.01	0.288	1.71	1.66	1.05	1.16	1.51	2.06	1.34	-	1.31
15	166	2.10	1.93	0.276	1.64	1.60	1.24	1.09	1.49	1.97	1.72		1.32
22	173	2.30	2.12	0.302	1.79	1.75	1.61	1.20	1.68	2.16	2.02		1.50
29	180	2.28	2.10	0.300	1.78	1.74	1.87	1.19	1.69	2.15	2.06		1.51
Jul 6	187	2.09	1.92	0.275	1.63	1.59	1.90	1.09	1.57	1.97	1.88		1.38
13	194	2.19	2.02	0.288	1.71	1.67	2.13	1.14	1.65	2.08	1.98		1.45
20	201	2.20	2.02	0.289	1.72	1.67	2.20	1.14	1.65	2.09	1.98		1.45
27	208	2.39	2.20	0.314	1.86	1.81	2.39	1.24	1.79	2.24	2.08		1.58
Aug 3	215	2.24	2.06	0.294	1.74	1.70	2.24	1.16	1.68	2.10	1.74		1.48
10	222	2.14	1.97	0.281	1.67	1.62	2.14	1.11	1.60	2.01	1.33		1.41
17	229	2.26	2.08	0.297	1.76	1.71	2.21	1.17	1.69	2.10	0.99		1.49
24	236	1.85	1.70	0.243	1.44	1.40	1.76	0.96	1.39	1.70	0.46		1.22
31	243	1.89	1.73	0.248	1.47	1.43	1.66	0.98	1.41	1.72	-		1.24
Sep 7	250	1.84	1.69	0.241	1.43	1.40	1.45	0.96	1.36	1.65			1.18
14	257	1.59	1.46	0.209	1.24	1.21	1.10	0.83	1.15	1.42			0.97
21	264	1.24	1.14	0.163	0.96	0.94	0.73	0.65	0.87	1.09			0.66
28	271	1.16	1.07	0.153	0.89	0.88	0.56	0.62	0.78	1.00			0.57
Oct 5	278	1.25	1.15	0.164	0.96	0.95	0.50	0.69	0.81	1.05			0.52
12	285	1.24	1.14	0.163	0.94	0.94	-	0.70	0.77	1.03			0.45
19	292	1.06	0.97	0.139	0.79	0.80		0.59	0.62	0.85	-		0.32
26	299	1.05	0.97	0.138	0.79	0.80		0.59	0.59	0.84			0.21
Nov 2	306	0.84	0.78	0.111	0.63	0.64		0.47	0.44	0.66			0.17
9	313	0.63	0.58	0.083	0.47	0.48		0.35	0.30	0.48			0.13
16	320	0.52	0.48	0.068	0.38	0.39		0.29	0.22	0.38			0.10
23	327	0.52	0.48	0.068	0.38	0.39		0.29	0.21	0.38			-
30	334	0.52	0.48	0.069	0.38	0.40		0.29	-	0.38			
Dec 7	341	0.37	0.34	0.048	0.26	0.28		0.20		0.26			
14	348	0.30	0.28	0.039	0.21	0.22		0.17		0.21		0.05	
21	355	0.27	0.24	0.035	0.19	0.20		0.15		0.19		0.05	
28	362	0.16	0.15	0.022	0.11	0.12		0.09		0.11		0.04	
31[6]	365	0.14	0.13	0.043	0.10	0.11		0.08		0.10		0.04	
Total		66.42	61.09		51.24	50.47	31.52	35.94	40.13	58.63	20.69	19.12[7]	29.62

[1]Adjusted evaporation Class "A" Pan, irrigated pasture, Bakersfield 10NW.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise Alfalfa Reference Crop). Estimated as 0.92 x Pan Evaporation.
[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman Grass Reference Crop).
[4]Five-day period.
[5]ET for five days.
[6]Three-day period.
[7]Growing season ET includes 0.17 inch from December 1988 and excludes 0.18 inch from December 1989.

TABLE A-15

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1990
(inches)

Week Ending	Day of Year	Evaporation[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa Hay	Cotton	Citrus	Deciduous Orchard		Dry Beans	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 4[4]	4	0.16	0.15	0.037	0.11	0.12		0.09		0.11		0.04	
11	11	0.36	0.33	0.048	0.26	0.28		0.22		0.26		0.11	
18	18	0.39	0.36	0.052	0.21	0.30		0.24		0.28		0.14	
25	25	0.27	0.33	0.035	0.19	0.20		0.16		0.19		0.11	
Feb 1	32	0.43	0.24	0.056	0.32	0.33		0.26		0.32		0.22	
8	39	0.45	0.39	0.059	0.34	0.34		0.26		0.34		0.28	
15	46	0.61	0.41	0.081	0.46	0.47		0.36		0.46		0.43	
22	53	0.52	0.56	0.068	0.39	0.39		0.30		0.39		0.40	
Mar 1	60	0.60	0.48	0.079	0.46	0.46		0.35		0.46		0.50	
8	67	0.70	0.53	0.092	0.54	0.53		0.40		0.55		0.62	
15	74	0.87	0.64	0.114	0.67	0.66		0.49	0.36	0.70		0.82	
22	81	1.17	0.80	0.154	0.90	0.89		0.66	0.52	0.95		1.12	
29	88	1.23	1.08	0.162	0.95	0.93		0.69	0.57	1.02		1.21	0.12
Apr 5	95	1.35	1.13	0.177	1.03	1.03		0.76	0.66	1.13		1.32	0.15
12	102	1.12	1.24	0.148	0.88	0.85	0.10	0.63	0.57	0.97		1.09	0.15
19	109	1.33	1.03	0.115	1.04	1.01	0.13	0.75	0.11	1.16		1.27	0.24
26	116	1.36	1.23	0.179	1.06	1.03	0.16	0.76	0.76	1.21		1.28	0.44
May 3	123	1.84	1.25	0.241	1.43	1.40	0.26	1.03	1.06	1.65		1.69	0.73
10	130	2.11	1.69	0.278	1.65	1.61	0.36	1.18	1.27	1.92	0.08[3]	1.84	0.97
17	137	1.76	1.94	0.231	1.37	1.34	0.35	0.99	1.11	1.62	0.19	1.37	0.88
24	144	1.73	1.62	0.227	1.35	1.31	0.48	0.95	1.12	1.61	0.26	1.16	0.93
31	151	1.48	1.59	0.195	1.15	1.12	0.55	0.80	0.99	1.38	0.40	0.80	0.84
Jun 7	158	1.84	1.36	0.242	1.44	1.40	0.89	0.98	1.25	1.73	1.12		1.11
14	165	2.18	1.70	0.286	1.70	1.65	1.28	1.13	1.50	2.05	1.79		1.37
21	172	2.12	2.00	0.277	1.65	1.61	1.25	1.10	1.46	1.99	1.74		1.33
28	179	2.20	1.94	0.289	1.71	1.67	1.80	1.14	1.60	2.06	1.96		1.45
Jul 5	186	2.01	2.02	0.264	1.57	1.53	1.83	1.04	1.49	1.89	1.81		1.39
12	193	2.11	1.85	0.278	1.65	1.61	2.05	1.10	1.58	2.01	1.90		1.67
19	200	2.53	1.94	0.332	1.97	1.92	2.53	1.31	1.90	2.40	2.28		1.60
26	207	2.43	2.33	0.320	1.90	1.84	2.43	1.26	1.82	2.28	2.11		1.43
Aug 2	214	2.17	2.24	0.285	1.69	1.65	2.17	1.13	1.63	2.04	1.69		1.24
9	221	1.89	1.74	0.298	1.47	1.43	1.89	0.98	1.41	1.77	1.17		1.32
16	228	2.00	1.84	0.262	1.56	1.52	1.96	1.04	1.50	1.86	0.88		1.04
23	235	1.63	1.50	0.214	1.27	1.24	1.54	0.85	1.22	1.50	0.41		1.05
30	242	1.73	1.59	0.227	1.35	1.31	1.52	0.90	1.29	1.57			0.86
Sep 6	249	1.62	1.49	0.213	1.27	1.23	1.28	0.34	1.22	1.46			0.90
13	256	1.84	1.69	0.242	1.43	1.40	1.27	0.96	1.36	1.64			0.61
20	263	1.46	1.34	0.193	1.12	1.11	0.86	0.76	1.05	1.28			0.45
27	270	1.25	1.15	0.164	0.96	0.95	0.60	0.66	0.68	1.08			0.47
Oct 4	277	1.57	1.45	0.207	1.21	1.20	0.63	0.87	1.05	1.32			0.26
11	284	1.30	1.20	0.170	0.99	0.99		0.73	0.85	1.08			0.21
18	291	1.04	0.96	0.137	0.78	0.79		0.59	0.65	0.84			0.16
25	298	0.81	0.74	0.106	0.61	0.61		0.45	0.48	0.65			0.16
Nov 1	305	0.80	0.74	0.105	0.60	0.61		0.45	0.45	0.62			0.12
8	312	0.80	0.74	0.105	0.59	0.61		0.45	0.42	0.61			
15	319	0.59	0.54	0.077	0.43	0.45		0.33	0.31	0.46			
22	326	0.42	0.38	0.055	0.30	0.32		0.23	0.18	0.31			
29	333	0.44	0.41	0.058	0.31	0.34		0.25		0.32			
Dec 6	340	0.30	0.28	0.040	0.22	0.23		0.17		0.32			
13	347	0.28	0.26	0.037	0.20	0.22		0.16		0.20			
20	354	0.29	0.26	0.038	0.20	0.22		0.16		0.20		0.05	
27	361	0.22	0.20	0.029	0.15	0.17		0.13		0.15		0.04	
31[4]	365	0.16	0.15	0.037	0.11	0.12		0.10		0.11		0.04	
Total[6]		63.87	58.72		49.24	48.55	30.17	34.58	38.25	56.36	19.81	18.00[2]	27.13

[1]Observed evaporation Class "A" Pan, irrigated pasture; 1/1/90-5/3/90 Bakersfield 10 NW, 5/4/90 average of Bakersfield 12S, Lamont 2NW.
[2]Potential ET of alfalfa. ET of vigorously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise Alfalfa Reference Crop). Estimated as 0.92 x Pan Evaporation.
[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman Grass Reference Crop).
[4]Four-day period.
[5]Three-day period.
[6]Growing season total.
[7]Growing season includes 0.17 inch ET from December 1989 and excludes 0.13 inch from December 1990.

TABLE A-16

WEEKLY OBSERVED EVAPORATION AND CALCULATED
EVAPOTRANSPIRATION FOR SEVERAL CROPS
SOUTHERN SAN JOAQUIN VALLEY
1991
(inches)

Week Ending	Day of Year	Evaporation[1]	ETP[2]	ETP (inches per day)	PET[3]	Alfalfa Hay	Cotton	Citrus	Deciduous Orchard		Dry Beans	Small Grains	Vineyard
									Clean Culti-vation	With Cover Crop			
Jan 3[4]	3	0.05	0.05	0.017	0.04	0.04		0.03		0.04		0.01	
10	10	0.19	0.18	0.030	0.14	0.15		0.12		0.14		0.05	
17	17	0.22	0.20	0.029	0.16	0.17		0.13		0.16		0.07	
24	24	0.56	0.51	0.073	0.41	0.42		0.33		0.41		0.20	
31	31	0.40	0.37	0.053	0.30	0.30		0.24		0.30		0.17	
Feb 7	38	0.52	0.48	0.068	0.39	0.40		0.31		0.39		0.27	
14	45	0.55	0.50	0.071	0.41	0.42		0.32		0.41		0.34	
21	52	0.70	0.64	0.091	0.52	0.53		0.40		0.52		0.49	
28	59	0.70	0.65	0.093	0.53	0.53		0.41		0.53		0.55	
Mar 7	66	0.56	0.52	0.074	0.43	0.43		0.32	0.23	0.44		0.47	
14	73	0.87	0.80	0.114	0.67	0.66		0.49	0.38	0.70		0.77	
21	80	0.88	0.81	0.120	0.67	0.67		0.49	0.40	0.71		0.82	
28	87	0.82	0.75	0.107	0.63	0.62		0.46	0.40	0.68		0.78	
Apr 4	94	1.07	0.99	0.141	0.83	0.82		0.60	0.55	0.90		1.05	
11	101	1.40	1.29	0.184	1.09	1.07		0.79	0.74	1.21		1.37	0.14
18	108	1.44	1.32	0.189	1.12	1.09	0.07[5]	0.80	0.80	1.25		1.39	0.16
25	115	1.26	1.16	0.186	0.99	0.96	0.13	0.71	0.73	1.12		1.20	0.16
May 2	122	1.61	1.48	0.211	1.26	1.23	0.21	0.90	0.97	1.45		1.52	0.29
9	129	1.70	1.56	0.223	1.33	1.29	0.27	0.95	1.07	1.55		1.56	0.54
16	136	1.79	1.65	0.236	1.40	1.36	0.36	1.00	1.16	1.65	0.20	1.56	0.72
23	143	1.84	1.69	0.241	1.43	1.40	0.37	1.01	1.23	1.71	0.28	1.43	0.73
30	150	2.35	2.16	0.308	1.84	1.79	0.47	1.27	1.60	2.19	0.64	1.58	0.94
Jun 6	157	2.14	1.96	0.280	1.67	1.62	0.51	1.13	1.47	2.01	1.30	1.15	0.98
13	164	2.34	2.15	0.307	1.83	1.78	0.77	1.22	1.66	2.20	1.92	0.96	1.17
20	171	2.13	1.96	0.280	1.66	1.62	0.98	1.11	1.55	2.00	1.87		1.15
27	178	2.16	1.98	0.283	1.68	1.64	1.27	1.12	1.60	2.03	1.94		1.23
Jul 4	185	2.08	1.91	0.273	1.62	1.62	1.47	1.08	1.56	1.95	1.87		1.25
11	192	2.03	1.87	0.287	1.58	1.54	1.67	1.06	1.52	1.93	1.83		1.28
18	199	2.34	2.15	0.307	1.82	1.78	2.20	1.22	1.75	2.22	2.10		1.52
25	206	2.26	2.07	0.296	1.76	1.71	2.21	1.17	1.69	2.12	1.96		1.49
Aug 1	213	2.38	2.19	0.313	1.86	1.81	2.38	1.24	1.79	2.24	1.86		1.57
8	220	1.87	1.72	0.250	1.46	1.42	1.87	0.97	1.40	1.76	1.16		1.23
15	227	1.95	1.79	0.256	1.52	1.48	1.95	1.01	1.46	1.81	0.86		1.28
22	234	2.00	1.84	0.263	1.56	1.52	2.00	1.04	1.50	1.84	0.50		1.32
29	241	1.74	1.59	0.227	1.36	1.32	1.63	0.90	1.30	1.58			1.15
Sep 5	248	1.63	1.50	0.214	1.27	1.24	1.48	0.85	1.21	1.47			1.06
12	255	1.65	1.51	0.215	1.28	1.25	1.38	0.86	1.18	1.46			1.04
19	262	1.64	1.51	0.215	1.26	1.25	1.23	0.85	1.15	1.44			0.95
26	269	1.81	1.66	0.237	1.39	1.37	1.18	0.96	1.21	1.55			0.99
Oct 3	276	1.53	1.41	0.201	1.18	1.16	0.64	0.84	1.00	1.29			0.64
10	283	1.28	1.18	0.169	0.97	0.97		0.72	0.79	1.06			0.46
17	290	1.12	1.03	0.147	0.84	0.85		0.62	0.66	0.89			0.34
24	297	1.03	0.95	0.136	0.77	0.78		0.58	0.58	0.82			0.21
31	304	0.63	0.58	0.083	0.47	0.48		0.35	0.33	0.49			0.13
Nov 7	311	0.55	0.51	0.073	0.41	0.41		0.30	0.25	0.41			0.11
14	318	0.63	0.58	0.083	0.46	0.48		0.35	0.27	0.46			0.13
21	325	0.42	0.38	0.054	0.31	0.32		0.23	0.17	0.31			
28	332	0.57	0.52	0.074	0.41	0.43		0.32		0.41			
Dec 5	339	0.41	0.37	0.053	0.29	0.31		0.23		0.29			
12	346	0.19	0.17	0.024	0.13	0.14		0.10		0.13		0.03	
19	353	0.18	0.17	0.024	0.13	0.14		0.10		0.13		0.04	
26	360	0.36	0.33	0.047	0.25	0.27		0.21		0.25		0.08	
31[6]	365	0.50	0.45	0.064	0.35	0.38		0.30		0.35		0.10	
Total		65.03	59.75		50.14	49.44	28.70	35.12	39.31	57.36	20.29	19.89[7]	26.36

[1]Observed evaporation Class "A" Pan, irrigated pasture; 1/1/90-5/3/90, Bakersfield 10NW, 5/4/90 average of Bakersfield 12S, Lamont 2NW.

[2]Potential ET of alfalfa. ET of vigoroously growing alfalfa at 100-percent ground cover with no moisture stress (Jensen-Haise Alfalfa Reference Crop). Estimated as 0.92 x Pan Evaporation.

[3]Potential ET of grass. ET of large expanse of low-growing grass at 100-percent ground cover with no moisture stress (Penman Grass Reference Crop).

[4]Three-day period.

[5]Four-day period.

[6]Five-day period.

[7]Growing season includes 0.13 inch ET from December 1990 and excludes 0.25 inch frm December 1991.